

# PowerFlex Low Voltage Drives Selection Guide



Powerful Performance. Flexible Control.



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# PowerFlex Low Voltage Drives

## Selection Guide



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# PowerFlex Drives

*PowerFlex Drives help provide added benefits that make a difference for your bottom line*

The Allen-Bradley® PowerFlex family of AC and DC drives has been developed to provide the benefits that matter most to you. Our focus on delivering a flexible portfolio designed to keep you connected to your operations and ultimately help improve productivity, helps you achieve the positive impact you need to be successful.

**Flexibility** allows PowerFlex drives to meet a wide variety of application requirements.

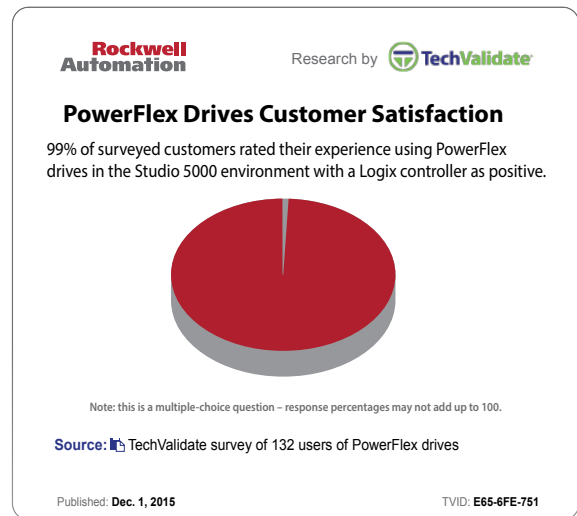
- A broad range of motor control algorithms to handle the simplest to the most demanding applications
- A wide selection of hardware, software, safety and packaging options to fit your application

**Connectivity** is a key to monitoring your application and taking the appropriate actions to maintain smooth operations. The seamless flow of real-time information within your application can help to enhance the agility and productivity of your machine.

- Seamless visibility and communications between the plant floor and control room
- Communication choices include drives with built-in EtherNet/IP along with options that support a variety of industrial networks
- Access to real time data allows information-enabled decisions to keep production running smoothly

**Productivity** is built into every PowerFlex drive.

- Safety features help protect personnel and assets while enabling reduced downtime after a safety event
- Premier Integration into the Logix environment streamlines configuration and programming
- Protect against unplanned downtime with advanced diagnostics



## Drive Efficient Operations

Efficiency translates to savings. Motors typically consume as much as 60% of the energy in an industrial facility. Adjusting the speed of motors to exactly match the requirements of the application can help provide significant savings to your operations. PowerFlex drives are capable of providing both an immediate and measurable impact on energy use and operational productivity.

- Some PowerFlex drives offer an **Economizer mode** which consists of sensorless vector control with an additional energy savings function. When steady-state speed is achieved, the economizer becomes active and automatically adjusts the drive output voltage based on the applied load. Matching the output voltage to the applied load helps optimize motor efficiency.
- The option for **permanent magnet motor control** is available with many PowerFlex drives. Using permanent magnet motors can help improve energy efficiency and reduce related costs. The higher power density provided by permanent magnet motors often results in a motor size reduction while maintaining the same output torque.
- PowerFlex drives with **regeneration capability** help reduce energy consumption by delivering regenerative energy from motors back to the incoming power supply.

## Specific Application Control

Select PowerFlex drives have specialized drive parameters configured to support a particular application. Application Sets are a configuration of the standard drive parameters designed to simplify a user's implementation of a standard drive application without the need for custom programming.

**TorqProve™** – This feature helps confirm control of the load in lifting and hoisting applications.

**DeviceLogix™** is an embedded control technology in PowerFlex 753 and PowerFlex 755 drives that can control outputs and manage status information onboard the drive.

**AppView®** – Simplifies configuration of PowerFlex 523 and 525 drives by providing parameter groups for common applications including conveyors, mixers, pumps and blowers.

**CustomView™** – Reduce future design time by quickly defining your own group of parameters for PowerFlex 523 and 525 drives.

See glossary on page 169 for more details.

## Motor Control Optimization

Optimize your application with a wide range of control technologies from open loop speed regulation to precise torque and speed control. In addition to industry standard motor control, the PowerFlex family offers unique control technologies that can provide you with even greater application flexibility.

- **FORCE™ Technology**, is the original Allen-Bradley patented Field Oriented Control, that provides excellent low speed/ zero speed performance and delivers accurate torque and speed regulation.
- PowerFlex 755T drives are the first to offer **TotalFORCE™ Technology** which builds on the original FORCE technology to deliver superior motor control through precise, adaptive control of velocity, torque and position for electric motors. TotalFORCE Technology incorporates several patented features that are designed to help optimize your system and maintain productivity.



## Access Real-time Information

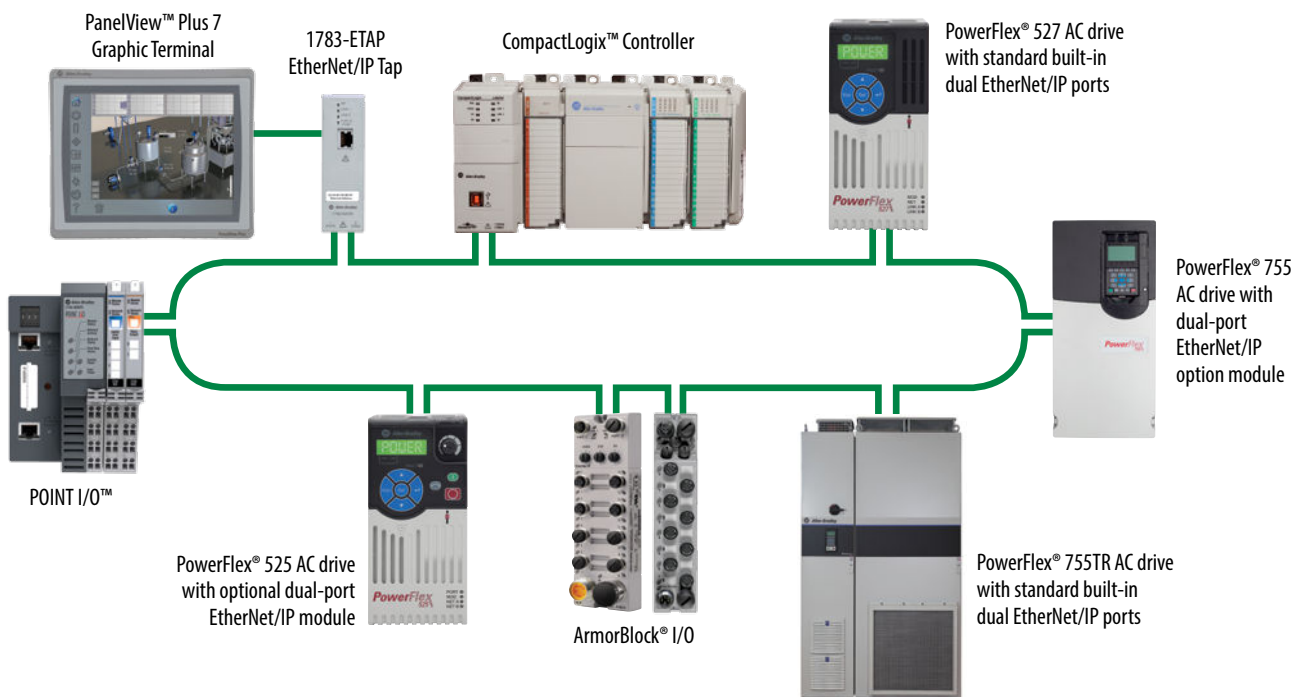
Getting valuable **real-time data** from your application can help enhance the productivity of your business.

As part of the Rockwell Automation® Integrated Architecture®, PowerFlex drives can do much more than just respond to interlocking commands. They provide valuable **diagnostic information** and can be configured as a natural extension of the system.

**EtherNet/IP connectivity** supports seamless integration into the Logix environment. PowerFlex drives help you apply this open, widely adopted network by making connections simple with built-in or optional EtherNet/IP communication ports.

EtherNet/IP connectivity provides the flexibility to support multiple network topologies – linear, star, or ring configurations. An added advantage is the support for device level ring (DLR) functionality. Implementing a DLR system, helps you achieve higher network resiliency. If one device on the EtherNet/IP network fails, communication is rerouted allowing the devices to continue operation.

In addition to EtherNet/IP, PowerFlex drives are capable of supporting industrial communication protocols found throughout the world. See the drive options for more details.



***A DLR system helps you achieve higher network resiliency. If one device on the EtherNet/IP network fails, communication is rerouted, allowing the devices to continue operation.***

# Simplified Drive Configuration and Programming

PowerFlex drives help make configuration and programming fast and uncomplicated with a choice of easy-to-use software packages and tools. Each tool has been designed to be powerful and intuitive to help enhance your user experience and reduce your development time so you can deliver machines faster and more efficiently.

## Human Interface Module

The Human Interface Module (HIM) provides convenient configuration.

- Features a high definition LCD
- Supports multiple languages
- Provides meaningful explanations of parameters and events so you don't have to search through a manual for details
- Available with most PowerFlex drives. Refer to specific drive details

## Connected Components Workbench Software

Connected Components Workbench™ programming and configuration software leverages proven Rockwell Automation and Microsoft® Visual Studio® technologies for fast and easy drive configuration, controller programming, and integration with the HMI editor.

- Free software helps you get your drives up and running with an intuitive interface and startup wizards
- Localized language support
- Online and offline configuration
- Context-sensitive "Help"
- Supports PowerFlex drives as well as Micro800® programmable controllers and PanelView component graphic terminals

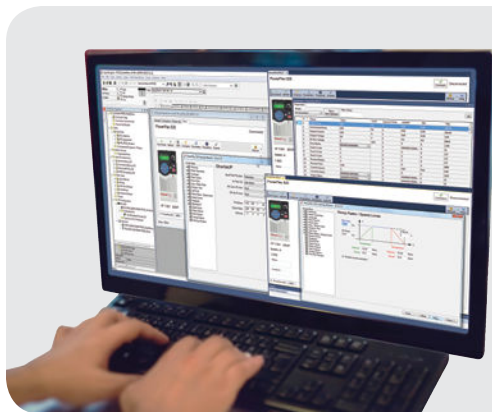
## Configuration and Programming with Studio 5000 Logix Designer

PowerFlex drives are able to achieve an exceptional level of integration with Logix Programmable Automation Controllers (PACs) within the Studio 5000® environment.

- Data associated with the drive is automatically generated to ease configuration and minimize the need to manually program the required parameters and tags
- Increase productivity with easy access to system and machine level data as well as diagnostic information

The PowerFlex 527 and 755 AC drives can be programmed using motion instructions in the Studio 5000 environment. These motion instructions are shared with Kinetix® servo drives, providing a common configuration, programming and control experience for both types of drives.

- Consistent configuration of AC and servo drives simplifies machine development and use
- The use of motion instructions allows code reuse which helps make machine design more efficient
- Synchronization of drives and other EtherNet/IP compliant devices helps enhance performance for applications that require high accuracy



***Configuring PowerFlex drives with the Studio 5000 Logix Designer® application lets you consolidate controller programming and drive system configuration, operation, and maintenance into a single software environment.***



## Drive Integration with Studio 5000

The Rockwell Automation Integrated Architecture system provides a convergence of control and information to help you achieve plantwide optimization. At the heart of an automated control system, the Studio 5000 environment serves as a single programming tool for the design and configuration of your application. You need only one software package for discrete, process, batch, safety and drive-based applications.

## Save Configuration Time with Premier Integration

Premier Integration is the exclusive experience of integrating Allen-Bradley motor control devices into the Allen-Bradley Logix control platform. Use just one software tool to help reduce your programming time, ease startup and commissioning and streamline diagnostics.

- Single development environment to configure and program your entire control and device system
- Drive configuration is saved as part of the Studio 5000 Logix Designer project file and stored in the Logix controller. You only need one file for both the controller and all drive configurations
- Consolidating controller programming and device system configuration helps reduce complication and eliminates mismatch errors
- Diagnostic, fault, alarm and event information are integral to the Studio 5000 environment

Studio 5000 software can help reduce programming time by automatically populating drive parameters in the controller memory as controller tags.

- Descriptive tag names are automatically generated
- Address mismatch errors can be eliminated
- Copy and paste function makes duplicating drives fast and easy
- Advanced graphical wizards walk you through drive configuration

When functioning as part of a Logix control system, PowerFlex drives can do much more than just respond to interlocking commands.

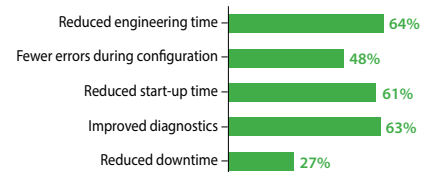
- Predict mechanical problems and help improve performance with diagnostics and real-time data
- Monitor performance either locally or remotely to make informed decisions about your assets

**Rockwell  
Automation**

Research by **TechValidate**

### Benefits of a Premier Integration Experience

What benefits have you seen from using an integrated solution of a PowerFlex drive, Studio 5000 software and a Logix-based controller?



Note: this is a multiple-choice question – response percentages may not add up to 100.

Source: TechValidate survey of 132 users of PowerFlex drives

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Find the latest firmware at: [www.rockwellautomation.com/global/support/pcdc.page](http://www.rockwellautomation.com/global/support/pcdc.page)

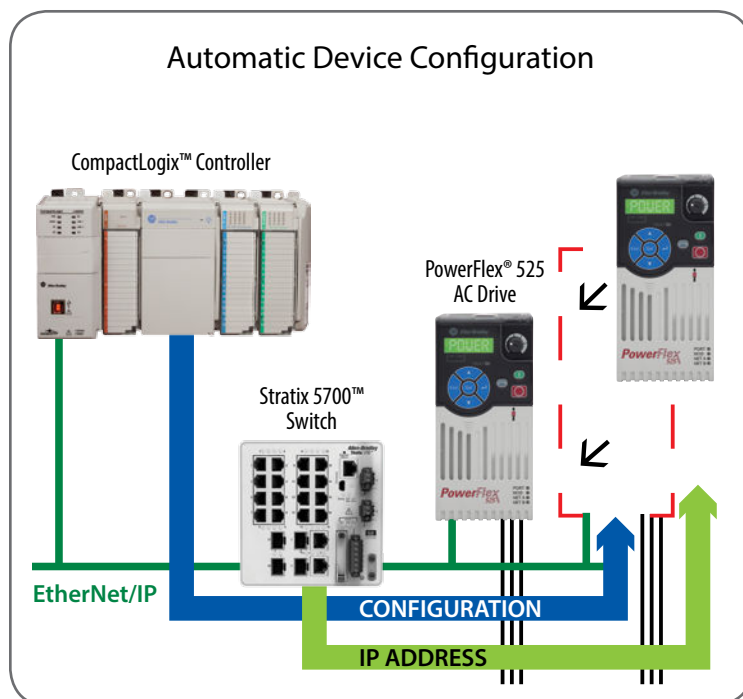
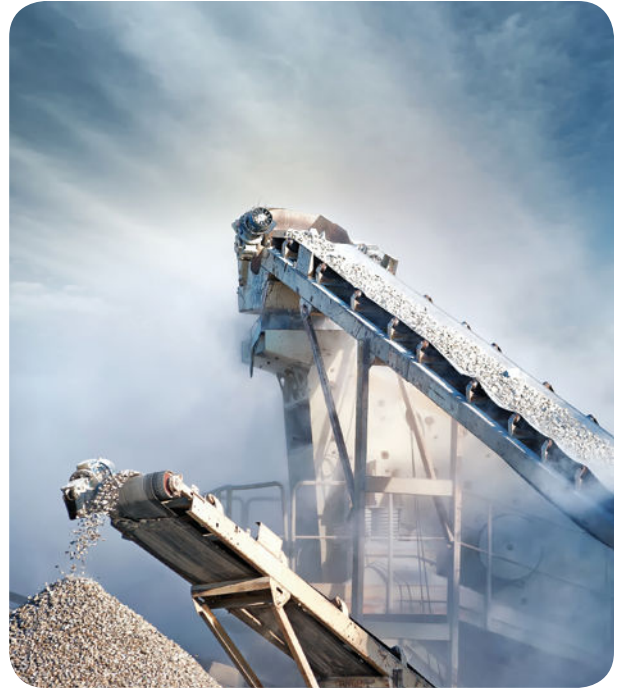
## Simplify Machine Programming and Use

To further simplify your drive and controller set up, you can use Studio 5000 motion instructions which allow you to speed the programming of your PowerFlex 527 and PowerFlex 755 drives.

The ability to configure and program both variable frequency drives and servo drives using the same motion instructions in the Studio 5000 environment has some obvious benefits. For customers using both PowerFlex AC drives and Kinetix servo drives, you gain a common user experience that can help reduce complexity and save valuable engineering time.

The use of the Studio 5000 Logix Designer motion instructions allow the PowerFlex 527 and PowerFlex 755 drives to perform as a natural extension of the controller. This level of integration provides exclusive application resources that offer additional time-saving features and performance enhancements.

- The use of motion instructions allows code reuse which helps make machine design more efficient
- Powerful diagnostics, including time stamped events, provide precise drive information to help you quickly identify and resolve problems
- With the use of motion instructions, the Logix controller maintains every aspect of the drive's parameters, and resets them each time it connects to the drive. This creates inherent automatic device replacement to help minimize machine downtime
- Synchronization – from very simple electronic gearing to electronic camming – can be accomplished using just a few instructions. Synchronization can be done over the network without the need for any additional hardware devices
- PowerFlex 527 drives exclusively use Studio 5000 software and Logix programmable automation controllers for operation
- PowerFlex 755 drives offer the option to use motions instructions in the Studio 5000 environment



## Automatic Device Configuration

Automatic device configuration (ADC) allows Logix controllers to detect a replaced PowerFlex drive and download all configuration parameters automatically, minimizing the need for manual reconfiguration. This feature helps to enhance productivity by facilitating reduced downtime.

ADC can be used with PowerFlex drives that have a standard built-in EtherNet/IP port or drives using a dual-port EtherNet/IP option.

## Safety Solutions Help Improve Productivity

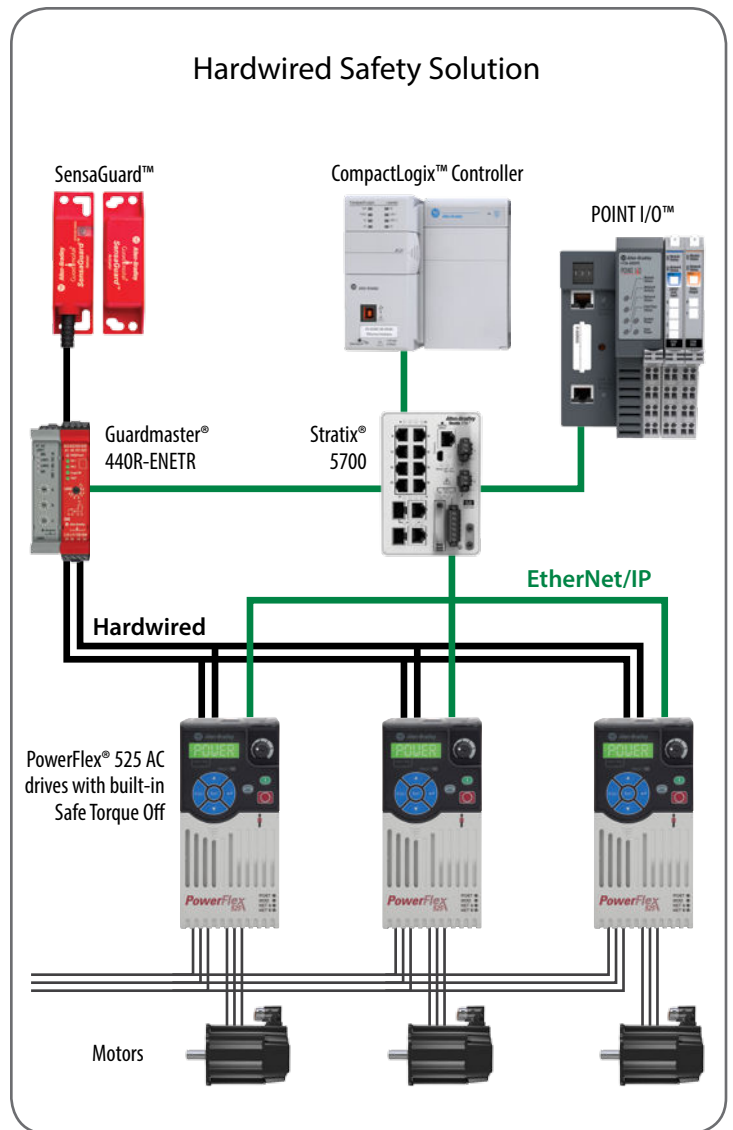
In the past, implementing safety solutions often meant sacrificing productivity. PowerFlex drives address productivity concerns by offering safety options that help protect your people and equipment while also reducing unplanned downtime.

Safety can be implemented with PowerFlex drives using either built-in features or add-on safety options. Choose from a hardwired configuration that is wired directly into the drive. Or use networked safety that is delivered via EtherNet/IP with select drives.

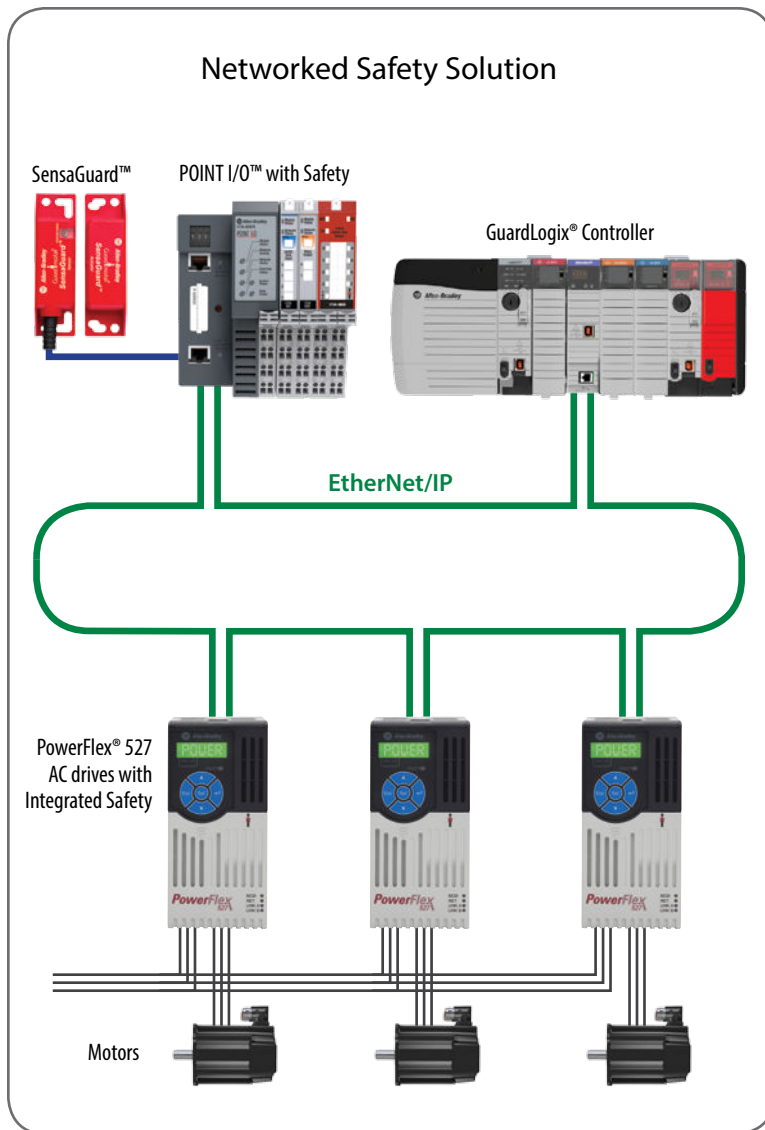
**Safe Torque Off** is ideal for safety-related applications that benefit from removal of rotational power to the motor without removing power from the drive. This functionality offers the benefit of quick start-up after a demand on the safety system. It provides safety ratings up to and including SIL3, PL<sub>e</sub> and CAT 3.

**Safe Speed Monitor** provides a solution for applications that can benefit from access to a safety zone while there is limited motion. It allows operators to perform some process or maintenance work without stopping the machine. This option carries a safety rating up to and including SIL3, PL<sub>e</sub> and CAT 4.

*Look to the portfolio of Allen-Bradley safety solutions to help achieve your safety needs.*



|                       | Hardwired Safe Torque Off               | Networked Safe Torque Off               | Safe Speed Monitor                    |
|-----------------------|-----------------------------------------|-----------------------------------------|---------------------------------------|
| PowerFlex 525 Drive   | Built-in: SIL2, PL <sub>d</sub> , CAT 3 | N/A                                     | N/A                                   |
| PowerFlex 527 Drive   | Built-in: SIL3, PL <sub>e</sub> , CAT 3 | Built-in: SIL3, PL <sub>e</sub> , CAT 3 | N/A                                   |
| PowerFlex 70 Drive    | Option: SIL2, PL <sub>d</sub> , CAT 3   | N/A                                     | N/A                                   |
| PowerFlex 753 Drive   | Option: SIL3, PL <sub>e</sub> , CAT 3   | N/A                                     | Option: SIL3, PL <sub>e</sub> , CAT 4 |
| PowerFlex 755 Drive   | Option: SIL3, PL <sub>e</sub> , CAT 3   | Option: SIL3, PL <sub>e</sub> , CAT 3   | Option: SIL3, PL <sub>e</sub> , CAT 4 |
| PowerFlex 755TL Drive | Option: SIL3, PL <sub>e</sub> , CAT 3   | Option: SIL3, PL <sub>e</sub> , CAT 3   | Option: SIL3, PL <sub>e</sub> , CAT 4 |
| PowerFlex 755TR Drive | Option: SIL3, PL <sub>e</sub> , CAT 3   | Option: SIL3, PL <sub>e</sub> , CAT 3   | Option: SIL3, PL <sub>e</sub> , CAT 4 |
| PowerFlex 755TM Drive | Option: SIL3, PL <sub>e</sub> , CAT 3   | Option: SIL3, PL <sub>e</sub> , CAT 3   | Option: SIL3, PL <sub>e</sub> , CAT 4 |



## Networked Safety Helps Streamline Machine Design

Benefit from the ability to integrate safety into your control system. Networked Safe Torque Off provides the same benefits as hardwired Safe Torque Off – plus the ability to simplify your machine design and minimize equipment redundancies.

- A single GuardLogix controller can be used for both safety and standard control
- Reduce the need to write and coordinate multiple programs on different controllers, to simplify application programming and reduce training and support costs
- Fewer components mean smaller panel enclosures, saving money on control cabinets and floor space
- The integration of the safety and standard control systems provides operators and maintenance personnel with visibility to all machine events – including safety events. This enables a quick response that allows the machine to return to full production
- Safety and non-safety functions share the same EtherNet/IP network
- More safety tags are seen in controller
  - Safe off condition
  - Safety fault condition
  - Connection status
  - Reset Requirement
- Standard feature for PowerFlex 527 drives
- Option for PowerFlex 755, 755TL, 755TR and 755TM drives. See page 13 for details

## Networked Safety Gives You Zone Control

In the past, a safety event in one section of a machine could result in the entire machine shutting down because the standard system had limited knowledge of the safety event. But networked safety allows the control and safety systems to coexist on the same network and to share data between the safety and standard applications. This allows “zone control” where one zone of the machine is brought to a safe state while other zones continue to operate.

- Using a networked safety solution, drives and their respective motors are grouped together into zones. All zoning is done completely in the controller – compared with a hardwired solution in which drives have safety inputs daisy chained together
- Modifications to your application are simplified which helps to save you both time and money



## PowerFlex 520-Series AC Drives

*The next generation of powerful performance. Flexible control.*

Allen-Bradley PowerFlex 520-Series AC drives combine innovation and ease of use to provide motor control solutions designed to maximize your system performance and reduce your time to design and deliver better machines. Each of the three drives in this family offers a unique set of features to distinctively match the needs of your application.

**PowerFlex 523** AC drives are ideal for machines that require cost-effective motor control. They are designed to help reduce installation and configuration time while providing the control your application needs.

- Standard USB port for upload/download drive configuration
- Flexible installation and sensorless vector (SVC) motor control
- Optional communication modules make it easy to add drive to a network

**PowerFlex 525** AC drives are ideal for machines with simple system integration and offer standard features including Safe Torque Off and a built-in port for EtherNet/IP.

- Seamless integration into Logix control architectures along with Automatic Device Configuration
- Flexible installation and motor control options including permanent magnet motor control
- Optional communication modules make it easy to add drive to a network



**PowerFlex 527** AC drives are designed to be used with an Allen-Bradley Logix Programmable Automation Controller (PAC). Ideal for machines that can benefit from the same drive configuration experience for both servo and AC drives, this new approach to motor control helps to reduce engineering time and enhance motor coordination for improved machine performance.

- Safe Torque Off feature can be hardwired or deployed over the EtherNet/IP network
- Built-in dual-port EtherNet/IP supports multiple network topologies and Device Level Ring functionality
- For applications that require both simple speed control as well as precise motor functionality, a combination of AC and servo drives is the logical solution. The PowerFlex 527 AC drive can manage the simple speed control while a Kinetix servo drive handles the more precise motor control operations involving speed, torque and position control



**Simplified Programming** – MainsFree™ programming allows configuration files to be uploaded and downloaded to the PowerFlex 525 and PowerFlex 523 drive control module via a USB connection.



**High Operating Temperature** – A control module fan kit allows PowerFlex 520-Series AC drives to run in temperatures up to 70 °C (158 °F) with current derating.



**Innovative Design** – The modular design helps reduce spare parts inventory and provides a faster way to install and configure drives.



**Flexibility** – All PowerFlex 520-Series drives can be installed vertically or horizontally as well as side by side in either orientation. A control module fan kit is required for horizontal mounting.

## *PowerFlex 525 AC Drive with permanent magnet motor control helps improve energy efficiency*

Our PowerFlex 525 drives now have the ability to control permanent magnet motors that can help improve energy efficiency and reduce related costs. The higher power density provided by permanent magnet motors often results in a motor size reduction while maintaining the same output torque.

- Greater efficiency with permanent magnet motors helps you reduce energy costs
- Both interior mount (open and closed loop) and surface mount (open loop) permanent magnet motors are supported
- No new drive hardware is required

Use of permanent magnet motors requires version 5 firmware for the drive.

The firmware and release notes can be found in the [Product Compatibility and Download Center](#).

## *PowerFlex 523 drive configurable analog output provides more functionality*

Our PowerFlex 523 drives now come with one configurable analog output. This new hardware capability is ideal for drives that are used in standalone applications. The analog output can be used to communicate a reference point to another drive or external device. This functionality provides a simple and low-cost solution for monitoring the machine.

Use of analog output requires series B hardware and version 3 firmware. The firmware and release notes can be found in the [Product Compatibility and Download Center](#).



# PowerFlex 750-Series AC Drives

## Bringing flexibility, connectivity and productivity to your application

The PowerFlex 753 and 755 AC drives were designed with your needs in mind. Your need for flexibility, connectivity and productivity has been considered in every detail of these drives. The result is a series of AC drives that provides an exceptional user experience, from initial programming through operation and maintenance. Offering more selection for control, communications, safety and supporting hardware options than any other drives in their class, PowerFlex 750-Series AC drives provide the features you need to help maximize your productivity.

**PowerFlex 753** AC drives are cost-effective and easy to use for more general purpose applications. They feature standard built-in I/O plus three options slots for communications, safety and additional I/O. Designed to meet your application requirements for speed and torque control up to 270 kW/400 Hp.

- Embedded I/O along with three option slots for safety, feedback, communications, 24V power or additional I/O make the drive a flexible, cost-effective solution
- Safe Torque Off and Safe Speed Monitor options help to protect personnel and assets while reducing downtime

**PowerFlex 755** AC drives provide ease of use, application flexibility and high performance. They include multiple control, hardware, and safety options. These drives are well-suited for a wide variety of applications with multiple motor control selections. Built-in EtherNet/IP delivers real time operating data and easily integrates into the Logix control system. Ideal for applications requiring position, speed or torque control up to 1500 kW/2000 Hp.

- Seamless integration into Logix control architectures along with ADC
- Built-in single port EtherNet/IP plus five option slots to support additional options for feedback, I/O, safety, communications and auxiliary 24V DC control power
- Safety options include hardwired or networked Safe Torque Off and hardwired Safe Speed Monitor
- Ideal for coordinated drive systems applications, positioning applications and lifting applications (TorqProve)
- DeviceLogix to complement system programming capabilities
- Option to use motion instructions within Studio 5000 to help reduce engineering time for applications using both AC and servo drives



**Communications** – The PowerFlex 750-Series AC drives support a comprehensive range of network protocols to ease integration into your architecture.

**Safe Torque Off and Safe Speed Monitor** – Help protect personnel and equipment while reducing machine downtime with safety solutions up to and including PLe/SIL3, CAT 3 and CAT 4.

**Power and Packaging** – Complete power range of 0.75 to 1500 kW (1 to 2000 Hp) plus 400/480 and 600/690 volt availability for global applications. Packaging options are available to meet a variety of application environmental conditions.

**Predictive Diagnostics** – Help reduce unplanned downtime with predictive diagnostics and built-in protection features designed to guard your investment.

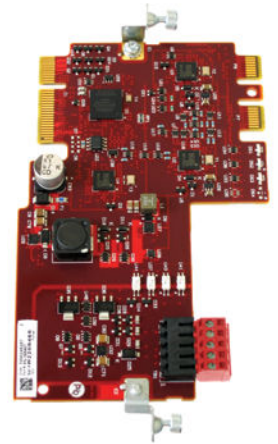
**Configure for Your Application** – The drives have a slot-based hardware architecture that gives you the flexibility to select up to five option cards to suit your application and expand your drive for future needs.



## *Networked Safe Torque Off option module*

A new safety option card provides Safe Torque Off functionality via a built-in EtherNet/IP port for the PowerFlex 755, PowerFlex 755TL, PowerFlex 755TR and PowerFlex 755TM drives. The ability to integrate the safety functions over EtherNet/IP provides the opportunity to reduce hardware and installation costs while improving productivity. The Safe Torque Off option module has a SIL3, PLe, CAT 3 rating and helps to reduce wiring and panel footprint.

For flexibility and simplified machine design changes, the option module can be used for both hardwired and networked Safe Torque Off applications. Refer to page 129 for system requirements.



## *PowerFlex 750-Series AC Drives in 200/240 voltages*

The PowerFlex 753 and PowerFlex 755 AC drives are expanding their voltage range to include 200/240 volt drives. The global voltages from 200V to 690V allow the drives to be used in a broader range of applications. The new 200/240V drives have a power range of 0.37...132 kW / 0.5...200 Hp and availability in mid-2017.

## *PowerFlex 755 Drive offers enhanced capabilities*

PowerFlex 755 drives have expanded use of motion instructions within the Studio 5000 environment.

- Allows drive I/O capabilities to be accessed through the Logix controller
  - Use of pre-configured I/O helps reduce start-up time.  
Pre-configured I/O include:
    - Positive/negative overtravel inputs
    - Motor thermostat input (22-Series I/O card)
    - Pre-charge input
    - Brake output
    - Regeneration OK input
    - Contactor enable output
  - Availability of general-purpose analog and digital I/O provides flexibility
  - Simplifies programming – no parameters to find and use
- Extends the use of motion instructions to the TorqProve feature:
  - Helps confirm control of the load in lifting or hoisting applications to help protect personnel and assets
  - Simplifies coordination of multiple lifting, hoisting and crane systems using intrinsic motor synchronization
  - For more information on TorqProve, see the [PowerFlex Drives for Crane and Hoist Applications Brochure](#), publication PFLEX-BR009\_
- Supports 24 bit feedback for high performance motor control

*The new features are available with PowerFlex 755 drive firmware version 12 and Studio 5000 software version 28 or higher.*



## PowerFlex 755T Drive Solutions

*The Next Step in Powerful Performance. Flexible Control.*

Your investment is significant. The application is crucial. And improving productivity is essential. Finding the right AC drives to help optimize assets and make good use of valuable time is an important part of achieving your goals. That's why we developed the PowerFlex 755T drives. These new additions to the PowerFlex family have been built to help you save time, reduce costs and keep your machine up and running. Because a machine that's down isn't helping your productivity.

The PowerFlex 755T drives provide harmonic mitigation, regeneration and common bus solutions that help you reduce energy costs, gain flexibility and increase productivity. These are the first drives to offer TotalFORCE technology to achieve superior motor control through precise, adaptive control of velocity, torque and position for electric motors. TotalFORCE technology incorporates several patented features that are designed to help optimize your system and maintain productivity.

The new PowerFlex 755T drives include:

- **PowerFlex 755TL Drive** – Provides harmonic mitigation and power factor correction through the use of active front end technology. By reducing the adverse effects of harmonic distortion, the drive helps to improve energy efficiency, reduce energy costs and minimize power distribution issues on the factory floor.
- **PowerFlex 755TR Drive** – Features built-in regeneration capability that helps decrease energy consumption by delivering regenerative energy from motors back to the incoming supply. Line regeneration reduces the need for braking resistors and associated cooling equipment and helps avoid wasteful dissipation of energy. The drive also offers harmonic mitigation.
- **PowerFlex 755TM Drive System** – Select from a series of predesigned configurations for regenerative common bus supplies and common bus inverters to optimize your system design and power consumption. A common bus drive system offers advantages such as design flexibility, energy optimization and reduced installation costs. PowerFlex 755TM systems provide harmonic mitigation and built-in regeneration capability.

***New PowerFlex 755T drives offer harmonic mitigation, regeneration and common bus solutions***



*PowerFlex 755TL drive  
for harmonic mitigation*



*PowerFlex 755TR drive for  
regenerative solutions*



*PowerFlex 755TM drive system for common bus solutions*

New PowerFlex 755T drives offer harmonic mitigation, regeneration and common bus solutions and expand the proven portfolio of the PowerFlex 753 and 755 AC drives.

Designed and built using a modular approach, the new drives offer the added advantage of fast and easy installation and maintenance with simplified management of spare parts.

Optimize your productivity by taking advantage of the following key features offered in the PowerFlex 755TL, PowerFlex 755TR and PowerFlex 755TM drives with TotalFORCE technology:

- **Predictive Diagnostics and Maintenance** – Help improve productivity by monitoring drive operating conditions and calculating the remaining life span of drive components, so preventive action can be taken if necessary
- **Market-leading Power Density** – Optimized packaging of power components with options for additional built-in functionality provide efficient use of floor space
- **Harmonic Mitigation** – Drives meet the IEEE 519 standard (5% or less of total harmonic distortion)
- **Serviceability** – Designed with key components that are modular in design and easily accessible. This allows for simplified servicing and helps reduce both cost and service time
- **Roll in/out Design** – Makes the power and filter modules easy to install and service. Power wiring can stay connected while unit is rolled out
- **Patented Slot-based Hardware Structure** – Allows you to select option modules for safety, feedback, communications and I/O. Option modules can be added if and when you need them
- **Safe Torque Off and Safe Speed Monitor** – Select the safety option that best meets the needs of your application
- **Adaptive Control** – As your equipment operates, load observer and adaptive tuning monitor machine characteristics that can change over time and automatically compensate for the changes that occur
- **Voltage Boost Ride-Through** – Helps keep equipment running through power quality disturbances
- **Communications** – Built-in dual EtherNet/IP ports allow for topology flexibility and Device Level Ring functionality



***A convenient service cart allows one person to easily insert or remove a module for easy installation and maintenance***

### Remote Monitoring & Analytics

Gaining insight into the performance of your automation machinery is the key to optimizing your operations and preventing costly downtime events. To help reduce your downtime, Rockwell Automation provides the Remote Monitoring & Analytics Service – using powerful visualization and dashboard tools coupled with a support center staffed by Rockwell Automation experts who monitor your assets in real time to help keep you operating. This service is available for PowerFlex 755T and PowerFlex 755 drives\*.

- Flexible, scalable remote monitoring service collects, organizes and normalizes real-time data and provides insights through powerful visualization, analytic and dashboard tools
- A support center staffed by Rockwell Automation experts monitors the data in real time to help keep you operating at your highest
- Upon a fault or alarm, a Rockwell Automation remote support engineer contacts you to troubleshoot and resolve the issue and help get you back up and running
- The service includes capabilities such as automatic black box data capture on a failure, preventive maintenance tracking and critical diagnostic indicator tracking.

For more information about any of our services and the bundled options available, please contact your Rockwell Automation representative.

\*Remote Monitoring & Analytic Services available for PowerFlex 755 floor mount drives.

# PowerFlex AC Drives



|                                                     | PowerFlex 4M AC Drive                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | PowerFlex 400 AC Drive                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Motor Control</b>                                | <ul style="list-style-type: none"> <li>Volts per Hertz</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <ul style="list-style-type: none"> <li>Volts per Hertz</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Application</b>                                  | <ul style="list-style-type: none"> <li>Open loop speed regulation</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>Open loop speed regulation</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Ratings 100-115V 1 Phase In/3 Phase 230V Out</b> | <ul style="list-style-type: none"> <li>0.2...1.1 kW • 0.25...1.5 Hp • 1.6...6 A</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>N/A</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Ratings 200-240V</b>                             | <ul style="list-style-type: none"> <li>0.2...7.5 kW • 0.25...10 Hp • 1.6...33 A</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>2.2...37 kW • 3.0...50 Hp • 12...145 A</li> </ul>                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Ratings 400-480V</b>                             | <ul style="list-style-type: none"> <li>0.4...11 kW • 0.5...15 Hp • 1.5...24 A</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>2.2...250 kW • 3.0...350 Hp • 6...460 A</li> </ul>                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Ratings 500-600V</b>                             | <ul style="list-style-type: none"> <li>N/A</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>N/A</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Features</b>                                     | <ul style="list-style-type: none"> <li>Compact, space saving design</li> <li>Most cost-effective member of the PowerFlex family of drives</li> <li>Feed-through wiring</li> <li>Ambient temperatures up to 50 °C (122 °F) permitted with minimal spacing between drives</li> <li>Zero Stacking™ Drives for ambient temperatures up to 40 °C (104 °F)</li> <li>Drive overload protection and ramp regulation</li> <li>Configuration and programming via HIM, Studio 5000 Logix Designer or Connected Components Workbench software</li> </ul> | <ul style="list-style-type: none"> <li>Ideal for pump and fan applications</li> <li>Designed to meet demands for flexibility, space savings and ease-of-use</li> <li>Drive overload protection, flying start, purge and damper input, hand/off/auto, and sleep/wake, PID features</li> <li>Configuration and programming via HIM, Studio 5000 Logix Designer or Connected Components Workbench software</li> <li>Ambient Temperature up to 50 °C (122 °F)</li> </ul> |
| <b>Communications Options</b>                       | <ul style="list-style-type: none"> <li>Integral RS485 (Modbus RTU)</li> <li>Optional: *EtherNet/IP, *ControlNet, *DeviceNet, *Bluetooth®, *LonWorks®, *PROFIBUS DP</li> </ul> <p><small>* Optional network for use only with DSI External Communications Kit</small></p>                                                                                                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>Integral RS485 (Modbus RTU, Metasys N2, P1-FLN)</li> <li>Optional: *EtherNet/IP, *ControlNet, *DeviceNet, BACnet, *Bluetooth®, *LonWorks®, *PROFIBUS DP</li> </ul>                                                                                                                                                                                                                                                            |
| <b>Safety</b>                                       | <ul style="list-style-type: none"> <li>No</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <ul style="list-style-type: none"> <li>No</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Selection Guide Page</b>                         | <ul style="list-style-type: none"> <li>Found on page 21</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <ul style="list-style-type: none"> <li>Found on page 24</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                   |

*For detailed drive comparison charts, see page 164.*



### PowerFlex 523 AC Drive

- Volts per Hertz
- Sensorless vector control
- Open loop speed regulation
- 0.2...1.1 kW • 0.25...1.5 Hp • 1.6...6 A
- 0.2...15 kW • 0.25...20 Hp • 1.6...62.1 A
- 0.4...22 kW • 0.5...30 Hp • 1.4...43 A
- 0.4...22 kW • 0.5...30 Hp • 0.9...32 A
- Modular design eases installation
- Operating temperatures from -20 °C (-4 °F) up to 50 °C (122 °F). Up to 70 °C (158 °F) with current derating and optional control module fan kit
- Configuration and programming via multi-language HIM, Studio 5000 Logix Designer or Connected Components Workbench software
- Economizer motor control for energy savings
- Application specific parameter groups
- Configurable analog output communicates a reference point to another drive or external device
- Automatic Device Configuration\*

\* Requires Dual-port EtherNet/IP Option Module (Cat. No. 25-COMM-E2P)

- Integral RS485 (Modbus RTU)
- Optional: Dual-port EtherNet/IP, DeviceNet, PROFIBUS DP

• No

• Found on page 37

### PowerFlex 525 AC Drive

- Volts per Hertz
- Sensorless vector control
- Closed loop velocity vector control
- Permanent magnet motor control
- Open loop speed regulation
- Closed loop speed regulation
- 0.4...1.1 kW • 0.5...1.5 Hp • 2.5...6 A
- 0.4...15 kW • 0.5...20 Hp • 2.5...62.1 A
- 0.4...22 kW • 0.5...30 Hp • 1.4...43 A
- 0.4...22 kW • 0.5...30 Hp • 0.9...32 A
- Modular design eases installation
- Operating temperatures from -20 °C (-4 °F) up to 50 °C (122 °F). Up to 70 °C (158 °F) with current derating and optional control module fan kit
- Configuration and programming via multi-language HIM, Studio 5000 Logix Designer or Connected Components Workbench software
- Economizer motor control for energy savings
- Application specific parameter groups
- Simple positioning control with optional encoder card
- Automatic Device Configuration

- Built-in EtherNet/IP port
- Integral RS485 (Modbus RTU)
- Optional: Dual-port EtherNet/IP, DeviceNet, PROFIBUS DP

• Built-in hardwired Safe Torque Off, SIL2, PLd, CAT 3

• Found on page 41

### PowerFlex 527 AC Drive

- Volts per Hertz
- Sensorless vector control
- Closed loop velocity vector control
- Open loop speed regulation
- Closed loop speed regulation
- 0.4...1.1 kW • 0.5...1.5 Hp • 2.5...6 A
- 0.4...15 kW • 0.5...20 Hp • 2.5...62.1 A
- 0.4...22 kW • 0.5...30 Hp • 1.4...43 A
- 0.4...22 kW • 0.5...30 Hp • 0.9...32 A
- Modular design eases installation
- Operating temperatures from -20 °C (-4 °F) up to 50 °C (122 °F). Up to 70 °C (158 °F) with current derating and optional control module fan kit
- Works exclusively with Logix controllers
- Configuration and programming with motion instructions in Studio 5000 Logix Designer
- Choice of hardwired or networked safety
- Removable terminal blocks help simplify installation
- Simple positioning control with optional encoder card
- Automatic Device Configuration

- Built-in dual EtherNet/IP ports

• Built-in hardwired Safe Torque Off, SIL3, PLe, CAT 3  
• Built-in networked Safe Torque Off, SIL3, PLe, CAT 3

• Found on page 45

# PowerFlex AC Drives



|                                       | PowerFlex 70 AC Drive                                                                                                                                                                                                                                                                                                           | PowerFlex 753 AC Drive                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Motor Control</b>                  | <ul style="list-style-type: none"> <li>Flux vector control with and without an encoder</li> <li>Sensorless vector control</li> <li>Volts per Hertz</li> </ul>                                                                                                                                                                   | <ul style="list-style-type: none"> <li>Flux vector control with and without an encoder</li> <li>Sensorless vector control</li> <li>Volts per Hertz</li> <li>Permanent magnet motor control</li> </ul>                                                                                                                                                                                                                                                |
| <b>Application</b>                    | <ul style="list-style-type: none"> <li>Open loop speed regulation</li> <li>Closed loop speed regulation</li> <li>Accurate torque and speed regulation</li> </ul>                                                                                                                                                                | <ul style="list-style-type: none"> <li>Open loop speed regulation</li> <li>Closed loop speed regulation</li> <li>Accurate torque and speed regulation</li> <li>Indexer positioning</li> </ul>                                                                                                                                                                                                                                                        |
| <b>Single-phase Input with Derate</b> | <ul style="list-style-type: none"> <li>Yes</li> </ul>                                                                                                                                                                                                                                                                           | <ul style="list-style-type: none"> <li>Yes</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Ratings 200-240V</b>               | <ul style="list-style-type: none"> <li>0.37...18.5 kW • 0.5...25 Hp • 2.2...70 A</li> </ul>                                                                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>0.37...132 kW • 0.5...200 Hp • 2.2...477 A</li> </ul>                                                                                                                                                                                                                                                                                                                                                         |
| <b>Ratings 400-480V</b>               | <ul style="list-style-type: none"> <li>0.37...37 kW • 0.5...50 Hp • 1.1...72 A</li> </ul>                                                                                                                                                                                                                                       | <ul style="list-style-type: none"> <li>0.75...270 kW • 1...400 Hp • 2.1...477 A</li> </ul>                                                                                                                                                                                                                                                                                                                                                           |
| <b>Ratings 500-600V</b>               | <ul style="list-style-type: none"> <li>0.37...37 kW • 0.5...50 Hp • 0.9...52 A</li> </ul>                                                                                                                                                                                                                                       | <ul style="list-style-type: none"> <li>1...300 Hp • 1.7...289 A</li> </ul>                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Ratings 690V</b>                   | <ul style="list-style-type: none"> <li>N/A</li> </ul>                                                                                                                                                                                                                                                                           | <ul style="list-style-type: none"> <li>7.5...250 kW • 12...263 A</li> </ul>                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Features</b>                       | <ul style="list-style-type: none"> <li>Speed and torque control with and without encoder feedback</li> <li>Pjump and Traverse for Fibers applications</li> <li>Flexible packaging and mounting</li> <li>Configuration and programming via HIM, Studio 5000 Logix Designer or Connected Components Workbench software</li> </ul> | <ul style="list-style-type: none"> <li>Embedded I/O standard</li> <li>Predictive diagnostics</li> <li>Adjustable voltage control</li> <li>Three option slots for I/O, feedback, safety, auxiliary control power, communications</li> <li>Application-specific control for indexing, oil well and fiber applications</li> <li>Configuration and programming via HIM, Studio 5000 Logix Designer or Connected Components Workbench software</li> </ul> |
| <b>Communications Options</b>         | <ul style="list-style-type: none"> <li>Internal DPI</li> <li>Options: Single or Dual-port EtherNet/IP, ControlNet (Coax or Fiber), DeviceNet, BACnet, CANopen, External SCANport, Interbus, LonWorks, Modbus/TCP, PROFIBUS DP, RS485 DF1, RS485 HVAC (Modbus RTU, Metasys N2, Siemens P1)</li> </ul>                            | <ul style="list-style-type: none"> <li>Options: Single or Dual-port Ethernet/IP, ControlNet (Coax or Fiber), DeviceNet, BACnet/IP, CANopen, HVAC (Modbus RTU, FLN P1, Metasys N2), Modbus/TCP, LonWorks, PROFIBUS DP, ProfiNet IO, RS485 DFI</li> </ul>                                                                                                                                                                                              |
| <b>Safety</b>                         | <ul style="list-style-type: none"> <li>Hardwired Safe Torque Off SIL2, PLd, CAT 3 - option</li> </ul>                                                                                                                                                                                                                           | <ul style="list-style-type: none"> <li>Hardwired Safe Torque Off SIL3, PLc, CAT 3 - option</li> <li>Hardwired Safe Speed Monitor SIL3, PLc, CAT 4 - option</li> </ul>                                                                                                                                                                                                                                                                                |
| <b>Selection Guide Page</b>           | <ul style="list-style-type: none"> <li>Found on page 57</li> </ul>                                                                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>Found on page 66</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                   |

*For detailed drive comparison charts, see page 164.*



### PowerFlex 755 AC Drive

### PowerFlex 755TL Drive

### PowerFlex 755TR Drive

- Flux vector control with and without an encoder
- Sensorless vector control • Volts per Hertz
- Permanent magnet motor control

- Sensorless vector
- Volts per Hertz • Economizer
- Field oriented control
- Flux vector control

- Sensorless vector
- Volts per Hertz • Economizer
- Field oriented control
- Flux vector control

- Open loop speed regulation
- Closed loop speed regulation
- Accurate torque and speed regulation
- Accurate positioning with PCAM, indexer and gearing

- Open loop speed regulation
- Closed loop speed regulation
- Precise torque, position and speed regulation

- Open loop speed regulation
- Closed loop speed regulation
- Precise torque, position and speed regulation

- Yes (frames 1-7); No (Frames 8-10)

- No

- No

- 0.37...132 kW • 0.5...200 Hp • 2.2...477 A

- N/A

- N/A

- 0.75...1400 kW • 1...2000 Hp • 2.1...2330 A

- 160...1250 kW • 250...1800 Hp • 302...2072 A

- 160...2000 kW • 250...3000 Hp • 302...3404 A

- 1...1500 Hp • 1.7...1530 A

- 250...1500 Hp • 242...1430 A

- 250...2500 Hp • 242...2420 A

- 0.75...1500 kW • 12...1485 A

- 200...1400 kW • 215...1419 A

- 200...2300 kW • 215...2318 A

- Predictive diagnostics
- Can use motion instructions in Studio 5000 Logix Designer
- Five option slots for I/O, feedback, safety, auxiliary control power, communications
- TorqProve for lifting applications
- Application-specific control for indexing, oil well and fiber applications
- Adjustable voltage control
- Convenient roll-in/out design for floor mount drives
- Configuration and programming via HIM, Studio 5000 Logix Designer or Connected Components Workbench software

- Provides harmonic mitigation and power factor correction
- TotalFORCE technology with patented features to help optimize your system and maintain productivity
- Predictive diagnostics and maintenance
- Efficient installation and maintenance with convenient roll in/out design
- High power density with compact footprint
- TorqProve for lifting applications
- Five option slots for I/O, feedback, safety, auxiliary control power, communications
- Configuration and programming via HIM, Studio 5000 Logix Designer or Connected Components Workbench software

- Energy-efficient regenerative capability
- Provides harmonic mitigation and power factor correction
- TotalFORCE technology with patented features to help optimize your system and maintain productivity
- Predictive diagnostics and maintenance
- Efficient installation and maintenance with convenient roll in/out design
- High power density with compact footprint
- TorqProve for lifting applications
- Five option slots for I/O, feedback, safety, communications
- Configuration and programming via HIM, Studio 5000 Logix Designer or Connected Components Workbench software

- Internal DPI
- Built-in EtherNet/IP port or dual-port EtherNet/IP option
- Options: ControlNet (Coax or Fiber), DeviceNet, BACnet, CANopen, External SCANport, HVAC (Modbus RTU, FLN P1, Metasys N2), LonWorks, Modbus/TCP RS485 DF1, RS485 DFI, ProfiNet IO

- Internal DPI
- Built-in dual EtherNet/IP ports
- Options: ControlNet, DeviceNet, PROFIBUS DP, PROFINET

- Internal DPI
- Built-in dual EtherNet/IP ports
- Options: ControlNet, DeviceNet, PROFIBUS DP, PROFINET

- Hardwired Safe Torque Off SIL3, PLe, CAT 3 - option
- Networked Safe Torque Off SIL3, PLe, CAT 3 - option
- Hardwired Safe Speed Monitor SIL3, PLe, CAT 4 - option

- Hardwired Safe Torque Off SIL3, PLe, CAT 3 - option
- Networked Safe Torque Off SIL3, PLe, CAT 3 - option
- Hardwired Safe Speed Monitor SIL3, PLe, CAT 4 - option

- Hardwired Safe Torque Off SIL3, PLe, CAT 3 - option
- Networked Safe Torque Off SIL3, PLe, CAT 3 - option
- Hardwired Safe Speed Monitor SIL3, PLe, CAT 4 - option

- Found on page 82

- Found on page 118

- Found on page 118

# PowerFlex AC and DC Drives



## PowerFlex 755TM AC Drive

## PowerFlex DC Drive

|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Motor Control</b>           | <ul style="list-style-type: none"> <li>• Sensorless vector • Volts per Hertz</li> <li>• Economizer • Field oriented control</li> <li>• Flux vector control</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <ul style="list-style-type: none"> <li>• Regenerative and Non-regenerative</li> <li>• Field weakening and Economize</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Application Performance</b> | <ul style="list-style-type: none"> <li>• Open loop speed regulation</li> <li>• Closed loop speed regulation</li> <li>• Precise torque, position and speed regulation</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>• Open loop speed regulation</li> <li>• Closed loop speed regulation</li> <li>• Torque regulation</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Ratings 200-240V</b>        | • N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | • 1.2...224 kW • 1.5...300 Hp • 7...1050 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Ratings 400-480V</b>        | Common Bus Inverter: <ul style="list-style-type: none"> <li>• 160...2000 kW • 302...3542 A @400V</li> <li>• 250...3000 Hp • 302...3404 A @480V</li> </ul> Regenerative Bus Supplies: <ul style="list-style-type: none"> <li>• 188...2204 kW • 324...3801 A @400V</li> <li>• 216...2436 kW • 311...3501 A @480V</li> </ul>                                                                                                                                                                                                                                                                                                                                            | • 1.5...671 kW • 2...900 Hp • 4.1...1494 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Ratings 500-600V</b>        | Common Bus Inverter: <ul style="list-style-type: none"> <li>• 250...2500 Hp • 242...2420 A @ 600V</li> </ul> Regenerative Bus: <ul style="list-style-type: none"> <li>• 217...2164 kW • 249...2489 A @ 600V</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                               | • 37...932 kW • 50...1250 Hp • 67.5...1688 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Ratings 690V</b>            | Common Bus Inverter: <ul style="list-style-type: none"> <li>• 200...2300 kW • 215...2318 A</li> </ul> Regenerative Bus Supplies: <ul style="list-style-type: none"> <li>• 221...2379 kW • 221...2379 A</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                    | • 298...1044 kW • 400...1400 Hp • 452...1582 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Features</b>                | <ul style="list-style-type: none"> <li>• Common bus drive system helps provide design flexibility, minimize floor space and reduce installation costs</li> <li>• Provides harmonic mitigation, power factor correction and regenerative capability</li> <li>• TotalFORCE technology with patented features helps optimize your system and maintain productivity</li> <li>• Predictive diagnostics and maintenance</li> <li>• Designed to enable coordination of multiple motors</li> <li>• High power density with compact footprint</li> <li>• TorqProve for lifting applications</li> <li>• Five option slots for I/O, feedback, safety, communications</li> </ul> | <ul style="list-style-type: none"> <li>• Includes an armature converter, regulated field converter for field weakening or economy applications, an advanced regulator with integrated DPI functionality, DC tachometer and encoder capability.</li> <li>• Overload protection</li> <li>• PID control (speed or torque)</li> <li>• Adaptive gain, droop, feedback loss switchover</li> <li>• TorqProve for lifting applications</li> <li>• I/O expansion boards – option</li> <li>• Resolver feedback – option</li> <li>• Configuration and programming via HIM, Studio 5000 Logix Designer or Connected Components Workbench software</li> </ul> |
| <b>Communications</b>          | <ul style="list-style-type: none"> <li>• Internal DPI</li> <li>• Built-in dual EtherNet/IP ports</li> <li>• Options: ControlNet, DeviceNet, PROFIBUS DP, PROFINET</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <ul style="list-style-type: none"> <li>• Internal DPI</li> <li>• Options: Single or Dual-port EtherNet/IP, ControlNet (Coax or Fiber), DeviceNet, BACnet, Modbus, HVAC, PROFIBUS DP, RS485 DF1</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Safety</b>                  | <ul style="list-style-type: none"> <li>• Hardwired Safe Torque Off SIL3, PLc, CAT 3 - option</li> <li>• Networked Safe Torque Off SIL3, PLc, CAT 3 - option</li> <li>• Hardwired Safe Speed Monitor SIL3, PLc, CAT 4 - option</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                             | • No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Selection Guide Page</b>    | <ul style="list-style-type: none"> <li>• See Common DC Bus Selection Guide, pub DRIVES-SG001</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>• Found on page 148</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

*For detailed drive comparison charts, see page 164.*

# PowerFlex 4M AC Drive

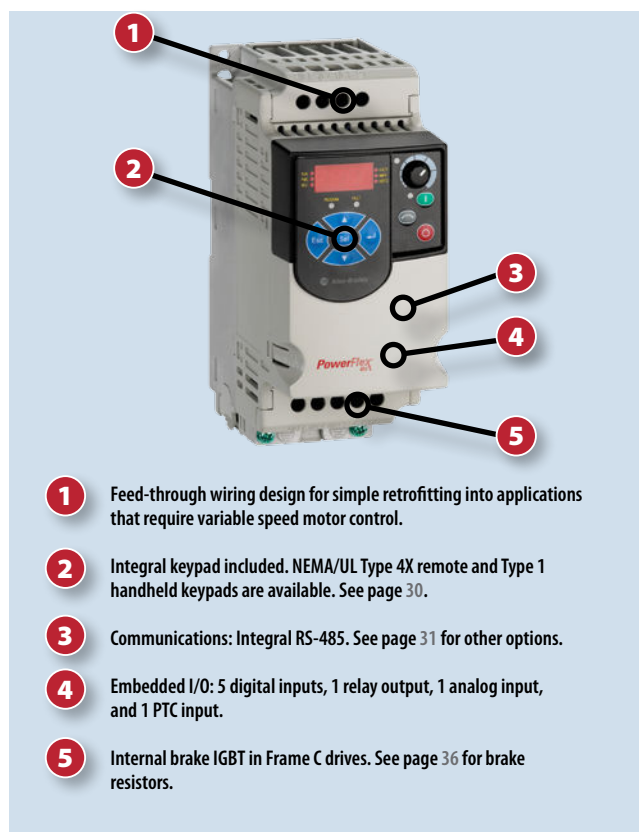
**0.2...11 kW/0.25...15 Hp in voltages from 100...480V**

Providing users with motor speed control in a compact, space-saving design, the PowerFlex 4M AC drive is the smallest and most cost-effective member of the PowerFlex family of drives.

Providing application flexibility, feed-through wiring and ease-of-programming, this drive is ideal for machine-level speed control for applications that require space-saving and easy-to-use AC drives.

## PowerFlex 4M at a Glance

|                       |                                                                                                                                      |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <b>Ratings</b>        |                                                                                                                                      |
| 100...120V            | 0.2...1 kW/0.25...1.5 Hp/1.6...6 A                                                                                                   |
| 200...240V            | 0.2...7.5 kW/0.25...10 Hp/1.6...33 A                                                                                                 |
| 380...480V            | 0.2...11 kW/0.25...15 Hp/1.6...24 A                                                                                                  |
| <b>Motor Control</b>  | V/Hz Control                                                                                                                         |
| <b>Enclosures</b>     | IP20, NEMA/UL Type Open                                                                                                              |
| <b>Certifications</b> | <ul style="list-style-type: none"> <li>• cULus</li> <li>• CE</li> <li>• EAC</li> <li>• KCC</li> <li>• RCM</li> <li>• RoHS</li> </ul> |
| <b>Options</b>        | See pages 30...36                                                                                                                    |



Branch circuit protection  
supplied separately

Isolation Transformers and  
Input Line Reactors are available.  
See pages 35...36.

External EMC filter is optional  
(see page 33). Integral filter is  
included with 240V, single-phase  
and 380V, three-phase drives.

Feed-through Wiring Design

DIN Rail Mounting  
(Frames A...B)

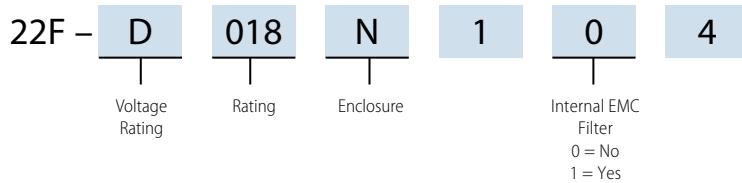
Output Reactors, Terminators  
and Reflected Wave Devices  
are optional.  
See pages 30...36.

## Additional Information

PowerFlex 4M Technical Data, publication [22F-TD001](#)

PowerFlex 4M User Manual, publication [22F-UM001](#)

## Catalog Number Explanation



## Product Selection

### 100...120V AC, Single-Phase Input, Three-Phase Output Drives (50/60 Hz, No Brake)

| Drive Ratings |      |                     |            | IP20, NEMA/UL Type Open | With Integral MC Filter |
|---------------|------|---------------------|------------|-------------------------|-------------------------|
| kW            | Hp   | Output Current<br>A | Frame Size | Cat. No.                | Cat. No.                |
| 0.2           | 0.25 | 1.6                 | A          | 22F-V1P6N103            | —                       |
| 0.4           | 0.5  | 2.5                 |            | 22F-V2P5N103            |                         |
| 0.75          | 1    | 4.5                 | B          | 22F-V4P5N103            |                         |
| 1.1           | 1.5  | 6                   |            | 22F-V6P0N103            |                         |

### 200...240V AC, Single-Phase Input, Three-Phase Output Drives (50/60 Hz, No Brake)

| Drive Ratings |      |                     |            | IP20, NEMA/UL Type Open | With Integral EMC Filter <sup>(1)</sup> |
|---------------|------|---------------------|------------|-------------------------|-----------------------------------------|
| kW            | Hp   | Output Current<br>A | Frame Size | Cat. No.                | Cat. No.                                |
| 0.2           | 0.25 | 1.6                 | A          | 22F-A1P6N103            | 22F-A1P6N113                            |
| 0.4           | 0.5  | 2.5                 |            | 22F-A2P5N103            | 22F-A2P5N113                            |
| 0.75          | 1    | 4.2                 |            | 22F-A4P2N103            | 22F-A4P2N113                            |
| 1.5           | 2    | 8                   | B          | 22F-A8P0N103            | 22F-A8P0N113                            |
| 2.2           | 3    | 11                  |            | 22F-A011N103            | 22F-A011N113                            |

(1) This filter is suitable for use with a cable length of up to 5 meters for class A environments and up to 1 meter for class B environments.

**200...240V AC, Three-Phase Drives (50/60 Hz)**

| Drive Ratings |      |                     |            | IP20, NEMA/UL Type Open | With Integral EMC Filter |
|---------------|------|---------------------|------------|-------------------------|--------------------------|
| kW            | Hp   | Output Current<br>A | Frame Size | Cat. No.                | Cat. No.                 |
| 0.2           | 0.25 | 1.6                 | A          | 22F-B1P6N103            | —                        |
| 0.4           | 0.5  | 2.5                 |            | 22F-B2P5N103            |                          |
| 0.75          | 1    | 4.2                 |            | 22F-B4P2N103            |                          |
| 1.5           | 2    | 8                   |            | 22F-B8P0N103            |                          |
| 2.2           | 3    | 12                  | B          | 22F-B012N103            |                          |
| 3.7           | 5    | 17.5                |            | 22F-B017N103            |                          |
| With Brake    |      |                     |            |                         |                          |
| 5.5           | 7.5  | 25                  | C          | 22F-B025N104            | —                        |
| 7.5           | 10   | 33                  |            | 22F-B033N104            |                          |

**380...480V AC, Three-Phase Drives (50/60 Hz)**

| Drive Ratings |     |                     |            | IP20, NEMA/UL Type Open | With Integral EMC Filter <sup>(1)</sup> |
|---------------|-----|---------------------|------------|-------------------------|-----------------------------------------|
| kW            | Hp  | Output Current<br>A | Frame Size | Cat. No.                | Cat. No.                                |
| 0.4           | 0.5 | 1.5                 | A          | 22F-D1P5N103            | 22F-D1P5N113                            |
| 0.75          | 1   | 2.5                 |            | 22F-D2P5N103            | 22F-D2P5N113                            |
| 1.5           | 2   | 4.2                 |            | 22F-D4P2N103            | 22F-D4P2N113                            |
| 2.2           | 3   | 6                   | B          | 22F-D6P0N103            | 22F-D6P0N113                            |
| 3.7           | 5   | 8.7                 |            | 22F-D8P7N103            | 22F-D8P7N113                            |
| With Brake    |     |                     |            |                         |                                         |
| 5.5           | 7.5 | 13                  | C          | 22F-D013N104            | 22F-D013N114                            |
| 7.5           | 10  | 18                  |            | 22F-D018N104            | 22F-D018N114                            |
| 11            | 15  | 24                  |            | 22F-D024N104            | 22F-D024N114                            |

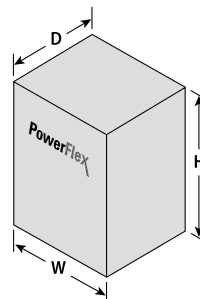
(1) This filter is suitable for use with a cable length of up to 10 meters for Class A environments.

**Approximate Dimensions and Weights**

Dimensions are in mm (in.) - weights are in kg (lb)

**IP20, NEMA/UL Type Open**

| Frame | H           | W          | D          | Weight      |
|-------|-------------|------------|------------|-------------|
| A     | 174 (6.85)  | 72 (2.83)  | 136 (5.35) | 1.58 (3.5)  |
| B     |             | 100 (3.94) |            | 2.09 (4.6)  |
| C     | 260 (10.24) | 130 (5.12) | 180 (7.09) | 4.81 (10.6) |



# PowerFlex 400 AC Drive

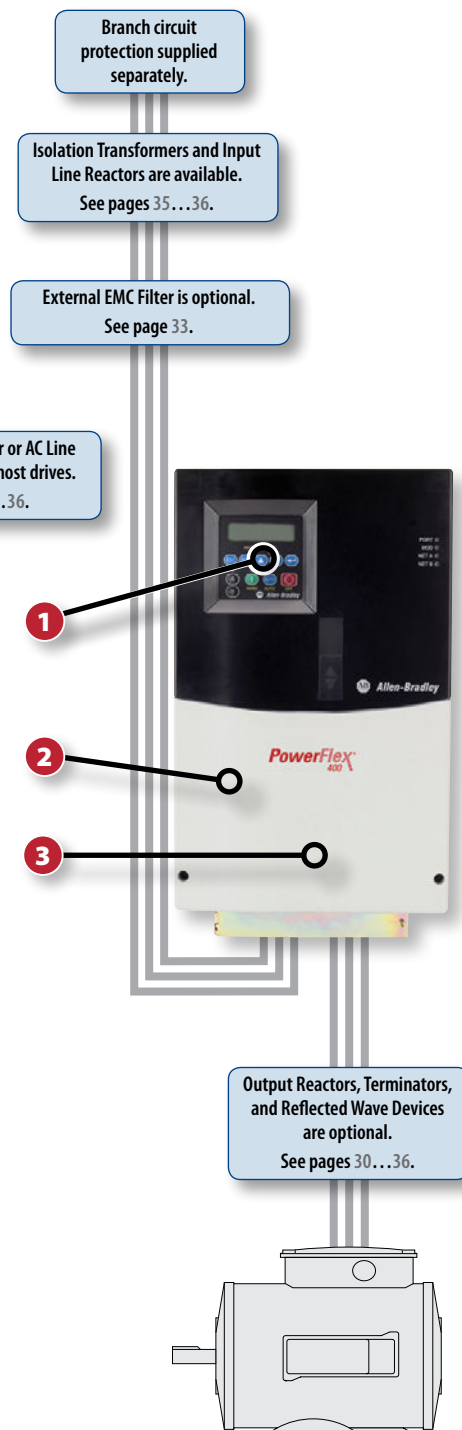
## 2.2...250 kW/3...350 Hp in voltages from 200...480V

Providing users with easy installation and ideal for mechanical fan and pump systems, the PowerFlex 400 AC drive offers a wide range of built-in features that allow for seamless building system integration. The PowerFlex 400 is designed to meet global OEM, contractor and end-user demands for flexibility, space savings, and ease-of-use.

### PowerFlex 400 at a Glance

|                            |                                                                                                                                                                                                                                                        |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Ratings</b>             |                                                                                                                                                                                                                                                        |
| 200...240V                 | 2.2...37 kW/3...50 Hp/12...145 A                                                                                                                                                                                                                       |
| 380...480V                 | 2.2...250 kW/3...350 Hp/6...460 A                                                                                                                                                                                                                      |
| <b>Motor Control</b>       | V/Hz Control                                                                                                                                                                                                                                           |
| <b>Enclosures</b>          | <ul style="list-style-type: none"> <li>• IP20, NEMA/UL Type Open</li> <li>• Flange Mount</li> <li>• Front = IP20, NEMA/UL Type Open, Back/Heatsink = IP40/54/65, NEMA/UL Type 1/12/4/4X</li> <li>• IP30, NEMA/UL Type 1 (with optional kit)</li> </ul> |
| <b>Additional Features</b> | PID/ PIP for fan and pump applications                                                                                                                                                                                                                 |
| <b>Certifications</b>      | <ul style="list-style-type: none"> <li>• cULus</li> <li>• CE</li> <li>• EAC</li> <li>• KCC</li> <li>• RCM</li> <li>• RoHS</li> </ul>                                                                                                                   |
| <b>Options</b>             | See pages 30...36                                                                                                                                                                                                                                      |

- 1** Integral keypad included. NEMA/UL Type 4X remote and Type 1 handheld keypads are available. See page 30.
- 2** Communications: Integral RS-485. See page 31 for other options.
- 3** Embedded I/O: 7 digital inputs, 2 relay outputs, 2 analog inputs, 1 transistor, 2 analog outputs, and 1 PTC input. Extension option available. See page 30.

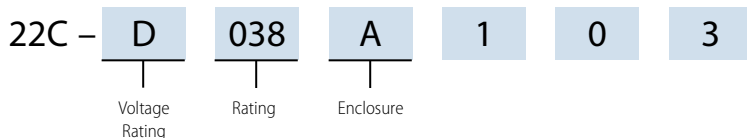


## Additional Information

PowerFlex 400 Technical Data, publication [22C-TD001](#)

PowerFlex 400 User Manual, publication [22C-UM001](#)

## Catalog Number Explanation



## Product Selection

### 200...240V AC, Three-Phase Drives

| Drive Ratings |     |                               |            |                                        | Panel Mount                 | Flange Mount <sup>(1)</sup> |
|---------------|-----|-------------------------------|------------|----------------------------------------|-----------------------------|-----------------------------|
| kW            | Hp  | Output Current <sup>(2)</sup> | Frame Size |                                        | Cat. No.                    | Cat. No.                    |
| 2.2           | 3   | 12                            | C          | IP20, NEMA/UL Type Open <sup>(3)</sup> | 22C-B012N103 <sup>(4)</sup> | 22C-B012F103 <sup>(4)</sup> |
| 3.7           | 5   | 17.5                          |            |                                        | 22C-B017N103 <sup>(4)</sup> | 22C-B017F103 <sup>(4)</sup> |
| 5.5           | 7.5 | 24                            |            |                                        | 22C-B024N103 <sup>(4)</sup> | 22C-B024F103 <sup>(4)</sup> |
| 7.5           | 10  | 33                            |            |                                        | 22C-B033N103 <sup>(4)</sup> | 22C-B033F103 <sup>(4)</sup> |
| 11            | 15  | 49                            | D          | IP30, NEMA/UL Type 1                   | 22C-B049A103                | —                           |
| 15            | 20  | 65                            |            |                                        | 22C-B065A103                |                             |
| 18.5          | 25  | 75                            |            |                                        | 22C-B075A103                |                             |
| 22            | 30  | 90                            |            |                                        | 22C-B090A103                |                             |
| 30            | 40  | 120                           | E          |                                        | 22C-B120A103                |                             |
| 37            | 50  | 145                           |            |                                        | 22C-B145A103                |                             |

(1) Front = IP20, NEMA/UL Type Open, Back/Heatsink = IP40/54/65, NEMA/UL Type 1/12/4/4X.

(2) Drive terminals are sized according to UL. Depending on operating ambient and wire used, some local or national codes may require a larger wire size than what the power terminals can accept. Multiple conductors, 90 °C (194 °F) wire, and/or lugs may be required. Refer to the PowerFlex 400 User Manual, publication [22C-UM001](#), for details on terminal block wire ranges.

(3) IP30, NEMA/UL Type 1 can be achieved for panel mount drives with top cover and optional conduit box kit installed. See page 32 for a field installed conversion kit.

(4) A DC bus inductor is not included. See page 35 for available inductors.

**380...480V AC, Three-Phase Drives**

| Drive Ratings |     |                               |            |                                        | Panel Mount                 | Flange Mount <sup>(1)</sup> |
|---------------|-----|-------------------------------|------------|----------------------------------------|-----------------------------|-----------------------------|
| kW            | Hp  | Output Current <sup>(2)</sup> | Frame Size |                                        | Cat. No.                    | Cat. No.                    |
| 2.2           | 3   | 6                             | C          | IP20, NEMA/UL Type Open <sup>(3)</sup> | 22C-D6P0N103 <sup>(4)</sup> | 22C-D6P0F103 <sup>(4)</sup> |
| 4             | 5   | 10.5                          |            |                                        | 22C-D010N103 <sup>(4)</sup> | 22C-D010F103 <sup>(4)</sup> |
| 5.5           | 7.5 | 12                            |            |                                        | 22C-D012N103 <sup>(4)</sup> | 22C-D012F103 <sup>(4)</sup> |
| 7.5           | 10  | 17                            |            |                                        | 22C-D017N103 <sup>(4)</sup> | 22C-D017F103 <sup>(4)</sup> |
| 11            | 15  | 22                            |            | IP20, NEMA/UL Type Open                | 22C-D022N103                | 22C-D022F103 <sup>(5)</sup> |
| 15            | 20  | 30                            |            |                                        | 22C-D030N103                | 22C-D030F103 <sup>(5)</sup> |
| 18.5          | 25  | 38                            | D          | IP30, NEMA/UL Type 1                   | 22C-D038A103                | —                           |
| 22            | 30  | 45.5                          |            |                                        | 22C-D045A103                |                             |
| 30            | 40  | 60                            |            |                                        | 22C-D060A103                |                             |
| 37            | 50  | 72                            | E          |                                        | 22C-D072A103                |                             |
| 45            | 60  | 88                            |            |                                        | 22C-D088A103                |                             |
| 55            | 75  | 105                           |            |                                        | 22C-D105A103                |                             |
| 75            | 100 | 142                           |            |                                        | 22C-D142A103                |                             |
| 90            | 125 | 170                           | F          |                                        | 22C-D170A103                |                             |
| 110           | 150 | 208                           |            |                                        | 22C-D208A103                |                             |
| 132           | 200 | 260                           | G          |                                        | 22C-D260A103                |                             |
| 160           | 250 | 310                           |            |                                        | 22C-D310A103                |                             |
| 200           | 300 | 370                           | H          |                                        | 22C-D370A103 <sup>(6)</sup> |                             |
| 250           | 350 | 460                           |            |                                        | 22C-D460A103 <sup>(6)</sup> |                             |

(1) Front = IP20, NEMA/UL Type Open, Back/Heatsink = IP40/54/65, NEMA/UL Type 1/12/4/4X.

(2) Drive terminals are sized according to UL. Depending on operating ambient and wire used, some local or national codes may require a larger wire size than what the power terminals can accept. Multiple conductors, 90 °C wire, and/or lugs may be required. PowerFlex 400 User Manual, publication [22C-UM001](#), for details on terminal block wire ranges.

(3) IP30, NEMA/UL Type 1 can be achieved for panel mount drives with top cover and optional conduit box kit installed. See page 32 for a field installed conversion kit.

(4) A DC bus inductor is not included. See page 32 for available inductors.

(5) 11 and 15 kW (15 and 20 Hp) Frame C flange mount drives require an external DC series bus inductor.

(6) 200 and 250 kW (300 and 350 Hp) ratings include an internal AC line reactor (not a DC bus inductor).

## Approximate Dimensions and Weights

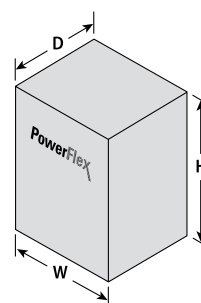
Dimensions are in mm (in.) - weights are in kg (lb)

### Panel Mount

| Frame | H                                       | W             | D             | Weight <sup>(1)</sup> |
|-------|-----------------------------------------|---------------|---------------|-----------------------|
| C     | 260 (10.2)<br>320 (12.6) <sup>(2)</sup> | 130 (5.1)     | 180 (7.1)     | 7.49 (16.5)           |
| D     | 436.2 (17.17)                           | 250 (9.84)    | 206.1 (8.11)  | 15.6 (34.4)           |
| E     | 605.5 (23.84)                           | 370 (14.57)   | 259.2 (10.21) | 51.2 (112.9)          |
| F     | 850 (33.46)                             | 425 (16.73)   | 280 (11.02)   | 88 (194)              |
| G     | 892 (35.12)                             | 425 (16.73)   | 264 (10.39)   | 106 (233.7)           |
| H     | 1363.8 (53.69)                          | 529.2 (20.83) | 358.6 (14.12) | 177 (390.2)           |

(1) Weights are approximate. Refer to the PowerFlex 400 User Manual, publication [22C-UM001](#), for detailed weight information.

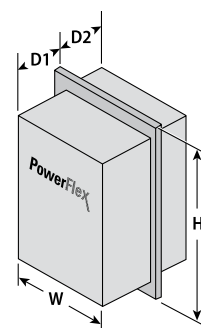
(2) Drive with IP30, NEMA 1/UL Type 1 option kit installed.



### Flange Mount

| Frame | H          | W           | D1           | D2           | Weight <sup>(1)</sup> |
|-------|------------|-------------|--------------|--------------|-----------------------|
| C     | 325 (12.8) | 300 (11.81) | 105.8 (4.17) | 138.2 (5.44) | 3.85 (8.5)            |

(1) Weights are approximate. Refer to the PowerFlex 400 User Manual, publication [22C-UM001](#), for detailed weight information.



# PowerFlex 4-class Drives

## PowerFlex 4 AC Drive



Designed to meet global OEM and end-user demands for simplicity, space savings, and cost efficiency, this drive provides intuitive features such as an integral keypad with local potentiometer and control keys that are active right out of the box.

| PowerFlex 4 AC Drive at a Glance |                                                      |                                                |                                                                                                         |                                             |
|----------------------------------|------------------------------------------------------|------------------------------------------------|---------------------------------------------------------------------------------------------------------|---------------------------------------------|
| Ratings                          | 100...120V: 0.2...1.1 kW / 0.25...1.5 Hp / 1.5...6 A |                                                | 200...240V: 0.2...3.7 kW / 0.25...5 Hp / 1.4...17.5 A                                                   |                                             |
|                                  | 380...480V: 0.4...3.7 kW / 0.5...5 Hp / 1.4...8.7 A  |                                                |                                                                                                         |                                             |
| Motor Control                    | V/Hz Control                                         |                                                |                                                                                                         |                                             |
| Enclosures                       | IP20, NEMA/UL Type Open                              | Plate Drive<br>Front = IP20, NEMA/UL Type Open | Flange Mount<br>Front = IP20, NEMA/UL Type Open<br>Back/Heatsink = IP40/54/65<br>NEMA/UL Type 1/12/4/4X | IP30, NEMA/UL Type 1<br>(with optional kit) |

## PowerFlex 40 AC Drive



The PowerFlex 40 AC drive gives OEMs, machine builders, and end users performance-enhancing motor control in an easy to-use, compact package. The PowerFlex 40 features sensorless vector control to meet low speed torque demands that help improve application performance.

With flexible packaging options and an uncomplicated programming structure, this drive can be quickly and easily installed and configured for a variety of applications.

| PowerFlex 40 AC Drive at a Glance |                                                     |                                                |                                                                                                         |                                             |
|-----------------------------------|-----------------------------------------------------|------------------------------------------------|---------------------------------------------------------------------------------------------------------|---------------------------------------------|
| Ratings                           | 100...120V: 0.4...1.1 kW / 0.5...1.5 Hp / 2.3...6 A |                                                | 200...240V: 0.4...7.5 kW / 0.5...10 Hp / 2.3...33 A                                                     |                                             |
|                                   | 380...480V: 0.4...11 kW / 0.5...15 Hp / 1.4...24 A  |                                                | 500...600V: 0.75...11 kW / 1...15 Hp / 1.7...19 A                                                       |                                             |
| Motor Control                     | V/Hz Control                                        | Sensorless Vector Control                      |                                                                                                         |                                             |
| Enclosures                        | IP20, NEMA/UL Type Open                             | Plate Drive<br>Front = IP20, NEMA/UL Type Open | Flange Mount<br>Front = IP20, NEMA/UL Type Open<br>Back/Heatsink = IP40/54/65<br>NEMA/UL Type 1/12/4/4X | IP30, NEMA/UL Type 1<br>(with optional kit) |
|                                   | IP66, NEMA/UL Type 4X                               |                                                |                                                                                                         |                                             |

## PowerFlex 40P AC Drive



The PowerFlex 40P AC drive addresses user needs for closed loop control with an option for Category 3 Safe Torque Off in a compact and cost effective design. Based on the popular PowerFlex 40, this drive is designed to meet global OEM and end-user demands for flexibility, space savings, and ease of use. This drive is a cost-effective alternative for speed or basic position control of applications such as diverters, smart conveyors, packaging machines, palletizers, drafting machines, ring spinning machines, and synthetic fiber spinning machines and shares common options and accessories with the PowerFlex 40.

### PowerFlex 40P AC Drive at a Glance

|               |                                                     |                                                |                                                                                                         |                                             |
|---------------|-----------------------------------------------------|------------------------------------------------|---------------------------------------------------------------------------------------------------------|---------------------------------------------|
| Ratings       | 200...240V: 0.4...7.5 kW / 0.5...10 Hp / 2.3...33 A |                                                | 380...480V: 0.4...11 kW / 0.5...15 Hp / 1.4...24 A                                                      |                                             |
|               | 500...600V: 0.75...11 kW / 1...15 Hp / 1.7...19 A   |                                                |                                                                                                         |                                             |
| Motor Control | V/Hz Control                                        | Sensorless Vector Control                      |                                                                                                         |                                             |
| Enclosures    | IP20, NEMA/UL Type Open                             | Plate Drive<br>Front = IP20, NEMA/UL Type Open | Flange Mount<br>Front = IP20, NEMA/UL Type Open<br>Back/Heatsink = IP40/54/65<br>NEMA/UL Type 1/12/4/4X | IP30, NEMA/UL Type 1<br>(with optional kit) |

For additional product selection information, please visit <http://ab.rockwellautomation.com/Drives/Low-Voltage-AC-Drives>.

# PowerFlex 4-class Options

## Human Interface Modules and Accessories

| Description                                                                                                                                                                  | Cat. No.                  | Used with PowerFlex Drive |     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------|-----|
|                                                                                                                                                                              |                           | 4M                        | 400 |
| Remote (Panel Mount) LCD Display, Digital Speed Control, CopyCat Capable. Includes 2.0 meter cable. IP66, NEMA Type 4X/12 - only for indoor use.                             | 22-HIM-C2S <sup>(1)</sup> | ✓                         | ✓   |
| Remote Handheld, LCD Display, Full Numeric Keypad, Digital Speed Control, CopyCat Capable. Includes 1.0 meter cable. IP30, NEMA Type 1. Panel mount with optional Bezel Kit. | 22-HIM-A3                 | ✓                         | ✓   |
| Bezel Kit. Panel Mount for LCD Display, Remote Handheld Unit. IP30, NEMA Type 1. Includes a 22-RJ45CBL-C20 cable.                                                            | 22-HIM-B1                 | ✓                         | ✓   |
| DSI HIM Cable (DSI HIM to RJ45 cable)                                                                                                                                        |                           |                           |     |
| 1.0 m (3.3 ft)                                                                                                                                                               | 22-HIM-H10                | ✓                         | ✓   |
| 2.9 m (9.5 ft)                                                                                                                                                               | 22-HIM-H30                | ✓                         | ✓   |

(1) The 22-HIM-C2S is smaller than the 22-HIM-C2 and cannot be used as a direct replacement.

## Other Options

| Description                                                                        | Cat. No.   | Used with PowerFlex Drive |     |
|------------------------------------------------------------------------------------|------------|---------------------------|-----|
|                                                                                    |            | 4M                        | 400 |
| Auxiliary Relay Board - Expands drive output capabilities - for only Frames D...H. | AK-U9-RLB1 | —                         | ✓   |

## Terminators

| Description <sup>(1)</sup>                  | Cat. No.  | Used with PowerFlex Drive |     |
|---------------------------------------------|-----------|---------------------------|-----|
|                                             |           | 4M                        | 400 |
| For use with 3.7 kW (5 Hp) and below drives | 1204-TFA1 | ✓                         | ✓   |
| For use with 1.5 kW (2 Hp) and up drives    | 1204-TFB2 | ✓                         | ✓   |

(1) For selection information, refer to Appendix A of the Wiring and Grounding Guidelines for Pulse Width Modulated (PWM) AC Drives, publication [DRIVES-IN001](#).

## Reflected Wave Reduction Module with Common Mode Choke

| Description <sup>(1)</sup> | Cat. No.      | Used with PowerFlex Drive |     |
|----------------------------|---------------|---------------------------|-----|
|                            |               | 4M                        | 400 |
| 17A with Common Mode Choke | 1204-RWC-17-A | ✓                         | ✓   |

(1) For selection information, refer to Appendix A of the Wiring and Grounding Guidelines for Pulse Width Modulated (PWM) AC Drives, publication [DRIVES-IN001](#).

## Reflected Wave Reduction Modules

| Voltage       | ND kW   | ND Hp | Cat. No.       | Used with PowerFlex Drive |     |
|---------------|---------|-------|----------------|---------------------------|-----|
|               |         |       |                | 4M                        | 400 |
| 380...480V AC | 2.2...4 | 3...5 | 1321-RWR8-DP   | ✓                         | ✓   |
|               | 4       | 5     | 1321-RWR12-DP  | ✓                         | ✓   |
|               | 5.5     | 7.5   | 1321-RWR18-DP  | ✓                         | ✓   |
|               | 7.5     | 10    | 1321-RWR25-DP  | ✓                         | ✓   |
|               | 11      | 15    | 1321-RWR25-DP  | ✓                         | ✓   |
|               | 15      | 20    | 1321-RWR35-DP  | —                         | ✓   |
|               | 18.5    | 25    | 1321-RWR45-DP  |                           | ✓   |
|               | 22      | 30    | 1321-RWR55-DP  |                           | ✓   |
|               | 30      | 40    | 1321-RWR80-DP  |                           | ✓   |
|               | 37      | 50    | 1321-RWR80-DP  |                           | ✓   |
|               | 45      | 60    | 1321-RWR100-DP |                           | ✓   |
|               | 55      | 75    | 1321-RWR130-DP |                           | ✓   |
|               | 75      | 100   | 1321-RWR160-DP |                           | ✓   |
|               | 90      | 125   | 1321-RWR200-DP |                           | ✓   |
|               | 110     | 150   | 1321-RWR250-DP |                           | ✓   |
|               | 149     | 200   | 1321-RWR320-DP |                           | ✓   |
|               | 187     | 250   | 1321-RWR320-DP |                           | ✓   |

## Communication Option Kits

| Description                                                                                                                                                                                                                                                        | Cat. No.         | Used with PowerFlex Drive |                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------------------|------------------|
|                                                                                                                                                                                                                                                                    |                  | 4M                        | 400              |
| BACnet® MS/TP RS485 Communication Adapter                                                                                                                                                                                                                          | 22-COMM-B        | —                         | ✓                |
| ControlNet™ Communication Adapter                                                                                                                                                                                                                                  | 22-COMM-C        | ✓ <sup>(1)</sup>          | ✓                |
| DeviceNet™ Communication Adapter                                                                                                                                                                                                                                   | 22-COMM-D        | ✓ <sup>(1)</sup>          | ✓                |
| EtherNet/IP™ Communication Adapter                                                                                                                                                                                                                                 | 22-COMM-E        | ✓ <sup>(1)</sup>          | ✓                |
| LonWorks® Communication Adapter                                                                                                                                                                                                                                    | 22-COMM-L        | —                         | ✓                |
| PROFIBUS™ DP Communication Adapter                                                                                                                                                                                                                                 | 22-COMM-P        | ✓ <sup>(1) (2)</sup>      | ✓                |
| Serial Converter Module (RS485 to RS232). Provides serial communication via DF1 protocol for use with DriveExplorer™ and DriveExecutive™ software. Includes DSI to RS232 serial converter, 1203-SFC serial cable, 22-RJ45CBL-C20 cable, and DriveExplorer Lite CD. | 22-SCM-232       | ✓                         | ✓                |
| Serial Cable. 2.0 meter with a locking low profile connector. Connects the serial converter to a 9-pin sub-miniature D female computer connector.                                                                                                                  | 1203-SFC         | ✓                         | ✓                |
| Serial Null Modem Adapter. Use when connecting the serial converter to DriveExplorer on a handheld PC.                                                                                                                                                             | 1203-SNM         | ✓                         | ✓                |
| Universal Serial Bus™ (USB) Converter includes 2m USB, 20-HIM-H10 and 22-HIM-H10 Cables.                                                                                                                                                                           | 1203-USB         | ✓                         | ✓                |
| DSI Cable. 2.0 meter RJ45 to RJ45 cable, male to male connectors.                                                                                                                                                                                                  | 22-RJ45CBL-C20   | ✓                         | ✓                |
| Splitter Cable. RJ45 one to two port splitter cable.                                                                                                                                                                                                               | AK-U0-RJ45-SC1   | ✓                         | ✓                |
| Terminal Block. RJ45 two position terminal block (6 pieces) with two 120 Ohm terminating resistors (loose).                                                                                                                                                        | AK-U0-RJ45-TB2P  | ✓                         | ✓                |
| Terminating Resistors. 120 Ohm resistor embedded in an RJ45 connector (2 pieces).                                                                                                                                                                                  | AK-U0-RJ45-TR1   | ✓                         | ✓                |
| DSI External Communications Kit. External mounting kit for 22-COMM Communication Adapters.                                                                                                                                                                         | 22-XCOMM-DC-BASE | ✓                         | ✓                |
| External Communications Kit Power Supply<br>Optional 100...240V AC Power Supply for External DSI Communications Kit.                                                                                                                                               | 20-XCOMM-AC-PS1  | ✓                         | ✓                |
| Compact I/O Module (3 Channel)                                                                                                                                                                                                                                     | 1769-SM2         | ✓                         | ✓                |
| Serial Flash Firmware Kit<br>Updates drive firmware via computer.                                                                                                                                                                                                  | AK-U9-FLSH1      | —                         | ✓                |
| Communication Adapter Cover<br>Frame C Drive (PowerFlex 400)<br><b>Note:</b> Cover adds 25 mm (0.98 in.) to the overall depth of the drive.                                                                                                                        | 22C-CCC          |                           | ✓ <sup>(3)</sup> |

(1) PowerFlex 4 and PowerFlex 4M drives require External DSI Communication Kits. Communication Adapters cannot be drive mounted.

(2) When a 22-COMM-P adapter is configured for multi-drive mode, a PowerFlex 400 drive must be used as a master drive on the network.

(3) If IP30, NEMA/UL Type 1 is required, 22-JBCC must also be ordered; see IP30, NEMA/UL Type 1 Conversion Kit table.

## IP30, NEMA/UL Type 1 Conversion Kit

| Description                                                                                                                              | Frame | Cat. No. | Used with PowerFlex Drive |     |
|------------------------------------------------------------------------------------------------------------------------------------------|-------|----------|---------------------------|-----|
|                                                                                                                                          |       |          | 4M                        | 400 |
| Converts IP20 drive to IP30, NEMA/UL Type 1 enclosure. Includes conduit box, mounting screws and plastic top panel.                      | C     | 22-JBAC  | —                         | ✓   |
| Converts IP20 drive to IP30, NEMA/UL Type 1 enclosure. Includes communication option conduit box, mounting screws and plastic top panel. |       | 22-JBCC  |                           | ✓   |

## Dynamic Brake Resistors

| Drive Rating                         |     |     | Minimum Resistance<br>Ohms $\pm 10\%$ | Resistance <sup>(1)</sup><br>Ohms $\pm 5\%$ | Cat. No. <sup>(2)</sup>      | Used with PowerFlex Drive |     |
|--------------------------------------|-----|-----|---------------------------------------|---------------------------------------------|------------------------------|---------------------------|-----|
| Voltage                              | kW  | Hp  |                                       |                                             |                              | 4M                        | 400 |
| 200...240V, 50/60 Hz,<br>Three-phase | 5.5 | 7.5 | 13                                    | 30                                          | AK-R2-030P1K2                | ✓                         | —   |
|                                      | 7.5 | 10  | 10                                    | 30                                          | AK-R2-030P1K2                | ✓                         |     |
| 380...480V, 50/60 Hz,<br>Three-phase | 5.5 | 7.5 | 55                                    | 120                                         | AK-R2-120P1K2                | ✓                         |     |
|                                      | 7.5 | 10  | 39                                    | 120                                         | AK-R2-120P1K2                | ✓                         |     |
|                                      | 11  | 15  | 24                                    | 120                                         | AK-R2-120P1K2 <sup>(3)</sup> | ✓                         |     |

(1) Verify resistor Ohms against minimum resistance for drive being used.

(2) Resistors listed are rated 5% duty cycle.

(3) Requires two resistors wired in parallel.

## Spare Parts

| Description          |                                                                          | Cat. No.       | Used with PowerFlex Drive |                  |
|----------------------|--------------------------------------------------------------------------|----------------|---------------------------|------------------|
|                      |                                                                          |                | 4M                        | 400              |
| Fan Replacement Kits | Fan Replacement Kit - Frame A                                            | SK-U1-FFAN1-A1 | ✓                         | —                |
|                      | Fan Replacement Kit - Frame B                                            | SK-U1-FFAN1-B1 | ✓                         |                  |
|                      | Fan Replacement Kit - Frame C                                            | SK-U1-FFAN1-C1 | ✓                         |                  |
|                      | Fan Replacement Kit - Frame C, 1 Fan                                     | SK-U1-FAN1-C1  | —                         | ✓ <sup>(1)</sup> |
|                      | Fan Replacement Kit - Frame C, 1 Fan, 15 Hp                              | SK-U1-FAN1-C2  |                           | ✓ <sup>(2)</sup> |
|                      | Fan Replacement Kit - Frame D, 2 Fans, B049...B090 & D038...D060 Ratings | SK-U1-FAN2-D1  |                           | ✓                |
|                      | Fan Replacement Kit - Frame E, 2 Fans, B120...B145 & D072...D142 Ratings | SK-U1-FAN2-E2  |                           | ✓                |
|                      | Fan Replacement Kit - Frame F, 2 Fans, IGBT, D170 & D208 Ratings         | SK-U1-FAN2-F1  |                           | ✓                |
|                      | Fan Replacement Kit - Frame F, 1 Fan, Rectifier, D170 & D208 Ratings     | SK-U1-FAN1-F2  |                           | ✓                |
|                      | Fan Replacement Kit - Frame F, 1 Fan, Choke, D170 & D208 Ratings         | SK-U1-FAN1-F3  |                           | ✓                |
|                      | Fan Replacement Kit - Frame G, 1 Fan (Side), D260 & D310 Ratings         | SK-U1-FAN1-G1  |                           | ✓                |
|                      | Fan Replacement Kit - Frame G, 4 Fans (Bottom), D260 & D310 Ratings      | SK-U1-FAN4-G3  |                           | ✓                |
|                      | Fan Replacement Kit - Frame H, 1 Fan (Upper Side), D370 & D460 Ratings   | SK-U1-FAN1-H1  |                           | ✓                |
|                      | Fan Replacement Kit - Frame H, 1 Fan (Middle Side), D370 & D460 Ratings  | SK-U1-FAN1-H2  |                           | ✓                |
|                      | Fan Replacement Kit - Frame H, 4 Fans (Bottom), D370 & D460 Ratings      | SK-U1-FAN4-H3  |                           | ✓                |
| Covers               | Frame A Cover                                                            | SK-U1-FCVR-A1  | ✓                         | —                |
|                      | Frame B Cover                                                            | SK-U1-FCVR-B1  | ✓                         |                  |
|                      | Frame C Cover                                                            | SK-U1-FCVR-C1  | ✓                         |                  |
|                      | Frame C Cover with Power Terminal Guard                                  | SK-U1-CCVR1-C1 | —                         | ✓                |
|                      | Frame D Cover                                                            | SK-U1-CCVR1-D1 |                           | ✓                |
|                      | Frame E Cover                                                            | SK-U1-CCVR1-E1 |                           | ✓                |
|                      | Frame F Cover                                                            | SK-U1-CCVR1-F1 |                           | ✓                |
|                      | Frame G Cover                                                            | SK-U1-CCVR1-G1 |                           | ✓                |
|                      | Frame H Cover                                                            | SK-U1-CCVR1-H1 |                           | ✓                |

(1) 3...10 Hp at 200...240V AC and 3...10 Hp at 380...480V AC.

(2) 15...20 Hp at 380...480V AC.

**EMC Filters (Required to Meet CE Certification)**

| Drive Ratings                            |      |      | PowerFlex 4M                             |                                          | PowerFlex 400                                       |
|------------------------------------------|------|------|------------------------------------------|------------------------------------------|-----------------------------------------------------|
| Input Voltage                            | kW   | Hp   | S Type Filter<br>Cat. No. <sup>(1)</sup> | L Type Filter<br>Cat. No. <sup>(2)</sup> | IP00 (NEMA/UL Type Open)<br>Cat. No. <sup>(1)</sup> |
| 100...120V,<br>50/60 Hz,<br>Single-phase | 0.2  | 0.25 | —                                        | 22F-RF010-AL                             | —                                                   |
|                                          | 0.4  | 0.5  |                                          |                                          |                                                     |
|                                          | 0.75 | 1    |                                          | 22F-RF025-BL                             |                                                     |
|                                          | 1.1  | 1.5  |                                          |                                          |                                                     |
| 200...240V,<br>50/60 Hz,<br>Single-phase | 0.2  | 0.25 | <sup>(3)</sup>                           | 22F-RF010-AL                             |                                                     |
|                                          | 0.4  | 0.5  |                                          |                                          |                                                     |
|                                          | 0.75 | 1    |                                          |                                          |                                                     |
|                                          | 1.5  | 2    |                                          | 22F-RF025-BL                             |                                                     |
|                                          | 2.2  | 3    |                                          |                                          |                                                     |
| 200...240V,<br>50/60 Hz,<br>Three-phase  | 0.2  | 0.25 | 22F-RF9P5-AS                             | 22F-RF9P5-AL                             |                                                     |
|                                          | 0.4  | 0.5  |                                          |                                          |                                                     |
|                                          | 0.75 | 1    |                                          |                                          |                                                     |
|                                          | 1.5  | 2    |                                          |                                          |                                                     |
|                                          | 2.2  | 3    | 22F-RF021-BS                             | 22F-RF021-BL                             | 22-RF034-CS                                         |
|                                          | 3.7  | 5    |                                          |                                          |                                                     |
|                                          | 5.5  | 7.5  | 22F-RF039-CS                             | 22F-RF039-CL                             |                                                     |
|                                          | 7.5  | 10   |                                          |                                          |                                                     |
|                                          | 11   | 15   | —                                        | —                                        | 22-RFD070                                           |
|                                          | 15   | 20   |                                          |                                          | 22-RFD100                                           |
|                                          | 18.5 | 25   |                                          |                                          | 22-RFD150                                           |
|                                          | 22   | 30   |                                          |                                          |                                                     |
|                                          | 30   | 40   |                                          |                                          | 22-RFD180                                           |
|                                          | 37   | 50   |                                          |                                          |                                                     |

(1) This filter is suitable for use with a cable length of up to 10 meters for Class A and 1 meter for Class B environments.

(2) This filter is suitable for use with a cable length of up to 100 meters for Class A and 5 meters for Class B environments.

(3) Drives are available in these ratings with internal "S Type" filters.

(table continues on next page)

**EMC Filters (Required to Meet CE Certification), (continued)**

| Drive Ratings                           |      |     | PowerFlex 4M                             |                                          | PowerFlex 400                                       |
|-----------------------------------------|------|-----|------------------------------------------|------------------------------------------|-----------------------------------------------------|
| Input Voltage                           | kW   | Hp  | S Type Filter<br>Cat. No. <sup>(1)</sup> | L Type Filter<br>Cat. No. <sup>(2)</sup> | IP00 (NEMA/UL Type Open)<br>Cat. No. <sup>(1)</sup> |
| 380...480V,<br>50/60 Hz,<br>Three-phase | 0.4  | 0.5 | 22F-RF6P0-AS <sup>(3)</sup>              | 22F-RF6P0-AL                             | —                                                   |
|                                         | 0.75 | 1   |                                          |                                          |                                                     |
|                                         | 1.5  | 2   |                                          |                                          |                                                     |
|                                         | 2.2  | 3   | 22F-RF012-BS <sup>(3)</sup>              | 22F-RF012-BL                             | 22-RF018-CS                                         |
|                                         | 3.7  | 5   |                                          |                                          |                                                     |
|                                         | 5.5  | 7.5 | 22F-RF026-CS <sup>(3)</sup>              | 22F-RF026-CL                             | 22-RF026-CS                                         |
|                                         | 7.5  | 10  |                                          |                                          |                                                     |
|                                         | 11   | 15  |                                          |                                          |                                                     |
|                                         | 15   | 20  | —                                        | —                                        | 22-RFD036                                           |
|                                         | 18.5 | 25  |                                          |                                          | 22-RFD050                                           |
|                                         | 22   | 30  |                                          |                                          | 22-RFD070                                           |
|                                         | 30   | 40  |                                          |                                          |                                                     |
|                                         | 37   | 50  |                                          |                                          | 22-RFD100                                           |
|                                         | 45   | 60  |                                          |                                          | 22-RFD150                                           |
|                                         | 55   | 75  |                                          |                                          |                                                     |
|                                         | 75   | 100 |                                          |                                          | 22-RFD180                                           |
|                                         | 90   | 125 |                                          |                                          | 22-RFD208                                           |
|                                         | 110  | 150 |                                          |                                          | 22-RFD323                                           |
|                                         | 132  | 200 |                                          |                                          |                                                     |
|                                         | 160  | 250 |                                          |                                          |                                                     |
|                                         | 200  | 300 |                                          |                                          | 22-RFD480                                           |
|                                         | 250  | 350 |                                          |                                          |                                                     |

(1) This filter is suitable for use with a cable length of up to 10 meters for Class A and 1 meter for Class B environments.

(2) This filter is suitable for use with a cable length of up to 100 meters for Class A and 5 meters for Class B environments.

(3) Drives are available in these ratings with internal S Type filters.

## DC Series Bus Inductors

| Drive Rating                            |     |     |      | Inductance<br>mH | Cat. No.    | Used with<br>PowerFlex Drive |     |
|-----------------------------------------|-----|-----|------|------------------|-------------|------------------------------|-----|
| Voltage                                 | kW  | Hp  | Amps |                  |             | 4M                           | 400 |
| 200...240V,<br>50/60 Hz,<br>Three-phase | 2.2 | 3   | 12   | 1                | 1321-DC12-1 | —                            | ✓   |
|                                         | 3.7 | 5   | 17.5 | 0.65             | 1321-DC18-1 |                              | ✓   |
|                                         | 5.5 | 7.5 | 32   | 0.85             | 1321-DC32-1 |                              | ✓   |
|                                         | 7.5 | 10  | 40   | 0.75             | 1321-DC40-2 |                              | ✓   |
| 400...480V,<br>50/60 Hz,<br>Three-phase | 2.2 | 3   | 6    | 2                | 1321-DC9-2  |                              | ✓   |
|                                         | 4   | 5   | 10.5 | 2.1              | 1321-DC12-2 |                              | ✓   |
|                                         | 5.5 | 7.5 | 18   | 3.75             | 1321-DC18-4 |                              | ✓   |
|                                         | 7.5 | 10  | 25   | 1.28             | 1321-DC25-4 |                              | ✓   |
|                                         | 11  | 15  | 32   | 2.68             | 1321-DC32-3 |                              | ✓   |
|                                         | 15  | 20  | 30   | 2.5              | 1321-DC40-4 |                              | ✓   |

## Isolation Transformers for PowerFlex 400 - IP32, NEMA/UL Type 3R Standalone, 4...6% Nominal Impedance

| Rating |     | Wiring<br>Diagram <sup>(1)</sup> | 208V Primary                                         | 230V Primary                                         | 460V Primary                                         |                                                      | 575V Primary                                         |                                                      |
|--------|-----|----------------------------------|------------------------------------------------------|------------------------------------------------------|------------------------------------------------------|------------------------------------------------------|------------------------------------------------------|------------------------------------------------------|
| kW     | Hp  |                                  | 208V, 60 Hz,<br>Three-phase<br>Secondary<br>Cat. No. | 230V, 60 Hz,<br>Three-phase<br>Secondary<br>Cat. No. | 230V, 60 Hz,<br>Three-phase<br>Secondary<br>Cat. No. | 460V, 60 Hz,<br>Three-phase<br>Secondary<br>Cat. No. | 230V, 60 Hz,<br>Three-phase<br>Secondary<br>Cat. No. | 460V, 60 Hz,<br>Three-phase<br>Secondary<br>Cat. No. |
| 2.2    | 3   | 1                                | 1321-3TW005-XX                                       | 1321-3TW005-AA                                       | 1321-3TW005-BA                                       | 1321-3TW005-BB                                       | 1321-3TW005-CA                                       | 1321-3TW005-CB                                       |
| 22     | 30  | 2                                | —                                                    | 1321-3TW040-AA                                       | 1321-3TW040-BA                                       | 1321-3TW040-BB                                       | 1321-3TW040-CA                                       | 1321-3TW040-CB                                       |
| 30     | 40  |                                  |                                                      | 1321-3TW051-AA                                       | 1321-3TW051-BA                                       | 1321-3TW051-BB                                       | 1321-3TW051-CA                                       | 1321-3TW051-CB                                       |
| 37     | 50  |                                  |                                                      | 1321-3TH063-AA                                       | 1321-3TH063-BA                                       | 1321-3TH063-BB                                       | —                                                    | —                                                    |
| 45     | 60  |                                  |                                                      | —                                                    | —                                                    | 1321-3TH075-BB                                       |                                                      |                                                      |
| 55     | 75  |                                  |                                                      |                                                      |                                                      | 1321-3TH093-BB                                       |                                                      |                                                      |
| 75     | 100 |                                  |                                                      |                                                      |                                                      | 1321-3TH118-BB                                       |                                                      |                                                      |
| 90     | 125 |                                  |                                                      |                                                      |                                                      | 1321-3TH145-BB                                       |                                                      |                                                      |
| 110    | 150 |                                  |                                                      |                                                      |                                                      | 1321-3TH175-BB                                       |                                                      |                                                      |
| 132    | 200 |                                  |                                                      |                                                      |                                                      | 1321-3TH220-BB                                       |                                                      |                                                      |
| 160    | 250 |                                  |                                                      |                                                      |                                                      | 1321-3TH275-BB                                       |                                                      |                                                      |
| 200    | 300 |                                  |                                                      |                                                      |                                                      | 1321-3TH330-BB                                       |                                                      |                                                      |
| 250    | 350 |                                  |                                                      |                                                      |                                                      | 1321-3TH440-BB                                       |                                                      |                                                      |

(1) For the corresponding wiring diagram, see page [137](#).

## Line Reactors - 3% Impedance

| Drive Ratings                        |      |      |      | IP00 <sup>(1)</sup><br>(NEMA/UL Open Type)<br>Cat. No. | IP11 <sup>(1)</sup><br>(NEMA/UL Type 1)<br>Cat. No. | Used with<br>PowerFlex Drive |     |
|--------------------------------------|------|------|------|--------------------------------------------------------|-----------------------------------------------------|------------------------------|-----|
| Voltage                              | kW   | Hp   | Amps |                                                        |                                                     | 4M                           | 400 |
| 200...240V,<br>60 Hz,<br>Three-phase | 0.2  | 0.25 | 2    | 1321-3R2-A                                             | —                                                   | ✓                            | —   |
|                                      | 0.4  | 0.5  | 4    | 1321-3R4-B                                             |                                                     | ✓                            |     |
|                                      | 0.75 | 1    | 8    | 1321-3R8-B                                             |                                                     | ✓                            |     |
|                                      | 1.5  | 2    | 8    | 1321-3R8-A                                             |                                                     | ✓                            |     |
|                                      | 2.2  | 3    | 12   | 1321-3R12-A                                            | 1321-3RA12-A                                        | ✓                            | ✓   |
|                                      | 3.7  | 5    | 17.5 | 1321-3R18-A                                            | 1321-3RA18-A                                        | ✓                            | ✓   |
|                                      | 5.5  | 7.5  | 24   | 1321-3R25-A                                            | 1321-3RA25-A                                        | ✓                            | ✓   |
|                                      | 7.5  | 10   | 33   | 1321-3R35-A                                            | 1321-3RA35-A                                        | ✓                            | ✓   |
|                                      | 11   | 15   | 49   | 1321-3R45-A                                            | 1321-3RA45-A                                        | —                            | ✓   |
|                                      | 15   | 20   | 65   | 1321-3R55-A                                            | 1321-3RA55-A                                        |                              | ✓   |
|                                      | 18.5 | 25   | 75   | 1321-3R80-A                                            | 1321-3RA80-A                                        |                              | ✓   |
|                                      | 22   | 30   | 90   | 1321-3R80-A                                            | 1321-3RA80-A                                        |                              | ✓   |
|                                      | 30   | 40   | 120  | 1321-3R100-A                                           | 1321-3RA100-A                                       |                              | ✓   |
|                                      | 37   | 50   | 145  | 1321-3R130-A                                           | 1321-3RA130-A                                       |                              | ✓   |
| 380...480V,<br>60 Hz,<br>Three-phase | 0.4  | 0.5  | 2    | 1321-3R2-B                                             | —                                                   | ✓                            | —   |
|                                      | 0.75 | 1    | 4    | 1321-3R4-C                                             |                                                     | ✓                            |     |
|                                      | 1.5  | 2    | 4    | 1321-3R4-B                                             |                                                     | ✓                            |     |
|                                      | 2.2  | 3    | 6    | 1321-3R8-C                                             | 1321-3RA8-C                                         | ✓                            | ✓   |
|                                      | 4    | 5    | 10.5 | 1321-3R8-B                                             | 1321-3RA8-B                                         | ✓                            | ✓   |
|                                      | 5.5  | 7.5  | 12   | 1321-3R12-B                                            | 1321-3RA12-B                                        | ✓                            | ✓   |
|                                      | 7.5  | 10   | 17   | 1321-3R18-B                                            | 1321-3RA18-B                                        | ✓                            | ✓   |
|                                      | 11   | 15   | 22   | 1321-3R25-B                                            | 1321-3RA25-B                                        | ✓                            | ✓   |
|                                      | 15   | 20   | 30   | 1321-3R35-B                                            | 1321-3RA35-B                                        | —                            | ✓   |
|                                      | 18.5 | 25   | 38   | 1321-3R35-B                                            | 1321-3RA35-B                                        |                              | ✓   |
|                                      | 22   | 30   | 45.5 | 1321-3R45-B                                            | 1321-3RA45-B                                        |                              | ✓   |
|                                      | 30   | 40   | 60   | 1321-3R55-B                                            | 1321-3RA55-B                                        |                              | ✓   |
|                                      | 37   | 50   | 72   | 1321-3R80-B                                            | 1321-3RA80-B                                        |                              | ✓   |
|                                      | 45   | 60   | 88   | 1321-3R80-B                                            | 1321-3RA80-B                                        |                              | ✓   |
|                                      | 55   | 75   | 105  | 1321-3R100-B                                           | 1321-3RA100-B                                       |                              | ✓   |
|                                      | 75   | 100  | 142  | 1321-3R130-B                                           | 1321-3RA130-B                                       |                              | ✓   |
|                                      | 90   | 125  | 170  | 1321-3R160-B                                           | 1321-3RA160-B                                       |                              | ✓   |
|                                      | 110  | 150  | 208  | 1321-3R200-B                                           | 1321-3RA200-B                                       |                              | ✓   |

(1) Catalog numbers listed are for 3% impedance. 5% impedance reactor types are also available. Refer to 1321 Power Conditioning Products Technical Data, publication [1321-TD001](#).

# PowerFlex 523 AC Drive

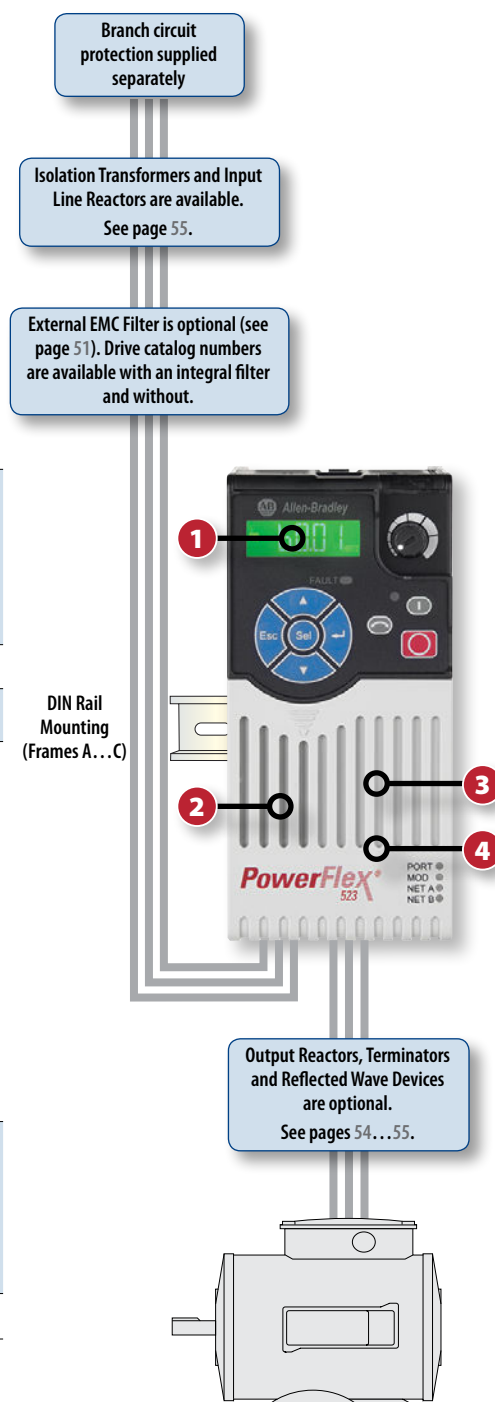
0.2...22 kW/0.25...30 Hp in voltages from 100...600V

PowerFlex 523 AC drives are designed to help reduce installation and configuration time with an innovative modular design while providing just enough control for your application. These drives offer convenient programming features with the fast upload and download of configuration files over a standard USB connection, as well as installation flexibility with Zero Stacking and a high ambient operating temperature. PowerFlex 523 AC drives also provide a variety of motor control options, making these drives ideal for simple applications.

## PowerFlex 523 at a Glance

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                              |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| <b>Ratings</b>             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                              |
| 100...120V                 | 0.2...1.1 kW / 0.25...1.5 Hp / 1.6...6 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                              |
| 200...240V                 | 0.2...15 kW / 0.25...20 Hp / 1.6...62.1 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                              |
| 380...480V                 | 0.4...22 kW / 0.5...30 Hp / 1.4...43 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                              |
| 525...600V                 | 0.4...22 kW / 0.5...30 Hp / 0.9...32 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                              |
| <b>Motor Control</b>       | • V/Hz Control                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | • Sensorless Vector Control                                                                                  |
| <b>Enclosures</b>          | • IP20, NEMA/UL Type Open                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | • IP30, NEMA/UL Type 1 (with optional kit)                                                                   |
| <b>Additional Features</b> | <ul style="list-style-type: none"> <li>• Modular design eases installation</li> <li>• Operating temperatures from -20...+50 °C (-4...+122 °F), or -20...+70 °C (-4...+158 °F) with current derating and optional control module fan kit</li> <li>• LCD QuickView™ HIM with multi-language support</li> <li>• MainsFree™ Programming via USB</li> <li>• Configure with Connected Components Workbench software</li> <li>• Configure with Studio 5000 Logix Designer™ software</li> <li>• Automatic Device Configuration<sup>(1)</sup></li> <li>• Economizer motor control for energy savings</li> <li>• Application specific parameter group AppView™ and CustomView™</li> <li>• Option for dual port EtherNet/IP adapter. DeviceNet and PROFIBUS DP adapters also available.</li> <li>• Conformal coating to IEC 60721 3C2 standards</li> </ul> |                                                                                                              |
| <b>Certifications</b>      | <ul style="list-style-type: none"> <li>• AC156 Seismic Standards</li> <li>• cULus</li> <li>• CE</li> <li>• EAC</li> <li>• KCC</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>• RCM</li> <li>• REACH</li> <li>• RoHS</li> <li>• SEMI F47</li> </ul> |
| <b>Options</b>             | See pages 49...56                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                              |

(1) Requires Dual-port EtherNet/IP Option Module (Cat. No. 25-COMM-E2P).



**1** LCD QuickView™ Human Interface Module (HIM) with multi-language support in scrolling text. See page 49 for additional options.

**2** Communications: Integral RS-485 with Modbus RTU/DSI. Other communication options available and can be added to the drive without size penalty. See page 49 for other options.

**3** Embedded I/O: 5 digital inputs, 1 analog input, 1 analog output\*, and 1 relay output.

**4** Integral brake IGBT. See page 56 for brake resistors.

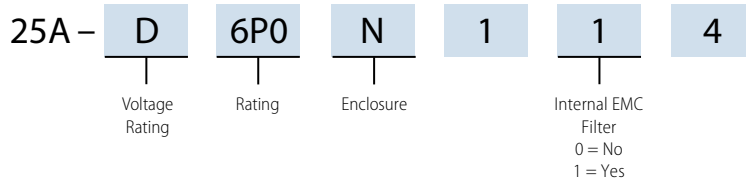
\* Requires Version 3 firmware for the drive, as well as Series B hardware.

## Additional Information

PowerFlex 520-Series Technical Data, publication [520-TD001](#)

PowerFlex 520-Series User Manual, publication [520-UM001](#)

## Catalog Number Explanation



## Product Selection

### 100...120V AC, Single-Phase Input, Three-Phase Output Drives, 50/60 Hz

| Drive Ratings |      |            |      |                | Frame Size | No Filter<br>Cat. No. | With<br>Integral EMC Filter<br>Cat. No. |
|---------------|------|------------|------|----------------|------------|-----------------------|-----------------------------------------|
| Normal Duty   |      | Heavy Duty |      | Output Current |            |                       |                                         |
| kW            | Hp   | kW         | Hp   |                |            |                       |                                         |
| 0.2           | 0.25 | 0.2        | 0.25 | 1.6            | A          | 25A-V1P6N104          | —                                       |
| 0.4           | 0.5  | 0.4        | 0.5  | 2.5            |            | 25A-V2P5N104          |                                         |
| 0.75          | 1    | 0.75       | 1    | 4.8            | B          | 25A-V4P8N104          |                                         |
| 1.1           | 1.5  | 1.1        | 1.5  | 6              |            | 25A-V6P0N104          |                                         |

### 200...240V AC, Single-Phase Input, Three-Phase Output Drives, 50/60 Hz

| Drive Ratings |      |            |      |                | Frame Size | No Filter<br>Cat. No. | With<br>Integral EMC Filter <sup>(1)</sup><br>Cat. No. |
|---------------|------|------------|------|----------------|------------|-----------------------|--------------------------------------------------------|
| Normal Duty   |      | Heavy Duty |      | Output Current |            |                       |                                                        |
| kW            | Hp   | kW         | Hp   |                |            |                       |                                                        |
| 0.2           | 0.25 | 0.2        | 0.25 | 1.6            | A          | 25A-A1P6N104          | 25A-A1P6N114                                           |
| 0.4           | 0.5  | 0.4        | 0.5  | 2.5            |            | 25A-A2P5N104          | 25A-A2P5N114                                           |
| 0.75          | 1    | 0.75       | 1    | 4.8            |            | 25A-A4P8N104          | 25A-A4P8N114                                           |
| 1.5           | 2    | 1.5        | 2    | 8              | B          | 25A-A8P0N104          | 25A-A8P0N114                                           |
| 2.2           | 3    | 2.2        | 3    | 11             |            | 25A-A011N104          | 25A-A011N114                                           |

(1) This filter is suitable for use with cable lengths up to 10 meters (32.8 feet) for C2 spec and 20 meters (65.6 feet) for C3 spec.

**200...240V AC, Three-Phase, 50/60 Hz**

| Drive Ratings |      |            |      |                | Frame Size | No Filter<br>Cat. No. | With<br>Integral EMC Filter<br>Cat. No. |
|---------------|------|------------|------|----------------|------------|-----------------------|-----------------------------------------|
| Normal Duty   |      | Heavy Duty |      | Output Current |            |                       |                                         |
| kW            | Hp   | kW         | Hp   |                |            |                       |                                         |
| 0.2           | 0.25 | 0.2        | 0.25 | 1.6            | A          | 25A-B1P6N104          | —                                       |
| 0.4           | 0.5  | 0.4        | 0.5  | 2.5            |            | 25A-B2P5N104          |                                         |
| 0.75          | 1    | 0.75       | 1    | 5              |            | 25A-B5P0N104          |                                         |
| 1.5           | 2    | 1.5        | 2    | 8              |            | 25A-B8P0N104          |                                         |
| 2.2           | 3    | 2.2        | 3    | 11             |            | 25A-B011N104          |                                         |
| 4             | 5    | 4          | 5    | 17.5           | B          | 25A-B017N104          |                                         |
| 5.5           | 7.5  | 5.5        | 7.5  | 24             | C          | 25A-B024N104          |                                         |
| 7.5           | 10   | 7.5        | 10   | 32.2           | D          | 25A-B032N104          |                                         |
| 11            | 15   | 7.5        | 10   | 48.3           | E          | 25A-B048N104          |                                         |
| 15            | 20   | 11         | 15   | 62.1           |            | 25A-B062N104          |                                         |

**380...480V AC, Three-Phase, 50/60 Hz**

| Drive Ratings |     |            |     |                         | Frame Size | No Filter<br>Cat. No.       | With<br>Integral EMC Filter <sup>(1)</sup><br>Cat. No. |
|---------------|-----|------------|-----|-------------------------|------------|-----------------------------|--------------------------------------------------------|
| Normal Duty   |     | Heavy Duty |     | Output Current<br><br>A |            |                             |                                                        |
| kW            | Hp  | kW         | Hp  |                         |            |                             |                                                        |
| 0.4           | 0.5 | 0.4        | 0.5 | 1.4                     | A          | 25A-D1P4N104                | 25A-D1P4N114                                           |
| 0.75          | 1   | 0.75       | 1   | 2.3                     |            | 25A-D2P3N104                | 25A-D2P3N114                                           |
| 1.5           | 2   | 1.5        | 2   | 4                       |            | 25A-D4P0N104                | 25A-D4P0N114                                           |
| 2.2           | 3   | 2.2        | 3   | 6                       |            | 25A-D6P0N104                | 25A-D6P0N114                                           |
| 4             | 5   | 4          | 5   | 10.5                    | B          | 25A-D010N104                | 25A-D010N114                                           |
| 5.5           | 7.5 | 5.5        | 7.5 | 13                      | C          | 25A-D013N104                | 25A-D013N114                                           |
| 7.5           | 10  | 7.5        | 10  | 17                      |            | 25A-D017N104                | 25A-D017N114                                           |
| 11            | 15  | 11         | 15  | 24                      | D          | 25A-D024N104                | 25A-D024N114                                           |
| 15            | 20  | 11         | 15  | 30                      |            | 25A-D030N104                | 25A-D030N114                                           |
| 18.5          | 25  | 15         | 20  | 37                      | E          | 25A-D037N114 <sup>(2)</sup> | 25A-D037N114                                           |
| 22            | 30  | 18.5       | 25  | 43                      |            | 25A-D043N114 <sup>(2)</sup> | 25A-D043N114                                           |

(1) This filter is suitable for use with cable lengths up to 10 meters (32.8 feet) for C2 spec and 20 meters (65.6 feet) for C3 spec.

(2) With EMC filter.

**525...600V AC, Three-Phase, 50/60 Hz**

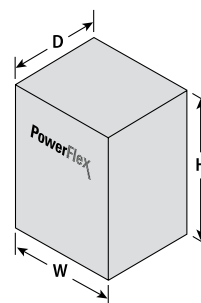
| Drive Ratings |     |            |     |                         | Frame Size | No Filter<br>Cat. No. | With<br>Integral EMC Filter<br>Cat. No. |
|---------------|-----|------------|-----|-------------------------|------------|-----------------------|-----------------------------------------|
| Normal Duty   |     | Heavy Duty |     | Output Current<br><br>A |            |                       |                                         |
| kW            | Hp  | kW         | Hp  |                         |            |                       |                                         |
| 0.4           | 0.5 | 0.4        | 0.5 | 0.9                     | A          | 25A-E0P9N104          | —                                       |
| 0.75          | 1   | 0.75       | 1   | 1.7                     |            | 25A-E1P7N104          |                                         |
| 1.5           | 2   | 1.5        | 2   | 3                       |            | 25A-E3P0N104          |                                         |
| 2.2           | 3   | 2.2        | 3   | 4.2                     |            | 25A-E4P2N104          |                                         |
| 4             | 5   | 4          | 5   | 6.6                     | B          | 25A-E6P6N104          |                                         |
| 5.5           | 7.5 | 5.5        | 7.5 | 9.9                     | C          | 25A-E9P9N104          |                                         |
| 7.5           | 10  | 7.5        | 10  | 12                      |            | 25A-E012N104          |                                         |
| 11            | 15  | 11         | 15  | 19                      | D          | 25A-E019N104          |                                         |
| 15            | 20  | 11         | 15  | 22                      |            | 25A-E022N104          |                                         |
| 18.5          | 25  | 15         | 20  | 27                      | E          | 25A-E027N104          |                                         |
| 22            | 30  | 18.5       | 25  | 32                      |            | 25A-E032N104          |                                         |

**Approximate Dimensions and Weights**

Dimensions are in mm (in.) - weights are in kg (lb)

**IP20, NEMA/UL Type Open**

| Frame | H           | W          | D           | Weight      |
|-------|-------------|------------|-------------|-------------|
| A     | 152 (5.98)  | 72 (2.83)  | 172 (6.77)  | 1.1 (2.4)   |
| B     | 180 (7.08)  | 87 (3.42)  | 172 (6.77)  | 1.6 (3.5)   |
| C     | 220 (8.66)  | 109 (4.29) | 184 (7.24)  | 2.3 (5.1)   |
| D     | 260 (10.23) | 130 (5.11) | 212 (8.34)  | 3.2 (7.1)   |
| E     | 300 (11.81) | 185 (7.28) | 279 (10.98) | 12.9 (28.4) |



# PowerFlex 525 AC Drive

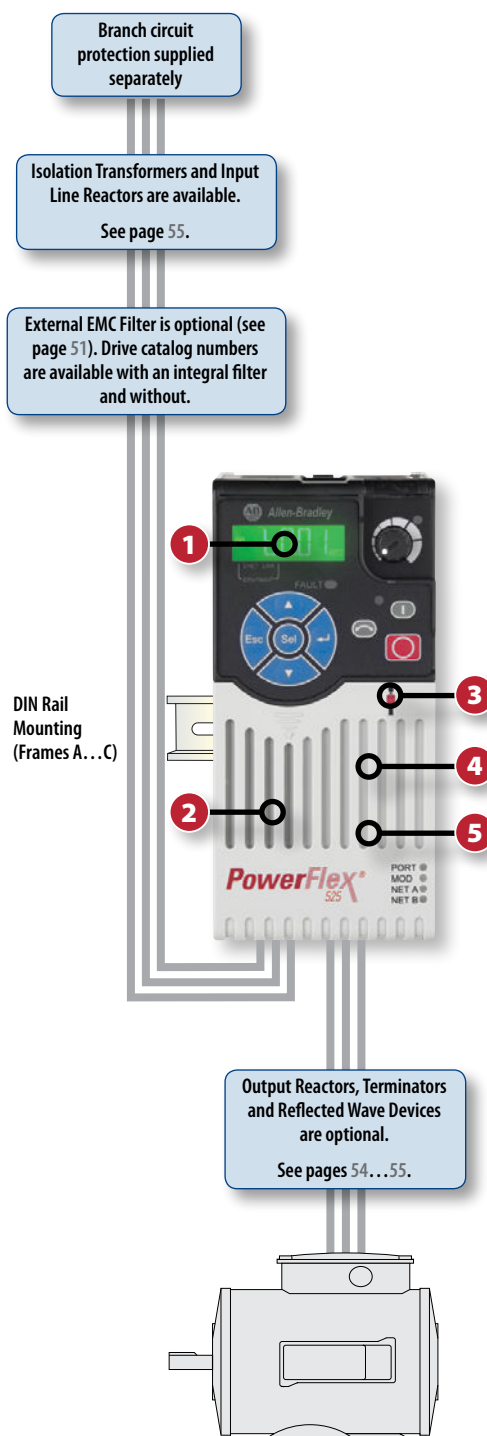
0.4...22 kW/0.5...30 Hp in voltages from 100...600V

PowerFlex 525 AC drives feature an innovative, modular design offering fast and easy installation and configuration. These cost-effective compact drives come with embedded EtherNet/IP™ communications, safety, USB configuration and a high ambient operating temperature capability. PowerFlex 525 AC drives also provide a variety of motor control algorithms including volts per hertz, sensorless vector control, closed loop velocity vector control, and permanent magnet motor control, making these drives ideal for a vast array of applications.

## PowerFlex 525 at a Glance

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Ratings</b>             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| 100...120V                 | 0.4...1.1 kW / 0.5...1.5 Hp / 2.5...6 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| 200...240V                 | 0.4...15 kW / 0.5...20 Hp / 2.5...62.1 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
| 380...480V                 | 0.4...22 kW / 0.5...30 Hp / 1.4...43 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |
| 525...600V                 | 0.4...22 kW / 0.5...30 Hp / 0.9...32 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |
| <b>Motor Control</b>       | <ul style="list-style-type: none"> <li>V/Hz Control</li> <li>Sensorless Vector Control</li> <li>Closed Loop Velocity Vector Control</li> <li>Permanent Magnet Motor Control<sup>(1)</sup></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
| <b>Enclosures</b>          | <ul style="list-style-type: none"> <li>IP20, NEMA/UL Type Open</li> <li>IP30, NEMA/UL Type 1 (with optional kit)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |
| <b>Safety</b>              | <ul style="list-style-type: none"> <li>Safe Torque Off SIL2, PLd, CAT 3 (meets ISO 13849-1)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |
| <b>Additional Features</b> | <ul style="list-style-type: none"> <li>Modular design eases installation</li> <li>Operating temperatures from -20...+50 °C (-4...+122 °F), or -20...+70 °C (-4...+158 °F) with current derating and optional control module fan kit</li> <li>Built-in EtherNet/IP port</li> <li>Option for dual port EtherNet/IP adapter</li> <li>LCD QuickView™ HIM with multi-language support</li> <li>MainsFree™ Programming via USB</li> <li>Configure with Connected Components Workbench software</li> <li>Configure with Studio 5000 Logix Designer™ software</li> <li>Automatic Device Configuration</li> <li>Economizer motor control for energy savings</li> <li>Application specific parameter group AppView™ and CustomView™</li> <li>Simple positioning control with optional encoder card</li> <li>Conformal coating to IEC 60721 3C2 standards</li> <li>DeviceNet and PROFIBUS DP adapters available</li> </ul> |  |
| <b>Certifications</b>      | <ul style="list-style-type: none"> <li>AC156 Seismic Standards</li> <li>ATEX</li> <li>cULus</li> <li>CE</li> <li>EAC</li> <li>KCC</li> <li>Lloyd's Register</li> <li>RCM</li> <li>REACH</li> <li>RoHS</li> <li>SEMI F47</li> <li>TÜV FS</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
| <b>Options</b>             | See pages 49...56                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |

(1) Requires Version 5 firmware for the drive, hardware change is not required.



**1** LCD QuickView™ Human Interface Module (HIM) with multi-language support in scrolling text. See page 49 for other options.

**2** Communications: Built-in EtherNet/IP port with option for dual port EtherNet/IP adapter. See page 49 for additional options.

**3** Machine safety with built-in Safe Torque Off SIL2, PLd, CAT 3 (meets ISO 13849-1).

**4** Embedded I/O: 7 digital inputs, 2 digital outputs, 2 analog inputs, 1 analog output, and 2 relay outputs.

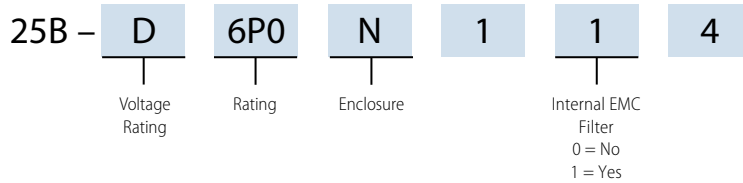
**5** Integral Brake IGBT Transistor. See page 56 for brake resistors.

## Additional Information

PowerFlex 520-Series Technical Data, publication [520-TD001](#)

PowerFlex 520-Series User Manual, publication [520-UM001](#)

## Catalog Number Explanation



## Product Selection

### 100...120V AC, Single-Phase Input, Three-Phase Output Drives, 50/60 Hz

| Drive Ratings |     |            |     |                     |            | No Filter<br>Cat. No. | With<br>Integral EMC Filter<br>Cat. No. |
|---------------|-----|------------|-----|---------------------|------------|-----------------------|-----------------------------------------|
| Normal Duty   |     | Heavy Duty |     | Output Current<br>A | Frame Size |                       |                                         |
| kW            | Hp  | kW         | Hp  |                     |            |                       |                                         |
| 0.4           | 0.5 | 0.4        | 0.5 | 2.5                 | A          | 25B-V2P5N104          | —                                       |
| 0.75          | 1   | 0.75       | 1   | 4.8                 | B          | 25B-V4P8N104          |                                         |
| 1.1           | 1.5 | 1.1        | 1.5 | 6                   |            | 25B-V6P0N104          |                                         |

### 200...240V AC, Single-Phase Input, Three-Phase Output Drives, 50/60 Hz

| Drive Ratings |     |            |     |                     |            | No Filter<br>Cat. No. | With<br>Integral EMC Filter <sup>(1)</sup><br>Cat. No. |
|---------------|-----|------------|-----|---------------------|------------|-----------------------|--------------------------------------------------------|
| Normal Duty   |     | Heavy Duty |     | Output Current<br>A | Frame Size |                       |                                                        |
| kW            | Hp  | kW         | Hp  |                     |            |                       |                                                        |
| 0.4           | 0.5 | 0.4        | 0.5 | 2.5                 | A          | 25B-A2P5N104          | 25B-A2P5N114                                           |
| 0.75          | 1   | 0.75       | 1   | 4.8                 |            | 25B-A4P8N104          | 25B-A4P8N114                                           |
| 1.5           | 2   | 1.5        | 2   | 8                   | B          | 25B-A8P0N104          | 25B-A8P0N114                                           |
| 2.2           | 3   | 2.2        | 3   | 11                  |            | 25B-A011N104          | 25B-A011N114                                           |

(1) This filter is suitable for use with cable lengths up to 10 meters (32.8 feet) for C2 spec and 20 meters (65.6 feet) for C3 spec.

**200...240V AC, Three-Phase, 50/60 Hz**

| Drive Ratings |     |            |     |                     |            | No Filter<br>Cat. No. | With<br>Integral EMC Filter<br>Cat. No. |
|---------------|-----|------------|-----|---------------------|------------|-----------------------|-----------------------------------------|
| Normal Duty   |     | Heavy Duty |     | Output Current<br>A | Frame Size |                       |                                         |
| kW            | Hp  | kW         | Hp  |                     |            |                       |                                         |
| 0.4           | 0.5 | 0.4        | 0.5 | 2.5                 | A          | 25B-B2P5N104          | —                                       |
| 0.75          | 1   | 0.75       | 1   | 5                   |            | 25B-B5P0N104          |                                         |
| 1.5           | 2   | 1.5        | 2   | 8                   |            | 25B-B8P0N104          |                                         |
| 2.2           | 3   | 2.2        | 3   | 11                  |            | 25B-B011N104          |                                         |
| 4             | 5   | 4          | 5   | 17.5                | B          | 25B-B017N104          |                                         |
| 5.5           | 7.5 | 5.5        | 7.5 | 24                  | C          | 25B-B024N104          |                                         |
| 7.5           | 10  | 7.5        | 10  | 32.2                | D          | 25B-B032N104          |                                         |
| 11            | 15  | 7.5        | 10  | 48.3                | E          | 25B-B048N104          |                                         |
| 15            | 20  | 11         | 15  | 62.1                |            | 25B-B062N104          |                                         |

**380...480V AC, Three-Phase, 50/60 Hz**

| Drive Ratings |     |            |     |                     |            | No Filter<br>Cat. No.       | With<br>Integral EMC Filter <sup>(1)</sup><br>Cat. No. |
|---------------|-----|------------|-----|---------------------|------------|-----------------------------|--------------------------------------------------------|
| Normal Duty   |     | Heavy Duty |     | Output Current<br>A | Frame Size |                             |                                                        |
| kW            | Hp  | kW         | Hp  |                     |            |                             |                                                        |
| 0.4           | 0.5 | 0.4        | 0.5 | 1.4                 | A          | 25B-D1P4N104                | 25B-D1P4N114                                           |
| 0.75          | 1   | 0.75       | 1   | 2.3                 |            | 25B-D2P3N104                | 25B-D2P3N114                                           |
| 1.5           | 2   | 1.5        | 2   | 4                   |            | 25B-D4P0N104                | 25B-D4P0N114                                           |
| 2.2           | 3   | 2.2        | 3   | 6                   |            | 25B-D6P0N104                | 25B-D6P0N114                                           |
| 4             | 5   | 4          | 5   | 10.5                | B          | 25B-D010N104                | 25B-D010N114                                           |
| 5.5           | 7.5 | 5.5        | 7.5 | 13                  | C          | 25B-D013N104                | 25B-D013N114                                           |
| 7.5           | 10  | 7.5        | 10  | 17                  |            | 25B-D017N104                | 25B-D017N114                                           |
| 11            | 15  | 11         | 15  | 24                  | D          | 25B-D024N104                | 25B-D024N114                                           |
| 15            | 20  | 11         | 15  | 30                  |            | 25B-D030N104                | 25B-D030N114                                           |
| 18.5          | 25  | 15         | 20  | 37                  | E          | 25B-D037N114 <sup>(2)</sup> | 25B-D037N114                                           |
| 22            | 30  | 18.5       | 25  | 43                  |            | 25B-D043N114 <sup>(2)</sup> | 25B-D043N114                                           |

(1) This filter is suitable for use with cable lengths up to 10 meters (32.8 feet) for C2 spec and 20 meters (65.6 feet) for C3 spec.

(2) With EMC filter.

**525...600V AC, Three-Phase, 50/60 Hz**

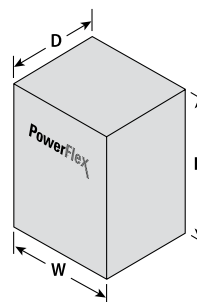
| Drive Ratings |     |            |     |                         |            | No Filter<br>Cat. No. | With<br>Integral EMC Filter<br>Cat. No. |
|---------------|-----|------------|-----|-------------------------|------------|-----------------------|-----------------------------------------|
| Normal Duty   |     | Heavy Duty |     | Output Current<br><br>A | Frame Size |                       |                                         |
| kW            | Hp  | kW         | Hp  |                         |            |                       |                                         |
| 0.4           | 0.5 | 0.4        | 0.5 | 0.9                     | A          | 25B-E0P9N104          | —                                       |
| 0.75          | 1   | 0.75       | 1   | 1.7                     |            | 25B-E1P7N104          |                                         |
| 1.5           | 2   | 1.5        | 2   | 3                       |            | 25B-E3P0N104          |                                         |
| 2.2           | 3   | 2.2        | 3   | 4.2                     |            | 25B-E4P2N104          |                                         |
| 4             | 5   | 4          | 5   | 6.6                     | B          | 25B-E6P6N104          |                                         |
| 5.5           | 7.5 | 5.5        | 7.5 | 9.9                     | C          | 25B-E9P9N104          |                                         |
| 7.5           | 10  | 7.5        | 10  | 12                      |            | 25B-E012N104          |                                         |
| 11            | 15  | 11         | 15  | 19                      | D          | 25B-E019N104          |                                         |
| 15            | 20  | 11         | 15  | 22                      |            | 25B-E022N104          |                                         |
| 18.5          | 25  | 15         | 20  | 27                      | E          | 25B-E027N104          |                                         |
| 22            | 30  | 18.5       | 25  | 32                      |            | 25B-E032N104          |                                         |

**Approximate Dimensions and Weights**

Dimensions are in mm (in.) - weights are in kg (lb)

**IP20, NEMA/UL Type Open**

| Frame | H           | W          | D           | Weight      |
|-------|-------------|------------|-------------|-------------|
| A     | 152 (5.98)  | 72 (2.83)  | 172 (6.77)  | 1.1 (2.4)   |
| B     | 180 (7.08)  | 87 (3.42)  | 172 (6.77)  | 1.6 (3.5)   |
| C     | 220 (8.66)  | 109 (4.29) | 184 (7.24)  | 2.3 (5.1)   |
| D     | 260 (10.23) | 130 (5.11) | 212 (8.34)  | 3.2 (7.1)   |
| E     | 300 (11.81) | 185 (7.28) | 279 (10.98) | 12.9 (28.4) |



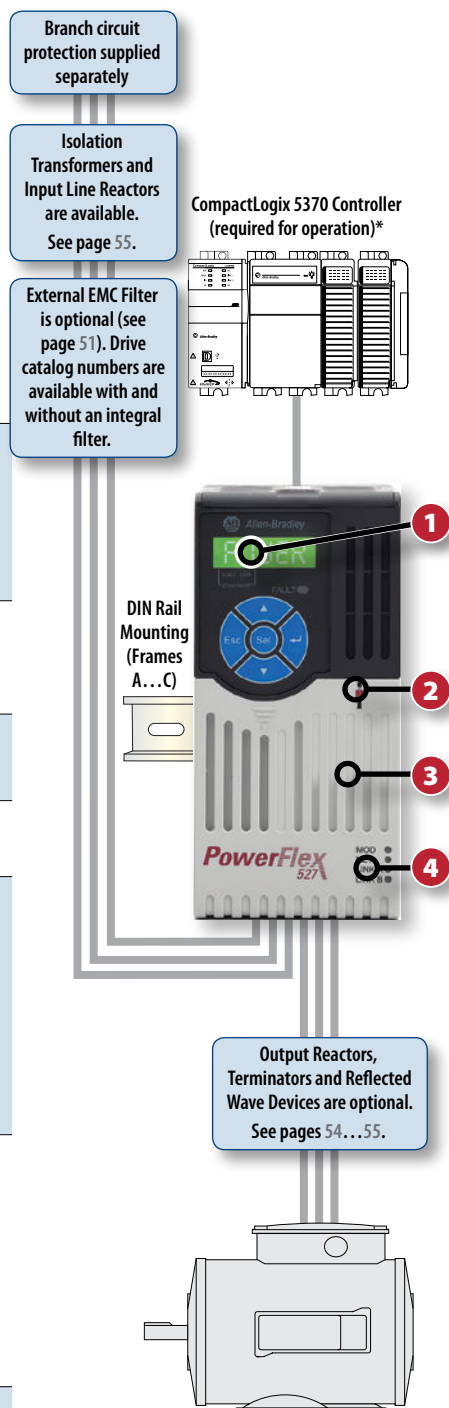
# PowerFlex 527 AC Drive

0.4...22 kW/0.5...30 Hp in voltages from 100...600V

PowerFlex 527 AC drives is the first compact PowerFlex drive designed to exclusively work with a Logix controller and programmed with Studio 5000 integrated motion instructions. The PowerFlex 527 drive is an ideal AC drive to complement machines already using Kinetix servo drives. It features a built-in dual port for EtherNet/IP hardwired and networked safety. Using Studio 5000 software, the configuration and programming experience saves start up time, and delivers a coordinated and synchronized machine.

## PowerFlex 527 at a Glance

|                            |                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Ratings</b>             | 100...120V 0.4...1.1 kW / 0.5...1.5 Hp / 2.5...6 A<br>200...240V 0.4...15 kW / 0.5...20 Hp / 2.5...62.1 A<br>380...480V 0.4...22 kW / 0.5...30 Hp / 1.4...43 A<br>525...600V 0.4...22 kW / 0.5...30 Hp / 0.9...32 A                                                                                                    |                                                                                                                                                                                                                                                                                |
| <b>Motor Control</b>       | <ul style="list-style-type: none"> <li>V/Hz Control</li> <li>Sensorless Vector Control</li> <li>Closed Loop Velocity Vector Control</li> </ul>                                                                                                                                                                         |                                                                                                                                                                                                                                                                                |
| <b>Enclosures</b>          | <ul style="list-style-type: none"> <li>IP20, NEMA/UL Type Open</li> <li>IP30, NEMA/UL Type 1 (with optional kit)</li> </ul>                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                |
| <b>Safety</b>              | <ul style="list-style-type: none"> <li>Built-in Hardwire Safe Torque Off, SIL3, PLe, CAT 3</li> </ul>                                                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>Built-in Networked Safe Torque Off SIL3, PLe, CAT 3</li> </ul>                                                                                                                                                                          |
| <b>Additional Features</b> | <ul style="list-style-type: none"> <li>Works exclusively with Logix controllers</li> <li>Program with motion instructions in Studio 5000 Logix Designer™ Software</li> <li>Built-in dual port for EtherNet/IP</li> <li>Built-in safety—hardwired or networked Safe Torque Off</li> <li>Removable I/O blocks</li> </ul> | <ul style="list-style-type: none"> <li>Operating temperatures from -20...+50 °C (-4...+122 °F). Up to 70 °C (158 °F) with current derating and optional control module fan kit</li> <li>Optional encoder card</li> <li>Conformal coating to IEC 60721 3C2 standards</li> </ul> |
| <b>Certifications</b>      | <ul style="list-style-type: none"> <li>AC156 Seismic Standards</li> <li>ATEX</li> <li>cULus</li> <li>CE</li> <li>EAC</li> <li>KCC</li> <li>Lloyd's Register</li> </ul>                                                                                                                                                 | <ul style="list-style-type: none"> <li>ODVA CIP/Safety</li> <li>RCM</li> <li>REACH</li> <li>RoHS</li> <li>SEMI F47</li> <li>TÜV FS</li> </ul>                                                                                                                                  |
| <b>Options</b>             | See pages 49...56                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                |



\* Requires a Logix controller capable of supporting Motion Instructions at a minimum revision of v24.

**1** LCD QuickView™ Human Interface Module (HIM) with multi-language support in scrolling text. See page 49 for other options.

**2** Choice of built-in hardwired or networked safety SIL3, PLe, CAT 3. Built-in safety simplifies machine design and minimizes equipment redundancies.

**3** Works exclusively with Logix controller. Program with motion instruction in Studio 5000 Logix Designer Software allows a common user experience.

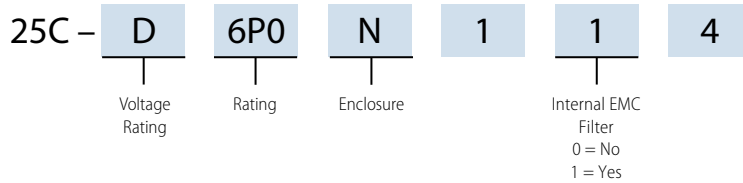
**4** Communications: Built-in dual port for EtherNet/IP. See page 49 for additional options.

## Additional Information

PowerFlex 520-Series Technical Data, publication [520-TD001](#)

PowerFlex 527 Adjustable Frequency AC Drive User Manual, publication [520-UM002](#)

## Catalog Number Explanation



## Product Selection

### 100...120V AC, Single-phase Input, Three-phase Output Drives, 50/60 Hz

| Drive Ratings |     |            |     |                     |            | No Filter<br>Cat. No. | With Integral EMC Filter<br>Cat. No. |
|---------------|-----|------------|-----|---------------------|------------|-----------------------|--------------------------------------|
| Normal Duty   |     | Heavy Duty |     | Output Current<br>A | Frame Size |                       |                                      |
| kW            | Hp  | kW         | Hp  |                     |            |                       |                                      |
| 0.4           | 0.5 | 0.4        | 0.5 | 2.5                 | A          | 25C-V2P5N104          | —                                    |
| 0.75          | 1   | 0.75       | 1   | 4.8                 | B          | 25C-V4P8N104          |                                      |
| 1.1           | 1.5 | 1.1        | 1.5 | 6                   |            | 25C-V6P0N104          |                                      |

### 200...240V AC, Single-phase Input, Three-phase Output Drives, 50/60 Hz

| Drive Ratings |     |            |     |                     |            | No Filter<br>Cat. No. | With Integral EMC Filter <sup>(1)</sup><br>Cat. No. |
|---------------|-----|------------|-----|---------------------|------------|-----------------------|-----------------------------------------------------|
| Normal Duty   |     | Heavy Duty |     | Output Current<br>A | Frame Size |                       |                                                     |
| kW            | Hp  | kW         | Hp  |                     |            |                       |                                                     |
| 0.4           | 0.5 | 0.4        | 0.5 | 2.5                 | A          | 25C-A2P5N104          | 25C-A2P5N114                                        |
| 0.75          | 1   | 0.75       | 1   | 4.8                 |            | 25C-A4P8N104          | 25C-A4P8N114                                        |
| 1.5           | 2   | 1.5        | 2   | 8                   | B          | 25C-A8P0N104          | 25C-A8P0N114                                        |
| 2.2           | 3   | 2.2        | 3   | 11                  |            | 25C-A011N104          | 25C-A011N114                                        |

(1) This filter is suitable for use with cable lengths up to 10 meters (32.8 feet) for C2 spec and 20 meters (65.6 feet) for C3 spec.

**200...240V AC, Three-phase, 50/60 Hz**

| Drive Ratings |     |            |     |                     |            | No Filter<br>Cat. No. | With Integral EMC Filter<br>Cat. No. |
|---------------|-----|------------|-----|---------------------|------------|-----------------------|--------------------------------------|
| Normal Duty   |     | Heavy Duty |     | Output Current<br>A | Frame Size |                       |                                      |
| kW            | Hp  | kW         | Hp  |                     |            |                       |                                      |
| 0.4           | 0.5 | 0.4        | 0.5 | 2.5                 | A          | 25C-B2P5N104          | —                                    |
| 0.75          | 1   | 0.75       | 1   | 5                   |            | 25C-B5P0N104          |                                      |
| 1.5           | 2   | 1.5        | 2   | 8                   |            | 25C-B8P0N104          |                                      |
| 2.2           | 3   | 2.2        | 3   | 11                  |            | 25C-B011N104          |                                      |
| 4             | 5   | 4          | 5   | 17.5                | B          | 25C-B017N104          |                                      |
| 5.5           | 7.5 | 5.5        | 7.5 | 24                  | C          | 25C-B024N104          |                                      |
| 7.5           | 10  | 7.5        | 10  | 32.2                | D          | 25C-B032N104          |                                      |
| 11            | 15  | 7.5        | 10  | 48.3                | E          | 25C-B048N104          |                                      |
| 15            | 20  | 11         | 15  | 62.1                |            | 25C-B062N104          |                                      |

**380...480V AC, Three-phase, 50/60 Hz**

| Drive Ratings |     |            |     |                     |            | No Filter<br>Cat. No.       | With Integral EMC Filter <sup>(1)</sup><br>Cat. No. |
|---------------|-----|------------|-----|---------------------|------------|-----------------------------|-----------------------------------------------------|
| Normal Duty   |     | Heavy Duty |     | Output Current<br>A | Frame Size |                             |                                                     |
| kW            | Hp  | kW         | Hp  |                     |            |                             |                                                     |
| 0.4           | 0.5 | 0.4        | 0.5 | 1.4                 | A          | 25C-D1P4N104                | 25C-D1P4N114                                        |
| 0.75          | 1   | 0.75       | 1   | 2.3                 |            | 25C-D2P3N104                | 25C-D2P3N114                                        |
| 1.5           | 2   | 1.5        | 2   | 4                   |            | 25C-D4P0N104                | 25C-D4P0N114                                        |
| 2.2           | 3   | 2.2        | 3   | 6                   |            | 25C-D6P0N104                | 25C-D6P0N114                                        |
| 4             | 5   | 4          | 5   | 10.5                | B          | 25C-D010N104                | 25C-D010N114                                        |
| 5.5           | 7.5 | 5.5        | 7.5 | 13                  | C          | 25C-D013N104                | 25C-D013N114                                        |
| 7.5           | 10  | 7.5        | 10  | 17                  |            | 25C-D017N104                | 25C-D017N114                                        |
| 11            | 15  | 11         | 15  | 24                  | D          | 25C-D024N104                | 25C-D024N114                                        |
| 15            | 20  | 11         | 15  | 30                  |            | 25C-D030N104                | 25C-D030N114                                        |
| 18.5          | 25  | 15         | 20  | 37                  | E          | 25C-D037N114 <sup>(2)</sup> | 25C-D037N114                                        |
| 22            | 30  | 18.5       | 25  | 43                  |            | 25C-D043N114 <sup>(2)</sup> | 25C-D043N114                                        |

(1) This filter is suitable for use with cable lengths up to 10 meters (32.8 feet) for C2 spec and 20 meters (65.6 feet) for C3 spec.

(2) With EMC filter.

**525...600V AC, Three-phase, 50/60 Hz**

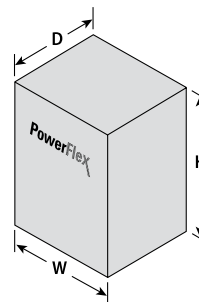
| Drive Ratings |     |            |     |                     |            | No Filter<br>Cat. No. | With Integral EMC Filter<br>Cat. No. |
|---------------|-----|------------|-----|---------------------|------------|-----------------------|--------------------------------------|
| Normal Duty   |     | Heavy Duty |     | Output Current<br>A | Frame Size |                       |                                      |
| kW            | Hp  | kW         | Hp  |                     |            |                       |                                      |
| 0.4           | 0.5 | 0.4        | 0.5 | 0.9                 | A          | 25C-E0P9N104          | —                                    |
| 0.75          | 1   | 0.75       | 1   | 1.7                 |            | 25C-E1P7N104          |                                      |
| 1.5           | 2   | 1.5        | 2   | 3                   |            | 25C-E3P0N104          |                                      |
| 2.2           | 3   | 2.2        | 3   | 4.2                 |            | 25C-E4P2N104          |                                      |
| 4             | 5   | 4          | 5   | 6.6                 | B          | 25C-E6P6N104          |                                      |
| 5.5           | 7.5 | 5.5        | 7.5 | 9.9                 | C          | 25C-E9P9N104          |                                      |
| 7.5           | 10  | 7.5        | 10  | 12                  |            | 25C-E012N104          |                                      |
| 11            | 15  | 11         | 15  | 19                  | D          | 25C-E019N104          |                                      |
| 15            | 20  | 11         | 15  | 22                  |            | 25C-E022N104          |                                      |
| 18.5          | 25  | 15         | 20  | 27                  | E          | 25C-E027N104          |                                      |
| 22            | 30  | 18.5       | 25  | 32                  |            | 25C-E032N104          |                                      |

**Approximate Dimensions and Weights**

Dimensions are in mm (in.) - weights are in kg (lb)

**IP20, NEMA/UL Type Open**

| Frame | H           | W          | D           | Weight      |
|-------|-------------|------------|-------------|-------------|
| A     | 152 (5.98)  | 72 (2.83)  | 172 (6.77)  | 1.1 (2.4)   |
| B     | 180 (7.08)  | 87 (3.42)  | 172 (6.77)  | 1.6 (3.5)   |
| C     | 220 (8.66)  | 109 (4.29) | 184 (7.24)  | 2.3 (5.1)   |
| D     | 260 (10.23) | 130 (5.11) | 212 (8.34)  | 3.2 (7.1)   |
| E     | 300 (11.81) | 185 (7.28) | 279 (10.98) | 12.9 (28.4) |



# PowerFlex 520-Series Options

## Human Interface Modules and Accessories

| Description                                                                                                                                                                  | Cat. No.                  | Used with PowerFlex Drive |       |       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------|-------|-------|
|                                                                                                                                                                              |                           | PF523                     | PF525 | PF527 |
| Remote (Panel Mount) LCD Display, Digital Speed Control, CopyCat Capable. Includes 2.0 meter cable. IP66, NEMA Type 4X/12 - Indoor Use Only.                                 | 22-HIM-C2S <sup>(1)</sup> | ✓                         | ✓     | —     |
| Remote Handheld, LCD Display, Full Numeric Keypad, Digital Speed Control, CopyCat Capable. Includes 1.0 meter cable. IP30, NEMA Type 1. Panel mount with optional Bezel Kit. | 22-HIM-A3                 | ✓                         | ✓     |       |
| Bezel Kit. Panel Mount for LCD Display, Remote Handheld Unit. IP30, NEMA Type 1. Includes a 22-RJ45CBL-C20 cable.                                                            | 22-HIM-B1                 | ✓                         | ✓     |       |
| DSI HIM Cable (DSI HIM to RJ45 cable)                                                                                                                                        |                           |                           |       |       |
| 1.0 Meter (3.3 Feet)                                                                                                                                                         | 22-HIM-H10                | ✓                         | ✓     |       |
| 2.9 Meter (9.5 Feet)                                                                                                                                                         | 22-HIM-H30                | ✓                         | ✓     |       |

(1) The 22-HIM-C2S is smaller than the 22-HIM-C2 and cannot be used as a direct replacement.

## Communication Option Kits

| Description                                                                                                                                                                                                                                                        | Cat. No.         | Used with PowerFlex Drive |       |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------------------|-------|-------|
|                                                                                                                                                                                                                                                                    |                  | PF523                     | PF525 | PF527 |
| DeviceNet™ Communication Adapter                                                                                                                                                                                                                                   | 25-COMM-D        | ✓                         | ✓     | —     |
| EtherNet/IP™ Communication Adapter - Dual Port                                                                                                                                                                                                                     | 25-COMM-E2P      | ✓                         | ✓     |       |
| PROFIBUS™ DP Communication Adapter                                                                                                                                                                                                                                 | 25-COMM-P        | ✓                         | ✓     |       |
| Serial Converter Module (RS485 to RS232). Provides serial communication via DF1 protocol for use with DriveExplorer™ and DriveExecutive™ software. Includes DSI to RS232 serial converter, 1203-SFC serial cable, 22-RJ45CBL-C20 cable, and DriveExplorer Lite CD. | 22-SCM-232       | ✓                         | ✓     |       |
| Serial Cable. 2.0 meter with a locking low profile connector. Connects the serial converter to a 9-pin sub-miniature D female computer connector.                                                                                                                  | 1203-SFC         | ✓                         | ✓     |       |
| Serial Null Modem Adapter. Use when connecting the serial converter to DriveExplorer on a handheld PC.                                                                                                                                                             | 1203-SNM         | ✓                         | ✓     |       |
| Universal Serial Bus™ (USB) Converter includes 2m USB, 20-HIM-H10 and 22-HIM-H10 Cables.                                                                                                                                                                           | 1203-USB         | ✓                         | ✓     |       |
| DSI Cable. 2.0 meter RJ45 to RJ45 cable, male to male connectors.                                                                                                                                                                                                  | 22-RJ45CBL-C20   | ✓                         | ✓     |       |
| Splitter Cable. RJ45 one to two port splitter cable.                                                                                                                                                                                                               | AK-U0-RJ45-SC1   | ✓                         | ✓     |       |
| Terminal Block. RJ45 two position terminal block (6 pieces) with two 120 Ohm terminating resistors (loose).                                                                                                                                                        | AK-U0-RJ45-TB2P  | ✓                         | ✓     |       |
| Terminating Resistors. 120 Ohm resistor embedded in an RJ45 connector (2 pieces).                                                                                                                                                                                  | AK-U0-RJ45-TR1   | ✓                         | ✓     |       |
| DSI External Communications Kit. External mounting kit for 22-COMM Communication Adapters.                                                                                                                                                                         | 22-XCOMM-DC-BASE | ✓                         | ✓     |       |
| External Communications Kit Power Supply<br>Optional 100...240V AC Power Supply for External DSI Communications Kit.                                                                                                                                               | 20-XCOMM-AC-PS1  | ✓                         | ✓     |       |
| Compact I/O Module (3 Channel)                                                                                                                                                                                                                                     | 1769-SM2         | ✓                         | ✓     |       |

## Other Options

| Description                                                                                         | Frame | Cat. No.     | Used with PowerFlex Drive |       |                      |
|-----------------------------------------------------------------------------------------------------|-------|--------------|---------------------------|-------|----------------------|
|                                                                                                     |       |              | PF523                     | PF525 | PF527 <sup>(1)</sup> |
| EMC Grounding Plate                                                                                 | A     | 25-EMC1-FA   | ✓                         | ✓     | ✓                    |
|                                                                                                     | B     | 25-EMC1-FB   | ✓                         | ✓     | ✓                    |
|                                                                                                     | C     | 25-EMC1-FC   | ✓                         | ✓     | ✓                    |
|                                                                                                     | D     | 25-EMC1-FD   | ✓                         | ✓     | ✓                    |
|                                                                                                     | E     | 25-EMC1-FE   | ✓                         | ✓     | ✓                    |
| External EMC Filter Kit (EMC cores)                                                                 | A     | 25-CORE-RF-A | ✓                         | ✓     | ✓                    |
|                                                                                                     | B     | 25-CORE-RF-B | ✓                         | ✓     | ✓                    |
|                                                                                                     | C     | 25-CORE-RF-C | ✓                         | ✓     | ✓                    |
|                                                                                                     | D     | 25-CORE-RF-D | ✓                         | ✓     | ✓                    |
|                                                                                                     | E     | 25-CORE-RF-E | ✓                         | ✓     | ✓                    |
| Mounting Adapter Plate for Bulletin 160 AC Drive to PowerFlex 520-series                            | A     | 25-MAP-FA    | ✓                         | ✓     | ✓                    |
|                                                                                                     | B     | 25-MAP-FB    | ✓                         | ✓     | ✓                    |
| PowerFlex 525 Incremental Encoder                                                                   | All   | 25-ENC-1     | —                         | ✓     |                      |
| PowerFlex 527 Incremental Encoder                                                                   | All   | 25-ENC-2     |                           |       | ✓                    |
| Control Module Fan Kit for 70 °C (158 °F) operation and/or horizontal drive mounting <sup>(2)</sup> | A...D | 25-FAN1-70C  | ✓                         | ✓     | ✓                    |
|                                                                                                     | E     | 25-FAN2-70C  | ✓                         | ✓     | ✓                    |
| PowerFlex 527 Control Module Internal Fan Kit                                                       | All   | 25C-FAN2-INT | —                         | —     | ✓                    |
| PowerFlex 527 Control Terminal Block                                                                | All   | 25C-RCTB     |                           |       | ✓                    |

(1) PowerFlex 527 AC drives require Logix controller for operation.

(2) Refer to the PowerFlex 527 Adjustable Frequency AC Drive User Manual, publication [520-UM002](#), for detailed guidelines on when to use the control module fan kit.

## IP30, NEMA/UL Type 1 Conversion Kit

| Description                                           | Frame | Cat. No. | Used with PowerFlex Drive |       |       |
|-------------------------------------------------------|-------|----------|---------------------------|-------|-------|
|                                                       |       |          | PF523                     | PF525 | PF527 |
| Converts IP20 drive to IP30, NEMA/UL Type 1 enclosure | A     | 25-JBAA  | ✓                         | ✓     | ✓     |
|                                                       | B     | 25-JBAB  | ✓                         | ✓     | ✓     |
|                                                       | C     | 25-JBAC  | ✓                         | ✓     | ✓     |
|                                                       | D     | 25-JBAD  | ✓                         | ✓     | ✓     |
|                                                       | E     | 25-JBAE  | ✓                         | ✓     | ✓     |

**EMC Filters (Required to Meet CE Certification)**

| Drive Ratings Input Voltage          | Normal Duty |      | Heavy Duty |      | Frame | Cat. No.    | Used with PowerFlex Drive |       |       |
|--------------------------------------|-------------|------|------------|------|-------|-------------|---------------------------|-------|-------|
|                                      |             |      |            |      |       |             | PF523                     | PF525 | PF527 |
| 100 ... 120V, Single-phase, 50/60 Hz | 0.2         | 0.25 | 0.2        | 0.25 | A     | 25-RF011-AL | ✓                         | —     | —     |
|                                      | 0.4         | 0.5  | 0.4        | 0.5  |       |             | ✓                         | ✓     | ✓     |
|                                      | 0.75        | 1    | 0.75       | 1    | B     | 25-RF023-BL | ✓                         | ✓     | ✓     |
|                                      | 1           | 1.5  | 1          | 1.5  |       |             | ✓                         | ✓     | ✓     |
| 200 ... 240V, Single-phase, 50/60 Hz | 0.2         | 0.25 | 0.2        | 0.25 | A     | 25-RF011-AL | ✓                         | —     | —     |
|                                      | 0.4         | 0.5  | 0.4        | 0.5  |       |             | ✓                         | ✓     | ✓     |
|                                      | 0.75        | 1    | 0.75       | 1    |       |             | ✓                         | ✓     | ✓     |
|                                      | 1.5         | 2    | 1.5        | 2    | B     | 25-RF023-BL | ✓                         | ✓     | ✓     |
|                                      | 2.2         | 3    | 2.2        | 3    |       |             | ✓                         | ✓     | ✓     |
| 200 ... 240V, Three-phase, 50/60 Hz  | 0.2         | 0.25 | 0.2        | 0.25 | A     | 25-RF014-AL | ✓                         | —     | —     |
|                                      | 0.4         | 0.5  | 0.4        | 0.5  |       |             | ✓                         | ✓     | ✓     |
|                                      | 0.75        | 1    | 0.75       | 1    |       |             | ✓                         | ✓     | ✓     |
|                                      | 1.5         | 2    | 1.5        | 2    |       |             | ✓                         | ✓     | ✓     |
|                                      | 2.2         | 3    | 2.2        | 3    |       |             | ✓                         | ✓     | ✓     |
|                                      | 3.7         | 5    | 3.7        | 5    | B     | 25-RF021-BL | ✓                         | ✓     | ✓     |
|                                      | 5.5         | 7.5  | 5.5        | 7.5  | C     | 25-RF027-CL | ✓                         | ✓     | ✓     |
|                                      | 7.5         | 10   | 7.5        | 10   | D     | 25-RF035-DL | ✓                         | ✓     | ✓     |
|                                      | 11          | 15   | 7.5        | 10   | E     | 25-RF056-EL | ✓                         | ✓     | ✓     |
|                                      | 15          | 20   | 11         | 15   |       |             | ✓                         | ✓     | ✓     |
| 380 ... 480V, Three-phase 50/60 Hz   | 0.4         | 0.5  | 0.4        | 0.5  | A     | 25-RF7P5-AL | ✓                         | ✓     | ✓     |
|                                      | 0.75        | 1    | 0.75       | 1    |       |             | ✓                         | ✓     | ✓     |
|                                      | 1.5         | 2    | 1.5        | 2    |       |             | ✓                         | ✓     | ✓     |
|                                      | 2.2         | 3    | 2.2        | 3    |       |             | ✓                         | ✓     | ✓     |
|                                      | 3.7         | 5    | 3.7        | 5    | B     | 25-RF014-BL | ✓                         | ✓     | ✓     |
|                                      | 5.5         | 7.5  | 5.5        | 7.5  | C     | 25-RF018-CL | ✓                         | ✓     | ✓     |
|                                      | 7.5         | 10   | 7.5        | 10   |       |             | ✓                         | ✓     | ✓     |
|                                      | 11          | 15   | 11         | 15   | D     | 25-RF033-DL | ✓                         | ✓     | ✓     |
|                                      | 15          | 18.5 | 11         | 15   |       |             | ✓                         | ✓     | ✓     |
|                                      | 18.5        | 22   | 15         | 20   | E     | 25-RF039-EL | ✓                         | ✓     | ✓     |
|                                      | 22          | 30   | 18.5       | 25   |       |             | ✓                         | ✓     | ✓     |
| 525 ... 600V, Three-phase, 50/60 Hz  | 0.4         | 0.5  | 0.4        | 0.5  | A     | 25-RF8P0-BL | ✓                         | ✓     | ✓     |
|                                      | 0.75        | 1    | 0.75       | 1    |       |             | ✓                         | ✓     | ✓     |
|                                      | 1.5         | 2    | 1.5        | 2    |       |             | ✓                         | ✓     | ✓     |
|                                      | 2.2         | 3    | 2.2        | 3    |       |             | ✓                         | ✓     | ✓     |
|                                      | 3.7         | 5    | 3.7        | 5    | B     |             | ✓                         | ✓     | ✓     |
|                                      | 5.5         | 7.5  | 5.5        | 7.5  | C     | 25-RF014-CL | ✓                         | ✓     | ✓     |
|                                      | 7.5         | 10   | 7.5        | 10   |       |             | ✓                         | ✓     | ✓     |
|                                      | 11          | 15   | 11         | 15   | D     | 25-RF027-DL | ✓                         | ✓     | ✓     |
|                                      | 15          | 18.5 | 11         | 15   |       |             | ✓                         | ✓     | ✓     |
|                                      | 18.5        | 22   | 15         | 20   | E     | 25-RF029-EL | ✓                         | ✓     | ✓     |
|                                      | 22          | 30   | 18.5       | 25   |       |             | ✓                         | ✓     | ✓     |

**Power Modules<sup>(1)</sup>**

| Drive Ratings<br>Input Voltage           | Normal Duty |      | Heavy Duty |      | Frame | No Filter   | Used with PowerFlex Drive |       |       | With Integral EMC Filter | Used with PowerFlex Drive |       |       |
|------------------------------------------|-------------|------|------------|------|-------|-------------|---------------------------|-------|-------|--------------------------|---------------------------|-------|-------|
|                                          | kW          | Hp   | kW         | Hp   |       | Cat No.     | PF523                     | PF525 | PF527 | Cat No.                  | PF523                     | PF525 | PF527 |
| 100...120V AC,<br>Single-phase, 50/60 Hz | 0.2         | 0.25 | 0.2        | 0.25 | A     | 25-PM1-V1P6 | ✓                         | —     | —     | —                        | ✓                         | —     | —     |
|                                          | 0.4         | 0.5  | 0.4        | 0.5  |       | 25-PM1-V2P5 | ✓                         | ✓     | ✓     |                          | ✓                         | ✓     | ✓     |
|                                          | 0.75        | 1    | 0.75       | 1    | B     | 25-PM1-V4P8 | ✓                         | ✓     | ✓     |                          | ✓                         | ✓     | ✓     |
|                                          | 1           | 1.5  | 1          | 1.5  |       | 25-PM1-V6P0 | ✓                         | ✓     | ✓     |                          | ✓                         | ✓     | ✓     |
| 200...240V AC,<br>Single-phase, 50/60 Hz | 0.2         | 0.25 | 0.2        | 0.25 | A     | 25-PM1-A1P6 | ✓                         | —     | —     | 25-PM2-A1P6              | ✓                         | —     | —     |
|                                          | 0.4         | 0.5  | 0.4        | 0.5  |       | 25-PM1-A2P5 | ✓                         | ✓     | ✓     | 25-PM2-A2P5              | ✓                         | ✓     | ✓     |
|                                          | 0.75        | 1    | 0.75       | 1    |       | 25-PM1-A4P8 | ✓                         | ✓     | ✓     | 25-PM2-A4P8              | ✓                         | ✓     | ✓     |
|                                          | 1.5         | 2    | 1.5        | 2    | B     | 25-PM1-A8P0 | ✓                         | ✓     | ✓     | 25-PM2-A8P0              | ✓                         | ✓     | ✓     |
|                                          | 2.2         | 3    | 2.2        | 3    |       | 25-PM1-A011 | ✓                         | ✓     | ✓     | 25-PM2-A011              | ✓                         | ✓     | ✓     |
|                                          |             |      |            |      |       |             |                           |       |       |                          |                           |       |       |
| 200...240V AC,<br>Three-phase, 50/60 Hz  | 0.2         | 0.25 | 0.2        | 0.25 | A     | 25-PM1-B1P6 | ✓                         | —     | —     | —                        | ✓                         | —     | —     |
|                                          | 0.4         | 0.5  | 0.4        | 0.5  |       | 25-PM1-B2P5 | ✓                         | ✓     | ✓     |                          | ✓                         | ✓     | ✓     |
|                                          | 0.75        | 1    | 0.75       | 1    |       | 25-PM1-B5P0 | ✓                         | ✓     | ✓     |                          | ✓                         | ✓     | ✓     |
|                                          | 1.5         | 2    | 1.5        | 2    |       | 25-PM1-B8P0 | ✓                         | ✓     | ✓     |                          | ✓                         | ✓     | ✓     |
|                                          | 2.2         | 3    | 2.2        | 3    |       | 25-PM1-B011 | ✓                         | ✓     | ✓     |                          | ✓                         | ✓     | ✓     |
|                                          | 3.7         | 5    | 3.7        | 5    | B     | 25-PM1-B017 | ✓                         | ✓     | ✓     |                          | ✓                         | ✓     | ✓     |
|                                          | 5.5         | 7.5  | 5.5        | 7.5  | C     | 25-PM1-B024 | ✓                         | ✓     | ✓     |                          | ✓                         | ✓     | ✓     |
|                                          | 7.5         | 10   | 7.5        | 10   | D     | 25-PM1-B032 | ✓                         | ✓     | ✓     |                          | ✓                         | ✓     | ✓     |
|                                          | 11          | 15   | 7.5        | 10   | E     | 25-PM1-B048 | ✓                         | ✓     | ✓     |                          | ✓                         | ✓     | ✓     |
|                                          | 15          | 20   | 11         | 15   |       | 25-PM1-B062 | ✓                         | ✓     | ✓     |                          | ✓                         | ✓     | ✓     |
|                                          |             |      |            |      |       |             |                           |       |       |                          |                           |       |       |
|                                          |             |      |            |      |       |             |                           |       |       |                          |                           |       |       |
| 380...480V AC,<br>Three-phase, 50/60 Hz  | 0.4         | 0.5  | 0.4        | 0.5  | A     | 25-PM1-D1P4 | ✓                         | ✓     | ✓     | 25-PM2-D1P4              | ✓                         | ✓     | ✓     |
|                                          | 0.75        | 1    | 0.75       | 1    |       | 25-PM1-D2P3 | ✓                         | ✓     | ✓     | 25-PM2-D2P3              | ✓                         | ✓     | ✓     |
|                                          | 1.5         | 2    | 1.5        | 2    |       | 25-PM1-D4P0 | ✓                         | ✓     | ✓     | 25-PM2-D4P0              | ✓                         | ✓     | ✓     |
|                                          | 2.2         | 3    | 2.2        | 3    |       | 25-PM1-D6P0 | ✓                         | ✓     | ✓     | 25-PM2-D6P0              | ✓                         | ✓     | ✓     |
|                                          | 3.7         | 5    | 3.7        | 5    | B     | 25-PM1-D010 | ✓                         | ✓     | ✓     | 25-PM2-D010              | ✓                         | ✓     | ✓     |
|                                          | 5.5         | 7.5  | 5.5        | 7.5  | C     | 25-PM1-D013 | ✓                         | ✓     | ✓     | 25-PM2-D013              | ✓                         | ✓     | ✓     |
|                                          | 7.5         | 10   | 7.5        | 10   |       | 25-PM1-D017 | ✓                         | ✓     | ✓     | 25-PM2-D017              | ✓                         | ✓     | ✓     |
|                                          | 11          | 15   | 11         | 15   | D     | 25-PM1-D024 | ✓                         | ✓     | ✓     | 25-PM2-D024              | ✓                         | ✓     | ✓     |
|                                          | 15          | 18.5 | 11         | 15   |       | 25-PM1-D030 | ✓                         | ✓     | ✓     | 25-PM2-D030              | ✓                         | ✓     | ✓     |
|                                          | 18.5        | 22   | 15         | 20   | E     | —           | ✓                         | ✓     | ✓     | 25-PM2-D037              | ✓                         | ✓     | ✓     |
|                                          | 22          | 30   | 18.5       | 25   |       |             | ✓                         | ✓     | ✓     | 25-PM2-D043              | ✓                         | ✓     | ✓     |

(1) Includes power module front cover (Frames B...E only).

(table continues on next page)

**Power Modules<sup>(1)</sup>** (continued)

| Drive Ratings<br>Input Voltage          | Normal Duty |      | Heavy Duty |     | Frame | No Filter   | Used with PowerFlex Drive |       |       | With Integral EMC Filter | Used with PowerFlex Drive |       |       |
|-----------------------------------------|-------------|------|------------|-----|-------|-------------|---------------------------|-------|-------|--------------------------|---------------------------|-------|-------|
|                                         | kW          | Hp   | kW         | Hp  |       | Cat No.     | PF523                     | PF525 | PF527 | Cat No.                  | PF523                     | PF525 | PF527 |
| 525...600V AC,<br>Three-phase, 50/60 Hz | 0.4         | 0.5  | 0.4        | 0.5 | A     | 25-PM1-E0P9 | ✓                         | ✓     | ✓     | —                        | ✓                         | ✓     | ✓     |
|                                         | 0.75        | 1    | 0.75       | 1   |       | 25-PM1-E1P7 | ✓                         | ✓     | ✓     |                          | ✓                         | ✓     | ✓     |
|                                         | 1.5         | 2    | 1.5        | 2   |       | 25-PM1-E3P0 | ✓                         | ✓     | ✓     |                          | ✓                         | ✓     | ✓     |
|                                         | 2.2         | 3    | 2.2        | 3   |       | 25-PM1-E4P2 | ✓                         | ✓     | ✓     |                          | ✓                         | ✓     | ✓     |
|                                         | 3.7         | 5    | 3.7        | 5   | B     | 25-PM1-E6P6 | ✓                         | ✓     | ✓     |                          | ✓                         | ✓     | ✓     |
|                                         | 5.5         | 7.5  | 5.5        | 7.5 | C     | 25-PM1-E9P9 | ✓                         | ✓     | ✓     |                          | ✓                         | ✓     | ✓     |
|                                         | 7.5         | 10   | 7.5        | 10  |       | 25-PM1-E012 | ✓                         | ✓     | ✓     |                          | ✓                         | ✓     | ✓     |
|                                         | 11          | 15   | 11         | 15  | D     | 25-PM1-E019 | ✓                         | ✓     | ✓     |                          | ✓                         | ✓     | ✓     |
|                                         | 15          | 18.5 | 11         | 15  |       | 25-PM1-E022 | ✓                         | ✓     | ✓     |                          | ✓                         | ✓     | ✓     |
|                                         | 18.5        | 22   | 15         | 20  | E     | 25-PM1-E027 | ✓                         | ✓     | ✓     |                          | ✓                         | ✓     | ✓     |
|                                         | 22          | 30   | 18.5       | 25  |       | 25-PM1-E032 | ✓                         | ✓     | ✓     |                          | ✓                         | ✓     | ✓     |

(1) Includes power module front cover (Frames B...E only).

**Control Module**

| Description                                                        | Frame | Cat. No. | Used with PowerFlex Drive |       |       |
|--------------------------------------------------------------------|-------|----------|---------------------------|-------|-------|
|                                                                    |       |          | PF523                     | PF525 | PF527 |
| PowerFlex 523 Control Module (includes control module front cover) | All   | 25A-CTM1 | ✓                         | —     | —     |
| PowerFlex 525 Control Module (includes control module front cover) | All   | 25B-CTM1 | —                         | ✓     | —     |
| PowerFlex 527 Control Module (includes control module front cover) | All   | 25C-CTM1 | —                         | —     | ✓     |

**Accessories**

| Description                              | Frame | Cat. No.   | Used with PowerFlex Drive |       |       |
|------------------------------------------|-------|------------|---------------------------|-------|-------|
|                                          |       |            | PF523                     | PF525 | PF527 |
| Power Module Front Cover                 | B     | 25-PMFC-FB | ✓                         | ✓     | ✓     |
|                                          | C     | 25-PMFC-FC | ✓                         | ✓     | ✓     |
|                                          | D     | 25-PMFC-FD | ✓                         | ✓     | ✓     |
|                                          | E     | 25-PMFC-FE | ✓                         | ✓     | ✓     |
| PowerFlex 523 Control Module Front Cover | All   | 25A-CTMFC1 | ✓                         | —     | —     |
| PowerFlex 525 Control Module Front Cover | All   | 25B-CTMFC1 | —                         | ✓     | —     |
| PowerFlex 527 Control Module Front Cover | All   | 25C-CTMFC1 | —                         | —     | ✓     |
| Heatsink Fan Kit                         | A     | 25-FAN1-FA | ✓                         | ✓     | ✓     |
|                                          | B     | 25-FAN1-FB | ✓                         | ✓     | ✓     |
|                                          | C     | 25-FAN1-FC | ✓                         | ✓     | ✓     |
|                                          | D     | 25-FAN1-FD | ✓                         | ✓     | ✓     |
|                                          | E     | 25-FAN1-FE | ✓                         | ✓     | ✓     |
| Power Terminal Guard                     | A     | 25-PTG1-FA | ✓                         | ✓     | ✓     |
|                                          | B     | 25-PTG1-FB | ✓                         | ✓     | ✓     |
|                                          | C     | 25-PTG1-FC | ✓                         | ✓     | ✓     |
|                                          | D     | 25-PTG1-FD | ✓                         | ✓     | ✓     |
|                                          | E     | 25-PTG1-FE | ✓                         | ✓     | ✓     |

(table continues on next page)

## Accessories (continued)

| Description                                     | Frame | Cat. No.     | Used with PowerFlex Drive |       |       |
|-------------------------------------------------|-------|--------------|---------------------------|-------|-------|
|                                                 |       |              | PF523                     | PF525 | PF527 |
| EMC Ferrite Core for Drive with Internal Filter | A     | 25-CORE-A    | ✓                         | ✓     | ✓     |
|                                                 | B     | 25-CORE-B    | ✓                         | ✓     | ✓     |
|                                                 | C     | 25-CORE-C    | ✓                         | ✓     | ✓     |
|                                                 | D     | 25-CORE-D    | ✓                         | ✓     | ✓     |
|                                                 | E     | 25-CORE-E    | ✓                         | ✓     | ✓     |
| EMC Ferrite Core for Drive with External Filter | A     | 25-CORE-RF-A | ✓                         | ✓     | ✓     |
|                                                 | B     | 25-CORE-RF-B | ✓                         | ✓     | ✓     |
|                                                 | C     | 25-CORE-RF-C | ✓                         | ✓     | ✓     |
|                                                 | D     | 25-CORE-RF-D | ✓                         | ✓     | ✓     |
|                                                 | E     | 25-CORE-RF-E | ✓                         | ✓     | ✓     |

## Terminators

| Description <sup>(1)</sup>                  | Cat. No.  | Used with PowerFlex Drive |       |       |
|---------------------------------------------|-----------|---------------------------|-------|-------|
|                                             |           | PF523                     | PF525 | PF527 |
| For use with 3.7 kW (5 Hp) and below drives | 1204-TFA1 | ✓                         | ✓     | ✓     |
| For use with 1.5 kW (2 Hp) and up drives    | 1204-TFB2 | ✓                         | ✓     | ✓     |

(1) For selection information, refer to Appendix A of the Wiring and Grounding Guidelines for Pulse Width Modulated (PWM) AC Drives, publication [DRIVES-IN001](#).

## Reflected Wave Reduction Module with Common Mode Choke

| Description <sup>(1)</sup> | Cat. No.      | Used with PowerFlex Drive |       |       |
|----------------------------|---------------|---------------------------|-------|-------|
|                            |               | PF523                     | PF525 | PF527 |
| 17A with Common Mode Choke | 1204-RWC-17-A | ✓                         | ✓     | ✓     |

(1) For selection information, refer to Appendix A of the Wiring and Grounding Guidelines for Pulse Width Modulated (PWM) AC Drives, publication [DRIVES-IN001](#).

## Reflected Wave Reduction Modules

| Drive Ratings Input Voltage       | Normal Duty |      | Heavy Duty |     | No Filter<br>Cat. No. | Used with PowerFlex Drive |       |       |
|-----------------------------------|-------------|------|------------|-----|-----------------------|---------------------------|-------|-------|
|                                   | kW          | Hp   | kW         | Hp  |                       | PF523                     | PF525 | PF527 |
| 380...480V, Three-phase, 50/60 Hz | 2.2         | 3    | 2.2        | 3   | 1321-RWR8-DP          | ✓                         | ✓     | ✓     |
|                                   | 3.7         | 5    | 3.7        | 5   | 1321-RWR12-DP         | ✓                         | ✓     | ✓     |
|                                   | 5.5         | 7.5  | 5.5        | 7.5 | 1321-RWR18-DP         | ✓                         | ✓     | ✓     |
|                                   | 7.5         | 10   | 7.5        | 10  | 1321-RWR25-DP         | ✓                         | ✓     | ✓     |
|                                   | 11          | 15   | 11         | 15  | 1321-RWR25-DP         | ✓                         | ✓     | ✓     |
|                                   | 15          | 18.5 | 11         | 15  | 1321-RWR35-DP         | ✓                         | ✓     | ✓     |
|                                   | 18.5        | 22   | 15         | 20  | 1321-RWR45-DP         | ✓                         | ✓     | ✓     |
|                                   | 22          | 30   | 18.5       | 25  | 1321-RWR55-DP         | ✓                         | ✓     | ✓     |
| 525...600V, Three-phase, 50/60 Hz | 3.7         | 5    | 3.7        | 5   | 1321-RWR8-EP          | ✓                         | ✓     | ✓     |
|                                   | 5.5         | 7.5  | 5.5        | 7.5 | 1321-RWR12-EP         | ✓                         | ✓     | ✓     |
|                                   | 7.5         | 10   | 7.5        | 10  | 1321-RWR18-EP         | ✓                         | ✓     | ✓     |
|                                   | 11          | 15   | 11         | 15  | 1321-RWR25-EP         | ✓                         | ✓     | ✓     |

## Line Reactors - 3% Impedance

| Drive Ratings                     |      |     |      | IP00 <sup>(1)</sup><br>(NEMA/UL Open Type)<br>Cat. No. | IP11 <sup>(1)</sup><br>(NEMA/UL Type 1)<br>Cat. No. |
|-----------------------------------|------|-----|------|--------------------------------------------------------|-----------------------------------------------------|
| Voltage                           | kW   | Hp  | Amps |                                                        |                                                     |
| 200...240V, 60 Hz,<br>Three-phase | 0.4  | 0.5 | 4    | 1321-3R4-B                                             | 1321-3RA4-B                                         |
|                                   | 0.75 | 1   | 8    | 1321-3R8-B                                             | 1321-3RA8-B                                         |
|                                   | 1.5  | 2   | 8    | 1321-3R8-A                                             | 1321-3RA8-A                                         |
|                                   | 2.2  | 3   | 12   | 1321-3R12-A                                            | 1321-3RA12-A                                        |
|                                   | 3.7  | 5   | 17.5 | 1321-3R18-A                                            | 1321-3RA18-A                                        |
|                                   | 5.5  | 7.5 | 24   | 1321-3R25-A                                            | 1321-3RA25-A                                        |
|                                   | 7.5  | 10  | 33   | 1321-3R35-A                                            | 1321-3RA35-A                                        |
|                                   | 11   | 15  | 49   | 1321-3R45-A                                            | 1321-3RA45-A                                        |
|                                   | 15   | 20  | 65   | 1321-3R55-A                                            | 1321-3RA55-A                                        |
| 380...480V, 60 Hz,<br>Three-phase | 0.4  | 0.5 | 2    | 1321-3R2-B                                             | 1321-3RA2-B                                         |
|                                   | 0.75 | 1   | 4    | 1321-3R4-C                                             | 1321-3RA4-C                                         |
|                                   | 1.5  | 2   | 4    | 1321-3R4-B                                             | 1321-3RA4-B                                         |
|                                   | 2.2  | 3   | 6    | 1321-3R8-C                                             | 1321-3RA8-C                                         |
|                                   | 4    | 5   | 10.5 | 1321-3R8-B                                             | 1321-3RA8-B                                         |
|                                   | 5.5  | 7.5 | 12   | 1321-3R12-B                                            | 1321-3RA12-B                                        |
|                                   | 7.5  | 10  | 17   | 1321-3R18-B                                            | 1321-3RA18-B                                        |
|                                   | 11   | 15  | 22   | 1321-3R25-B                                            | 1321-3RA25-B                                        |
|                                   | 15   | 20  | 30   | 1321-3R35-B                                            | 1321-3RA35-B                                        |
|                                   | 18.5 | 25  | 38   |                                                        |                                                     |
|                                   | 22   | 30  | 45.5 | 1321-3R45-B                                            | 1321-3RA45-B                                        |
| 500...600V, 60 Hz,<br>Three-phase | 0.75 | 1   | 2    | 1321-3R2-B                                             | 1321-3RA2-B                                         |
|                                   | 1.5  | 2   | 4    | 1321-3R4-C                                             | 1321-3RA4-C                                         |
|                                   | 2.2  | 3   | 4    | 1321-3R4-B                                             | 1321-3RA4-B                                         |
|                                   | 4    | 5   | 8    | 1321-3R8-C                                             | 1321-3RA8-C                                         |
|                                   | 5.5  | 7.5 | 12   | 1321-3R12-B                                            | 1321-3RA12-B                                        |
|                                   | 7.5  | 10  | 12   |                                                        |                                                     |
|                                   | 11   | 15  | 18   | 1321-3R18-B                                            | 1321-3RA18-B                                        |
|                                   | 15   | 20  | 25   | 1321-3R25-B                                            | 1321-3RA25-B                                        |
|                                   | 18.5 | 25  | 35   | 1321-3R35-C                                            | 1321-3RA35-C                                        |
|                                   | 22   | 30  | 35   | 1321-3R35-B                                            | 1321-3RA35-B                                        |

(1) Catalog numbers listed are for 3% impedance. 5% impedance reactor types are also available. Refer to 1321 Power Conditioning Products Technical Data, publication [1321-TD001](#).

## Dynamic Brake Resistors

| Drive Rating                              |      |      | Minimum Resistance | Resistance                   | Cat. No. <sup>(1)(2)</sup>   |
|-------------------------------------------|------|------|--------------------|------------------------------|------------------------------|
| Voltage                                   | Hp   | kW   | Ohms, ±10%         | Ohms, ±5%                    |                              |
| 100 . . . 120V, 50/60 Hz,<br>Single-phase | 0.25 | 0.2  | 56                 | 91                           | AK-R2-091P500                |
|                                           | 0.5  | 0.4  |                    |                              |                              |
|                                           | 1.0  | 0.75 |                    |                              |                              |
|                                           | 1.5  | 1.1  | 41                 |                              |                              |
| 200 . . . 240V, 50/60 Hz,<br>Single-phase | 0.25 | 0.2  | 56                 | 91                           | AK-R2-091P500                |
|                                           | 0.5  | 0.4  |                    |                              |                              |
|                                           | 1.0  | 0.75 |                    |                              |                              |
|                                           | 2.0  | 1.5  | 41                 |                              |                              |
|                                           | 3.0  | 2.2  | 32                 | 47                           | AK-R2-047P500                |
| 200 . . . 240V, 50/60 Hz,<br>Three-phase  | 0.25 | 0.2  | 56                 | 91                           | AK-R2-091P500                |
|                                           | 0.5  | 0.4  |                    |                              |                              |
|                                           | 1.0  | 0.75 |                    |                              |                              |
|                                           | 2.0  | 1.5  | 41                 |                              |                              |
|                                           | 3.0  | 2.2  | 32                 | 47                           | AK-R2-047P500                |
|                                           | 5.0  | 4.0  | 18                 |                              |                              |
|                                           | 7.5  | 5.5  | 16                 | 30                           | AK-R2-030P1K2                |
|                                           | 10.0 | 7.5  | 14                 |                              |                              |
|                                           | 15.0 | 11.0 | 15                 | AK-R2-030P1K2 <sup>(3)</sup> |                              |
|                                           | 20.0 | 15.0 |                    |                              | 10                           |
| 380 . . . 480V, 50/60 Hz,<br>Three-phase  | 0.5  | 0.4  | 89                 | 360                          | AK-R2-360P500                |
|                                           | 1.0  | 0.75 |                    |                              |                              |
|                                           | 2.0  | 1.5  |                    | 120                          | AK-R2-120P1K2                |
|                                           | 3.0  | 2.2  |                    |                              |                              |
|                                           | 5.0  | 4.0  | 47                 |                              |                              |
|                                           | 7.5  | 5.5  |                    |                              |                              |
|                                           | 10.0 | 7.5  |                    |                              |                              |
|                                           | 15.0 | 11.0 | 43                 | 60                           | AK-R2-120P1K2 <sup>(3)</sup> |
|                                           | 20.0 | 15.0 |                    |                              |                              |
|                                           | 25.0 | 18.5 | 27                 | 40                           | AK-R2-120P1K2 <sup>(4)</sup> |
|                                           | 30.0 | 22.0 |                    |                              |                              |
| 525 . . . 600V, 50/60 Hz,<br>Three-phase  | 0.5  | 0.4  | 112                | 360                          | AK-R2-360P500                |
|                                           | 1.0  | 0.75 |                    |                              |                              |
|                                           | 2.0  | 1.5  |                    | 120                          | AK-R2-120P1K2                |
|                                           | 3.0  | 2.2  |                    |                              |                              |
|                                           | 5.0  | 4.0  | 86                 |                              |                              |
|                                           | 7.5  | 5.5  |                    |                              |                              |
|                                           | 10.0 | 7.5  |                    |                              |                              |
|                                           | 15.0 | 11.0 | 60                 | AK-R2-120P1K2 <sup>(3)</sup> |                              |
|                                           | 20.0 | 15.0 |                    |                              |                              |
|                                           | 25.0 | 18.5 |                    |                              | 53                           |
|                                           | 30.0 | 22.0 | 34                 | 40                           | AK-R2-120P1K2 <sup>(4)</sup> |

(1) Resistors listed are rated 5% duty cycle.

(2) Use of Rockwell Automation resistors is recommended. The resistors listed have been carefully selected for optimizing performance in a variety of applications. Alternative resistors may be used, however, care must be taken when making a selection. Refer to the PowerFlex Dynamic Braking Resistor Calculator, publication [PFLEX-AT001](#).

(3) Requires two resistors wired in parallel.

(4) Requires three resistors wired in parallel.

# PowerFlex 70 AC Drive

**0.37...37 kW/0.5...50 Hp in voltages from 200...600V**

The PowerFlex 70 offers a compact package of power, control and operator interface, designed to meet the demands for space, simplicity and reliability. This drive provides a broad spectrum of features, allowing you to easily integrate it into your architecture and configure it for most application needs.

## PowerFlex 70 at a Glance

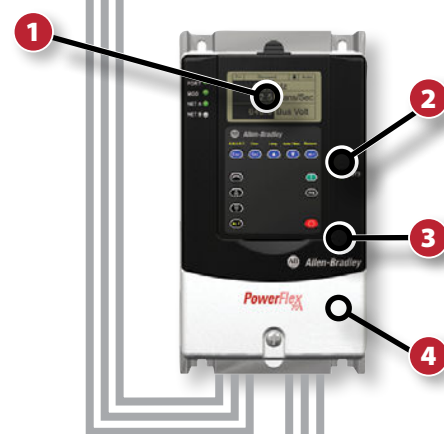
|                       |                                                                                                                                                                                                                                             |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Ratings</b>        |                                                                                                                                                                                                                                             |
| 200...240V            | 0.37...18.5 kW / 0.5...25 Hp / 2.2...70 A                                                                                                                                                                                                   |
| 380...480V            | 0.37...37 kW / 0.5...50 Hp / 1.1...72 A                                                                                                                                                                                                     |
| 500...600V            | 0.5...50 Hp / 0.9...52 A                                                                                                                                                                                                                    |
| <b>Motor Control</b>  | <ul style="list-style-type: none"> <li>V/Hz Control</li> <li>Sensorless Vector Control</li> <li>Vector Control with FORCE Technology (with and without encoder)</li> </ul>                                                                  |
| <b>Enclosures</b>     | <ul style="list-style-type: none"> <li>IP20, NEMA/UL Type 1</li> <li>Flange Mount</li> <li>IP54, NEMA/UL Type 12</li> <li>IP66, NEMA/UL Type 4X/12 for indoor use</li> </ul>                                                                |
| <b>Certifications</b> | <ul style="list-style-type: none"> <li>ABS</li> <li>cULus</li> <li>CE<sup>(1)</sup></li> <li>EAC</li> <li>KCC</li> <li>Lloyd's Register</li> <li>RCM<sup>(1)</sup></li> <li>RINA</li> <li>RoHS</li> <li>SEMI F47</li> <li>TÜV FS</li> </ul> |
| <b>Options</b>        | See pages 126...147                                                                                                                                                                                                                         |

(1) Certification testing has not been performed on 600V drives.

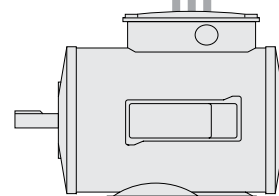
Branch circuit protection supplied separately

Isolation Transformers and Input Line Reactors are available.  
See pages 137...147.

Integral EMC Filter on Frames B...E. External Common Mode Choke is available.  
See page 135 and 1321 Power Conditioning Products Technical Data, publication 1321-TD001, for additional information.



Output Reactors, Terminators and Reflected Wave Devices are optional.  
See pages 135...147.



Safety and feedback options are available.  
See page 129.

**1** LCD Programmer shown (not supplied). See page 126 for other options.

**2** Multiple communication options for industrial networks are available. See page 127.

**3** 24V DC I/O Standard. 6 digital inputs, 2 analog inputs, 2 relay outputs, and 1 analog output. 115V interface is available. See page 129.

**4** Integral dynamic brake transistor. Internal and external resistors are available. See pages 133...134.

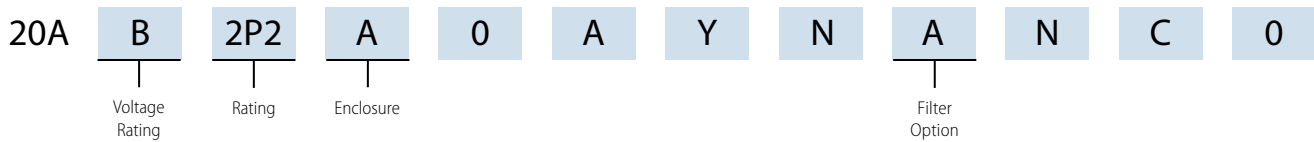
## Additional Information

PowerFlex 70 Technical Data, publication [20A-TD001](#)

PowerFlex 70 User Manual, publication [20A-UM001](#)

PowerFlex 70 Installation Instructions, publication [20A-IN009](#)

## Catalog Number Explanation



## Product Selection

Panel Mount - IP20, NEMA/UL Type 1, No HIM

### 200...240V AC, Three-phase Drives

| 240V AC Input |       |      |                |               |                  | 208V AC Input <sup>(1)</sup> |       |      |                |               |                  | With Filter | Frame Size |
|---------------|-------|------|----------------|---------------|------------------|------------------------------|-------|------|----------------|---------------|------------------|-------------|------------|
| Output Amps   |       |      | Normal Duty Hp | Heavy Duty Hp | Cat. No.         | Output Amps                  |       |      | Normal Duty kW | Heavy Duty kW | Cat. No.         |             |            |
| Cont.         | 1 min | 3 s  |                |               |                  | Cont.                        | 1 min | 3 s  |                |               |                  |             |            |
| 2.2           | 2.4   | 3.3  | 0.5            | 0.33          | 20AB2P2A0AYNNNCO | 2.5                          | 2.7   | 3.7  | 0.37           | 0.25          | 20AB2P2A0AYNNNCO | No          | A          |
|               |       |      |                |               | 20AB2P2A0AYNANCO |                              |       |      |                |               | 20AB2P2A0AYNANCO | Yes         | B          |
| 4.2           | 4.8   | 6.4  | 1              | 0.75          | 20AB4P2A0AYNNNCO | 4.8                          | 5.5   | 7.4  | 0.75           | 0.55          | 20AB4P2A0AYNNNCO | No          | A          |
|               |       |      |                |               | 20AB4P2A0AYNANCO |                              |       |      |                |               | 20AB4P2A0AYNANCO | Yes         | B          |
| 6.8           | 9     | 12   | 2              | 1.5           | 20AB6P8A0AYNNNCO | 7.8                          | 10.3  | 13.8 | 1.5            | 1.1           | 20AB6P8A0AYNNNCO | No          |            |
|               |       |      |                |               | 20AB6P8A0AYNANCO |                              |       |      |                |               | 20AB6P8A0AYNANCO | Yes         |            |
| 9.6           | 10.6  | 14.4 | 3              | 2             | 20AB9P6A0AYNNNCO | 11                           | 12.1  | 16.5 | 2.2            | 1.5           | 20AB9P6A0AYNNNCO | No          |            |
|               |       |      |                |               | 20AB9P6A0AYNANCO |                              |       |      |                |               | 20AB9P6A0AYNANCO | Yes         |            |
| 15.3          | 17.4  | 23.2 | 5              | 3             | 20AB015A0AYNANCO | 17.5                         | 19.2  | 26.2 | 4              | 3             | 20AB015A0AYNANCO |             | C          |
| 22            | 24.2  | 33   | 7.5            | 5             | 20AB022A0AYNANCO | 25.3                         | 27.8  | 37.9 | 5.5            | 4             | 20AB022A0AYNANCO |             | D          |
| 28            | 33    | 44   | 10             | 7.5           | 20AB028A0AYNANCO | 32.2                         | 37.9  | 50.6 | 7.5            | 5.5           | 20AB028A0AYNANCO |             |            |
| 42            | 46.2  | 63   | 15             | 10            | 20AB042A0AYNANCO | 43                           | 55.5  | 74   | 11             | 7.5           | 20AB042A0AYNANCO |             |            |
| 54            | 63    | 84   | 20             | 15            | 20AB054A0AYNANCO | 62.1                         | 72.4  | 96.6 | 15             | 11            | 20AB054A0AYNANCO |             | E          |
| 70            | 81    | 108  | 25             | 20            | 20AB070A0AYNANCO | 78.2                         | 93.1  | 124  | 18.5           | 15            | 20AB070A0AYNANCO |             |            |

(1) Drive must be programmed to lower voltage to obtain the currents shown.

## Panel Mount - IP20, NEMA/UL Type 1, No HIM (continued)

## 380...480V AC, Three-phase Drives

| 480V AC Input |       |      |                |               |                  | 400V AC Input |       |      |                |               |                  | With Filter | Frame Size |
|---------------|-------|------|----------------|---------------|------------------|---------------|-------|------|----------------|---------------|------------------|-------------|------------|
| Output Amps   |       |      | Normal Duty Hp | Heavy Duty Hp | Cat. No.         | Output Amps   |       |      | Normal Duty kW | Heavy Duty kW | Cat. No.         |             |            |
| Cont.         | 1 min | 3 s  |                |               |                  | Cont.         | 1 min | 3 s  |                |               |                  |             |            |
| 1.1           | 1.2   | 1.6  | 0.5            | 0.33          | 20AD1P1A0AYNNNCO | 1.3           | 1.4   | 1.9  | 0.37           | 0.25          | 20AC1P3A0AYNNNCO | No          | A          |
|               |       |      |                |               | 20AD1P1A0AYNANCO |               |       |      |                |               | 20AC1P3A0AYNANCO | Yes         | B          |
| 2.1           | 2.4   | 3.2  | 1              | 0.75          | 20AD2P1A0AYNNNCO | 2.1           | 2.4   | 3.2  | 0.75           | 0.55          | 20AC2P1A0AYNNNCO | No          | A          |
|               |       |      |                |               | 20AD2P1A0AYNANCO |               |       |      |                |               | 20AC2P1A0AYNANCO | Yes         | B          |
| 3.4           | 4.5   | 6    | 2              | 1.5           | 20AD3P4A0AYNNNCO | 3.5           | 4.5   | 6    | 1.5            | 1.1           | 20AC3P5A0AYNNNCO | No          | A          |
|               |       |      |                |               | 20AD3P4A0AYNANCO |               |       |      |                |               | 20AC3P5A0AYNANCO | Yes         | B          |
| 5             | 5.5   | 7.5  | 3              | 2             | 20AD5P0A0AYNNNCO | 5             | 5.5   | 7.5  | 2.2            | 1.5           | 20AC5P0A0AYNNNCO | No          | B          |
|               |       |      |                |               | 20AD5P0A0AYNANCO |               |       |      |                |               | 20AC5P0A0AYNANCO | Yes         |            |
| 8             | 8.8   | 12   | 5              | 3             | 20AD8P0A0AYNNNCO | 8.7           | 9.9   | 13.2 | 4              | 3             | 20AC8P7A0AYNNNCO | No          | B          |
|               |       |      |                |               | 20AD8P0A0AYNANCO |               |       |      |                |               | 20AC8P7A0AYNANCO | Yes         |            |
| 11            | 12.1  | 16.5 | 7.5            | 5             | 20AD011A0AYNANCO | 11.5          | 13    | 17.4 | 5.5            | 4             | 20AC011A0AYNANCO |             | C          |
| 14            | 16.5  | 22   | 10             | 7.5           | 20AD014A0AYNANCO | 15            | 17.2  | 23.1 | 7.5            | 5.5           | 20AC015A0AYNANCO |             | C          |
| 22            | 24.2  | 33   | 15             | 10            | 20AD022A0AYNANCO | 22            | 24.2  | 33   | 11             | 7.5           | 20AC022A0AYNANCO |             | D          |
| 27            | 33    | 44   | 20             | 15            | 20AD027A0AYNANCO | 30            | 33    | 45   | 15             | 11            | 20AC030A0AYNANCO |             | D          |
| 34            | 40.5  | 54   | 25             | 20            | 20AD034A0AYNANCO | 37            | 45    | 60   | 18.5           | 15            | 20AC037A0AYNANCO |             | D          |
| 40            | 51    | 68   | 30             | 25            | 20AD040A0AYNANCO | 43            | 56    | 74   | 22             | 18.5          | 20AC043A0AYNANCO |             | D          |
| 52            | 60    | 80   | 40             | 30            | 20AD052A0AYNANCO | 60            | 66    | 90   | 30             | 22            | 20AC060A0AYNANCO |             | E          |
| 65            | 78    | 104  | 50             | 40            | 20AD065A0AYNANCO | 72            | 90    | 120  | 37             | 30            | 20AC072A0AYNANCO |             | E          |

## 500...600V AC, Three-phase Drives

| 600V AC Input |       |      |                |               |                  |             |            |
|---------------|-------|------|----------------|---------------|------------------|-------------|------------|
| Output Amps   |       |      | Normal Duty Hp | Heavy Duty Hp | Cat. No.         | With Filter | Frame Size |
| Cont.         | 1 min | 3 s  |                |               |                  |             |            |
| 0.9           | 1     | 1.4  | 0.5            | 0.33          | 20AE0P9A0AYNNNCO | No          | A          |
| 1.7           | 1.9   | 2.6  | 1              | 0.75          | 20AE1P7A0AYNNNCO |             |            |
| 2.7           | 3.6   | 4.8  | 2              | 1             | 20AE2P7A0AYNNNCO |             |            |
| 3.9           | 4.3   | 5.8  | 3              | 1.5           | 20AE3P9A0AYNNNCO |             | B          |
| 6.1           | 6.7   | 9.1  | 5              | 3             | 20AE6P1A0AYNNNCO |             |            |
| 9             | 9.9   | 13.5 | 7.5            | 5             | 20AE9P0A0AYNNNCO |             | C          |
| 11            | 13.5  | 18   | 10             | 7.5           | 20AE011A0AYNNNCO |             |            |
| 17            | 18.7  | 25.5 | 15             | 10            | 20AE017A0AYNNNCO |             | D          |
| 22            | 25.5  | 34   | 20             | 15            | 20AE022A0AYNNNCO |             |            |
| 27            | 33    | 44   | 25             | 20            | 20AE027A0AYNNNCO |             |            |
| 32            | 40.5  | 54   | 30             | 25            | 20AE032A0AYNNNCO |             |            |
| 41            | 48    | 64   | 40             | 30            | 20AE041A0AYNANCO |             | E          |
| 52            | 61.5  | 82   | 50             | 40            | 20AE052A0AYNANCO |             |            |

## Wall/Machine Mount - IP66, NEMA/UL Type 4X/12 for Indoor Use with HIM

## 200...240V AC, Three-phase Drives

| 240V AC Input |       |      |                |               |                  | 208V AC Input <sup>(1)</sup> |       |      |                |               |                  | With Filter | Frame Size |
|---------------|-------|------|----------------|---------------|------------------|------------------------------|-------|------|----------------|---------------|------------------|-------------|------------|
| Output Amps   |       |      | Normal Duty Hp | Heavy Duty Hp | Cat. No.         | Output Amps                  |       |      | Normal Duty kW | Heavy Duty kW | Cat. No.         |             |            |
| Cont.         | 1 min | 3 s  |                |               |                  | Cont.                        | 1 min | 3 s  |                |               |                  |             |            |
| 2.2           | 2.4   | 3.3  | 0.5            | 0.33          | 20AB2P2C3AYNNNCO | 2.5                          | 2.7   | 3.7  | 0.37           | 0.25          | 20AB2P2C3AYNNNCO | No          | B          |
|               |       |      |                |               | 20AB2P2C3AYNANCO |                              |       |      |                |               | 20AB2P2C3AYNANCO | Yes         |            |
| 4.2           | 4.8   | 6.4  | 1              | 0.75          | 20AB4P2C3AYNNNCO | 4.8                          | 5.5   | 7.4  | 0.75           | 0.55          | 20AB4P2C3AYNNNCO | No          |            |
|               |       |      |                |               | 20AB4P2C3AYNANCO |                              |       |      |                |               | 20AB4P2C3AYNANCO | Yes         |            |
| 6.8           | 9     | 12   | 2              | 1.5           | 20AB6P8C3AYNNNCO | 7.8                          | 10.3  | 13.8 | 1.5            | 1.1           | 20AB6P8C3AYNNNCO | No          |            |
|               |       |      |                |               | 20AB6P8C3AYNANCO |                              |       |      |                |               | 20AB6P8C3AYNANCO | Yes         |            |
| 9.6           | 10.6  | 14.4 | 3              | 2             | 20AB9P6C3AYNNNCO | 11                           | 12.1  | 16.5 | 2.2            | 1.5           | 20AB9P6C3AYNNNCO | No          |            |
|               |       |      |                |               | 20AB9P6C3AYNANCO |                              |       |      |                |               | 20AB9P6C3AYNANCO | Yes         |            |
| 15.3          | 17.4  | 23.2 | 5              | 3             | 20AB015C3AYNANCO | 17.5                         | 19.2  | 26.2 | 4              | 3             | 20AB015C3AYNANCO |             | D          |
| 22            | 24.2  | 33   | 7.5            | 5             | 20AB022C3AYNANCO | 25.3                         | 27.8  | 37.9 | 5.5            | 4             | 20AB022C3AYNANCO |             |            |
| 28            | 33    | 44   | 10             | 7.5           | 20AB028C3AYNANCO | 32.2                         | 37.9  | 50.6 | 7.5            | 5.5           | 20AB028C3AYNANCO |             |            |
| 42            | 46.2  | 63   | 15             | 10            | 20AB042C3AYNANCO | 43                           | 55.5  | 74   | 11             | 7.5           | 20AB042C3AYNANCO |             |            |
| 54            | 63    | 84   | 20             | 15            | 20AB054C3AYNANCO | 62.1                         | 72.4  | 96.6 | 15             | 11            | 20AB054C3AYNANCO |             | E          |
| 70            | 81    | 108  | 25             | 20            | 20AB070C3AYNANCO | 78.2                         | 93.1  | 124  | 18.5           | 15            | 20AB070C3AYNANCO |             |            |

(1) Drive must be programmed to lower voltage to obtain the currents shown.

## 380...480V AC, Three-Phase Drives

| 480V AC Input |       |      |                |               |                  | 400V AC Input |        |        |                |               |                  | With Filter | Frame Size |
|---------------|-------|------|----------------|---------------|------------------|---------------|--------|--------|----------------|---------------|------------------|-------------|------------|
| Output Amps   |       |      | Normal Duty Hp | Heavy Duty Hp | Cat. No.         | Output Amps   |        |        | Normal Duty kW | Heavy Duty kW | Cat. No.         |             |            |
| Cont.         | 1 min | 3 s  |                |               |                  | Cont.         | 1 Min. | 3 Sec. |                |               |                  |             |            |
| 1.1           | 1.2   | 1.6  | 0.5            | 0.33          | 20AD1P1C3AYNNNCO | 1.3           | 1.4    | 1.9    | 0.37           | 0.25          | 20AC1P3C3AYNNNCO | No          | B          |
|               |       |      |                |               | 20AD1P1C3AYNANCO |               |        |        |                |               | 20AC1P3C3AYNANCO | Yes         |            |
| 2.1           | 2.4   | 3.2  | 1              | 0.75          | 20AD2P1C3AYNNNCO | 2.1           | 2.4    | 3.2    | 0.75           | 0.55          | 20AC2P1C3AYNNNCO | No          |            |
|               |       |      |                |               | 20AD2P1C3AYNANCO |               |        |        |                |               | 20AC2P1C3AYNANCO | Yes         |            |
| 3.4           | 4.5   | 6    | 2              | 1.5           | 20AD3P4C3AYNNNCO | 3.5           | 4.5    | 6      | 1.5            | 1.1           | 20AC3P5C3AYNNNCO | No          |            |
|               |       |      |                |               | 20AD3P4C3AYNANCO |               |        |        |                |               | 20AC3P5C3AYNANCO | Yes         |            |
| 5             | 5.5   | 7.5  | 3              | 2             | 20AD5P0C3AYNNNCO | 5             | 5.5    | 7.5    | 2.2            | 1.5           | 20AC5P0C3AYNNNCO | No          |            |
|               |       |      |                |               | 20AD5P0C3AYNANCO |               |        |        |                |               | 20AC5P0C3AYNANCO | Yes         |            |
| 8             | 8.8   | 12   | 5              | 3             | 20AD8P0C3AYNNNCO | 8.7           | 9.9    | 13.2   | 4              | 3             | 20AC8P7C3AYNNNCO | No          |            |
|               |       |      |                |               | 20AD8P0C3AYNANCO |               |        |        |                |               | 20AC8P7C3AYNANCO | Yes         |            |
| 11            | 12.1  | 16.5 | 7.5            | 5             | 20AD011C3AYNANCO | 11.5          | 13     | 17.4   | 5.5            | 4             | 20AC011C3AYNANCO |             | D          |
| 14            | 16.5  | 22   | 10             | 7.5           | 20AD014C3AYNANCO | 15            | 17.2   | 23.1   | 7.5            | 5.5           | 20AC015C3AYNANCO |             |            |
| 22            | 24.2  | 33   | 15             | 10            | 20AD022C3AYNANCO | 22            | 24.2   | 33     | 11             | 7.5           | 20AC022C3AYNANCO |             |            |
| 27            | 33    | 44   | 20             | 15            | 20AD027C3AYNANCO | 30            | 33     | 45     | 15             | 11            | 20AC030C3AYNANCO |             |            |
| 34            | 40.5  | 54   | 25             | 20            | 20AD034C3AYNANCO | 37            | 45     | 60     | 18.5           | 15            | 20AC037C3AYNANCO |             |            |
| 40            | 51    | 68   | 30             | 25            | 20AD040C3AYNANCO | 43            | 56     | 74     | 22             | 18.5          | 20AC043C3AYNANCO |             |            |
| 52            | 60    | 80   | 40             | 30            | 20AD052C3AYNANCO | 60            | 66     | 90     | 30             | 22            | 20AC060C3AYNANCO |             | E          |
| 65            | 78    | 104  | 50             | 40            | 20AD065C3AYNANCO | 72            | 90     | 120    | 37             | 30            | 20AC072C3AYNANCO |             |            |

## Wall / Machine Mount - IP66, NEMA/UL Type 4X/12 for Indoor Use with HIM (continued)

## 500...600V AC, Three-phase Drives

| 600V AC Input |       |      |                   |                  |                  | With<br>Filter | Frame<br>Size |
|---------------|-------|------|-------------------|------------------|------------------|----------------|---------------|
| Output Amps   |       |      | Normal<br>Duty Hp | Heavy<br>Duty Hp | Cat. No.         |                |               |
| Cont.         | 1 min | 3 s  |                   |                  |                  |                |               |
| 0.9           | 1     | 1.4  | 0.5               | 0.33             | 20AE0P9C3AYNNNCO | No             | B             |
| 1.7           | 1.9   | 2.6  | 1                 | 0.75             | 20AE1P7C3AYNNNCO |                |               |
| 2.7           | 3.6   | 4.8  | 2                 | 1                | 20AE2P7C3AYNNNCO |                |               |
| 3.9           | 4.3   | 5.8  | 3                 | 1.5              | 20AE3P9C3AYNNNCO |                |               |
| 6.1           | 6.7   | 9.1  | 5                 | 3                | 20AE6P1C3AYNNNCO |                |               |
| 9             | 9.9   | 13.5 | 7.5               | 5                | 20AE9P0C3AYNNNCO |                |               |
| 11            | 13.5  | 18   | 10                | 7.5              | 20AE011C3AYNNNCO |                |               |
| 17            | 18.7  | 25.5 | 15                | 10               | 20AE017C3AYNNNCO |                |               |
| 22            | 25.5  | 34   | 20                | 15               | 20AE022C3AYNNNCO |                |               |
| 27            | 33    | 44   | 25                | 20               | 20AE027C3AYNNNCO |                |               |
| 32            | 40.5  | 54   | 30                | 25               | 20AE032C3AYNNNCO | D              | E             |
| 41            | 48    | 64   | 40                | 30               | 20AE041C3AYNANCO |                |               |
| 52            | 61.5  | 82   | 50                | 40               | 20AE052C3AYNANCO |                |               |

## Wall/Machine Mount - IP54, NEMA/UL Type 12, with HIM

## 200...240V AC, Three-phase Drives

| 240V AC Input |       |     |                |               | 208V AC Input <sup>(1)</sup> |       |      |                |               | Cat. No.         | With Filter | Frame Size |
|---------------|-------|-----|----------------|---------------|------------------------------|-------|------|----------------|---------------|------------------|-------------|------------|
| Output Amps   |       |     | Normal Duty Hp | Heavy Duty Hp | Output Amps                  |       |      | Normal Duty kW | Heavy Duty kW |                  |             |            |
| Cont.         | 1 min | 3 s |                |               | Cont.                        | 1 min | 3 s  |                |               |                  |             |            |
| 54            | 63    | 84  | 20             | 15            | 62.1                         | 72.4  | 96.6 | 15             | 11            | 20AB054G3AYNANCO | Yes         | E          |
| 70            | 81    | 108 | 25             | 20            | 78.2                         | 93.1  | 124  | 18.5           | 15            | 20AB070G3AYNANCO |             |            |

(1) Drive must be programmed to lower voltage to obtain the currents shown.

## 380...480V AC, Three-phase Drives

| 480V AC Input |       |     |                |               |                  | 400V AC Input |       |     |                |               |                  | With Filter | Frame Size |
|---------------|-------|-----|----------------|---------------|------------------|---------------|-------|-----|----------------|---------------|------------------|-------------|------------|
| Output Amps   |       |     | Normal Duty Hp | Heavy Duty Hp | Cat. No.         | Output Amps   |       |     | Normal Duty kW | Heavy Duty kW | Cat. No.         |             |            |
| Cont.         | 1 min | 3 s |                |               |                  | Cont.         | 1 min | 3 s |                |               |                  |             |            |
| 52            | 60    | 80  | 40             | 30            | 20AD052G3AYNANCO | 60            | 66    | 90  | 30             | 22            | 20AC060G3AYNANCO | Yes         | E          |
| 65            | 78    | 104 | 50             | 40            | 20AD065G3AYNANCO | 72            | 90    | 120 | 37             | 30            | 20AC072G3AYNANCO |             |            |

## 500...600V AC, Three-phase Drives

| 600V AC Input |       |     |                |               |                  | With Filter | Frame Size |
|---------------|-------|-----|----------------|---------------|------------------|-------------|------------|
| Output Amps   |       |     | Normal Duty Hp | Heavy Duty Hp | Cat. No.         |             |            |
| Cont.         | 1 min | 3 s |                |               |                  |             |            |
| 41            | 48    | 64  | 40             | 30            | 20AE041G3AYNANCO | Yes         | E          |
| 52            | 61.5  | 82  | 50             | 40            | 20AE052G3AYNANCO |             |            |

## Flange Mount

Front Chassis = IP20, NEMA/UL Type 1, Heatsink = IP66, NEMA/UL Type 4X/12, No HIM

## 200...240V AC, Three-phase Drives

| 240V AC Input |       |      |                |               |                  | 208V AC Input <sup>(1)</sup> |       |      |                |               |                  | With Filter | Frame Size |
|---------------|-------|------|----------------|---------------|------------------|------------------------------|-------|------|----------------|---------------|------------------|-------------|------------|
| Output Amps   |       |      | Normal Duty Hp | Heavy Duty Hp | Cat. No.         | Output Amps                  |       |      | Normal Duty kW | Heavy Duty kW | Cat. No.         |             |            |
| Cont.         | 1 min | 3 s  |                |               |                  | Cont.                        | 1 min | 3 s  |                |               |                  |             |            |
| 2.2           | 2.4   | 3.3  | 0.5            | 0.33          | 20AB2P2FOAYNNNCO | 2.5                          | 2.7   | 3.7  | 0.37           | 0.25          | 20AB2P2FOAYNNNCO | No          | A          |
|               |       |      |                |               | 20AB2P2FOAYNANCO |                              |       |      |                |               | 20AB2P2FOAYNANCO | Yes         | B          |
| 4.2           | 4.8   | 6.4  | 1              | 0.75          | 20AB4P2FOAYNNNCO | 4.8                          | 5.5   | 7.4  | 0.75           | 0.55          | 20AB4P2FOAYNNNCO | No          | A          |
|               |       |      |                |               | 20AB4P2FOAYNANCO |                              |       |      |                |               | 20AB4P2FOAYNANCO | Yes         | B          |
| 6.8           | 9     | 12   | 2              | 1.5           | 20AB6P8FOAYNNNCO | 7.8                          | 10.3  | 13.8 | 1.5            | 1.1           | 20AB6P8FOAYNNNCO | No          |            |
|               |       |      |                |               | 20AB6P8FOAYNANCO |                              |       |      |                |               | 20AB6P8FOAYNANCO | Yes         |            |
| 9.6           | 10.6  | 14.4 | 3              | 2             | 20AB9P6FOAYNNNCO | 11                           | 12.1  | 16.5 | 2.2            | 1.5           | 20AB9P6FOAYNNNCO | No          |            |
|               |       |      |                |               | 20AB9P6FOAYNANCO |                              |       |      |                |               | 20AB9P6FOAYNANCO | Yes         |            |
| 15.3          | 17.4  | 23.2 | 5              | 3             | 20AB015FOAYNANCO | 17.5                         | 19.2  | 26.2 | 4              | 3             | 20AB015FOAYNANCO |             | C          |
| 22            | 24.2  | 33   | 7.5            | 5             | 20AB022FOAYNANCO | 25.3                         | 27.8  | 37.9 | 5.5            | 4             | 20AB022FOAYNANCO |             | D          |
| 28            | 33    | 44   | 10             | 7.5           | 20AB028FOAYNANCO | 32.2                         | 37.9  | 50.6 | 7.5            | 5.5           | 20AB028FOAYNANCO |             |            |
| 42            | 46.2  | 63   | 15             | 10            | 20AB042FOAYNANCO | 43                           | 55.5  | 74   | 11             | 7.5           | 20AB042FOAYNANCO |             |            |
| 54            | 63    | 84   | 20             | 15            | 20AB054FOAYNANCO | 62.1                         | 72.4  | 96.6 | 15             | 11            | 20AB054FOAYNANCO |             | E          |
| 70            | 81    | 108  | 25             | 20            | 20AB070FOAYNANCO | 78.2                         | 93.1  | 124  | 18.5           | 15            | 20AB070FOAYNANCO |             |            |

(1) Drive must be programmed to lower voltage to obtain the currents shown.

## 380...480V AC, Three-phase Drives

| 480V AC Input |       |      |                |               |                  | 400V AC Input |       |      |                |               |                  | With Filter | Frame Size |
|---------------|-------|------|----------------|---------------|------------------|---------------|-------|------|----------------|---------------|------------------|-------------|------------|
| Output Amps   |       |      | Normal Duty Hp | Heavy Duty Hp | Cat. No.         | Output Amps   |       |      | Normal Duty kW | Heavy Duty kW | Cat. No.         |             |            |
| Cont.         | 1 min | 3 s  |                |               |                  | Cont.         | 1 min | 3 s  |                |               |                  |             |            |
| 1.1           | 1.2   | 1.6  | 0.5            | 0.33          | 20AD1P1FOAYNNNCO | 1.3           | 1.4   | 1.9  | 0.37           | 0.25          | 20AC1P3FOAYNNNCO | No          | A          |
|               |       |      |                |               | 20AD1P1FOAYNANCO |               |       |      |                |               | 20AC1P3FOAYNANCO | Yes         | B          |
| 2.1           | 2.4   | 3.2  | 1              | 0.75          | 20AD2P1FOAYNNNCO | 2.1           | 2.4   | 3.2  | 0.75           | 0.55          | 20AC2P1FOAYNNNCO | No          | A          |
|               |       |      |                |               | 20AD2P1FOAYNANCO |               |       |      |                |               | 20AC2P1FOAYNANCO | Yes         | B          |
| 3.4           | 4.5   | 6    | 2              | 1.5           | 20AD3P4FOAYNNNCO | 3.5           | 4.5   | 6    | 1.5            | 1.1           | 20AC3P5FOAYNNNCO | No          | A          |
|               |       |      |                |               | 20AD3P4FOAYNANCO |               |       |      |                |               | 20AC3P5FOAYNANCO | Yes         | B          |
| 5             | 5.5   | 7.5  | 3              | 2             | 20AD5P0FOAYNNNCO | 5             | 5.5   | 7.5  | 2.2            | 1.5           | 20AC5P0FOAYNNNCO | No          |            |
|               |       |      |                |               | 20AD5P0FOAYNANCO |               |       |      |                |               | 20AC5P0FOAYNANCO | Yes         |            |
| 8             | 8.8   | 12   | 5              | 3             | 20AD8P0FOAYNNNCO | 8.7           | 9.9   | 13.2 | 4              | 3             | 20AC8P7FOAYNNNCO | No          |            |
|               |       |      |                |               | 20AD8P0FOAYNANCO |               |       |      |                |               | 20AC8P7FOAYNANCO | Yes         |            |
| 11            | 12.1  | 16.5 | 7.5            | 5             | 20AD011FOAYNANCO | 11.5          | 13    | 17.4 | 5.5            | 4             | 20AC011FOAYNANCO |             | C          |
| 14            | 16.5  | 22   | 10             | 7.5           | 20AD014FOAYNANCO | 15            | 17.2  | 23.1 | 7.5            | 5.5           | 20AC015FOAYNANCO |             |            |
| 22            | 24.2  | 33   | 15             | 10            | 20AD022FOAYNANCO | 22            | 24.2  | 33   | 11             | 7.5           | 20AC022FOAYNANCO |             | D          |
| 27            | 33    | 44   | 20             | 15            | 20AD027FOAYNANCO | 30            | 33    | 45   | 15             | 11            | 20AC030FOAYNANCO |             |            |
| 34            | 40.5  | 54   | 25             | 20            | 20AD034FOAYNANCO | 37            | 45    | 60   | 18.5           | 15            | 20AC037FOAYNANCO |             |            |
| 40            | 51    | 68   | 30             | 25            | 20AD040FOAYNANCO | 43            | 56    | 74   | 22             | 18.5          | 20AC043FOAYNANCO |             |            |
| 52            | 60    | 80   | 40             | 30            | 20AD052FOAYNANCO | 60            | 66    | 90   | 30             | 22            | 20AC060FOAYNANCO |             | E          |
| 65            | 78    | 104  | 50             | 40            | 20AD065FOAYNANCO | 72            | 90    | 120  | 37             | 30            | 20AC072FOAYNANCO |             |            |

## Flange Mount

Front Chassis = IP20, NEMA/UL Type 1, Heatsink = IP66, NEMA/UL Type 4X/12, No HIM (continued)

### 500...600V AC, Three-phase Drives

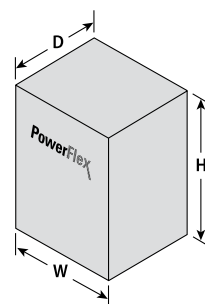
| 600V AC Input |       |      |                |               |                  | With Filter | Frame Size |
|---------------|-------|------|----------------|---------------|------------------|-------------|------------|
| Output Amps   |       |      | Normal Duty Hp | Heavy Duty Hp | Cat. No.         |             |            |
| Cont.         | 1 min | 3 s  |                |               |                  |             |            |
| 0.9           | 1     | 1.4  | 0.5            | 0.33          | 20AE0P9F0AYNNNCO | No          | A          |
| 1.7           | 1.9   | 2.6  | 1              | 0.75          | 20AE1P7F0AYNNNCO |             |            |
| 2.7           | 3.6   | 4.8  | 2              | 1             | 20AE2P7F0AYNNNCO |             |            |
| 3.9           | 4.3   | 5.8  | 3              | 1.5           | 20AE3P9F0AYNNNCO |             | B          |
| 6.1           | 6.7   | 9.1  | 5              | 3             | 20AE6P1F0AYNNNCO |             |            |
| 9             | 9.9   | 13.5 | 7.5            | 5             | 20AE9P0F0AYNNNCO |             | C          |
| 11            | 13.5  | 18   | 10             | 7.5           | 20AE011F0AYNNNCO |             |            |
| 17            | 18.7  | 25.5 | 15             | 10            | 20AE017F0AYNNNCO |             | D          |
| 22            | 25.5  | 34   | 20             | 15            | 20AE022F0AYNNNCO |             |            |
| 27            | 33    | 44   | 25             | 20            | 20AE027F0AYNNNCO |             |            |
| 32            | 40.5  | 54   | 30             | 25            | 20AE032F0AYNNNCO |             |            |
| 41            | 48    | 64   | 40             | 30            | 20AE041F0AYNANCO |             |            |
| 52            | 61.5  | 82   | 50             | 40            | 20AE052F0AYNANCO |             |            |

## Approximate Dimensions and Weights

Dimensions are in mm (in.) - weights are in kg (lb)

### IP20, NEMA/UL Type 1

| Frame | H             | W             | D            | Weight <sup>(1)</sup> |
|-------|---------------|---------------|--------------|-----------------------|
| A     | 225.7 (8.89)  | 122.4 (4.82)  | 179.8 (7.08) | 2.71 (6)              |
| B     | 234.6 (9.24)  | 171.7 (6.76)  |              | 3.6 (7.9)             |
| C     | 300 (11.81)   | 185 (7.28)    |              | 6.89 (15.2)           |
| D     | 350 (13.78)   | 219.9 (8.66)  |              | 9.25 (20.4)           |
| E     | 555.8 (21.88) | 280.3 (11.04) | 207.1 (8.15) | 18.6 (41)             |



(1) Weights include HIM and I/O.

### IP66, NEMA/UL Type 4X/12 for Indoor Use

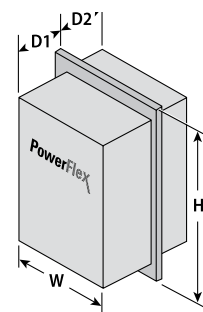
| Frame | H             | W             | D            | Weight <sup>(1)</sup> |
|-------|---------------|---------------|--------------|-----------------------|
| B     | 239.8 (9.44)  | 171.7 (6.76)  | 203.3 (8)    | 3.61 (8)              |
| D     | 350 (13.78)   | 219.9 (8.66)  | 210.7 (8.29) | 9.13 (20.1)           |
| E     | 555.8 (21.88) | 280.3 (11.04) | 219.8 (8.65) | 18.6 (41)             |

(1) Weights include HIM and I/O.

### Flange Mount

| Frame | H             | W             | D1           | D2          | Weight <sup>(1)</sup> |
|-------|---------------|---------------|--------------|-------------|-----------------------|
| A     | 225.8 (8.89)  | 156 (6.14)    | 123 (4.84)   | 55.6 (2.19) | 2.71 (6)              |
| B     | 234.6 (9.24)  | 205.2 (8.08)  |              |             | 3.6 (7.9)             |
| C     | 300 (11.81)   | 219 (8.62)    |              |             | 6.89 (15.2)           |
| D     | 350 (13.78)   | 248.4 (9.78)  | 123 (4.84)   | 89.9 (3.54) | 9.25 (20.4)           |
| E     | 555.8 (21.88) | 280.3 (11.04) | 117.2 (4.61) |             | 18.6 (41)             |

(1) Weights include HIM and I/O.



# PowerFlex Architecture-class Drives

The PowerFlex family of drives has been designed to meet a wide variety of applications.

## PowerFlex 700 AC Drive



The PowerFlex 700 drive covers a wide range of horsepower ratings and is designed to control three-phase induction motors in applications with requirements ranging from the simplest speed control to the most demanding torque control.

| PowerFlex 700 AC Drive at a Glance |                                                       |                           |                                                                 |
|------------------------------------|-------------------------------------------------------|---------------------------|-----------------------------------------------------------------|
| Ratings                            | 200...240V: 0.37...66 kW / 0.5...100 Hp / 2.2...260 A |                           | 380...480V: 0.37...500 kW / 0.5...700 Hp / 1.1...875 A          |
|                                    | 500...600V: 1...150 Hp / 1.7...144 A                  |                           | 690V: 45...132 kW / 52...142 A                                  |
| Motor Control                      | V/Hz Control                                          | Sensorless Vector Control | Vector Control with FORCE Technology (with and without encoder) |
| Enclosures                         | IP00, NEMA / UL Type Open                             | IP20, NEMA / UL Type 1    | IP54, NEMA 12      Flange Mount                                 |

## PowerFlex 700S AC Drive



The PowerFlex 700S offers optimized integration for the most demanding stand-alone and coordinated drive control and drive system applications. The DriveLogix option combines the powerful performance and flexible control of PowerFlex AC drives with a high-performance Logix engine to produce a highly functional, cost effective drive and control solution.

| PowerFlex 700S AC Drive at a Glance |                                                     |                                                                 |                                                        |
|-------------------------------------|-----------------------------------------------------|-----------------------------------------------------------------|--------------------------------------------------------|
| Ratings                             | 200...240V: 0.75...66 kW / 1...100 Hp / 4.2...260 A |                                                                 | 380...480V: 0.75...800 kW / 1...1250 Hp / 2.1...1450 A |
|                                     | 500...600V: 1...1600 Hp / 1.7...1500 A              |                                                                 | 690V: 50...1500 kW / 52...1500 A                       |
| Motor Control                       | V/Hz Control                                        | Vector Control with FORCE Technology (with and without encoder) | Permanent Magnet Motor Control                         |
| Enclosures                          | IP20, NEMA / UL Type1                               | IP21, NEMA / UL Type 1                                          |                                                        |

## PowerFlex 700L AC Drive



The PowerFlex 700L is available with the PowerFlex 700 or PowerFlex 700S control in a fully regenerative, liquid-cooled power structure that offers great performance and high power. This liquid-cooled drive features regenerative braking, high-response speed and position control, continuous holdback, rapid deceleration, and stopping of high inertia loads.

| PowerFlex 700L AC Drive at a Glance |                                                         |                                        |
|-------------------------------------|---------------------------------------------------------|----------------------------------------|
| Ratings                             | 380...480V: 200...860 kW / 268...1150 Hp / 360...1250 A |                                        |
|                                     | 500...600V: 345...650 kW / 465...870 Hp / 4.25...800 A  |                                        |
| Motor Control                       | Select PowerFlex 700 or PowerFlex 700S Control          |                                        |
| Enclosures                          | IP00, NEMA / UL Type Open (Frame 2)                     | IP20, NEMA / UL Type 1 (Frames 3A, 3B) |

For additional product selection information, please visit <http://ab.rockwellautomation.com/Drives/Low-Voltage-AC-Drives>.

# PowerFlex 753 AC Drive

**0.37...270 kW/0.5...400 Hp in voltages from 200...690V**

Designed for general purpose applications, the PowerFlex 753 AC drive offers multiple options and features along with the added benefit of simple integration. The PowerFlex 753 comes standard with built-in I/O, making it a cost effective solution ideal for OEMs and system integrators looking to reduce engineering costs, deliver machines to market faster and meet end-user demand for more productive and safer machines.

## PowerFlex 753 at a Glance

|                            |                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                               |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Ratings</b>             | 200...240V 0.37...132 kW/0.5...200 Hp / 2.2...477 A<br>380...480V 0.75...270 kW / 1.0...400 Hp / 2.1...477 A<br>575...600V 1.0...300 Hp / 1...289 A<br>690V 7.5...250 kW / 12...263 A                                                              |                                                                                                                                                                                                                                                               |
| <b>Motor Control</b>       | <ul style="list-style-type: none"> <li>V/Hz Control</li> <li>Sensorless Vector Control</li> </ul>                                                                                                                                                  | <ul style="list-style-type: none"> <li>Vector Control with FORCE Technology (with and without encoder)</li> <li>Interior Permanent Magnet</li> </ul>                                                                                                          |
| <b>Enclosures</b>          | <ul style="list-style-type: none"> <li>IP00/IP20, NEMA/UL Type Open</li> <li>Flange Mount</li> </ul>                                                                                                                                               | <ul style="list-style-type: none"> <li>IP54, NEMA/UL Type 12</li> </ul>                                                                                                                                                                                       |
| <b>Safety</b>              | <ul style="list-style-type: none"> <li>Safe Torque Off SIL3, PLe, CAT 3</li> </ul>                                                                                                                                                                 | <ul style="list-style-type: none"> <li>Safe Speed Monitor SIL3, PLe, CAT 4</li> </ul>                                                                                                                                                                         |
| <b>Additional Features</b> | <ul style="list-style-type: none"> <li>DeviceLogix</li> <li>Predictive Diagnostics</li> <li>Adjustable Voltage Control</li> <li>Three option slots for I/O, feedback, safety, auxiliary control power, communications</li> <li>Indexing</li> </ul> | <ul style="list-style-type: none"> <li>Pump Jack and Pump Off for oil well applications</li> <li>Pump and Traverse for fibers applications</li> <li>Conformal Coating</li> <li>DC Link Choke</li> <li>Automatic Device Configuration<sup>(1)</sup></li> </ul> |
| <b>Certifications</b>      | <ul style="list-style-type: none"> <li>ABS</li> <li>AC156 Seismic Standards</li> <li>ATEX<sup>(2)</sup></li> <li>cULus</li> <li>CE</li> <li>EAC</li> <li>KCC</li> </ul>                                                                            | <ul style="list-style-type: none"> <li>Lloyd's Register</li> <li>RCM</li> <li>RINA</li> <li>RoHS</li> <li>SEMI F47</li> <li>TÜV FS<sup>(3)</sup></li> </ul>                                                                                                   |
| <b>Options</b>             | See pages 126...147                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                               |

(1) Requires Dual-port EtherNet/IP Option Module (Cat. No. 20-750-ENETR), firmware version 7, Studio 5000 Logix Designer, and Drive Add-On Profiles version 4.04 or higher.

(2) Certification requires 11-series I/O and ATEX daughter card options.

(3) Certification applies to 20-750-S and 20-750-S1 Safety Options when installed in drive.

- 1** LCD Human Interface Module (HIM) with multi-language support in scrolling text available as optional accessory. See page 126 for other options.
- 2** Multiple communication options for industrial networks available. See page 126 for additional options.
- 3** Embedded I/O: 3 digital inputs, 1 relay output, 1 transistor output, 1 analog input, 1 analog output, and 1 PTC input. See page 126 for additional options.
- 4** Integral brake resistor on Frames 1...5, optional on Frames 6...7. Resistors are available. See page 135.

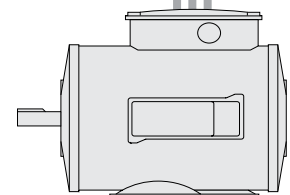
Branch circuit protection supplied separately

Isolation Transformers and Input Line Reactors are available. See pages 137...147.

Integral EMC Filter. External Common Mode Choke is available. See page 130 and 1321 Power Conditioning Products Technical Data, publication 1321-TD001, for additional information.



Output Reactors, Terminators and Reflected Wave Devices are optional. See pages 135...147.



Safety, feedback, and other drive options are available. See pages 129...132.

## Additional Information

PowerFlex 750-Series Brochure, publication [750-BR001](#)

PowerFlex 750-Series Technical Data, publication [750-TD001](#)

PowerFlex 750-Series Quick Start Guide, publication [750-QS001](#)

## Catalog Number Explanation

|     |   |            |           |                |        |                                                 |            |   |   |   |   |   |   |
|-----|---|------------|-----------|----------------|--------|-------------------------------------------------|------------|---|---|---|---|---|---|
| 20F | 1 | A          | N         | D              | 248    | A                                               | A          | 0 | N | N | N | N | N |
|     |   | Input Type | Enclosure | Voltage Rating | Rating | Filtering & Common Mode Capacitor Configuration | Brake IGBT |   |   |   |   |   |   |

## Product Selection

200...240V AC, Three-phase Drives (Available mid-2017)

IP00/IP20, NEMA/UL Type Open<sup>(1)</sup>

| Normal Duty                             |             |             |     |      | Heavy Duty                              |             |             |     |      | Cat. No. <sup>(3)(4)</sup>        | Frame Size |
|-----------------------------------------|-------------|-------------|-----|------|-----------------------------------------|-------------|-------------|-----|------|-----------------------------------|------------|
| Output Amps: 240V (208V) <sup>(2)</sup> |             |             | HP  | kW   | Output Amps: 240V (208V) <sup>(2)</sup> |             |             | HP  | kW   |                                   |            |
| Cont.                                   | 1 min       | 3 s         |     |      | Cont.                                   | 1 min       | 3 s         |     |      |                                   |            |
| 2.2 (2.5)                               | 2.4 (2.7)   | 3.3 (3.7)   | 0.5 | 0.37 | 2.2 (2.5)                               | 3.3 (3.7)   | 3.9 (4.5)   | 0.5 | 0.37 | 20F11RB2P2JA0NNNNN                | 1          |
| 4.2 (4.8)                               | 4.6 (5.2)   | 6.3 (7.2)   | 1   | 0.75 | 2.2 (2.5)                               | 4.6 (5.2)   | 6.3 (7.2)   | 0.5 | 0.37 | 20F11RB4P2JA0NNNNN                |            |
| 6.8 (7.8)                               | 7.4 (8.5)   | 10.2 (11.7) | 2   | 1.5  | 4.2 (4.8)                               | 7.4 (8.5)   | 10.2 (11.7) | 1   | 0.75 | 20F11RB6P8JA0NNNNN                |            |
| 9.6 (11)                                | 10.5 (12.1) | 14.4 (16.5) | 3   | 2.2  | 6.8 (7.8)                               | 10.5 (12.1) | 14.4 (16.5) | 2   | 1.5  | 20F11RB9P6JA0NNNNN                |            |
| 15.3 (15.3)                             | 16.8 (16.8) | 22.9 (22.9) | 5   | 4    | 9.6 (11)                                | 16.8 (16.8) | 22.9 (22.9) | 3   | 2.2  | 20F11RB015JA0NNNNN                |            |
| 2.2 (2.5)                               | 3.3 (3.7)   | 3.9 (4.5)   | 0.5 | 0.37 | 2.2 (2.5)                               | 3.3 (3.7)   | 3.9 (4.5)   | 0.5 | 0.37 | 20F11NB2P2JA0NNNNN                | 2          |
| 4.2 (4.8)                               | 6.3 (7.2)   | 7.5 (8.6)   | 1   | 0.75 | 4.2 (4.8)                               | 6.3 (7.2)   | 7.5 (8.6)   | 1   | 0.75 | 20F11NB4P2JA0NNNNN                |            |
| 6.8 (7.8)                               | 10.2 (11.7) | 12.2 (14)   | 2   | 1.5  | 6.8 (7.8)                               | 10.2 (11.7) | 12.2 (14)   | 2   | 1.5  | 20F11NB6P8JA0NNNNN                |            |
| 9.6 (11)                                | 14.4 (16.5) | 17.2 (19.8) | 3   | 2.2  | 9.6 (11)                                | 14.4 (16.5) | 17.2 (19.8) | 3   | 2.2  | 20F11NB9P6JA0NNNNN                |            |
| 15.3 (17.5)                             | 16.8 (19.2) | 22.9 (26.2) | 5   | 4    | 9.6 (11)                                | 16.8 (19.2) | 22.9 (26.2) | 3   | 2.2  | 20F11NB015JA0NNNNN                |            |
| 22 (22)                                 | 24.2 (24.2) | 33 (33)     | 7.5 | 5.5  | 15.3 (17.5)                             | 24.2 (24.2) | 33 (33)     | 5   | 4    | 20F11NB022JA0NNNNN                | 3          |
| 28 (32.2)                               | 30.8 (35.4) | 42 (48.3)   | 10  | 7.5  | 22 (22)                                 | 33 (35.4)   | 42 (48.3)   | 7.5 | 5.5  | 20F11NB028JA0NNNNN                |            |
| 42 (43)                                 | 46.2 (47.3) | 63 (64.5)   | 15  | 11   | 28 (32.2)                               | 46.2 (48.3) | 63 (64.5)   | 10  | 7.5  | 20F11NB042JA0NNNNN                |            |
| 54 (60)                                 | 59.4 (66)   | 81 (90)     | 20  | 15   | 42 (43)                                 | 63 (64.5)   | 81 (90)     | 15  | 11   | 20F11NB054JA0NNNNN                | 4          |
| 70 (78.2)                               | 77 (86)     | 105 (117)   | 25  | 18.5 | 54 (60)                                 | 81 (90)     | 105 (117)   | 20  | 15   | 20F11NB070JA0NNNNN                | 5          |
| 80 (92)                                 | 88 (101)    | 120 (138)   | 30  | 22   | 70 (78.2)                               | 105 (117)   | 126 (140)   | 25  | 18.5 | 20F11NB080JA0NNNNN                | 6          |
| 104 (120)                               | 114 (132)   | 156 (180)   | 40  | 30   | 80 (92)                                 | 120 (138)   | 156 (180)   | 30  | 22   | 20F1ANB104JNONNNNN <sup>(5)</sup> |            |
| 130 (150)                               | 143 (165)   | 195 (225)   | 50  | 37   | 104 (120)                               | 156 (180)   | 195 (225)   | 40  | 30   | 20F1ANB130JNONNNNN <sup>(5)</sup> |            |
| 154 (177)                               | 169 (194)   | 231 (265)   | 60  | 45   | 130 (150)                               | 195 (225)   | 234 (270)   | 50  | 37   | 20F1ANB154JNONNNNN <sup>(5)</sup> |            |
| 192 (221)                               | 211 (243)   | 288 (331)   | 75  | 55   | 154 (177)                               | 231 (265)   | 288 (331)   | 60  | 45   | 20F1ANB192JNONNNNN <sup>(5)</sup> |            |
| 260 (260)                               | 286 (286)   | 390 (390)   | 100 | 66   | 192 (221)                               | 288 (331)   | 390 (390)   | 75  | 55   | 20F1ANB260JNONNNNN <sup>(5)</sup> | 7          |
| 312 (359)                               | 343 (394)   | 468 (538)   | 125 | 90   | 260 (260)                               | 390 (394)   | 468 (538)   | 100 | 66   | 20F1ANB312JNONNNNN <sup>(5)</sup> |            |
| 360 (414)                               | 396 (455)   | 540 (621)   | 150 | 110  | 312 (359)                               | 468 (538)   | 561 (646)   | 125 | 90   | 20F1ANB360JNONNNNN <sup>(5)</sup> |            |
| 477 (477)                               | 524 (524)   | 715 (715)   | 200 | 132  | 312 (359)                               | 468 (538)   | 561 (646)   | 125 | 90   | 20F1ANB477JNONNNNN <sup>(5)</sup> |            |

(1) Frames 1...5 are IP20, NEMA/UL Type Open. Frames 6...7 are IP00, NEMA/UL Type Open. Frames 1...7 can be converted to IP20, NEMA/UL Type 1 with optional kit (20-750-NEMA1-Fx), where x is the frame size.

(2) Drive must be programmed to lower voltage to obtain the currents shown in parentheses.

(3) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(4) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(5) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

## 200...240V AC, Three-phase Drives (Available mid-2017), (continued)

## IP54, NEMA/UL Type 12

| Normal Duty                             |             |             |     |      | Heavy Duty                              |             |             |     |      | Cat. No. <sup>(2)(3)</sup>         | Frame Size |
|-----------------------------------------|-------------|-------------|-----|------|-----------------------------------------|-------------|-------------|-----|------|------------------------------------|------------|
| Output Amps: 240V (208V) <sup>(1)</sup> |             |             | HP  | kW   | Output Amps: 240V (208V) <sup>(1)</sup> |             |             | HP  | kW   |                                    |            |
| Cont.                                   | 1 min       | 3 s         |     |      | Cont.                                   | 1 min       | 3 s         |     |      |                                    |            |
| 2.2 (2.5)                               | 3.3 (3.8)   | 4 (4.5)     | 0.5 | 0.37 | 2.2 (2.5)                               | 3.3 (3.7)   | 3.9 (4.5)   | 0.5 | 0.37 | 20F11GB2P2JA0NNNNN                 | 2          |
| 4.2 (4.8)                               | 6.3 (7.2)   | 7.5 (8.6)   | 1   | 0.75 | 4.2 (4.8)                               | 6.3 (7.2)   | 7.5 (8.6)   | 1   | 0.75 | 20F11GB4P2JA0NNNNN                 |            |
| 6.8 (7.8)                               | 10.2 (11.7) | 12.2 (14)   | 2   | 1.5  | 6.8 (7.8)                               | 10.2 (11.7) | 12.2 (14)   | 2   | 1.5  | 20F11GB6P8JA0NNNNN                 |            |
| 9.6 (11)                                | 14.4 (16.5) | 17.2 (19.8) | 3   | 2.2  | 9.6 (11)                                | 14.4 (16.5) | 17.2 (19.8) | 3   | 2.2  | 20F11GB9P6JA0NNNNN                 |            |
| 15.3 (17.5)                             | 16.8 (19.2) | 22.9 (26.2) | 5   | 4    | 9.6 (11)                                | 16.8 (19.2) | 22.9 (26.2) | 3   | 2.2  | 20F11GB015JA0NNNNN                 |            |
| 22 (22)                                 | 24.2 (24.2) | 33 (33)     | 7.5 | 5.5  | 15.3 (17.5)                             | 24.2 (24.2) | 33 (33)     | 5   | 4    | 20F11GB022JA0NNNNN                 | 3          |
| 28 (32.2)                               | 30.8 (35.4) | 42 (48.3)   | 10  | 7.5  | 22 (22)                                 | 33 (35.4)   | 42 (48.3)   | 7.5 | 5.5  | 20F11GB028JA0NNNNN                 |            |
| 42 (43)                                 | 46.2 (47.3) | 63 (64.5)   | 15  | 11   | 28 (32.2)                               | 46.2 (48.3) | 63 (64.5)   | 10  | 7.5  | 20F11GB042JA0NNNNN                 |            |
| 54 (60)                                 | 59.4 (66)   | 81 (90)     | 20  | 15   | 42 (43)                                 | 63 (64.5)   | 81 (90)     | 15  | 11   | 20F11GB054JA0NNNNN                 | 4          |
| 70 (78.2)                               | 77 (86)     | 105 (117)   | 25  | 18.5 | 54 (60)                                 | 81 (90)     | 105 (117)   | 20  | 15   | 20F11GB070JA0NNNNN                 | 5          |
| 80 (92)                                 | 88 (101)    | 120 (138)   | 30  | 22   | 70 (78.2)                               | 105 (117)   | 126 (140)   | 25  | 18.5 | 20F11AGB080JNONNNNN <sup>(4)</sup> | 6          |
| 104 (120)                               | 114 (132)   | 156 (180)   | 40  | 30   | 80 (92)                                 | 120 (138)   | 156 (180)   | 30  | 22   | 20F11AGB104JNONNNNN <sup>(4)</sup> |            |
| 130 (150)                               | 143 (165)   | 195 (225)   | 50  | 37   | 104 (120)                               | 156 (180)   | 195 (225)   | 40  | 30   | 20F11AGB130JNONNNNN <sup>(4)</sup> |            |
| 154 (177)                               | 169 (194)   | 231 (265)   | 60  | 45   | 130 (150)                               | 195 (225)   | 234 (270)   | 50  | 37   | 20F11AGB154JNONNNNN <sup>(4)</sup> |            |
| 192 (221)                               | 211 (243)   | 288 (331)   | 75  | 55   | 154 (177)                               | 231 (265)   | 288 (331)   | 60  | 45   | 20F11AGB192JNONNNNN <sup>(4)</sup> |            |
| 260 (260)                               | 286 (286)   | 390 (390)   | 100 | 66   | 192 (221)                               | 288 (331)   | 390 (390)   | 75  | 55   | 20F11AGB260JNONNNNN <sup>(4)</sup> | 7          |
| 312 (359)                               | 343 (394)   | 468 (538)   | 125 | 90   | 260 (260)                               | 390 (394)   | 468 (538)   | 100 | 66   | 20F11AGB312JNONNNNN <sup>(4)</sup> |            |
| 360 (414)                               | 396 (455)   | 540 (621)   | 150 | 110  | 312 (359)                               | 468 (538)   | 561 (646)   | 125 | 90   | 20F11AGB360JNONNNNN <sup>(4)</sup> |            |

(1) Drive must be programmed to lower voltage to obtain the currents shown in parentheses.

(2) The 5th character determines input type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(3) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(4) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

## 200...240V AC, Three-phase Drives (Available mid-2017), (continued)

### Flange Mount (Front: IP20, NEMA/UL Type Open; Back/Heatsink: IP66, NEMA/UL Type 4X)

**Note:** Frame 6...7 IP00, NEMA Type Open drives can be converted to a flange mount drive (Back/Heatsink: IP66, NEMA/UL Type 4X) with an optional user installed flange kit (kit 20-750-FLNG4-F6 for Frame 6, and kit 20-750-FLNG4-F7 for Frame 7). See page 67 for 200...240V, Frame 6...7 IP00, NEMA Type Open drives.

| Normal Duty                             |             |             |     |      | Heavy Duty                              |             |             |     |      | Cat. No. <sup>(2)(3)</sup> | Frame Size |
|-----------------------------------------|-------------|-------------|-----|------|-----------------------------------------|-------------|-------------|-----|------|----------------------------|------------|
| Output Amps: 240V (208V) <sup>(1)</sup> |             |             | HP  | kW   | Output Amps: 240V (208V) <sup>(1)</sup> |             |             | HP  | kW   |                            |            |
| Cont.                                   | 1 min       | 3 s         |     |      | Cont.                                   | 1 min       | 3 s         |     |      |                            |            |
| 2.2 (2.5)                               | 3.3 (3.7)   | 3.9 (4.5)   | 0.5 | 0.37 | 2.2 (2.5)                               | 3.3 (3.7)   | 3.9 (4.5)   | 0.5 | 0.37 | 20F11FB2P2JA0NNNNN         | 2          |
| 4.2 (4.8)                               | 6.3 (7.2)   | 7.5 (8.6)   | 1   | 0.75 | 4.2 (4.8)                               | 6.3 (7.2)   | 7.5 (8.6)   | 1   | 0.75 | 20F11FB4P2JA0NNNNN         |            |
| 6.8 (7.8)                               | 10.2 (11.7) | 12.2 (14)   | 2   | 1.5  | 6.8 (7.8)                               | 10.2 (11.7) | 12.2 (14)   | 2   | 1.5  | 20F11FB6P8JA0NNNNN         |            |
| 9.6 (11)                                | 14.4 (16.5) | 17.2 (19.8) | 3   | 2.2  | 9.6 (11)                                | 14.4 (16.5) | 17.2 (19.8) | 3   | 2.2  | 20F11FB9P6JA0NNNNN         |            |
| 15.3 (17.5)                             | 16.8 (19.2) | 22.9 (26.2) | 5   | 4    | 9.6 (11)                                | 16.8 (19.2) | 22.9 (26.2) | 3   | 2.2  | 20F11FB015JA0NNNNN         |            |
| 22 (22)                                 | 24.2 (24.2) | 33 (33)     | 7.5 | 5.5  | 15.3 (17.5)                             | 24.2 (24.2) | 33 (33)     | 5   | 4    | 20F11FB022JA0NNNNN         | 3          |
| 28 (32.2)                               | 30.8 (35.4) | 42 (48.3)   | 10  | 7.5  | 22 (22)                                 | 33 (35.4)   | 42 (48.3)   | 7.5 | 5.5  | 20F11FB028JA0NNNNN         |            |
| 42 (43)                                 | 46.2 (47.3) | 63 (64.5)   | 15  | 11   | 28 (32.2)                               | 46.2 (48.3) | 63 (64.5)   | 10  | 7.5  | 20F11FB042JA0NNNNN         |            |
| 54 (60)                                 | 59.4 (66)   | 81 (90)     | 20  | 15   | 42 (43)                                 | 63 (64.5)   | 81 (90)     | 15  | 11   | 20F11FB054JA0NNNNN         | 4          |
| 70 (78.2)                               | 77 (86)     | 105 (117)   | 25  | 18.5 | 54 (60)                                 | 81 (90)     | 105 (117)   | 20  | 15   | 20F11FB070JA0NNNNN         | 5          |
| 80 (92)                                 | 88 (101)    | 120 (138)   | 30  | 22   | 70 (78.2)                               | 105 (117)   | 126 (140)   | 25  | 18.5 | 20F11FB080JA0NNNNN         |            |

(1) Drive must be programmed to lower voltage to obtain the currents shown in parentheses.

(2) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(3) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

## 380...400V AC, Three-phase Drives

IP00/IP20, NEMA/UL Type Open<sup>(1)</sup>

| Normal Duty |       |      |      | Heavy Duty  |       |      |      | Cat. No. <sup>(2)(3)</sup>         | Frame Size |
|-------------|-------|------|------|-------------|-------|------|------|------------------------------------|------------|
| Output Amps |       |      | kW   | Output Amps |       |      | kW   |                                    |            |
| Cont.       | 1 min | 3 s  |      | Cont.       | 1 min | 3 s  |      |                                    |            |
| 2.1         | 2.3   | 3.2  | 0.75 | 1.3         | 2.3   | 3.2  | 0.37 | 20F11RC2P1JA0NNNNN                 | 1          |
| 3.5         | 3.9   | 5.3  | 1.5  | 2.1         | 3.9   | 5.3  | 0.75 | 20F11RC3P5JA0NNNNN                 |            |
| 5           | 5.5   | 7.5  | 2.2  | 3.5         | 5.5   | 7.5  | 1.5  | 20F11RC5P0JA0NNNNN                 |            |
| 8.7         | 9.6   | 13.1 | 4    | 5           | 9.6   | 13.1 | 2.2  | 20F11RC8P7JA0NNNNN                 |            |
| 11.5        | 13.1  | 17.3 | 5.5  | 8.7         | 13.1  | 17.3 | 4    | 20F11RC011JA0NNNNN                 |            |
| 15.4        | 16.9  | 23.1 | 7.5  | 11.5        | 17.2  | 23.1 | 5.5  | 20F11RC015JA0NNNNN                 |            |
| 2.1         | 3.1   | 3.7  | 0.75 | 2.1         | 3.1   | 3.7  | 0.75 | 20F11NC2P1JA0NNNNN                 | 2          |
| 3.5         | 5.2   | 6.3  | 1.5  | 3.5         | 5.2   | 6.3  | 1.5  | 20F11NC3P5JA0NNNNN                 |            |
| 5           | 7.5   | 9    | 2.2  | 5           | 7.5   | 9    | 2.2  | 20F11NC5P0JA0NNNNN                 |            |
| 8.7         | 13    | 15.6 | 4    | 8.7         | 13.0  | 15.6 | 4    | 20F11NC8P7JA0NNNNN                 |            |
| 11.5        | 17.2  | 20.7 | 5.5  | 11.5        | 17.2  | 20.7 | 5.5  | 20F11NC011JA0NNNNN                 |            |
| 15.4        | 16.9  | 23.1 | 7.5  | 11.5        | 17.2  | 20.7 | 5.5  | 20F11NC015JA0NNNNN                 |            |
| 22          | 24.2  | 33   | 11   | 15.4        | 24.2  | 33   | 7.5  | 20F11NC022JA0NNNNN                 | 3          |
| 30          | 33    | 45   | 15   | 22          | 33    | 45   | 11   | 20F11NC030JA0NNNNN                 |            |
| 37          | 40.7  | 55.5 | 18.5 | 30          | 45    | 55.5 | 15   | 20F11NC037JA0NNNNN                 |            |
| 43          | 47.3  | 64.5 | 22   | 37          | 55.5  | 66.6 | 18.5 | 20F11NC043JA0NNNNN                 |            |
| 60          | 66    | 90   | 30   | 43          | 66    | 90   | 22   | 20F11NC060JA0NNNNN                 | 4          |
| 72          | 79.2  | 108  | 37   | 60          | 90    | 108  | 30   | 20F11NC072JA0NNNNN                 |            |
| 85          | 93.5  | 128  | 45   | 72          | 108   | 130  | 37   | 20F11NC085JA0NNNNN                 | 5          |
| 104         | 114   | 156  | 55   | 85          | 128   | 156  | 45   | 20F11NC104JA0NNNNN                 |            |
| 140         | 154   | 210  | 75   | 104         | 156   | 210  | 55   | 20F11ANC140JNONNNNN <sup>(4)</sup> | 6          |
| 170         | 187   | 255  | 90   | 140         | 210   | 255  | 75   | 20F11ANC170JNONNNNN <sup>(4)</sup> |            |
| 205         | 226   | 308  | 110  | 170         | 255   | 308  | 90   | 20F11ANC205JNONNNNN <sup>(4)</sup> |            |
| 260         | 286   | 390  | 132  | 205         | 308   | 390  | 110  | 20F11ANC260JNONNNNN <sup>(4)</sup> |            |
| 302         | 332   | 453  | 160  | 260         | 390   | 468  | 132  | 20F11ANC302JNONNNNN <sup>(4)</sup> | 7          |
| 367         | 404   | 551  | 200  | 302         | 453   | 551  | 160  | 20F11ANC367JNONNNNN <sup>(4)</sup> |            |
| 456         | 502   | 684  | 250  | 367         | 551   | 684  | 200  | 20F11ANC456JNONNNNN <sup>(4)</sup> |            |
| 477         | 525   | 716  | 270  | 367         | 551   | 684  | 200  | 20F11ANC477JNONNNNN <sup>(4)</sup> |            |

- (1) Frames 1...5 are IP20, NEMA/UL Type Open. Frames 6...7 are IP00, NEMA/UL Type Open. Frames 1...7 can be converted to IP20, NEMA/UL Type 1 with optional kit (20-750-NEMA1-Fx), where x is the frame size of the drive.
- (2) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.
- (3) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.
- (4) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

## 380...400V AC, Three-phase Drives (continued)

## IP54, NEMA/UL Type 12

| Normal Duty |       |      |      | Heavy Duty  |       |      |      | Cat. No. <sup>(1)(2)</sup>        | Frame Size |
|-------------|-------|------|------|-------------|-------|------|------|-----------------------------------|------------|
| Output Amps |       |      | kW   | Output Amps |       |      | kW   |                                   |            |
| Cont.       | 1 min | 3 s  |      | Cont.       | 1 min | 3 s  |      |                                   |            |
| 2.1         | 3.1   | 3.7  | 0.75 | 2.1         | 3.1   | 3.7  | 0.75 | 20F11GC2P1JA0NNNNN                | 2          |
| 3.5         | 5.2   | 6.3  | 1.5  | 3.5         | 5.2   | 6.3  | 1.5  | 20F11GC3P5JA0NNNNN                |            |
| 5           | 7.5   | 9    | 2.2  | 5           | 7.5   | 9    | 2.2  | 20F11GC5P0JA0NNNNN                |            |
| 8.7         | 13    | 15.6 | 4    | 8.7         | 13    | 15.6 | 4    | 20F11GC8P7JA0NNNNN                |            |
| 11.5        | 17.2  | 20.7 | 5.5  | 11.5        | 17.2  | 20.7 | 5.5  | 20F11GC011JA0NNNNN                |            |
| 15.4        | 16.9  | 23.1 | 7.5  | 11.5        | 17.2  | 20.7 | 5.5  | 20F11GC015JA0NNNNN                |            |
| 22          | 24.2  | 33   | 11   | 15.4        | 24.2  | 33   | 7.5  | 20F11GC022JA0NNNNN                |            |
| 30          | 33    | 45   | 15   | 22          | 33    | 45   | 11   | 20F11GC030JA0NNNNN                | 3          |
| 37          | 40.7  | 55.5 | 18.5 | 30          | 45    | 55.5 | 15   | 20F11GC037JA0NNNNN                |            |
| 43          | 47.3  | 64.5 | 22   | 37          | 55.5  | 66.6 | 18.5 | 20F11GC043JA0NNNNN                |            |
| 60          | 66    | 90   | 30   | 43          | 66    | 90   | 22   | 20F11GC060JA0NNNNN                | 4          |
| 72          | 79.2  | 108  | 37   | 60          | 90    | 108  | 30   | 20F11GC072JA0NNNNN                | 5          |
| 85          | 93.5  | 128  | 45   | 72          | 108   | 130  | 37   | 20F11GC085JA0NNNNN                |            |
| 104         | 114   | 156  | 55   | 85          | 128   | 156  | 45   | 20F1AGC104JNONNNNN <sup>(3)</sup> | 6          |
| 140         | 154   | 210  | 75   | 104         | 156   | 210  | 55   | 20F1AGC140JNONNNNN <sup>(3)</sup> |            |
| 170         | 187   | 255  | 90   | 140         | 210   | 255  | 75   | 20F1AGC170JNONNNNN <sup>(3)</sup> |            |
| 205         | 226   | 308  | 110  | 170         | 255   | 308  | 90   | 20F1AGC205JNONNNNN <sup>(3)</sup> |            |
| 260         | 286   | 390  | 132  | 205         | 308   | 390  | 110  | 20F1AGC260JNONNNNN <sup>(3)</sup> | 7          |
| 302         | 332   | 453  | 160  | 260         | 390   | 468  | 132  | 20F1AGC302JNONNNNN <sup>(3)</sup> |            |
| 367         | 404   | 551  | 200  | 302         | 453   | 551  | 160  | 20F1AGC367JNONNNNN <sup>(3)</sup> |            |
| 456         | 502   | 684  | 250  | 367         | 551   | 684  | 200  | 20F1AGC456JNONNNNN <sup>(3)</sup> |            |

(1) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(2) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(3) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

## 380...400V AC, Three-phase Drives (continued)

**Flange Mount (Front: IP20, NEMA/UL Type Open; Back/Heatsink: IP66, NEMA/UL Type 4X)**

**Note:** Frame 6...7 IP00, NEMA Type Open drives can be converted to a flange mount drive (back/heatsink: IP66, NEMA/UL Type 4X) with an optional user installed flange kit (kit 20-750-FLNG4-F6 for Frame 6, and kit 20-750-FLNG4-F7 for Frame 7). See page 70 for 380...400V, Frame 6...7 IP00, NEMA Type Open drives.

| Normal Duty |       |      |      | Heavy Duty  |       |      |      | Cat. No. <sup>(1)(2)</sup> | Frame Size |
|-------------|-------|------|------|-------------|-------|------|------|----------------------------|------------|
| Output Amps |       |      | kW   | Output Amps |       |      | kW   |                            |            |
| Cont.       | 1 min | 3 s  |      | Cont.       | 1 min | 3 s  |      |                            |            |
| 2.1         | 3.1   | 3.7  | 0.75 | 2.1         | 3.1   | 3.7  | 0.75 | 20F11FC2P1JA0NNNNN         | 2          |
| 3.5         | 5.2   | 6.3  | 1.5  | 3.5         | 5.2   | 6.3  | 1.5  | 20F11FC3P5JA0NNNNN         |            |
| 5           | 7.5   | 9    | 2.2  | 5           | 7.5   | 9    | 2.2  | 20F11FC5P0JA0NNNNN         |            |
| 8.7         | 13    | 15.6 | 4    | 8.7         | 13    | 15.6 | 4    | 20F11FC8P7JA0NNNNN         |            |
| 11.5        | 17.2  | 20.7 | 5.5  | 11.5        | 17.2  | 20.7 | 5.5  | 20F11FC011JA0NNNNN         |            |
| 15.4        | 16.9  | 23.1 | 7.5  | 11.5        | 17.2  | 20.7 | 5.5  | 20F11FC015JA0NNNNN         |            |
| 22          | 24.2  | 33   | 11   | 15.4        | 24.2  | 33   | 7.5  | 20F11FC022JA0NNNNN         |            |
| 30          | 33    | 45   | 15   | 22          | 33    | 45   | 11   | 20F11FC030JA0NNNNN         | 3          |
| 37          | 40.7  | 55.5 | 18.5 | 30          | 45    | 55.5 | 15   | 20F11FC037JA0NNNNN         |            |
| 43          | 47.3  | 64.5 | 22   | 37          | 55.5  | 66.6 | 18.5 | 20F11FC043JA0NNNNN         |            |
| 60          | 66    | 90   | 30   | 43          | 66    | 90   | 22   | 20F11FC060JA0NNNNN         | 4          |
| 72          | 79.2  | 108  | 37   | 60          | 90    | 108  | 30   | 20F11FC072JA0NNNNN         |            |
| 85          | 93.5  | 128  | 45   | 72          | 108   | 130  | 37   | 20F11FC085JA0NNNNN         | 5          |
| 104         | 114   | 156  | 55   | 85          | 128   | 156  | 45   | 20F11FC104JA0NNNNN         |            |

(1) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(2) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

## 460...480V AC, Three-phase Drives

IP00/IP20, NEMA/UL Type Open<sup>(1)</sup>

| Normal Duty |       |      |     | Heavy Duty  |       |      |     | Cat. No. <sup>(2)(3)</sup>        | Frame Size |
|-------------|-------|------|-----|-------------|-------|------|-----|-----------------------------------|------------|
| Output Amps |       |      | Hp  | Output Amps |       |      | Hp  |                                   |            |
| Cont.       | 1 min | 3 s  |     | Cont.       | 1 min | 3 s  |     |                                   |            |
| 2.1         | 2.3   | 3.2  | 1   | 1.1         | 2.3   | 3.2  | 0.5 | 20F11RD2P1JA0NNNNN                | 1          |
| 3.4         | 3.7   | 5.1  | 2   | 2.8         | 4.2   | 5.1  | 1   | 20F11RD3P4JA0NNNNN                |            |
| 5           | 5.5   | 7.5  | 3   | 3.4         | 5.5   | 7.5  | 2   | 20F11RD5P0JA0NNNNN                |            |
| 8           | 8.8   | 12   | 5   | 5           | 8.8   | 12   | 3   | 20F11RD8P0JA0NNNNN                |            |
| 11          | 12.1  | 16.5 | 7.5 | 8           | 12.1  | 16.5 | 5   | 20F11RD011JA0NNNNN                |            |
| 14          | 15.4  | 21   | 10  | 11          | 16.5  | 21   | 7.5 | 20F11RD014JA0NNNNN                |            |
| 2.1         | 3.1   | 3.7  | 1   | 2.1         | 3.1   | 3.7  | 1   | 20F11ND2P1JA0NNNNN                | 2          |
| 3.4         | 5.1   | 6.1  | 2   | 3.4         | 5.1   | 6.1  | 2   | 20F11ND3P4JA0NNNNN                |            |
| 5           | 7.5   | 9    | 3   | 5           | 7.5   | 9    | 3   | 20F11ND5P0JA0NNNNN                |            |
| 8           | 12    | 14.4 | 5   | 8           | 12    | 14.4 | 5   | 20F11ND8P0JA0NNNNN                |            |
| 11          | 16.5  | 19.8 | 7.5 | 11          | 16.5  | 19.8 | 7.5 | 20F11ND011JA0NNNNN                |            |
| 14          | 15.4  | 21   | 10  | 11          | 16.5  | 21   | 7.5 | 20F11ND014JA0NNNNN                |            |
| 22          | 24.2  | 33   | 15  | 14          | 24.2  | 33   | 10  | 20F11ND022JA0NNNNN                | 3          |
| 27          | 29.7  | 40.5 | 20  | 22          | 33    | 40.5 | 15  | 20F11ND027JA0NNNNN                |            |
| 34          | 37.4  | 51   | 25  | 27          | 40.5  | 51   | 20  | 20F11ND034JA0NNNNN                |            |
| 40          | 44    | 60   | 30  | 34          | 51    | 61.2 | 25  | 20F11ND040JA0NNNNN                |            |
| 52          | 57.2  | 78   | 40  | 40          | 60    | 78   | 30  | 20F11ND052JA0NNNNN                | 4          |
| 65          | 71.5  | 97.5 | 50  | 52          | 78    | 97.5 | 40  | 20F11ND065JA0NNNNN                |            |
| 77          | 84.7  | 116  | 60  | 65          | 97.5  | 116  | 50  | 20F11ND077JA0NNNNN                | 5          |
| 96          | 106   | 144  | 75  | 77          | 116   | 144  | 60  | 20F11ND096JA0NNNNN                |            |
| 125         | 138   | 188  | 100 | 96          | 144   | 188  | 75  | 20F1AND125JNONNNNN <sup>(4)</sup> | 6          |
| 156         | 172   | 234  | 125 | 125         | 188   | 234  | 100 | 20F1AND156JNONNNNN <sup>(4)</sup> |            |
| 186         | 205   | 279  | 150 | 156         | 234   | 281  | 125 | 20F1AND186JNONNNNN <sup>(4)</sup> |            |
| 248         | 273   | 372  | 200 | 186         | 279   | 372  | 150 | 20F1AND248JNONNNNN <sup>(4)</sup> |            |
| 302         | 332   | 453  | 250 | 248         | 372   | 453  | 200 | 20F1AND302JNONNNNN <sup>(4)</sup> | 7          |
| 361         | 397   | 542  | 300 | 302         | 453   | 535  | 250 | 20F1AND361JNONNNNN <sup>(4)</sup> |            |
| 415         | 457   | 623  | 350 | 361         | 542   | 650  | 300 | 20F1AND415JNONNNNN <sup>(4)</sup> |            |
| 477         | 525   | 716  | 400 | 361         | 542   | 650  | 300 | 20F1AND477JNONNNNN <sup>(4)</sup> |            |

- (1) Frames 1...5 are IP20, NEMA/UL Type Open. Frames 6...7 are IP00, NEMA/UL Type Open. Frames 1...7 can be converted to IP20, NEMA/UL Type 1 with optional kit (20-750-NEMA1-Fx), where x is the frame size of the drive.
- (2) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.
- (3) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.
- (4) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

## 460...480V AC, Three-phase Drives (continued)

## IP54, NEMA/UL Type 12

| Normal Duty |       |      |     | Heavy Duty  |       |      |     | Cat. No. <sup>(1)(2)</sup>        | Frame Size |
|-------------|-------|------|-----|-------------|-------|------|-----|-----------------------------------|------------|
| Output Amps |       |      | Hp  | Output Amps |       |      | Hp  |                                   |            |
| Cont.       | 1 min | 3 s  |     | Cont.       | 1 min | 3 s  |     |                                   |            |
| 2.1         | 3.1   | 3.7  | 1   | 2.1         | 3.1   | 3.7  | 1   | 20F11GD2P1JA0NNNNN                | 2          |
| 3.4         | 5.1   | 6.1  | 2   | 3.4         | 5.1   | 6.1  | 2   | 20F11GD3P4JA0NNNNN                |            |
| 5           | 7.5   | 9    | 3   | 5           | 7.5   | 9    | 3   | 20F11GD5P0JA0NNNNN                |            |
| 8           | 12    | 14.4 | 5   | 8           | 12    | 14.4 | 5   | 20F11GD8P0JA0NNNNN                |            |
| 11          | 16.5  | 19.8 | 7.5 | 11          | 16.5  | 19.8 | 7.5 | 20F11GD011JA0NNNNN                |            |
| 14          | 15.4  | 21   | 10  | 11          | 16.5  | 21   | 7.5 | 20F11GD014JA0NNNNN                |            |
| 22          | 24.2  | 33   | 15  | 14          | 24.2  | 33   | 10  | 20F11GD022JA0NNNNN                |            |
| 27          | 29.7  | 40.5 | 20  | 22          | 33    | 40.5 | 15  | 20F11GD027JA0NNNNN                | 3          |
| 34          | 37.4  | 51   | 25  | 27          | 40.5  | 51   | 20  | 20F11GD034JA0NNNNN                |            |
| 40          | 44    | 60   | 30  | 34          | 51    | 61.2 | 25  | 20F11GD040JA0NNNNN                |            |
| 52          | 57.2  | 78   | 40  | 40          | 60    | 78   | 30  | 20F11GD052JA0NNNNN                | 4          |
| 65          | 71.5  | 97.5 | 50  | 52          | 78    | 97.5 | 40  | 20F11GD065JA0NNNNN                | 5          |
| 77          | 84.7  | 116  | 60  | 65          | 97.5  | 116  | 50  | 20F11GD077JA0NNNNN                |            |
| 96          | 106   | 144  | 75  | 77          | 116   | 144  | 60  | 20F1AGD096JNONNNNN <sup>(3)</sup> |            |
| 125         | 138   | 188  | 100 | 96          | 144   | 188  | 75  | 20F1AGD125JNONNNNN <sup>(3)</sup> | 6          |
| 156         | 172   | 234  | 125 | 125         | 188   | 234  | 100 | 20F1AGD156JNONNNNN <sup>(3)</sup> |            |
| 186         | 205   | 279  | 150 | 156         | 234   | 281  | 125 | 20F1AGD186JNONNNNN <sup>(3)</sup> |            |
| 248         | 273   | 372  | 200 | 186         | 279   | 372  | 150 | 20F1AGD248JNONNNNN <sup>(3)</sup> |            |
| 302         | 332   | 453  | 250 | 248         | 372   | 453  | 200 | 20F1AGD302JNONNNNN <sup>(3)</sup> | 7          |
| 361         | 397   | 542  | 300 | 302         | 453   | 535  | 250 | 20F1AGD361JNONNNNN <sup>(3)</sup> |            |
| 415         | 457   | 623  | 350 | 361         | 542   | 650  | 300 | 20F1AGD415JNONNNNN <sup>(3)</sup> |            |

(1) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(2) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(3) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

## 460...480V AC, Three-phase Drives (continued)

**Flange Mount (Front: IP20, NEMA/UL Type Open; Back/Heatsink: IP66, NEMA/UL Type 4X)**

**Note:** Frame 6...7 IP00, NEMA Type Open drives can be converted to a flange mount drive (back/heatsink: IP66, NEMA/UL Type 4X) with an optional user installed flange kit (kit 20-750-FLNG4-F6 for Frame 6, and kit 20-750-FLNG4-F7 for Frame 7). See page 73 for 480V, Frame 6...7 IP00, NEMA Type Open drives.

| Normal Duty |       |      |     | Heavy Duty  |       |      |     | Cat. No. <sup>(1)(2)</sup> | Frame Size |
|-------------|-------|------|-----|-------------|-------|------|-----|----------------------------|------------|
| Output Amps |       |      | Hp  | Output Amps |       |      | Hp  |                            |            |
| Cont.       | 1 min | 3 s  |     | Cont.       | 1 min | 3 s  |     |                            |            |
| 2.1         | 3.1   | 3.7  | 1   | 2.1         | 3.1   | 3.7  | 1   | 20F11FD2P1JA0NNNNN         | 2          |
| 3.4         | 5.1   | 6.1  | 2   | 3.4         | 5.1   | 6.1  | 2   | 20F11FD3P4JA0NNNNN         |            |
| 5           | 7.5   | 9    | 3   | 5           | 7.5   | 9.0  | 3   | 20F11FD5P0JA0NNNNN         |            |
| 8           | 12    | 14.4 | 5   | 8           | 12    | 14.4 | 5   | 20F11FD8P0JA0NNNNN         |            |
| 11          | 16.5  | 19.8 | 7.5 | 11          | 16.5  | 19.8 | 7.5 | 20F11FD011JA0NNNNN         |            |
| 14          | 15.4  | 21   | 10  | 11          | 16.5  | 21   | 7.5 | 20F11FD014JA0NNNNN         |            |
| 22          | 24.2  | 33   | 15  | 14          | 24.2  | 33   | 10  | 20F11FD022JA0NNNNN         |            |
| 27          | 29.7  | 40.5 | 20  | 22          | 33    | 40.5 | 15  | 20F11FD027JA0NNNNN         | 3          |
| 34          | 37.4  | 51   | 25  | 27          | 40.5  | 51   | 20  | 20F11FD034JA0NNNNN         |            |
| 40          | 44    | 60   | 30  | 34          | 51    | 61.2 | 25  | 20F11FD040JA0NNNNN         |            |
| 52          | 57.2  | 78   | 40  | 40          | 60    | 78   | 30  | 20F11FD052JA0NNNNN         | 4          |
| 65          | 71.5  | 97.5 | 50  | 52          | 78    | 97.5 | 40  | 20F11FD065JA0NNNNN         |            |
| 77          | 84.7  | 116  | 60  | 65          | 97.5  | 116  | 50  | 20F11FD077JA0NNNNN         | 5          |
| 96          | 106   | 144  | 75  | 77          | 116   | 144  | 60  | 20F11FD096JA0NNNNN         |            |

(1) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(2) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

## 575...600V AC, Three-phase Drives

### IP00/IP20, NEMA/UL Type Open<sup>(1)</sup>

Frames 3, 4, and 5 are only 575...600V AC drives. Frames 6 and 7 are dual-voltage drives, and can be operated at 575...600 V or 660...690V AC.

**Important:** Frames 3, 4, and 5 must not be used in common DC input-sharing applications with Frames 6 or larger drives. For more details, contact your local Rockwell Automation sales office or your Allen-Bradley distributor.

| Normal Duty |       |             | Hp  | Heavy Duty |      |       |     | Cat. No. <sup>(2)(3)</sup>        | Frame Size |
|-------------|-------|-------------|-----|------------|------|-------|-----|-----------------------------------|------------|
| Output Amps |       | Output Amps |     |            | Hp   |       |     |                                   |            |
| Cont.       | 1 min | 3 s         |     | Cont.      |      | 1 min | 3 s |                                   |            |
| 1.7         | 1.9   | 2.6         | 1   | 1.7        | 1.4  | 2.6   | 1   | 20F11NE1P7JA0NNNNN                | 3          |
| 2.7         | 3     | 4.1         | 2   | 1.7        | 2.6  | 4.1   | 1   | 20F11NE2P7JA0NNNNN                |            |
| 3.9         | 4.29  | 5.85        | 3   | 2.7        | 4.1  | 5.9   | 2   | 20F11NE3P9JA0NNNNN                |            |
| 6.1         | 6.7   | 9.2         | 5   | 3.9        | 5.9  | 9.2   | 3   | 20F11NE6P1JA0NNNNN                |            |
| 9           | 9.9   | 13.5        | 7.5 | 6.1        | 9.2  | 13.5  | 5   | 20F11NE9P0JA0NNNNN                |            |
| 11          | 12.1  | 16.5        | 10  | 9          | 13.5 | 16.5  | 7.5 | 20F11NE011JA0NNNNN                |            |
| 17          | 18.7  | 25.5        | 15  | 11         | 16.5 | 25.5  | 10  | 20F11NE017JA0NNNNN                |            |
| 22          | 24.2  | 33          | 20  | 17         | 25.5 | 33    | 15  | 20F11NE022JA0NNNNN                |            |
| 27          | 29.7  | 40.5        | 25  | 22         | 33   | 40.5  | 20  | 20F11NE027JA0NNNNN                | 4          |
| 32          | 35.2  | 48          | 30  | 27         | 40.5 | 48.6  | 25  | 20F11NE032JA0NNNNN                |            |
| 41          | 45.1  | 61.5        | 40  | 32         | 48   | 61.5  | 30  | 20F11NE041JA0NNNNN                | 5          |
| 52          | 57.2  | 78          | 50  | 41         | 61.5 | 78    | 40  | 20F11NE052JA0NNNNN                |            |
| 12          | 13.2  | 18          | 10  | 9.1        | 13.7 | 18    | 7.5 | 20F1ANE012JNONNNNN <sup>(4)</sup> | 6          |
| 18          | 19.8  | 27          | 15  | 12         | 18   | 27    | 10  | 20F1ANE018JNONNNNN <sup>(4)</sup> |            |
| 23          | 25.3  | 34.5        | 20  | 18         | 27   | 34.5  | 15  | 20F1ANE023JNONNNNN <sup>(4)</sup> |            |
| 24          | 26.4  | 36          | 20  | 22         | 33   | 39.6  | 20  | 20F1ANE024JNONNNNN <sup>(4)</sup> |            |
| 28          | 30.8  | 42          | 25  | 23         | 34.5 | 42    | 20  | 20F1ANE028JNONNNNN <sup>(4)</sup> |            |
| 33          | 36.3  | 49.5        | 30  | 28         | 42   | 50.4  | 25  | 20F1ANE033JNONNNNN <sup>(4)</sup> |            |
| 42          | 46.2  | 63          | 40  | 33         | 49.5 | 63    | 30  | 20F1ANE042JNONNNNN <sup>(4)</sup> |            |
| 53          | 58    | 80          | 50  | 42         | 63   | 80    | 40  | 20F1ANE053JNONNNNN <sup>(4)</sup> |            |
| 63          | 69    | 95          | 60  | 52         | 78   | 95    | 50  | 20F1ANE063JNONNNNN <sup>(4)</sup> |            |
| 77          | 85    | 116         | 75  | 63         | 95   | 116   | 60  | 20F1ANE077JNONNNNN <sup>(4)</sup> |            |
| 99          | 109   | 149         | 100 | 77         | 116  | 149   | 75  | 20F1ANE099JNONNNNN <sup>(4)</sup> |            |
| 125         | 138   | 188         | 125 | 99         | 149  | 188   | 100 | 20F1ANE125JNONNNNN <sup>(4)</sup> |            |
| 144         | 158   | 216         | 150 | 125        | 188  | 225   | 125 | 20F1ANE144JNONNNNN <sup>(4)</sup> |            |
| 192         | 211   | 288         | 200 | 144        | 216  | 288   | 150 | 20F1ANE192JNONNNNN <sup>(4)</sup> | 7          |
| 242         | 266   | 363         | 250 | 192        | 288  | 363   | 200 | 20F1ANE242JNONNNNN <sup>(4)</sup> |            |
| 289         | 318   | 434         | 300 | 242        | 363  | 436   | 250 | 20F1ANE289JNONNNNN <sup>(4)</sup> |            |

(1) Frames 3...5 are IP20, NEMA/UL Type Open. Frames 6...7 are IP00, NEMA/UL Type Open. Frames 3...7 can be converted to IP20, NEMA/UL Type 1 with optional kit (20-750-NEMA1-Fx), where x is the frame size of the drive.

(2) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(3) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(4) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

## 575...600V AC, Three-phase Drives (continued)

### IP54, NEMA/UL Type 12

Frames 3, 4, and 5 are only 575...600V AC drives. Frames 6 and 7 are dual-voltage drives, and can be operated at 575...600 V or 660...690V AC.

| Normal Duty |       |      |     | Heavy Duty  |       |      |     | Cat. No. <sup>(1)(2)</sup>        | Frame Size |
|-------------|-------|------|-----|-------------|-------|------|-----|-----------------------------------|------------|
| Output Amps |       |      | Hp  | Output Amps |       |      | Hp  |                                   |            |
| Cont.       | 1 min | 3 s  |     | Cont.       | 1 min | 3 s  |     |                                   |            |
| 1.7         | 1.9   | 2.6  | 1   | 1.7         | 1.4   | 2.6  | 1   | 20F11GE1P7JA0NNNNN                | 3          |
| 2.7         | 3     | 4.1  | 2   | 1.7         | 2.6   | 4.1  | 1   | 20F11GE2P7JA0NNNNN                |            |
| 3.9         | 4.29  | 5.85 | 3   | 2.7         | 4.1   | 5.9  | 2   | 20F11GE3P9JA0NNNNN                |            |
| 6.1         | 6.7   | 9.2  | 5   | 3.9         | 5.9   | 9.2  | 3   | 20F11GE6P1JA0NNNNN                |            |
| 9           | 9.9   | 13.5 | 7.5 | 6.1         | 9.2   | 13.5 | 5   | 20F11GE9P0JA0NNNNN                |            |
| 11          | 12.1  | 16.5 | 10  | 9           | 13.5  | 16.5 | 7.5 | 20F11GE011JA0NNNNN                |            |
| 17          | 18.7  | 25.5 | 15  | 11          | 16.5  | 25.5 | 10  | 20F11GE017JA0NNNNN                |            |
| 22          | 24.2  | 33   | 20  | 17          | 25.5  | 33   | 15  | 20F11GE022JA0NNNNN                |            |
| 27          | 29.7  | 40.5 | 25  | 22          | 33    | 40.5 | 20  | 20F11GE027JA0NNNNN                | 4          |
| 32          | 35.2  | 48   | 30  | 27          | 40.5  | 48.6 | 25  | 20F11GE032JA0NNNNN                |            |
| 41          | 45.1  | 61.5 | 40  | 32          | 48    | 61.5 | 30  | 20F11GE041JA0NNNNN                | 5          |
| 12          | 13.2  | 18   | 10  | 9.1         | 13.7  | 18   | 7.5 | 20F1AGE012JNONNNNN <sup>(3)</sup> | 6          |
| 18          | 19.8  | 27   | 15  | 12          | 18    | 27   | 10  | 20F1AGE018JNONNNNN <sup>(3)</sup> |            |
| 23          | 25.3  | 34.5 | 20  | 18          | 27    | 34.5 | 15  | 20F1AGE023JNONNNNN <sup>(3)</sup> |            |
| 24          | 26.4  | 36   | 20  | 22          | 33    | 39.6 | 20  | 20F1AGE024JNONNNNN <sup>(3)</sup> |            |
| 28          | 30.8  | 42   | 25  | 23          | 34.5  | 42   | 20  | 20F1AGE028JNONNNNN <sup>(3)</sup> |            |
| 33          | 36.3  | 49.5 | 30  | 28          | 42    | 50.4 | 25  | 20F1AGE033JNONNNNN <sup>(3)</sup> |            |
| 42          | 46.2  | 63   | 40  | 33          | 49.5  | 63   | 30  | 20F1AGE042JNONNNNN <sup>(3)</sup> |            |
| 53          | 58    | 80   | 50  | 42          | 63    | 80   | 40  | 20F1AGE053JNONNNNN <sup>(3)</sup> |            |
| 63          | 69    | 95   | 60  | 52          | 78    | 95   | 50  | 20F1AGE063JNONNNNN <sup>(3)</sup> |            |
| 77          | 85    | 116  | 75  | 63          | 95    | 116  | 60  | 20F1AGE077JNONNNNN <sup>(3)</sup> |            |
| 99          | 109   | 149  | 100 | 77          | 116   | 149  | 75  | 20F1AGE099JNONNNNN <sup>(3)</sup> | 7          |
| 125         | 138   | 188  | 125 | 99          | 149   | 188  | 100 | 20F1AGE125JNONNNNN <sup>(3)</sup> |            |
| 144         | 158   | 216  | 150 | 125         | 188   | 225  | 125 | 20F1AGE144JNONNNNN <sup>(3)</sup> |            |
| 192         | 211   | 288  | 200 | 144         | 216   | 288  | 150 | 20F1AGE192JNONNNNN <sup>(3)</sup> |            |
| 242         | 266   | 363  | 250 | 192         | 288   | 363  | 200 | 20F1AGE242JNONNNNN <sup>(3)</sup> | 7          |
| 289         | 318   | 434  | 300 | 242         | 363   | 436  | 250 | 20F1AGE289JNONNNNN <sup>(3)</sup> |            |

(1) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(2) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(3) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

## 600V AC, Three-phase Drives (continued)

### Flange Mount (Front: IP20, NEMA/UL Type Open; Back/Heatsink: IP66, NEMA/UL Type 4X)

Frames 3, 4, and 5 are only 600V AC drives. Frames 6 and 7 are dual-voltage drives, and can be operated at 600 V or 690V AC.

**Important:** Frames 3, 4, and 5 must not be used in common DC input-sharing applications with Frames 6 or larger drives. For more details, contact your local Rockwell Automation sales office or your Allen-Bradley distributor.

**Note:** Frame 6...7 IP00, NEMA Type Open drives can be converted to a flange mount drive (back/heatsink: IP66, NEMA/UL Type 4X) with an optional user installed flange kit (kit 20-750-FLNG4-F6 for Frame 6, and kit 20-750-FLNG4-F7 for Frame 7). See page 76 for 600V, Frame 6...7 IP00, NEMA Type Open drives.

| Normal Duty |       |      |     | Heavy Duty  |       |      |     | Cat. No. <sup>(1)(2)</sup> | Frame Size |
|-------------|-------|------|-----|-------------|-------|------|-----|----------------------------|------------|
| Output Amps |       |      | Hp  | Output Amps |       |      | Hp  |                            |            |
| Cont.       | 1 min | 3 s  |     | Cont.       | 1 min | 3 s  |     |                            |            |
| 1.7         | 1.9   | 2.6  | 1   | 1.7         | 1.4   | 2.6  | 1   | 20F11FE1P7JAONNNNN         | 3          |
| 2.7         | 3     | 4.1  | 2   | 1.7         | 2.6   | 4.1  | 1   | 20F11FE2P7JAONNNNN         |            |
| 3.9         | 4.29  | 5.85 | 3   | 2.7         | 4.1   | 5.9  | 2   | 20F11FE3P9JAONNNNN         |            |
| 6.1         | 6.7   | 9.2  | 5   | 3.9         | 5.9   | 9.2  | 3   | 20F11FE6P1JAONNNNN         |            |
| 9           | 9.9   | 13.5 | 7.5 | 6.1         | 9.2   | 13.5 | 5   | 20F11FE9P0JAONNNNN         |            |
| 11          | 12.1  | 16.5 | 10  | 9           | 13.5  | 16.5 | 7.5 | 20F11FE011JAONNNNN         |            |
| 17          | 18.7  | 25.5 | 15  | 11          | 16.5  | 25.5 | 10  | 20F11FE017JAONNNNN         |            |
| 22          | 24.2  | 33   | 20  | 17          | 25.5  | 33   | 15  | 20F11FE022JAONNNNN         |            |
| 27          | 29.7  | 40.5 | 25  | 22          | 33    | 40.5 | 20  | 20F11FE027JAONNNNN         | 4          |
| 32          | 35.2  | 48   | 30  | 27          | 40.5  | 48.6 | 25  | 20F11FE032JAONNNNN         |            |
| 41          | 45.1  | 61.5 | 40  | 32          | 48    | 61.5 | 30  | 20F11FE041JAONNNNN         | 5          |
| 52          | 57.2  | 78.0 | 50  | 41          | 61.5  | 78   | 40  | 20F11FE052JAONNNNN         |            |

(1) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(2) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

## 690V AC, Three-phase Drives

IP00/IP20, NEMA/UL Type Open<sup>(1)</sup>

| Normal Duty |       |      |      | Heavy Duty  |       |      |      | Cat. No. <sup>(2)(3)</sup>        | Frame Size |
|-------------|-------|------|------|-------------|-------|------|------|-----------------------------------|------------|
| Output Amps |       |      | kW   | Output Amps |       |      | kW   |                                   |            |
| Cont.       | 1 min | 3 s  |      | Cont.       | 1 min | 3 s  |      |                                   |            |
| 12          | 13.2  | 18   | 7.5  | 9           | 13.5  | 18   | 5.5  | 20F1ANF012JNONNNNN <sup>(4)</sup> | 6          |
| 15          | 16.5  | 22.5 | 11   | 12          | 18    | 22.5 | 7.5  | 20F1ANF015JNONNNNN <sup>(4)</sup> |            |
| 20          | 22    | 30   | 15   | 15          | 22.5  | 30   | 11   | 20F1ANF020JNONNNNN <sup>(4)</sup> |            |
| 23          | 25.3  | 34.5 | 18.5 | 20          | 30    | 36   | 15   | 20F1ANF023JNONNNNN <sup>(4)</sup> |            |
| 30          | 33    | 45   | 22   | 23          | 34.5  | 45   | 18.5 | 20F1ANF030JNONNNNN <sup>(4)</sup> |            |
| 34          | 37.4  | 51   | 30   | 30          | 45    | 54   | 22   | 20F1ANF034JNONNNNN <sup>(4)</sup> |            |
| 46          | 50.6  | 69   | 37   | 34          | 51    | 69   | 30   | 20F1ANF046JNONNNNN <sup>(4)</sup> |            |
| 50          | 55    | 75   | 45   | 46          | 69    | 83   | 37   | 20F1ANF050JNONNNNN <sup>(4)</sup> |            |
| 61          | 67    | 92   | 55   | 50          | 75    | 92   | 45   | 20F1ANF061JNONNNNN <sup>(4)</sup> |            |
| 82          | 90    | 123  | 75   | 61          | 92    | 123  | 55   | 20F1ANF082JNONNNNN <sup>(4)</sup> |            |
| 98          | 108   | 147  | 90   | 82          | 123   | 148  | 75   | 20F1ANF098JNONNNNN <sup>(4)</sup> |            |
| 119         | 131   | 179  | 110  | 98          | 147   | 179  | 90   | 20F1ANF119JNONNNNN <sup>(4)</sup> |            |
| 142         | 156   | 213  | 132  | 119         | 179   | 214  | 110  | 20F1ANF142JNONNNNN <sup>(4)</sup> |            |
| 171         | 188   | 257  | 160  | 142         | 213   | 257  | 132  | 20F1ANF171JNONNNNN <sup>(4)</sup> | 7          |
| 212         | 233   | 318  | 200  | 171         | 257   | 318  | 160  | 20F1ANF212JNONNNNN <sup>(4)</sup> |            |
| 263         | 289   | 395  | 250  | 212         | 318   | 395  | 200  | 20F1ANF263JNONNNNN <sup>(4)</sup> |            |

(1) Frames 6...7 are IP00, NEMA/UL Type Open. Frames 1...7 can be converted to IP20, NEMA/UL Type 1 with optional kit (20-750-NEMA1-Fx), where x is the frame size of the drive.

(2) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(3) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(4) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

## 690V AC, Three-phase Drives (continued)

## IP54, NEMA/UL Type 12

| Normal Duty |       |      |      | Heavy Duty  |       |      |      | Cat. No. <sup>(1)(2)</sup>        | Frame Size |
|-------------|-------|------|------|-------------|-------|------|------|-----------------------------------|------------|
| Outputs Amp |       |      | kW   | Output Amps |       |      | kW   |                                   |            |
| Cont.       | 1 min | 3 s  |      | Cont.       | 1 min | 3 s  |      |                                   |            |
| 12          | 13.2  | 18   | 7.5  | 9           | 13.5  | 18   | 5.5  | 20F1AGF012JNONNNNN <sup>(3)</sup> | 6          |
| 15          | 16.5  | 22.5 | 11   | 12          | 18    | 22.5 | 7.5  | 20F1AGF015JNONNNNN <sup>(3)</sup> |            |
| 20          | 22    | 30   | 15   | 15          | 22.5  | 30   | 11   | 20F1AGF020JNONNNNN <sup>(3)</sup> |            |
| 23          | 25.3  | 34.5 | 18.5 | 20          | 30    | 36   | 15   | 20F1AGF023JNONNNNN <sup>(3)</sup> |            |
| 30          | 33    | 45   | 22   | 23          | 34.5  | 45   | 18.5 | 20F1AGF030JNONNNNN <sup>(3)</sup> |            |
| 34          | 37.4  | 51   | 30   | 30          | 45    | 54   | 22   | 20F1AGF034JNONNNNN <sup>(3)</sup> |            |
| 46          | 50.6  | 69   | 37   | 34          | 51    | 69   | 30   | 20F1AGF046JNONNNNN <sup>(3)</sup> |            |
| 50          | 55    | 75   | 45   | 46          | 69    | 83   | 37   | 20F1AGF050JNONNNNN <sup>(3)</sup> |            |
| 61          | 67    | 92   | 55   | 50          | 75    | 92   | 45   | 20F1AGF061JNONNNNN <sup>(3)</sup> |            |
| 82          | 90    | 123  | 75   | 61          | 92    | 123  | 55   | 20F1AGF082JNONNNNN <sup>(3)</sup> |            |
| 98          | 108   | 147  | 90   | 82          | 123   | 148  | 75   | 20F1AGF098JNONNNNN <sup>(3)</sup> |            |
| 119         | 131   | 179  | 110  | 98          | 147   | 179  | 90   | 20F1AGF119JNONNNNN <sup>(3)</sup> |            |
| 142         | 156   | 213  | 132  | 119         | 179   | 214  | 110  | 20F1AGF142JNONNNNN <sup>(3)</sup> |            |
| 171         | 188   | 257  | 160  | 142         | 213   | 257  | 132  | 20F1AGF171JNONNNNN <sup>(3)</sup> | 7          |
| 212         | 233   | 318  | 200  | 171         | 257   | 318  | 160  | 20F1AGF212JNONNNNN <sup>(3)</sup> |            |
| 263         | 289   | 395  | 250  | 212         | 318   | 395  | 200  | 20F1AGF263JNONNNNN <sup>(3)</sup> |            |

(1) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(2) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(3) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

**Flange Mount (Front: IP20, NEMA/UL Type Open; Back/Heatsink: IP66, NEMA/UL Type 4X)**

**Note:** Frame 6...7 IP00, NEMA Type Open drives can be converted to a flange mount drive (Back/Heatsink: IP66, NEMA/UL Type 4X) with an optional user installed flange kit (20-750-FLNG4-F6 for Frame 6, and 20-750-FLNG4-F7 for Frame 7).

See page 79 for 690V, Frame 6...7 IP00, NEMA Type Open drives.

## Approximate Dimensions and Weights

Dimensions are in mm (in.) - weights are in kg (lb)

### IP00/IP20, NEMA/UL Type Open

| Frame | H             | W           | D             | Weight <sup>(1)</sup>         |
|-------|---------------|-------------|---------------|-------------------------------|
| 1     | 400.5 (15.77) | 110 (4.33)  | 211 (8.31)    | 6 (12.75)                     |
| 2     | 424.2 (16.7)  | 134.5 (5.3) | 212 (8.35)    | 7.8 (17.2)                    |
| 3     | 454 (17.87)   | 190 (7.48)  |               | 11.8 (26.1)                   |
| 4     | 474 (18.66)   | 222 (8.74)  |               | 13.6 (30)                     |
| 5     | 550 (21.65)   | 270 (10.63) |               | 20.4 (45)                     |
| 6     | 665.5 (26.2)  | 308 (12.13) | 346.4 (13.64) | 38.6 (85)                     |
| 7     | 881.5 (34.7)  | 430 (16.93) | 349.6 (13.76) | 72.6... 108.9<br>(160... 240) |

(1) Weights are approximate. Refer to [750-TD001](#), the PowerFlex 750-Series Technical Data, for detailed weight information.

### IP54, NEMA/UL Type 12

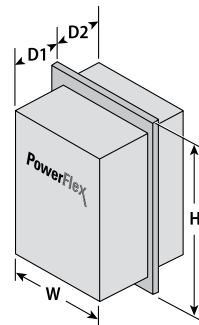
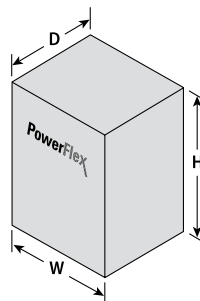
| Frame | H              | W            | D            | Weight <sup>(1)</sup> |
|-------|----------------|--------------|--------------|-----------------------|
| 2     | 543.2 (21.39)  | 215.3 (8.48) | 222.2 (8.75) | 8 (17)                |
| 3     | 551 (21.69)    | 268 (10.55)  | 220.1 (8.67) | 12 (26)               |
| 4     | 571 (22.48)    | 300 (11.81)  |              | 14 (30)               |
| 5     | 647 (25.47)    | 348.0 (13.7) |              | 20 (45)               |
| 6     | 1298.3 (51.11) | 609.4 (24)   | 464.7 (18.3) | 91 (200)              |
| 7     | 1614 (63.54)   |              |              | 162 (357)             |

(1) Weights are approximate. Refer to [750-TD001](#), the PowerFlex 750-Series Technical Data, for detailed weight information.

### Flange Mount

| Frame | H             | W            | D1           | D2          | Weight <sup>(1)</sup> |
|-------|---------------|--------------|--------------|-------------|-----------------------|
| 2     | 481.8 (18.97) | 206.2 (8.12) | 148.3 (5.84) | 63.7 (2.51) | 8 (17)                |
| 3     | 515 (20.28)   | 260 (10.24)  | 127.4 (5.02) | 84.6 (3.33) | 12 (26)               |
| 4     | 535 (21.06)   | 292 (11.5)   |              |             | 14 (30)               |
| 5     | 611 (24.06)   | 340 (13.39)  |              |             | 20 (45)               |
| 6     | 665.5 (26.2)  | 308 (12.13)  | 208.4 (8.2)  | 138 (5.43)  | 38 (84)               |
| 7     | 875 (34.45)   | 430 (16.93)  |              |             | 96 (212)              |

(1) Weights are approximate. Refer to [750-TD001](#), the PowerFlex 750-Series Technical Data, for detailed weight information.



# PowerFlex 755 AC Drive

**0.37...1500 kW/1...2000 Hp in voltages from 200...690V**

Designed for flexibility, connectivity and productivity, the PowerFlex 755 AC drive provides ease of use and high performance for a wide variety of motor control applications. Ideal for machines that benefit from safety options, application flexibility, and packaging designed to meet a variety of environmental conditions, the PowerFlex 755 drive offers more selection for control, communications, safety, and supporting hardware options than any other drives in its class.

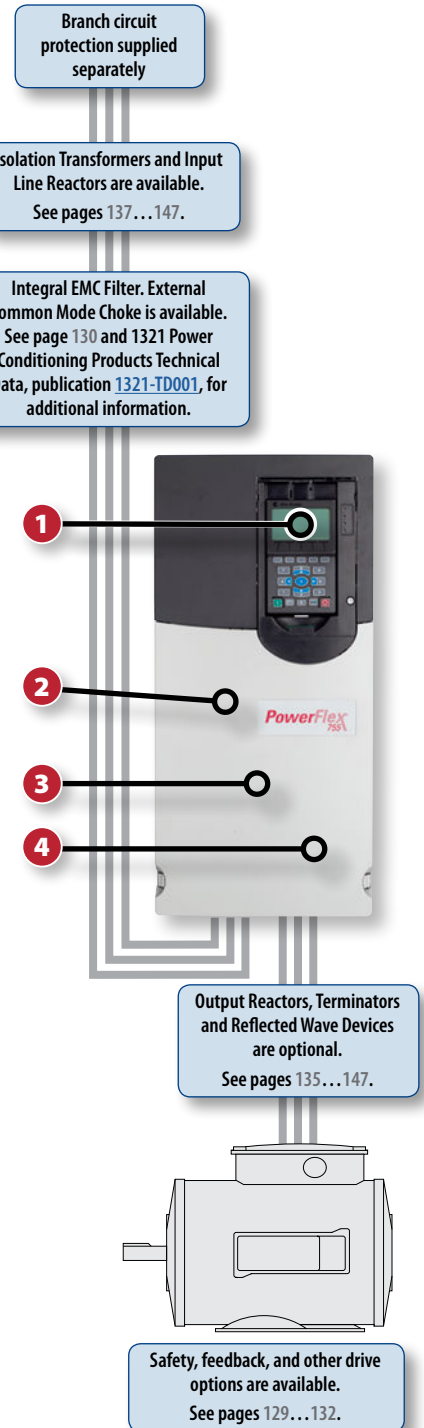
The PowerFlex 755 AC drive can be configured and programmed by using motions instructions within the Studio 5000 environment that are shared with Kinetix servo drives. This common user experience helps to reduce complexity and save valuable engineering time.

## PowerFlex 755 at a Glance

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Ratings</b>             | 200...240V 0.37...132 kW / 0.5...200 Hp / 2.2...477 A<br>380...480V 0.75...1400 kW / 1.0...2000 Hp / 2.1...2330 A<br>600V 1.0...1500 Hp / 1.7...1530 A<br>690V 7.5...1500 kW / 12...1485 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |
| <b>Motor Control</b>       | <ul style="list-style-type: none"> <li>V/Hz Control</li> <li>Sensorless Vector Control</li> <li>Vector Control with FORCE Technology (with and without encoder)</li> <li>Surface Mount Permanent Magnet: Frames 1...7 (with and without encoder) Frames 8...10 (with encoder)</li> <li>Interior Permanent Magnet: Frames 1...7 (with and without encoder) Frames 8...10 (with encoder)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
| <b>Enclosures</b>          | <ul style="list-style-type: none"> <li>IP00/IP20, NEMA/UL Type Open</li> <li>Flange Mount</li> <li>IP54/NEMA/UL Type 12</li> <li>IP20, NEMA/UL Type 1 (MCC Style Cabinet)</li> <li>IP54, NEMA Type 12 (MCC Style Cabinet)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| <b>Safety</b>              | <ul style="list-style-type: none"> <li>Hardwired Safe Torque Off SIL3, PLe, CAT 3</li> <li>Hardwired Safe Speed Monitor SIL3, PLe, CAT 4</li> <li>Networked Safe Torque Off SIL3, PLe, CAT 3</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
| <b>Additional Features</b> | <ul style="list-style-type: none"> <li>Built-in EtherNet/IP Port</li> <li>Automatic Device Configuration</li> <li>Program with motion instructions in Studio 5000 Logix Designer™ Software</li> <li>Predictive Diagnostics</li> <li>Adjustable Voltage Control</li> <li>Five option slots for I/O, feedback, safety, auxiliary control power, communications</li> <li>Accurate positioning with PCAM, Indexer, Electronic Gearing, and speed/position profiling</li> <li>Incremental, Absolute and High Resolution feedback supported</li> <li>TorqProve for lifting applications</li> <li>Pump Jack and Pump Off for oil well applications</li> <li>Pump and Traverse for fiber applications</li> <li>Conformal Coating</li> <li>DC Link Choke</li> <li>AC line fuses included with Frame 8...10 drives</li> <li>Roll-out design for Frame 8...10 drives</li> </ul> |  |
| <b>Certifications</b>      | <ul style="list-style-type: none"> <li>ABS</li> <li>AC156 Seismic Standards</li> <li>ATEX<sup>(1)</sup></li> <li>cULus</li> <li>CE</li> <li>EAC</li> <li>KCC</li> <li>Lloyd's Register</li> <li>RCM</li> <li>RINA</li> <li>RoHS</li> <li>SEMI F47</li> <li>TÜV FS<sup>(2)</sup></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |
| <b>Options</b>             | See pages 126...147                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |

(1) Certification requires 11-series I/O and ATEX daughter card options.

(2) Certification applies to 20-750-S, 20-750-S1, and 20-750-S3 safety options when installed in drive.



- 1** LCD HIM with multi-language support in scrolling text available as optional accessory. See page 126 for other options.
- 2** Communications: Embedded EtherNet/IP. See page 126 for additional options.
- 3** Embedded I/O: 1 Digital Input. See page 126 for other options.
- 4** Integral brake transistor on Frames 1...5, optional on Frames 6...7. Resistors are available. See page 135.

## PowerFlex 755 Wall Mount Drives

PowerFlex 755 wall mount drives have a power range from 0.75 kW / 1 Hp to 270 kW / 400 Hp and are available in several factory and field installable enclosure options to meet most environmental requirements.

The standard enclosure is optimized for cabinet installation and rated at IP00/IP20, NEMA/UL Type Open. Wall mount drives can be converted to IP20, NEMA/UL Type 1 with an optional kit containing a debris hood and conduit plate. A factory enclosure option is also available with extra protection (IP54, NEMA Type 12) for harsh environments.

Flange mount drives are available via a factory option (Frames 1...5) or field installable kits (Frames 6...7) and are designed to reduce panel cooling requirements by mounting the drive heatsink outside the cabinet.

A DC link choke is included on all frames and internal brake transistor in standard on Frames 1...5 and optional on Frames 6...7.



## PowerFlex 755 Floor Mount Drives

PowerFlex 755 floor mount drives have a power range from 200 kW / 250 Hp to 1400 kW / 2000 Hp, and offer multiple duty ratings to provide flexibility for different application requirements. One drive can provide three different motor current ratings. For example a 480 A drive can run a 400 Hp motor in light duty, a 350 Hp motor in normal duty, and a 300 Hp motor in heavy duty.

- Light Duty = 110% of motor rated current for 60 seconds
- Normal Duty = 110% of motor rated current for 60 seconds/150% of motor rated current for 3 seconds
- Heavy Duty = 150% of motor rated current for 60 seconds/180% of motor rated current for 3 seconds

Other power options from the factory include disconnect, reactor, contactor, integrated MCC bus for direct connection to CENTERLINE MCC, auxiliary transformer or wiring bay.



**IP54, NEMA Type 12 Drive and Options (2500 MCC Style Cabinet)**  
(Frame 9 shown)

Includes: DC link choke, Integrated AC line fuses, roll-out design, exhaust hood, and option bay for control/protection devices.



**Roll-out Design**  
(Frame 8 shown)

A roll-out cart is required for Frame 8...10 drives and Frame 9...10 optional bay chassis. The cart has an adjustable Curb Height of 0...182 mm (0...7.2 in.) and curb offset/reach of 0...114 mm (0...4.5 in.). See page 131 for ordering information.

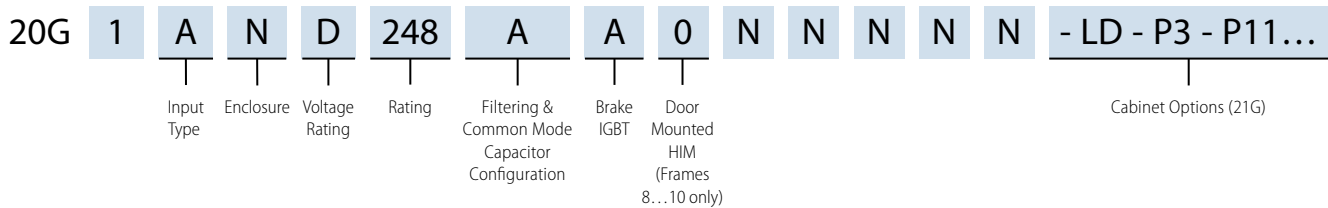
## Additional Information

PowerFlex 750-Series Brochure, publication [750-BR001](#)

PowerFlex 750-Series Technical Data, publication [750-TD001](#)

PowerFlex 750-Series Quick Start Guide, publication [750-QS001](#)

## Catalog Number Explanation



## Product Selection

200...240V AC, Three-phase Drives (Available mid-2017)

IP00/IP20, NEMA/UL Type Open<sup>(1)</sup>

| Normal Duty                             |             |             |     |      | Heavy Duty                              |             |             |     |      | Cat. No. <sup>(3)(4)</sup> | Frame Size |
|-----------------------------------------|-------------|-------------|-----|------|-----------------------------------------|-------------|-------------|-----|------|----------------------------|------------|
| Output Amps: 240V (208V) <sup>(2)</sup> |             |             | HP  | kW   | Output Amps: 240V (208V) <sup>(2)</sup> |             |             | HP  | kW   |                            |            |
| Cont.                                   | 1 min       | 3 s         |     |      | Cont.                                   | 1 min       | 3 s         |     |      |                            |            |
| 2.2 (2.5)                               | 2.4 (2.7)   | 3.3 (3.7)   | 0.5 | 0.37 | 2.2 (2.5)                               | 3.3 (3.7)   | 3.9 (4.5)   | 0.5 | 0.37 | 20G11RB2P2JA0NNNNNN        | 1          |
| 4.2 (4.8)                               | 4.6 (5.2)   | 6.3 (7.2)   | 1   | 0.75 | 2.2 (2.5)                               | 4.6 (5.2)   | 6.3 (7.2)   | 0.5 | 0.37 | 20G11RB4P2JA0NNNNNN        |            |
| 6.8 (7.8)                               | 7.4 (8.5)   | 10.2 (11.7) | 2   | 1.5  | 4.2 (4.8)                               | 7.4 (8.5)   | 10.2 (11.7) | 1   | 0.75 | 20G11RB6P8JA0NNNNNN        |            |
| 9.6 (11)                                | 10.5 (12.1) | 14.4 (16.5) | 3   | 2.2  | 6.8 (7.8)                               | 10.5 (12.1) | 14.4 (16.5) | 2   | 1.5  | 20G11RB9P6JA0NNNNNN        |            |
| 15.3 (15.3)                             | 16.8 (16.8) | 22.9 (22.9) | 5   | 4    | 9.6 (11)                                | 16.8 (16.8) | 22.9 (22.9) | 3   | 2.2  | 20G11RB015JA0NNNNNN        |            |
| 2.2 (2.5)                               | 3.3 (3.7)   | 3.9 (4.5)   | 0.5 | 0.37 | 2.2 (2.5)                               | 3.3 (3.7)   | 3.9 (4.5)   | 0.5 | 0.37 | 20G11NB2P2JA0NNNNNN        | 2          |
| 4.2 (4.8)                               | 6.3 (7.2)   | 7.5 (8.6)   | 1   | 0.75 | 4.2 (4.8)                               | 6.3 (7.2)   | 7.5 (8.6)   | 1   | 0.75 | 20G11NB4P2JA0NNNNNN        |            |
| 6.8 (7.8)                               | 10.2 (11.7) | 12.2 (14)   | 2   | 1.5  | 6.8 (7.8)                               | 10.2 (11.7) | 12.2 (14)   | 2   | 1.5  | 20G11NB6P8JA0NNNNNN        |            |
| 9.6 (11)                                | 14.4 (16.5) | 17.2 (19.8) | 3   | 2.2  | 9.6 (11)                                | 14.4 (16.5) | 17.2 (19.8) | 3   | 2.2  | 20G11NB9P6JA0NNNNNN        |            |
| 15.3 (17.5)                             | 16.8 (19.2) | 22.9 (26.2) | 5   | 4    | 9.6 (11)                                | 16.8 (19.2) | 22.9 (26.2) | 3   | 2.2  | 20G11NB015JA0NNNNNN        |            |
| 22 (22)                                 | 24.2 (24.2) | 33 (33)     | 7.5 | 5.5  | 15.3 (17.5)                             | 24.2 (24.2) | 33 (33)     | 5   | 4    | 20G11NB022JA0NNNNNN        | 3          |
| 28 (32.2)                               | 30.8 (35.4) | 42 (48.3)   | 10  | 7.5  | 22 (22)                                 | 33 (35.4)   | 42 (48.3)   | 7.5 | 5.5  | 20G11NB028JA0NNNNNN        |            |
| 42 (43)                                 | 46.2 (47.3) | 63 (64.5)   | 15  | 11   | 28 (32.2)                               | 46.2 (48.3) | 63 (64.5)   | 10  | 7.5  | 20G11NB042JA0NNNNNN        |            |
| 54 (60)                                 | 59.4 (66)   | 81 (90)     | 20  | 15   | 42 (43)                                 | 63 (64.5)   | 81 (90)     | 15  | 11   | 20G11NB054JA0NNNNNN        | 4          |
| 70 (78.2)                               | 77 (86)     | 105 (117)   | 25  | 18.5 | 54 (60)                                 | 81 (90)     | 105 (117)   | 20  | 15   | 20G11NB070JA0NNNNNN        | 5          |
| 80 (92)                                 | 88 (101)    | 120 (138)   | 30  | 22   | 70 (78.2)                               | 105 (117)   | 126 (140)   | 25  | 18.5 | 20G11NB080JA0NNNNNN        |            |

(1) Frames 1...5 are IP20, NEMA/UL Type Open. Frames 6...7 are IP00, NEMA/UL Type Open. Frames 1...7 can be converted to IP20, NEMA/UL Type 1 with optional kit (20-750-NEMA1-Fx), where x is the frame size of the drive.

(2) Drives must be programmed to lower voltage to obtain the currents shown in parentheses.

(3) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(4) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(table continues on next page)

## 200...240V AC, Three-phase Drives (Available mid-2017), (continued)

IP00/IP20, NEMA/UL Type Open (continued)<sup>(1)</sup>

| Normal Duty                             |           |           |     |     | Heavy Duty                              |           |           |     |    | Cat. No. <sup>(3)(4)</sup>        | Frame Size |
|-----------------------------------------|-----------|-----------|-----|-----|-----------------------------------------|-----------|-----------|-----|----|-----------------------------------|------------|
| Output Amps: 240V (208V) <sup>(2)</sup> |           |           | Hp  | kW  | Output Amps: 240V (208V) <sup>(2)</sup> |           |           | Hp  | kW |                                   |            |
| Cont.                                   | 1 min     | 3 s       |     |     | Cont.                                   | 1 min     | 3 s       |     |    |                                   |            |
| 104 (120)                               | 114 (132) | 156 (180) | 40  | 30  | 80 (92)                                 | 120 (138) | 156 (180) | 30  | 22 | 20G1ANB104JNONNNNN <sup>(5)</sup> | 6          |
| 130 (150)                               | 143 (165) | 195 (225) | 50  | 37  | 104 (120)                               | 156 (180) | 195 (225) | 40  | 30 | 20G1ANB130JNONNNNN <sup>(5)</sup> |            |
| 154 (177)                               | 169 (194) | 231 (265) | 60  | 45  | 130 (150)                               | 195 (225) | 234 (270) | 50  | 37 | 20G1ANB154JNONNNNN <sup>(5)</sup> |            |
| 192 (221)                               | 211 (243) | 288 (331) | 75  | 55  | 154 (177)                               | 231 (265) | 288 (331) | 60  | 45 | 20G1ANB192JNONNNNN <sup>(5)</sup> |            |
| 260 (260)                               | 286 (286) | 390 (390) | 100 | 66  | 192 (221)                               | 288 (331) | 390 (390) | 75  | 55 | 20G1ANB260JNONNNNN <sup>(5)</sup> |            |
| 312 (359)                               | 343 (394) | 468 (538) | 125 | 90  | 260 (260)                               | 390 (394) | 468 (538) | 100 | 66 | 20G1ANB312JNONNNNN <sup>(5)</sup> | 7          |
| 360 (414)                               | 396 (455) | 540 (621) | 150 | 110 | 312 (359)                               | 468 (538) | 561 (646) | 125 | 90 | 20G1ANB360JNONNNNN <sup>(5)</sup> |            |
| 477 (477)                               | 524 (524) | 715 (715) | 200 | 132 | 312 (359)                               | 468 (538) | 561 (646) | 125 | 90 | 20G1ANB477JNONNNNN <sup>(5)</sup> |            |

- (1) Frames 1...5 are IP20, NEMA/UL Type Open. Frames 6...7 are IP00, NEMA/UL Type Open. Frames 1...7 can be converted to IP20, NEMA/UL Type 1 with optional kit (20-750-NEMA1-Fx), where x is the frame size of the drive.
- (2) Drives must be programmed to lower voltage to obtain the currents shown in parentheses.
- (3) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.
- (4) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.
- (5) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

## IP54, NEMA/UL Type 12

| Normal Duty                             |             |             |     |      | Heavy Duty                              |             |             |     |      | Cat. No. <sup>(2)(3)</sup>        | Frame Size |
|-----------------------------------------|-------------|-------------|-----|------|-----------------------------------------|-------------|-------------|-----|------|-----------------------------------|------------|
| Output Amps: 240V (208V) <sup>(1)</sup> |             |             | HP  | kW   | Output Amps: 240V (208V) <sup>(1)</sup> |             |             | HP  | kW   |                                   |            |
| Cont.                                   | 1 min       | 3 s         |     |      | Cont.                                   | 1 min       | 3 s         |     |      |                                   |            |
| 2.2 (2.5)                               | 3.3 (3.8)   | 4 (4.5)     | 0.5 | 0.37 | 2.2 (2.5)                               | 3.3 (3.7)   | 3.9 (4.5)   | 0.5 | 0.37 | 20G11GB2P2JA0NNNNN                | 2          |
| 4.2 (4.8)                               | 6.3 (7.2)   | 7.5 (8.6)   | 1   | 0.75 | 4.2 (4.8)                               | 6.3 (7.2)   | 7.5 (8.6)   | 1   | 0.75 | 20G11GB4P2JA0NNNNN                |            |
| 6.8 (7.8)                               | 10.2 (11.7) | 12.2 (14)   | 2   | 1.5  | 6.8 (7.8)                               | 10.2 (11.7) | 12.2 (14)   | 2   | 1.5  | 20G11GB6P8JA0NNNNN                |            |
| 9.6 (11)                                | 14.4 (16.5) | 17.2 (19.8) | 3   | 2.2  | 9.6 (11)                                | 14.4 (16.5) | 17.2 (19.8) | 3   | 2.2  | 20G11GB9P6JA0NNNNN                |            |
| 15.3 (17.5)                             | 16.8 (19.2) | 22.9 (26.2) | 5   | 4    | 9.6 (11)                                | 16.8 (19.2) | 22.9 (26.2) | 3   | 2.2  | 20G11GB015JA0NNNNN                |            |
| 22 (22)                                 | 24.2 (24.2) | 33 (33)     | 7.5 | 5.5  | 15.3 (17.5)                             | 24.2 (24.2) | 33 (33)     | 5   | 4    | 20G11GB022JA0NNNNN                | 3          |
| 28 (32.2)                               | 30.8 (35.4) | 42 (48.3)   | 10  | 7.5  | 22 (22)                                 | 33 (35.4)   | 42 (48.3)   | 7.5 | 5.5  | 20G11GB028JA0NNNNN                |            |
| 42 (43)                                 | 46.2 (47.3) | 63 (64.5)   | 15  | 11   | 28 (32.2)                               | 46.2 (48.3) | 63 (64.5)   | 10  | 7.5  | 20G11GB042JA0NNNNN                |            |
| 54 (60)                                 | 59.4 (66)   | 81 (90)     | 20  | 15   | 42 (43)                                 | 63 (64.5)   | 81 (90)     | 15  | 11   | 20G11GB054JA0NNNNN                | 4          |
| 70 (78.2)                               | 77 (86)     | 105 (117)   | 25  | 18.5 | 54 (60)                                 | 81 (90)     | 105 (117)   | 20  | 15   | 20G11GB070JA0NNNNN                | 5          |
| 80 (92)                                 | 88 (101)    | 120 (138)   | 30  | 22   | 70 (78.2)                               | 105 (117)   | 126 (140)   | 25  | 18.5 | 20G1AGB080JNONNNNN <sup>(4)</sup> | 6          |
| 104 (120)                               | 114 (132)   | 156 (180)   | 40  | 30   | 80 (92)                                 | 120 (138)   | 156 (180)   | 30  | 22   | 20G1AGB104JNONNNNN <sup>(4)</sup> |            |
| 130 (150)                               | 143 (165)   | 195 (225)   | 50  | 37   | 104 (120)                               | 156 (180)   | 195 (225)   | 40  | 30   | 20G1AGB130JNONNNNN <sup>(4)</sup> |            |
| 154 (177)                               | 169 (194)   | 231 (265)   | 60  | 45   | 130 (150)                               | 195 (225)   | 234 (270)   | 50  | 37   | 20G1AGB154JNONNNNN <sup>(4)</sup> |            |
| 192 (221)                               | 211 (243)   | 288 (331)   | 75  | 55   | 154 (177)                               | 231 (265)   | 288 (331)   | 60  | 45   | 20G1AGB192JNONNNNN <sup>(4)</sup> |            |
| 260 (260)                               | 286 (286)   | 390 (390)   | 100 | 66   | 192 (221)                               | 288 (331)   | 390 (390)   | 75  | 55   | 20G1AGB260JNONNNNN <sup>(4)</sup> | 7          |
| 312 (359)                               | 343 (394)   | 468 (538)   | 125 | 90   | 260 (260)                               | 390 (394)   | 468 (538)   | 100 | 66   | 20G1AGB312JNONNNNN <sup>(4)</sup> |            |
| 360 (414)                               | 396 (455)   | 540 (621)   | 150 | 110  | 312 (359)                               | 468 (538)   | 561 (646)   | 125 | 90   | 20G1AGB360JNONNNNN <sup>(4)</sup> |            |

- (1) Drive must be programmed to lower voltage to obtain the currents shown in parentheses.
- (2) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.
- (3) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.
- (4) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

## 200...240V AC, Three-phase Drives (Available mid-2017), (continued)

**Flange Mount (Front: IP20, NEMA/UL Type Open; Back/Heatsink: IP66, NEMA/UL Type 4X)**

**Note:** Frame 6...7 IP00, NEMA Type Open drives can be converted to a flange mount drive (Back/Heatsink: IP66, NEMA/UL Type 4X) with an optional user installed flange kit (20-750-FLNG4-F6 for Frame 6, and 20-750-FLNG4-F7 for Frame 7). See page 84 for 200...240V, Frame 6...7 IP00, NEMA Type Open drives.

| Normal Duty                             |             |             |     |      | Heavy Duty                              |             |             |     |      | Cat. No. <sup>(2)(3)</sup> | Frame Size |
|-----------------------------------------|-------------|-------------|-----|------|-----------------------------------------|-------------|-------------|-----|------|----------------------------|------------|
| Output Amps: 240V (208V) <sup>(1)</sup> |             |             | HP  | kW   | Output Amps: 240V (208V) <sup>(1)</sup> |             |             | HP  | kW   |                            |            |
| Cont.                                   | 1 min       | 3 s         |     |      | Cont.                                   | 1 min       | 3 s         |     |      |                            |            |
| 2.2 (2.5)                               | 3.3 (3.7)   | 3.9 (4.5)   | 0.5 | 0.37 | 2.2 (2.5)                               | 3.3 (3.7)   | 3.9 (4.5)   | 0.5 | 0.37 | 20G11FB2P2JA0NNNNNN        | 2          |
| 4.2 (4.8)                               | 6.3 (7.2)   | 7.5 (8.6)   | 1   | 0.75 | 4.2 (4.8)                               | 6.3 (7.2)   | 7.5 (8.6)   | 1   | 0.75 | 20G11FB4P2JA0NNNNNN        |            |
| 6.8 (7.8)                               | 10.2 (11.7) | 12.2 (14)   | 2   | 1.5  | 6.8 (7.8)                               | 10.2 (11.7) | 12.2 (14)   | 2   | 1.5  | 20G11FB6P8JA0NNNNNN        |            |
| 9.6 (11)                                | 14.4 (16.5) | 17.2 (19.8) | 3   | 2.2  | 9.6 (11)                                | 14.4 (16.5) | 17.2 (19.8) | 3   | 2.2  | 20G11FB9P6JA0NNNNNN        |            |
| 15.3 (17.5)                             | 16.8 (19.2) | 22.9 (26.2) | 5   | 4    | 9.6 (11)                                | 16.8 (19.2) | 22.9 (26.2) | 3   | 2.2  | 20G11FB015JA0NNNNNN        |            |
| 22 (22)                                 | 24.2 (24.2) | 33 (33)     | 7.5 | 5.5  | 15.3 (17.5)                             | 24.2 (24.2) | 33 (33)     | 5   | 4    | 20G11FB022JA0NNNNNN        |            |
| 28 (32.2)                               | 30.8 (35.4) | 42 (48.3)   | 10  | 7.5  | 22 (22)                                 | 33 (35.4)   | 42 (48.3)   | 7.5 | 5.5  | 20G11FB028JA0NNNNNN        | 3          |
| 42 (43)                                 | 46.2 (47.3) | 63 (64.5)   | 15  | 11   | 28 (32.2)                               | 46.2 (48.3) | 63 (64.5)   | 10  | 7.5  | 20G11FB042JA0NNNNNN        |            |
| 54 (60)                                 | 59.4 (66)   | 81 (90)     | 20  | 15   | 42 (43)                                 | 63 (64.5)   | 81 (90)     | 15  | 11   | 20G11FB054JA0NNNNNN        | 4          |
| 70 (78.2)                               | 77 (86)     | 105 (117)   | 25  | 18.5 | 54 (60)                                 | 81 (90)     | 105 (117)   | 20  | 15   | 20G11FB070JA0NNNNNN        | 5          |
| 80 (92)                                 | 88 (101)    | 120 (138)   | 30  | 22   | 70 (78.2)                               | 105 (117)   | 126 (140)   | 25  | 18.5 | 20G11FB080JA0NNNNNN        |            |

(1) Drive must be programmed to lower voltage to obtain the currents shown in parentheses.

(2) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(3) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

## 380...400V AC, Three-phase Drives

IP00/IP20, NEMA/UL Type Open<sup>(1)</sup>

| Light Duty <sup>(2)</sup> |       |     | Normal Duty |       |      |      | Heavy Duty  |                                    |      |      | Cat. No. <sup>(3)(4)</sup>         | Frame Size |
|---------------------------|-------|-----|-------------|-------|------|------|-------------|------------------------------------|------|------|------------------------------------|------------|
| Output Amps               |       | kW  | Output Amps |       |      | kW   | Output Amps |                                    |      | kW   |                                    |            |
| Cont.                     | 1 min |     | Cont.       | 1 min | 3 s  |      | Cont.       | 1 min                              | 3 s  |      |                                    |            |
| —                         | —     | —   | 2.1         | 2.3   | 3.2  | 0.75 | 1.3         | 2.3                                | 3.2  | 0.37 | 20G11RC2P1JA0NNNNN                 | 1          |
|                           |       |     | 3.5         | 3.9   | 5.3  | 1.5  | 2.1         | 3.9                                | 5.3  | 0.75 | 20G11RC3P5JA0NNNNN                 |            |
|                           |       |     | 5           | 5.5   | 7.5  | 2.2  | 3.5         | 5.5                                | 7.5  | 1.5  | 20G11RC5P0JA0NNNNN                 |            |
|                           |       |     | 8.7         | 9.6   | 13.1 | 4    | 5           | 9.6                                | 13.1 | 2.2  | 20G11RC8P7JA0NNNNN                 |            |
|                           |       |     | 11.5        | 13.1  | 17.3 | 5.5  | 8.7         | 13.1                               | 17.3 | 4    | 20G11RC011JA0NNNNN                 |            |
|                           |       |     | 15.4        | 16.9  | 23.1 | 7.5  | 11.5        | 17.2                               | 23.1 | 5.5  | 20G11RC015JA0NNNNN                 |            |
|                           |       |     | 2.1         | 3.1   | 3.7  | 0.75 | 2.1         | 3.1                                | 3.7  | 0.75 | 20G11NC2P1JA0NNNNN                 | 2          |
|                           |       |     | 3.5         | 5.2   | 6.3  | 1.5  | 3.5         | 5.2                                | 6.3  | 1.5  | 20G11NC3P5JA0NNNNN                 |            |
|                           |       |     | 5           | 7.5   | 9    | 2.2  | 5           | 7.5                                | 9    | 2.2  | 20G11NC5P0JA0NNNNN                 |            |
|                           |       |     | 8.7         | 13    | 15.6 | 4    | 8.7         | 13                                 | 15.6 | 4    | 20G11NC8P7JA0NNNNN                 |            |
|                           |       |     | 11.5        | 17.2  | 20.7 | 5.5  | 11.5        | 17.2                               | 20.7 | 5.5  | 20G11NC011JA0NNNNN                 |            |
|                           |       |     | 15.4        | 16.9  | 23.1 | 7.5  | 11.5        | 17.2                               | 23.1 | 5.5  | 20G11NC015JA0NNNNN                 |            |
|                           |       |     | 22          | 24.2  | 33   | 11   | 15.4        | 24.2                               | 33   | 7.5  | 20G11NC022JA0NNNNN                 | 3          |
|                           |       |     | 30          | 33    | 45   | 15   | 22          | 33                                 | 45   | 11   | 20G11NC030JA0NNNNN                 |            |
|                           |       |     | 37          | 40.7  | 55.5 | 18.5 | 30          | 45                                 | 55.5 | 15   | 20G11NC037JA0NNNNN                 |            |
|                           |       |     | 43          | 47.3  | 64.5 | 22   | 37          | 55.5                               | 66.6 | 18.5 | 20G11NC043JA0NNNNN                 |            |
|                           |       |     | 60          | 66    | 90   | 30   | 43          | 66                                 | 90   | 22   | 20G11NC060JA0NNNNN                 | 4          |
|                           |       |     | 72          | 79.2  | 108  | 37   | 60          | 90                                 | 108  | 30   | 20G11NC072JA0NNNNN                 |            |
|                           |       |     | 85          | 93.5  | 128  | 45   | 72          | 108                                | 130  | 37   | 20G11NC085JA0NNNNN                 | 5          |
|                           |       |     | 104         | 114   | 156  | 55   | 85          | 128                                | 156  | 45   | 20G11NC104JA0NNNNN                 |            |
|                           |       |     | 140         | 154   | 210  | 75   | 104         | 156                                | 210  | 55   | 20G11ANC140JNONNNNN <sup>(5)</sup> | 6          |
|                           |       |     | 170         | 187   | 255  | 90   | 140         | 210                                | 255  | 75   | 20G11ANC170JNONNNNN <sup>(5)</sup> |            |
|                           |       |     | 205         | 226   | 308  | 110  | 170         | 255                                | 308  | 90   | 20G11ANC205JNONNNNN <sup>(5)</sup> |            |
|                           |       |     | 260         | 286   | 390  | 132  | 205         | 308                                | 390  | 110  | 20G11ANC260JNONNNNN <sup>(5)</sup> |            |
| 302                       | 332   | 453 | 160         | 260   | 390  | 468  | 132         | 20G11ANC302JNONNNNN <sup>(5)</sup> | 7    |      |                                    |            |
| 367                       | 404   | 551 | 200         | 302   | 453  | 551  | 160         | 20G11ANC367JNONNNNN <sup>(5)</sup> |      |      |                                    |            |
| 456                       | 502   | 684 | 250         | 367   | 551  | 684  | 200         | 20G11ANC456JNONNNNN <sup>(5)</sup> |      |      |                                    |            |
| 477                       | 525   | 716 | 270         | 367   | 551  | 684  | 200         | 20G11ANC477JNONNNNN <sup>(5)</sup> |      |      |                                    |            |

(1) Frames 1...5 are IP20, NEMA/UL Type Open. Frames 6...7 are IP00, NEMA/UL Type Open. Frames 8...10 are IP20, NEMA/UL Type 1. Frames 1...7 can be converted to IP20, NEMA/UL Type 1 with optional kit (20-750-NEMA1-Fx), where x is the frame size of the drive.

(2) Light Duty rating only available on Frame 8...10 drives. Light Duty allows 110% overload for 1 minute, and does not have a 3 second overload rating.

(3) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(4) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(5) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

(table continues on next page)

## 380...400V AC, Three-phase Drives (continued)

IP00/IP20, NEMA/UL Type Open (continued)<sup>(1)</sup>

| Light Duty <sup>(2)</sup> |       |      | Normal Duty |       |      |      | Heavy Duty  |       |      |      | Cat. No. <sup>(3)(4)</sup>        | Frame Size        |
|---------------------------|-------|------|-------------|-------|------|------|-------------|-------|------|------|-----------------------------------|-------------------|
| Output Amps               |       | kW   | Output Amps |       |      | kW   | Output Amps |       |      | kW   |                                   |                   |
| Cont.                     | 1 min |      | Cont.       | 1 min | 3 s  |      | Cont.       | 1 min | 3 s  |      |                                   |                   |
| 540                       | 594   | 315  | 460         | 506   | 690  | 250  | 385         | 578   | 693  | 200  | 20G1A*C460JNONNNNN <sup>(6)</sup> | 8 <sup>(7)</sup>  |
| 585                       | 644   | 315  | 540         | 594   | 810  | 315  | 456         | 684   | 821  | 250  | 20G1A*C540JNONNNNN <sup>(6)</sup> |                   |
| 612                       | 673   | 355  | 567         | 624   | 851  | 315  | 472         | 708   | 850  | 250  | 20G1A*C567JNONNNNN <sup>(6)</sup> |                   |
| 750                       | 825   | 400  | 650         | 715   | 975  | 355  | 540         | 810   | 972  | 315  | 20G1A*C650JNONNNNN <sup>(6)</sup> |                   |
| 796                       | 876   | 450  | 750         | 825   | 1125 | 400  | 585         | 878   | 1053 | 315  | 20G1A*C750JNONNNNN <sup>(6)</sup> |                   |
| 832                       | 915   | 450  | 770         | 847   | 1155 | 400  | 642         | 963   | 1156 | 355  | 20G1A*C770JNONNNNN <sup>(6)</sup> |                   |
| 1040                      | 1144  | 560  | 910         | 1001  | 1365 | 500  | 750         | 1125  | 1350 | 400  | 20G11*C910JNONNNNN <sup>(6)</sup> | 9 <sup>(7)</sup>  |
| 1090                      | 1199  | 630  | 1040        | 1144  | 1560 | 560  | 880         | 1320  | 1584 | 500  | 20G11*C1K0JNONNNNN <sup>(6)</sup> |                   |
| 1175                      | 1293  | 710  | 1090        | 1199  | 1635 | 630  | 910         | 1365  | 1638 | 500  | 20G11*C1K1JNONNNNN <sup>(6)</sup> |                   |
| 1465                      | 1612  | 800  | 1175        | 1293  | 1763 | 710  | 1040        | 1560  | 1872 | 560  | 20G11*C1K2JNONNNNN <sup>(6)</sup> |                   |
| 1480                      | 1628  | 850  | 1465        | 1612  | 2198 | 800  | 1090        | 1635  | 1962 | 630  | 20G11*C1K4JNONNNNN <sup>(6)</sup> |                   |
| 1600                      | 1760  | 900  | 1480        | 1628  | 2220 | 850  | 1175        | 1763  | 2115 | 710  | 20G11*C1K5JNONNNNN <sup>(6)</sup> |                   |
| 1715                      | 1887  | 1000 | 1590        | 1749  | 2385 | 900  | 1325        | 1988  | 2385 | 710  | 20G11*C1K6JNONNNNN <sup>(6)</sup> | 10 <sup>(7)</sup> |
| 2330                      | 2563  | 1400 | 2150        | 2365  | 3225 | 1250 | 1800        | 2700  | 3240 | 1000 | 20G11*C2K1JNONNNNN <sup>(6)</sup> |                   |

(1) Frames 1...5 are IP20, NEMA/UL Type Open. Frames 6...7 are IP00, NEMA/UL Type Open. Frames 8...10 are IP20, NEMA/UL Type 1. Frames 1...7 can be converted to IP20, NEMA/UL Type 1 with optional kit (20-750-NEMA1-Fx), where x is the frame size of the drive.

(2) Light Duty rating only available on Frame 8...10 drives. Light Duty allows 110% overload for 1 minute, and does not have a 3 second overload rating.

(3) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(4) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(5) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

(6) The 6th character (designated by an \* in this table) determines Enclosure Type and Depth. "B" = IP20, NEMA/UL Type 1, MCC style 600 mm (23.6 in.) deep, and "L" = IP20, NEMA/UL Type 1, MCC style 800 mm (31.5 in.).

(7) A roll-out cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. Refer to page 131.

## 380...400V AC, Three-phase Drives (continued)

## IP54, NEMA/UL Type 12

| Light Duty <sup>(1)</sup> |       |      | Normal Duty |       |      |      | Heavy Duty  |                                   |      |      | Cat. No. <sup>(2)(3)</sup>        | Frame Size        |
|---------------------------|-------|------|-------------|-------|------|------|-------------|-----------------------------------|------|------|-----------------------------------|-------------------|
| Output Amps               |       | kW   | Output Amps |       |      | kW   | Output Amps |                                   |      | kW   |                                   |                   |
| Cont.                     | 1 min |      | Cont.       | 1 min | 3 s  |      | Cont.       | 1 min                             | 3 s  |      |                                   |                   |
| —                         | —     | —    | 2.1         | 3.1   | 3.7  | 0.75 | 2.1         | 3.1                               | 3.7  | 0.75 | 20G11GC2P1JA0NNNNN                | 2                 |
|                           |       |      | 3.5         | 5.2   | 6.3  | 1.5  | 3.5         | 5.2                               | 6.3  | 1.5  | 20G11GC3P5JA0NNNNN                |                   |
|                           |       |      | 5           | 7.5   | 9    | 2.2  | 5           | 7.5                               | 9.0  | 2.2  | 20G11GC5P0JA0NNNNN                |                   |
|                           |       |      | 8.7         | 13    | 15.6 | 4    | 8.7         | 13                                | 15.6 | 4    | 20G11GC8P7JA0NNNNN                |                   |
|                           |       |      | 11.5        | 17.2  | 20.7 | 5.5  | 11.5        | 17.2                              | 20.7 | 5.5  | 20G11GC011JA0NNNNN                |                   |
|                           |       |      | 15.4        | 16.9  | 23.1 | 7.5  | 11.5        | 17.2                              | 23.1 | 5.5  | 20G11GC015JA0NNNNN                |                   |
|                           |       |      | 22          | 24.2  | 33   | 11   | 15.4        | 24.2                              | 33   | 7.5  | 20G11GC022JA0NNNNN                | 3                 |
|                           |       |      | 30          | 33    | 45   | 15   | 22          | 33                                | 45   | 11   | 20G11GC030JA0NNNNN                |                   |
|                           |       |      | 37          | 40.7  | 55.5 | 18.5 | 30          | 45                                | 55.5 | 15   | 20G11GC037JA0NNNNN                |                   |
|                           |       |      | 43          | 47.3  | 64.5 | 22   | 37          | 55.5                              | 66.6 | 18.5 | 20G11GC043JA0NNNNN                | 4                 |
|                           |       |      | 60          | 66    | 90   | 30   | 43          | 66                                | 90   | 22   | 20G11GC060JA0NNNNN                |                   |
|                           |       |      | 72          | 79.2  | 108  | 37   | 60          | 90                                | 108  | 30   | 20G11GC072JA0NNNNN                | 5                 |
|                           |       |      | 85          | 93.5  | 128  | 45   | 72          | 108                               | 130  | 37   | 20G11GC085JA0NNNNN                |                   |
|                           |       |      | 104         | 114   | 156  | 55   | 85          | 128                               | 156  | 45   | 20G1AGC104JNONNNNN <sup>(4)</sup> | 6                 |
|                           |       |      | 140         | 154   | 210  | 75   | 104         | 156                               | 210  | 55   | 20G1AGC140JNONNNNN <sup>(4)</sup> |                   |
|                           |       |      | 170         | 187   | 255  | 90   | 140         | 210                               | 255  | 75   | 20G1AGC170JNONNNNN <sup>(4)</sup> |                   |
|                           |       |      | 205         | 226   | 308  | 110  | 170         | 255                               | 308  | 90   | 20G1AGC205JNONNNNN <sup>(4)</sup> | 7                 |
|                           |       |      | 260         | 286   | 390  | 132  | 205         | 308                               | 390  | 110  | 20G1AGC260JNONNNNN <sup>(4)</sup> |                   |
|                           |       |      | 302         | 332   | 453  | 160  | 260         | 390                               | 468  | 132  | 20G1AGC302JNONNNNN <sup>(4)</sup> |                   |
|                           |       |      | 367         | 404   | 551  | 200  | 302         | 453                               | 551  | 160  | 20G1AGC367JNONNNNN <sup>(4)</sup> |                   |
| 456                       | 502   | 684  | 250         | 367   | 551  | 684  | 200         | 20G1AGC456JNONNNNN <sup>(4)</sup> |      |      |                                   |                   |
| 540                       | 594   | 315  | 460         | 506   | 690  | 250  | 385         | 578                               | 693  | 200  | 20G1AJC460JNONNNNN                | 8 <sup>(5)</sup>  |
| 585                       | 644   | 315  | 540         | 594   | 810  | 315  | 456         | 684                               | 821  | 250  | 20G1AJC540JNONNNNN                |                   |
| 612                       | 673   | 355  | 567         | 624   | 851  | 315  | 472         | 708                               | 850  | 250  | 20G1AJC567JNONNNNN                |                   |
| 750                       | 825   | 400  | 650         | 715   | 975  | 355  | 540         | 810                               | 972  | 315  | 20G1AJC650JNONNNNN                |                   |
| 796                       | 876   | 450  | 750         | 825   | 1125 | 400  | 585         | 878                               | 1053 | 315  | 20G1AJC750JNONNNNN                |                   |
| 832                       | 915   | 450  | 770         | 847   | 1155 | 400  | 642         | 963                               | 1156 | 355  | 20G1AJC770JNONNNNN                |                   |
| 1040                      | 1144  | 560  | 910         | 1001  | 1365 | 500  | 750         | 1125                              | 1350 | 400  | 20G11JC910JNONNNNN                | 9 <sup>(5)</sup>  |
| 1090                      | 1199  | 630  | 1040        | 1144  | 1560 | 560  | 880         | 1320                              | 1584 | 500  | 20G11JC1K0JNONNNNN                |                   |
| 1175                      | 1293  | 710  | 1090        | 1199  | 1635 | 630  | 910         | 1365                              | 1638 | 500  | 20G11JC1K1JNONNNNN                |                   |
| 1465                      | 1612  | 800  | 1175        | 1293  | 1763 | 710  | 1040        | 1560                              | 1872 | 560  | 20G11JC1K2JNONNNNN                |                   |
| 1480                      | 1628  | 850  | 1465        | 1612  | 2198 | 800  | 1090        | 1635                              | 1962 | 630  | 20G11JC1K4JNONNNNN                |                   |
| 1600                      | 1760  | 900  | 1480        | 1628  | 2220 | 850  | 1175        | 1763                              | 2115 | 710  | 20G11JC1K5JNONNNNN                |                   |
| 1715                      | 1887  | 1000 | 1590        | 1749  | 2385 | 900  | 1325        | 1988                              | 2385 | 710  | 20G11JC1K6JNONNNNN                | 10 <sup>(5)</sup> |
| 2330                      | 2563  | 1400 | 2150        | 2365  | 3225 | 1250 | 1800        | 2700                              | 3240 | 1000 | 20G11JC2K1JNONNNNN                |                   |

(1) These drives have dual current ratings; one for normal duty applications, and one for heavy duty applications (in parenthesis). The drive can be operated at either rating.

(2) The 11th character determines default Filtering and Common Mode Cap jumper configuration. "J" = Installed, "A" = Removed.

(3) Alternate 600V ratings when connected to drives 60 Hp and greater in common DC input applications with uncontrolled front ends.

(4) Also available with internal Brake IGBT (20G1xxxxxxAN0NNNNN).

(5) A roll-out cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. Refer to page 131.

## 380...400V AC, Three-phase Drives (continued)

**Flange Mount (Front: IP20, NEMA/UL Type Open; Back/Heatsink: IP66, NEMA/UL Type 4X)**

**Note:** Frame 6...7 IP00, NEMA Type Open drives can be converted to a flange mount drive (Back/Heatsink: IP66, NEMA/UL Type 4X) with an optional user installed flange kit (20-750-FLNG4-F6 for Frame 6, and 20-750-FLNG4-F7 for Frame 7). See page 88 for 380...400V, Frame 6...7 IP00, NEMA Type Open drives.

| Normal Duty |       |      |      | Heavy Duty  |       |      |      | Cat. No. <sup>(1)(2)</sup> | Frame Size |
|-------------|-------|------|------|-------------|-------|------|------|----------------------------|------------|
| Outputs Amp |       |      | kW   | Output Amps |       |      | kW   |                            |            |
| Cont.       | 1 min | 3 s  |      | Cont.       | 1 min | 3 s  |      |                            |            |
| 2.1         | 3.1   | 3.7  | 0.75 | 2.1         | 3.1   | 3.7  | 0.75 | 20G11FC2P1JA0NNNNNN        | 2          |
| 3.5         | 5.2   | 6.3  | 1.5  | 3.5         | 5.2   | 6.3  | 1.5  | 20G11FC3P5JA0NNNNNN        |            |
| 5           | 7.5   | 9    | 2.2  | 5           | 7.5   | 9    | 2.2  | 20G11FC5P0JA0NNNNNN        |            |
| 8.7         | 13    | 15.6 | 4    | 8.7         | 13    | 15.6 | 4    | 20G11FC8P7JA0NNNNNN        |            |
| 11.5        | 17.2  | 20.7 | 5.5  | 11.5        | 17.2  | 20.7 | 5.5  | 20G11FC011JA0NNNNNN        |            |
| 15.4        | 16.9  | 23.1 | 7.5  | 11.5        | 17.2  | 23.1 | 5.5  | 20G11FC015JA0NNNNNN        |            |
| 22          | 24.2  | 33   | 11   | 15.4        | 24.2  | 33   | 7.5  | 20G11FC022JA0NNNNNN        |            |
| 30          | 33    | 45   | 15   | 22          | 33    | 45   | 11   | 20G11FC030JA0NNNNNN        | 3          |
| 37          | 40.7  | 55.5 | 18.5 | 30          | 45    | 55.5 | 15   | 20G11FC037JA0NNNNNN        |            |
| 43          | 47.3  | 64.5 | 22   | 37          | 55.5  | 66.6 | 18.5 | 20G11FC043JA0NNNNNN        |            |
| 60          | 66    | 90   | 30   | 43          | 66    | 90   | 22   | 20G11FC060JA0NNNNNN        | 4          |
| 72.0        | 79.2  | 108  | 37   | 60          | 90    | 108  | 30   | 20G11FC072JA0NNNNNN        |            |
| 85          | 93.5  | 128  | 45   | 72          | 108   | 130  | 37   | 20G11FC085JA0NNNNNN        | 5          |
| 104         | 114   | 156  | 55   | 85          | 128   | 156  | 45   | 20G11FC104JA0NNNNNN        |            |

(1) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(2) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

## 480V AC, Three-phase Drives

IP00/IP20, NEMA/UL Type Open<sup>(1)</sup>

| Light Duty <sup>(2)</sup> |       |    | Normal Duty |       |      |     | Heavy Duty  |       |      |     | Cat. No. <sup>(3)(4)</sup>        | Frame Size |
|---------------------------|-------|----|-------------|-------|------|-----|-------------|-------|------|-----|-----------------------------------|------------|
| Output Amps               |       | Hp | Output Amps |       |      | Hp  | Output Amps |       |      | Hp  |                                   |            |
| Cont.                     | 1 min |    | Cont.       | 1 min | 3 s  |     | Cont.       | 1 min | 3 s  |     |                                   |            |
| —                         | —     | —  | 2.1         | 2.3   | 3.2  | 1   | 1.1         | 2.3   | 3.2  | 0.5 | 20G11RD2P1JA0NNNNN                | 1          |
|                           |       |    | 3.4         | 3.7   | 5.1  | 2   | 2.8         | 4.2   | 5.1  | 1   | 20G11RD3P4JA0NNNNN                |            |
|                           |       |    | 5           | 5.5   | 7.5  | 3   | 3.4         | 5.5   | 7.5  | 2   | 20G11RD5P0JA0NNNNN                |            |
|                           |       |    | 8           | 8.8   | 12   | 5   | 5           | 8.8   | 12   | 3   | 20G11RD8P0JA0NNNNN                |            |
|                           |       |    | 11          | 12.1  | 16.5 | 7.5 | 8           | 12.1  | 16.5 | 5   | 20G11RD011JA0NNNNN                |            |
|                           |       |    | 14          | 15.4  | 21   | 10  | 11          | 16.5  | 21   | 7.5 | 20G11RD014JA0NNNNN                |            |
|                           |       |    | 2.1         | 3.1   | 3.7  | 1   | 2.1         | 3.1   | 3.7  | 1   | 20G11ND2P1JA0NNNNN                | 2          |
|                           |       |    | 3.4         | 5.1   | 6.1  | 2   | 3.4         | 5.1   | 6.1  | 2   | 20G11ND3P4JA0NNNNN                |            |
|                           |       |    | 5           | 7.5   | 9.0  | 3   | 5           | 7.5   | 9    | 3   | 20G11ND5P0JA0NNNNN                |            |
|                           |       |    | 8           | 12    | 14.4 | 5   | 8           | 12    | 14.4 | 5   | 20G11ND8P0JA0NNNNN                |            |
|                           |       |    | 11          | 16.5  | 19.8 | 7.5 | 11          | 16.5  | 19.8 | 7.5 | 20G11ND011JA0NNNNN                |            |
|                           |       |    | 14          | 15.4  | 21   | 10  | 11          | 16.5  | 21   | 7.5 | 20G11ND014JA0NNNNN                |            |
|                           |       |    | 22          | 24.2  | 33   | 15  | 14          | 24.2  | 33   | 10  | 20G11ND022JA0NNNNN                | 3          |
|                           |       |    | 27          | 29.7  | 40.5 | 20  | 22          | 33    | 40.5 | 15  | 20G11ND027JA0NNNNN                |            |
|                           |       |    | 34          | 37.4  | 51   | 25  | 27          | 40.5  | 51   | 20  | 20G11ND034JA0NNNNN                |            |
|                           |       |    | 40          | 44    | 60   | 30  | 34          | 51    | 61.2 | 25  | 20G11ND040JA0NNNNN                |            |
|                           |       |    | 52          | 57.2  | 78.0 | 40  | 40          | 60    | 78   | 30  | 20G11ND052JA0NNNNN                |            |
|                           |       |    | 65          | 71.5  | 97.5 | 50  | 52          | 78    | 97.5 | 40  | 20G11ND065JA0NNNNN                |            |
|                           |       |    | 77          | 84.7  | 116  | 60  | 65          | 97.5  | 116  | 50  | 20G11ND077JA0NNNNN                | 5          |
|                           |       |    | 96          | 106   | 144  | 75  | 77          | 116   | 144  | 60  | 20G11ND096JA0NNNNN                |            |
|                           |       |    | 125         | 138   | 188  | 100 | 96          | 144   | 188  | 75  | 20G1AND125JNONNNNN <sup>(5)</sup> | 6          |
|                           |       |    | 156         | 172   | 234  | 125 | 125         | 188   | 234  | 100 | 20G1AND156JNONNNNN <sup>(5)</sup> |            |
|                           |       |    | 186         | 205   | 279  | 150 | 156         | 234   | 281  | 125 | 20G1AND186JNONNNNN <sup>(5)</sup> |            |
|                           |       |    | 248         | 273   | 372  | 200 | 186         | 279   | 372  | 150 | 20G1AND248JNONNNNN <sup>(5)</sup> |            |
|                           |       |    | 302         | 332   | 453  | 250 | 248         | 372   | 453  | 200 | 20G1AND302JNONNNNN <sup>(5)</sup> | 7          |
|                           |       |    | 361         | 397   | 542  | 300 | 302         | 453   | 535  | 250 | 20G1AND361JNONNNNN <sup>(5)</sup> |            |
|                           |       |    | 415         | 457   | 623  | 350 | 361         | 542   | 650  | 300 | 20G1AND415JNONNNNN <sup>(5)</sup> |            |
|                           |       |    | 477         | 525   | 716  | 400 | 361         | 542   | 650  | 300 | 20G1AND477JNONNNNN <sup>(5)</sup> |            |

(1) Frames 1...5 are IP20, NEMA/UL Type Open. Frames 6...7 are IP00, NEMA/UL Type Open. Frames 8...10 are IP20, NEMA/UL Type 1. Frames 1...7 can be converted to IP20, NEMA/UL Type 1 with optional kit (20-750-NEMA1-Fx), where x is the frame size of the drive.

(2) Light Duty rating only available on Frame 8...10 drives. Light Duty allows 110% overload for 1 minute, and does not have a 3 second overload rating.

(3) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(4) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(5) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

(6) The 6th character (designated by an \* in this table) determines Enclosure Type and Depth. "B" = IP20, NEMA/UL Type 1, MCC style 600 mm (23.6 in.) deep, and "L" = IP20, NEMA/UL Type 1, MCC style 800 mm (31.5 in.).

(7) A roll-out cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. Refer to page 131.

(table continues on next page)

## 480V AC, Three-phase Drives (continued)

IP00/IP20, NEMA/UL Type Open (continued)<sup>(1)</sup>

| Light Duty <sup>(2)</sup> |       |      | Normal Duty |       |      |      | Heavy Duty  |       |      |      | Cat. No. <sup>(3)(4)</sup>        | Frame Size        |
|---------------------------|-------|------|-------------|-------|------|------|-------------|-------|------|------|-----------------------------------|-------------------|
| Output Amps               |       | Hp   | Output Amps |       |      | Hp   | Output Amps |       |      | Hp   |                                   |                   |
| Cont.                     | 1 min |      | Cont.       | 1 min | 3 s  |      | Cont.       | 1 min | 3 s  |      |                                   |                   |
| 485                       | 534   | 400  | 430         | 473   | 645  | 350  | 370         | 555   | 666  | 300  | 20G1A*D430JNONNNNN <sup>(6)</sup> | 8 <sup>(7)</sup>  |
| 545                       | 600   | 450  | 485         | 534   | 728  | 400  | 414         | 621   | 745  | 350  | 20G1A*D485JNONNNNN <sup>(6)</sup> |                   |
| 590                       | 649   | 500  | 545         | 600   | 818  | 450  | 454         | 681   | 817  | 350  | 20G1A*D545JNONNNNN <sup>(6)</sup> |                   |
| 710                       | 781   | 600  | 617         | 679   | 926  | 500  | 485         | 728   | 873  | 400  | 20G1A*D617JNONNNNN <sup>(6)</sup> |                   |
| 765                       | 842   | 650  | 710         | 781   | 1065 | 600  | 545         | 818   | 981  | 450  | 20G1A*D710JNONNNNN <sup>(6)</sup> |                   |
| 800                       | 880   | 700  | 740         | 814   | 1110 | 650  | 617         | 926   | 1111 | 500  | 20G1A*D740JNONNNNN <sup>(6)</sup> |                   |
| 960                       | 1056  | 800  | 800         | 880   | 1200 | 700  | 710         | 1065  | 1278 | 600  | 20G11*D800JNONNNNN <sup>(6)</sup> | 9 <sup>(7)</sup>  |
| 1045                      | 1150  | 900  | 960         | 1056  | 1440 | 800  | 795         | 1193  | 1431 | 700  | 20G11*D960JNONNNNN <sup>(6)</sup> |                   |
| 1135                      | 1249  | 1000 | 1045        | 1150  | 1568 | 900  | 800         | 1200  | 1440 | 750  | 20G11*D1K0JNONNNNN <sup>(6)</sup> |                   |
| 1365                      | 1502  | 1100 | 1135        | 1249  | 1703 | 1000 | 960         | 1440  | 1728 | 800  | 20G11*D1K2JNONNNNN <sup>(6)</sup> |                   |
| 1420                      | 1562  | 1250 | 1365        | 1502  | 2048 | 1100 | 1045        | 1568  | 1881 | 900  | 20G11*D1K3JNONNNNN <sup>(6)</sup> |                   |
| 1540                      | 1694  | 1350 | 1420        | 1562  | 2130 | 1250 | 1135        | 1703  | 2043 | 1000 | 20G11*D1K4JNONNNNN <sup>(6)</sup> |                   |
| 1655                      | 1821  | 1500 | 1525        | 1678  | 2288 | 1350 | 1270        | 1905  | 2286 | 1100 | 20G11*D1K5JNONNNNN <sup>(6)</sup> | 10 <sup>(7)</sup> |
| 2240                      | 2464  | 2000 | 2070        | 2277  | 3105 | 1750 | 1730        | 2595  | 3114 | 1650 | 20G11*D2K0JNONNNNN <sup>(6)</sup> |                   |

(1) Frames 1...5 are IP20, NEMA/UL Type Open. Frames 6...7 are IP00, NEMA/UL Type Open. Frames 8...10 are IP20, NEMA/UL Type 1. Frames 1...7 can be converted to IP20, NEMA/UL Type 1 with optional kit (20-750-NEMA1-Fx), where x is the frame size of the drive.

(2) Light Duty rating only available on Frame 8...10 drives. Light Duty allows 110% overload for 1 minute, and does not have a 3 second overload rating.

(3) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(4) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(5) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

(6) The 6th character (designated by an \* in this table) determines Enclosure Type and Depth. "B" = IP20, NEMA/UL Type 1, MCC style 600 mm (23.6 in.) deep, and "L" = IP20, NEMA/UL Type 1, MCC style 800 mm (31.5 in.).

(7) A roll-out cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. Refer to page 131.

## 480V AC, Three-phase Drives (continued)

## IP54, NEMA/UL Type 12

| Light Duty <sup>(1)</sup> |       |      | Normal Duty |       |      |      | Heavy Duty  |                                   |      |      | Cat. No. <sup>(2)(3)</sup>        | Frame Size        |
|---------------------------|-------|------|-------------|-------|------|------|-------------|-----------------------------------|------|------|-----------------------------------|-------------------|
| Output Amps               |       | Hp   | Output Amps |       |      | Hp   | Output Amps |                                   |      | Hp   |                                   |                   |
| Cont.                     | 1 min |      | Cont.       | 1 min | 3 s  |      | Cont.       | 1 min                             | 3 s  |      |                                   |                   |
| —                         | —     | —    | 2.1         | 3.1   | 3.7  | 1    | 2.1         | 3.1                               | 3.7  | 1    | 20G11GD2P1JA0NNNNN                | 2                 |
|                           |       |      | 3.4         | 5.1   | 6.1  | 2    | 3.4         | 5.1                               | 6.1  | 2    | 20G11GD3P4JA0NNNNN                |                   |
|                           |       |      | 5           | 7.5   | 9    | 3    | 5           | 7.5                               | 9    | 3    | 20G11GD5P0JA0NNNNN                |                   |
|                           |       |      | 8           | 12    | 14.4 | 5    | 8           | 12                                | 14.4 | 5    | 20G11GD8P0JA0NNNNN                |                   |
|                           |       |      | 11          | 16.5  | 19.8 | 7.5  | 11          | 16.5                              | 19.8 | 7.5  | 20G11GD011JA0NNNNN                |                   |
|                           |       |      | 14          | 15.4  | 21   | 10   | 11          | 16.5                              | 21   | 7.5  | 20G11GD014JA0NNNNN                |                   |
|                           |       |      | 22          | 24.2  | 33   | 15   | 14          | 24.2                              | 33   | 10   | 20G11GD022JA0NNNNN                |                   |
|                           |       |      | 27          | 29.7  | 40.5 | 20   | 22          | 33                                | 40.5 | 15   | 20G11GD027JA0NNNNN                | 3                 |
|                           |       |      | 34          | 37.4  | 51   | 25   | 27          | 40.5                              | 51   | 20   | 20G11GD034JA0NNNNN                |                   |
|                           |       |      | 40          | 44    | 60   | 30   | 34          | 51                                | 61.2 | 25   | 20G11GD040JA0NNNNN                |                   |
|                           |       |      | 52          | 57.2  | 78   | 40   | 40          | 60                                | 78   | 30   | 20G11GD052JA0NNNNN                | 4                 |
|                           |       |      | 65          | 71.5  | 97.5 | 50   | 52          | 78                                | 97.5 | 40   | 20G11GD065JA0NNNNN                | 5                 |
|                           |       |      | 77          | 84.7  | 116  | 60   | 65          | 97.5                              | 116  | 50   | 20G11GD077JA0NNNNN                |                   |
|                           |       |      | 96          | 106   | 144  | 75   | 77          | 116                               | 144  | 60   | 20G1AGD096JNONNNNN <sup>(4)</sup> | 6                 |
|                           |       |      | 125         | 138   | 188  | 100  | 96          | 144                               | 188  | 75   | 20G1AGD125JNONNNNN <sup>(4)</sup> |                   |
|                           |       |      | 156         | 172   | 234  | 125  | 125         | 188                               | 234  | 100  | 20G1AGD156JNONNNNN <sup>(4)</sup> |                   |
|                           |       |      | 186         | 205   | 279  | 150  | 156         | 234                               | 281  | 125  | 20G1AGD186JNONNNNN <sup>(4)</sup> | 7                 |
|                           |       |      | 248         | 273   | 372  | 200  | 186         | 279                               | 372  | 150  | 20G1AGD248JNONNNNN <sup>(4)</sup> |                   |
|                           |       |      | 302         | 332   | 453  | 250  | 248         | 372                               | 453  | 200  | 20G1AGD302JNONNNNN <sup>(4)</sup> |                   |
|                           |       |      | 361         | 397   | 542  | 300  | 302         | 453                               | 535  | 250  | 20G1AGD361JNONNNNN <sup>(4)</sup> |                   |
| 415                       | 457   | 623  | 350         | 361   | 542  | 650  | 300         | 20G1AGD415JNONNNNN <sup>(4)</sup> |      |      |                                   |                   |
| 485                       | 534   | 400  | 430         | 473   | 645  | 350  | 370         | 555                               | 666  | 300  | 20G1AJD430JNONNNNN                | 8 <sup>(5)</sup>  |
| 545                       | 600   | 450  | 485         | 534   | 728  | 400  | 414         | 621                               | 745  | 350  | 20G1AJD485JNONNNNN                |                   |
| 590                       | 649   | 500  | 545         | 600   | 818  | 450  | 454         | 681                               | 817  | 350  | 20G1AJD545JNONNNNN                |                   |
| 710                       | 781   | 600  | 617         | 679   | 926  | 500  | 485         | 728                               | 873  | 400  | 20G1AJD617JNONNNNN                |                   |
| 765                       | 842   | 650  | 710         | 781   | 1065 | 600  | 545         | 818                               | 981  | 450  | 20G1AJD710JNONNNNN                |                   |
| 800                       | 880   | 700  | 740         | 814   | 1110 | 650  | 617         | 926                               | 1111 | 500  | 20G1AJD740JNONNNNN                |                   |
| 960                       | 1056  | 800  | 800         | 880   | 1200 | 700  | 710         | 1065                              | 1278 | 600  | 20G11JD800JNONNNNN                | 9 <sup>(5)</sup>  |
| 1045                      | 1150  | 900  | 960         | 1056  | 1440 | 800  | 795         | 1193                              | 1431 | 700  | 20G11JD960JNONNNNN                |                   |
| 1135                      | 1249  | 1000 | 1045        | 1150  | 1568 | 900  | 800         | 1200                              | 1440 | 750  | 20G11JD1K0JNONNNNN                |                   |
| 1365                      | 1502  | 1100 | 1135        | 1249  | 1703 | 1000 | 960         | 1440                              | 1728 | 800  | 20G11JD1K2JNONNNNN                |                   |
| 1420                      | 1562  | 1250 | 1365        | 1502  | 2048 | 1100 | 1045        | 1568                              | 1881 | 900  | 20G11JD1K3JNONNNNN                |                   |
| 1540                      | 1694  | 1350 | 1420        | 1562  | 2130 | 1250 | 1135        | 1703                              | 2043 | 1000 | 20G11JD1K4JNONNNNN                |                   |
| 1655                      | 1821  | 1500 | 1525        | 1678  | 2288 | 1350 | 1270        | 1905                              | 2286 | 1100 | 20G11JD1K5JNONNNNN                | 10 <sup>(5)</sup> |
| 2240                      | 2464  | 2000 | 2070        | 2277  | 3105 | 1750 | 1730        | 2595                              | 3114 | 1650 | 20G11JD2K0JNONNNNN                |                   |

(1) Light Duty rating only available on Frame 8...10 drives. Light Duty allows 110% overload for 1 minute, and does not have a 3 second overload rating.

(2) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(3) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(4) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

(5) A roll-out cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. Refer to page 131.

## 480V AC, Three-phase Drives (continued)

**Flange Mount (Front: IP20, NEMA/UL Type Open; Back/Heatsink: IP66, NEMA/UL Type 4X)**

**Note:** Frame 6...7 IP00, NEMA Type Open drives can be converted to a flange mount drive (Back/Heatsink: IP66, NEMA/UL Type 4X) with an optional user installed flange kit (20-750-FLNG4-F6 for Frame 6, and 20-750-FLNG4-F7 for Frame 7). See page 91 for 480V, Frame 6...7 IP00, NEMA Type Open drives.

| Normal Duty |       |      |     | Heavy Duty  |       |      |     | Cat. No. <sup>(1)(2)</sup> | Frame Size |
|-------------|-------|------|-----|-------------|-------|------|-----|----------------------------|------------|
| Output Amps |       |      | Hp  | Output Amps |       |      | Hp  |                            |            |
| Cont.       | 1 min | 3 s  |     | Cont.       | 1 min | 3 s  |     |                            |            |
| 2.1         | 3.1   | 3.7  | 1   | 2.1         | 3.1   | 3.7  | 1   | 20G11FD2P1JA0NNNNN         | 2          |
| 3.4         | 5.1   | 6.1  | 2   | 3.4         | 5.1   | 6.1  | 2   | 20G11FD3P4JA0NNNNN         |            |
| 5           | 7.5   | 9    | 3   | 5           | 7.5   | 9    | 3   | 20G11FD5P0JA0NNNNN         |            |
| 8           | 12    | 14.4 | 5   | 8           | 12    | 14.4 | 5   | 20G11FD8P0JA0NNNNN         |            |
| 11          | 16.5  | 19.8 | 7.5 | 11          | 16.5  | 19.8 | 7.5 | 20G11FD011JA0NNNNN         |            |
| 14          | 15.4  | 21   | 10  | 11          | 16.5  | 21   | 7.5 | 20G11FD014JA0NNNNN         |            |
| 22          | 24.2  | 33   | 15  | 14          | 24.2  | 33   | 10  | 20G11FD022JA0NNNNN         |            |
| 27          | 29.7  | 40.5 | 20  | 22          | 33    | 40.5 | 15  | 20G11FD027JA0NNNNN         | 3          |
| 34          | 37.4  | 51   | 25  | 27          | 40.5  | 51   | 20  | 20G11FD034JA0NNNNN         |            |
| 40          | 44    | 60   | 30  | 34          | 51    | 61.2 | 25  | 20G11FD040JA0NNNNN         |            |
| 52.0        | 57.2  | 78   | 40  | 40          | 60    | 78   | 30  | 20G11FD052JA0NNNNN         | 4          |
| 65.0        | 71.5  | 97.5 | 50  | 52          | 78    | 97.5 | 40  | 20G11FD065JA0NNNNN         |            |
| 77          | 84.7  | 116  | 60  | 65          | 97.5  | 116  | 50  | 20G11FD077JA0NNNNN         | 5          |
| 96          | 106   | 144  | 75  | 77          | 116   | 144  | 60  | 20G11FD096JA0NNNNN         |            |

(1) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(2) The 11th character determines default Filtering and Common Mode Cap jumper configuration. "J" = Installed, "A" = Removed.

## 600V AC, Three-phase Drives

Frames 3, 4, and 5 are only 600V AC drives. Frames 6 and 7 are dual-voltage drives, and can be operated at 600 V or 690V AC.

**Important:** Frames 3, 4, and 5 must not be used in common DC input-sharing applications with Frames 6 or larger drives. For more details, contact your local Rockwell Automation sales office or your Allen-Bradley distributor.

### IP00/IP20, NEMA/UL Type Open<sup>(1)</sup>

| Light Duty <sup>(2)</sup> |       |    | Normal Duty |       |      |     | Heavy Duty  |       |      |     | Cat. No. <sup>(3)(4)</sup>        | Frame Size |
|---------------------------|-------|----|-------------|-------|------|-----|-------------|-------|------|-----|-----------------------------------|------------|
| Outputs Amp               |       | Hp | Outputs Amp |       |      | Hp  | Output Amps |       |      | Hp  |                                   |            |
| Cont.                     | 1 min |    | Cont.       | 1 min | 3 s  |     | Cont.       | 1 min | 3 s  |     |                                   |            |
| —                         | —     | —  | 1.7         | 1.9   | 2.6  | 1   | 1.7         | 1.4   | 2.6  | 1   | 20G11NE1P7JA0NNNNN                | 3          |
|                           |       |    | 2.7         | 3     | 4.1  | 2   | 1.7         | 2.6   | 4.1  | 1   | 20G11NE2P7JA0NNNNN                |            |
|                           |       |    | 3.9         | 4.29  | 5.85 | 3   | 2.7         | 4.1   | 5.9  | 2   | 20G11NE3P9JA0NNNNN                |            |
|                           |       |    | 6.1         | 6.7   | 9.2  | 5   | 3.9         | 5.9   | 9.2  | 3   | 20G11NE6P1JA0NNNNN                |            |
|                           |       |    | 9           | 9.9   | 13.5 | 7.5 | 6.1         | 9.2   | 13.5 | 5   | 20G11NE9P0JA0NNNNN                |            |
|                           |       |    | 11          | 12.1  | 16.5 | 10  | 9           | 13.5  | 16.5 | 7.5 | 20G11NE011JA0NNNNN                |            |
|                           |       |    | 17          | 18.7  | 25.5 | 15  | 11          | 16.5  | 25.5 | 10  | 20G11NE017JA0NNNNN                |            |
|                           |       |    | 22          | 24.2  | 33   | 20  | 17          | 25.5  | 33   | 15  | 20G11NE022JA0NNNNN                |            |
|                           |       |    | 27          | 29.7  | 40.5 | 25  | 22          | 33    | 40.5 | 20  | 20G11NE027JA0NNNNN                | 4          |
|                           |       |    | 32          | 35.2  | 48   | 30  | 27          | 40.5  | 48.6 | 25  | 20G11NE032JA0NNNNN                |            |
|                           |       |    | 41          | 45.1  | 61.5 | 40  | 32          | 48    | 61.5 | 30  | 20G11NE041JA0NNNNN                | 5          |
|                           |       |    | 52          | 57.2  | 78   | 50  | 41          | 61.5  | 78   | 40  | 20G11NE052JA0NNNNN                |            |
|                           |       |    | 12          | 13.2  | 18   | 10  | 9.1         | 13.7  | 18   | 7.5 | 20G1ANE012JNONNNNN <sup>(5)</sup> | 6          |
|                           |       |    | 18          | 19.8  | 27   | 15  | 12          | 18    | 27   | 10  | 20G1ANE018JNONNNNN <sup>(5)</sup> |            |
|                           |       |    | 23          | 25.3  | 34.5 | 20  | 18          | 27    | 34.5 | 15  | 20G1ANE023JNONNNNN <sup>(5)</sup> |            |
|                           |       |    | 24          | 26.4  | 36   | 20  | 22          | 33    | 39.6 | 20  | 20G1ANE024JNONNNNN <sup>(5)</sup> |            |
|                           |       |    | 28          | 30.8  | 42   | 25  | 23          | 34.5  | 42   | 20  | 20G1ANE028JNONNNNN <sup>(5)</sup> |            |
|                           |       |    | 33          | 36.3  | 49.5 | 30  | 28          | 42    | 50.4 | 25  | 20G1ANE033JNONNNNN <sup>(5)</sup> |            |
|                           |       |    | 42          | 46.2  | 63   | 40  | 33          | 49.5  | 63   | 30  | 20G1ANE042JNONNNNN <sup>(5)</sup> |            |
|                           |       |    | 53          | 58    | 80   | 50  | 42          | 63    | 80   | 40  | 20G1ANE053JNONNNNN <sup>(5)</sup> |            |
|                           |       |    | 63          | 69    | 95   | 60  | 52          | 78    | 95   | 50  | 20G1ANE063JNONNNNN <sup>(5)</sup> |            |
|                           |       |    | 77          | 85    | 116  | 75  | 63          | 95    | 116  | 60  | 20G1ANE077JNONNNNN <sup>(5)</sup> |            |
|                           |       |    | 99          | 109   | 149  | 100 | 77          | 116   | 149  | 75  | 20G1ANE099JNONNNNN <sup>(5)</sup> |            |
|                           |       |    | 125         | 138   | 188  | 125 | 99          | 149   | 188  | 100 | 20G1ANE125JNONNNNN <sup>(5)</sup> |            |
|                           |       |    | 144         | 158   | 216  | 150 | 125         | 188   | 225  | 125 | 20G1ANE144JNONNNNN <sup>(5)</sup> | 7          |
|                           |       |    | 192         | 211   | 288  | 200 | 144         | 216   | 288  | 150 | 20G1ANE192JNONNNNN <sup>(5)</sup> |            |
|                           |       |    | 242         | 266   | 363  | 250 | 192         | 288   | 363  | 200 | 20G1ANE242JNONNNNN <sup>(5)</sup> |            |
|                           |       |    |             |       |      | 289 | 318         | 434   | 300  | 242 | 363                               | 436        |

(1) Frames 3...5 are IP20, NEMA/UL Type Open. Frames 6...7 are IP00, NEMA/UL Type Open. Frames 8...10 are IP20, NEMA/UL Type 1. Frames 3...7 can be converted to IP20, NEMA/UL Type 1 with optional kit (20-750-NEMA1-Fx), where x is the frame size of the drive.

(2) Light Duty rating only available on Frame 8...10 drives. Light Duty allows 110% overload for 1 minute, and does not have a 3 second overload rating.

(3) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(4) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(5) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

(6) The 6th character (designated by an \* in this table) determines Enclosure Type and Depth. "B" = IP20, NEMA/UL Type 1, MCC style 600 mm (23.6 in.) deep, and "L" = IP20, NEMA/UL Type 1, MCC style 800 mm (31.5 in.).

(7) A roll-out cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. Refer to page 131.

(table continues on next page)

## 600V AC, Three-phase Drives (continued)

Frames 3, 4, and 5 are only 600V AC drives. Frames 6 and 7 are dual-voltage drives, and can be operated at 600 V or 690V AC.

**Important:** Frames 3, 4, and 5 must not be used in common DC input-sharing applications with Frames 6 or larger drives. For more details, contact your local Rockwell Automation sales office or your Allen-Bradley distributor.

### IP00/IP20, NEMA/UL Type Open (continued)<sup>(1)</sup>

| Light Duty <sup>(2)</sup> |       |      | Normal Duty |       |      |      | Heavy Duty  |       |      |      | Cat. No. <sup>(3)(4)</sup>        | Frame Size        |
|---------------------------|-------|------|-------------|-------|------|------|-------------|-------|------|------|-----------------------------------|-------------------|
| Outputs Amp               |       | Hp   | Outputs Amp |       |      | Hp   | Output Amps |       |      | Hp   |                                   |                   |
| Cont.                     | 1 min |      | Cont.       | 1 min | 3 s  |      | Cont.       | 1 min | 3 s  |      |                                   |                   |
| 355                       | 391   | 350  | 295         | 325   | 443  | 300  | 272         | 408   | 490  | 250  | 20G1A*E295JNONNNNN <sup>(6)</sup> | 8 <sup>(7)</sup>  |
| 395                       | 435   | 400  | 355         | 391   | 533  | 350  | 295         | 443   | 531  | 300  | 20G1A*E355JNONNNNN <sup>(6)</sup> |                   |
| 435                       | 479   | 450  | 395         | 435   | 593  | 400  | 329         | 494   | 592  | 350  | 20G1A*E395JNONNNNN <sup>(6)</sup> |                   |
| 460                       | 506   | 500  | 435         | 479   | 653  | 450  | 355         | 533   | 639  | 350  | 20G1A*E435JNONNNNN <sup>(6)</sup> |                   |
| 510                       | 561   | 500  | 460         | 506   | 690  | 500  | 395         | 593   | 711  | 400  | 20G1A*E460JNONNNNN <sup>(6)</sup> |                   |
| 545                       | 600   | 550  | 510         | 561   | 765  | 500  | 425         | 638   | 765  | 450  | 20G1A*E510JNONNNNN <sup>(6)</sup> |                   |
| 690                       | 759   | 700  | 595         | 655   | 893  | 600  | 510         | 765   | 918  | 500  | 20G11*E595JNONNNNN <sup>(6)</sup> | 9 <sup>(7)</sup>  |
| 760                       | 836   | 800  | 630         | 693   | 945  | 700  | 595         | 893   | 1071 | 600  | 20G11*E630JNONNNNN <sup>(6)</sup> |                   |
| 835                       | 919   | 900  | 760         | 836   | 1140 | 800  | 630         | 945   | 1134 | 700  | 20G11*E760JNONNNNN <sup>(6)</sup> |                   |
| 900                       | 990   | 950  | 825         | 908   | 1238 | 900  | 700         | 1050  | 1260 | 750  | 20G11*E825JNONNNNN <sup>(6)</sup> |                   |
| 980                       | 1078  | 1000 | 900         | 990   | 1350 | 950  | 760         | 1140  | 1368 | 800  | 20G11*E900JNONNNNN <sup>(6)</sup> |                   |
| 1045                      | 1150  | 1100 | 980         | 1078  | 1470 | 1000 | 815         | 1223  | 1467 | 900  | 20G11*E980JNONNNNN <sup>(6)</sup> |                   |
| 1220                      | 1342  | 1200 | 1110        | 1221  | 1665 | 1100 | 920         | 1380  | 1656 | 1000 | 20G11*E1K1JNONNNNN <sup>(6)</sup> | 10 <sup>(7)</sup> |
| 1530                      | 1683  | 1500 | 1430        | 1573  | 2145 | 1400 | 1190        | 1785  | 2142 | 1250 | 20G11*E1K4JNONNNNN <sup>(6)</sup> |                   |

(1) Frames 3...5 are IP20, NEMA/UL Type Open. Frames 6...7 are IP00, NEMA/UL Type Open. Frames 8...10 are IP20, NEMA/UL Type 1. Frames 3...7 can be converted to IP20, NEMA/UL Type 1 with optional kit (20-750-NEMA1-Fx), where x is the frame size of the drive.

(2) Light Duty rating only available on Frame 8...10 drives. Light Duty allows 110% overload for 1 minute, and does not have a 3 second overload rating.

(3) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(4) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(5) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

(6) The 6th character (designated by an \* in this table) determines Enclosure Type and Depth. "B" = IP20, NEMA/UL Type 1, MCC style 600 mm (23.6 in.) deep, and "L" = IP20, NEMA/UL Type 1, MCC style 800 mm (31.5 in.).

(7) A roll-out cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. Refer to page 131.

## 600V AC, Three-phase Drives (continued)

Frames 3, 4, and 5 are only 600V AC drives. Frames 6 and 7 are dual-voltage drives, and can be operated at 600 V or 690V AC.

**Important:** Frames 3, 4, and 5 must not be used in common DC input-sharing applications with Frames 6 or larger drives. For more details, contact your local Rockwell Automation sales office or your Allen-Bradley distributor.

### IP54, NEMA/UL Type 12

| Light Duty <sup>(1)</sup> |       |    | Normal Duty |       |      |     | Heavy Duty  |       |      |     | Cat. No. <sup>(2)(3)</sup>        | Frame Size |
|---------------------------|-------|----|-------------|-------|------|-----|-------------|-------|------|-----|-----------------------------------|------------|
| Output Amps               |       | Hp | Output Amps |       |      | Hp  | Output Amps |       |      | Hp  |                                   |            |
| Cont.                     | 1 min |    | Cont.       | 1 min | 3 s  |     | Cont.       | 1 min | 3 s  |     |                                   |            |
| —                         | —     | —  | 1.7         | 1.9   | 2.6  | 1   | 1.7         | 1.4   | 2.6  | 1   | 20G11GE1P7JA0NNNNN                | 3          |
|                           |       |    | 2.7         | 3     | 4.1  | 2   | 1.7         | 2.6   | 4.1  | 1   | 20G11GE2P7JA0NNNNN                |            |
|                           |       |    | 3.9         | 4.29  | 5.85 | 3   | 2.7         | 4.1   | 5.9  | 2   | 20G11GE3P9JA0NNNNN                |            |
|                           |       |    | 6.1         | 6.7   | 9.2  | 5   | 3.9         | 5.9   | 9.2  | 3   | 20G11GE6P1JA0NNNNN                |            |
|                           |       |    | 9           | 9.9   | 13.5 | 7.5 | 6.1         | 9.2   | 13.5 | 5   | 20G11GE9P0JA0NNNNN                |            |
|                           |       |    | 11          | 12.1  | 16.5 | 10  | 9           | 13.5  | 16.5 | 7.5 | 20G11GE011JA0NNNNN                |            |
|                           |       |    | 17          | 18.7  | 25.5 | 15  | 11          | 16.5  | 25.5 | 10  | 20G11GE017JA0NNNNN                |            |
|                           |       |    | 22          | 24.2  | 33   | 20  | 17          | 25.5  | 33   | 15  | 20G11GE022JA0NNNNN                | 4          |
|                           |       |    | 27          | 29.7  | 40.5 | 25  | 22          | 33    | 40.5 | 20  | 20G11GE027JA0NNNNN                |            |
|                           |       |    | 32          | 35.2  | 48   | 30  | 27          | 40.5  | 48.6 | 25  | 20G11GE032JA0NNNNN                |            |
|                           |       |    | 41          | 45.1  | 61.5 | 40  | 32.0        | 48    | 61.5 | 30  | 20G11GE041JA0NNNNN                | 5          |
|                           |       |    | 12          | 13.2  | 18   | 10  | 9.1         | 13.7  | 18   | 7.5 | 20G1AGE012JNONNNNN <sup>(4)</sup> | 6          |
|                           |       |    | 18          | 19.8  | 27   | 15  | 12          | 18    | 27   | 10  | 20G1AGE018JNONNNNN <sup>(4)</sup> |            |
|                           |       |    | 23          | 25.3  | 34.5 | 20  | 18          | 27    | 34.5 | 15  | 20G1AGE023JNONNNNN <sup>(4)</sup> |            |
|                           |       |    | 24          | 26.4  | 36   | 20  | 22          | 33    | 39.6 | 20  | 20G1AGE024JNONNNNN <sup>(4)</sup> |            |
|                           |       |    | 28          | 30.8  | 42   | 25  | 23          | 34.5  | 42   | 20  | 20G1AGE028JNONNNNN <sup>(4)</sup> |            |
|                           |       |    | 33          | 36.3  | 49.5 | 30  | 28          | 42    | 50.4 | 25  | 20G1AGE033JNONNNNN <sup>(4)</sup> |            |
|                           |       |    | 42          | 46.2  | 63   | 40  | 33          | 49.5  | 63   | 30  | 20G1AGE042JNONNNNN <sup>(4)</sup> |            |
|                           |       |    | 53          | 58    | 80   | 50  | 42          | 63    | 80   | 40  | 20G1AGE053JNONNNNN <sup>(4)</sup> |            |
|                           |       |    | 63          | 69    | 95   | 60  | 52          | 78    | 95   | 50  | 20G1AGE063JNONNNNN <sup>(4)</sup> |            |
|                           |       |    | 77          | 85    | 116  | 75  | 63          | 95    | 116  | 60  | 20G1AGE077JNONNNNN <sup>(4)</sup> |            |
|                           |       |    | 99          | 109   | 149  | 100 | 77          | 116   | 149  | 75  | 20G1AGE099JNONNNNN <sup>(4)</sup> |            |
|                           |       |    | 125         | 138   | 188  | 125 | 99          | 149   | 188  | 100 | 20G1AGE125JNONNNNN <sup>(4)</sup> |            |
|                           |       |    | 144         | 158   | 216  | 150 | 125         | 188   | 225  | 125 | 20G1AGE144JNONNNNN <sup>(4)</sup> | 7          |
|                           |       |    | 192         | 211   | 288  | 200 | 144         | 216   | 288  | 150 | 20G1AGE192JNONNNNN <sup>(4)</sup> |            |
|                           |       |    | 242         | 266   | 363  | 250 | 192         | 288   | 363  | 200 | 20G1AGE242JNONNNNN <sup>(4)</sup> |            |
|                           |       |    | 289         | 318   | 434  | 300 | 242         | 363   | 436  | 250 | 20G1AGE289JNONNNNN <sup>(4)</sup> |            |

(1) Light Duty rating only available on Frame 8...10 drives. Light Duty allows 110% overload for 1 minute, and does not have a 3 second overload rating.

(2) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(3) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(4) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

(table continues on next page)

## 600V AC, Three-phase Drives (continued)

Frames 3, 4, and 5 are only 600V AC drives. Frames 6 and 7 are dual-voltage drives, and can be operated at 600 V or 690V AC.

**Important:** Frames 3, 4, and 5 must not be used in common DC input-sharing applications with Frames 6 or larger drives. For more details, contact your local Rockwell Automation sales office or your Allen-Bradley distributor.

### IP54, NEMA/UL Type 12 (continued)

| Light Duty <sup>(1)</sup> |       |      | Normal Duty |       |      |      | Heavy Duty  |       |      |      | Cat. No. <sup>(2)(3)</sup> | Frame Size        |
|---------------------------|-------|------|-------------|-------|------|------|-------------|-------|------|------|----------------------------|-------------------|
| Output Amps               |       | Hp   | Output Amps |       |      | Hp   | Output Amps |       |      | Hp   |                            |                   |
| Cont.                     | 1 min |      | Cont.       | 1 min | 3 s  |      | Cont.       | 1 min | 3 s  |      |                            |                   |
| 355                       | 391   | 350  | 295         | 325   | 443  | 300  | 272         | 408   | 490  | 250  | 20G1AJE295JNONNNNN         | 8 <sup>(5)</sup>  |
| 395                       | 435   | 400  | 355         | 391   | 533  | 350  | 295         | 443   | 531  | 300  | 20G1AJE355JNONNNNN         |                   |
| 435                       | 479   | 450  | 395         | 435   | 593  | 400  | 329         | 494   | 592  | 350  | 20G1AJE395JNONNNNN         |                   |
| 460                       | 506   | 500  | 435         | 479   | 653  | 450  | 355         | 533   | 639  | 350  | 20G1AJE435JNONNNNN         |                   |
| 510                       | 561   | 500  | 460         | 506   | 690  | 500  | 395         | 593   | 711  | 400  | 20G1AJE460JNONNNNN         |                   |
| 545                       | 600   | 550  | 510         | 561   | 765  | 500  | 425         | 638   | 765  | 450  | 20G1AJE510JNONNNNN         |                   |
| 690                       | 759   | 700  | 595         | 655   | 893  | 600  | 510         | 765   | 918  | 500  | 20G11JE595JNONNNNN         | 9 <sup>(5)</sup>  |
| 760                       | 836   | 800  | 630         | 693   | 945  | 700  | 595         | 893   | 1071 | 600  | 20G11JE630JNONNNNN         |                   |
| 835                       | 919   | 900  | 760         | 836   | 1140 | 800  | 630         | 945   | 1134 | 700  | 20G11JE760JNONNNNN         |                   |
| 900                       | 990   | 950  | 825         | 908   | 1238 | 900  | 700         | 1050  | 1260 | 750  | 20G11JE825JNONNNNN         |                   |
| 980                       | 1078  | 1000 | 900         | 990   | 1350 | 950  | 760         | 1140  | 1368 | 800  | 20G11JE900JNONNNNN         |                   |
| 1045                      | 1150  | 1100 | 980         | 1078  | 1470 | 1000 | 815         | 1223  | 1467 | 900  | 20G11JE980JNONNNNN         |                   |
| 1220                      | 1342  | 1200 | 1110        | 1221  | 1665 | 1100 | 920         | 1380  | 1656 | 1000 | 20G11JE1K1JNONNNNN         | 10 <sup>(5)</sup> |
| 1530                      | 1683  | 1500 | 1430        | 1573  | 2145 | 1400 | 1190        | 1785  | 2142 | 1250 | 20G11JE1K4JNONNNNN         |                   |

(1) Light Duty rating only available on Frame 8...10 drives. Light Duty allows 110% overload for 1 minute, and does not have a 3 second overload rating.

(2) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(3) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(4) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

(5) A roll-out cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. Refer to page 131.

## 600V AC, Three-phase Drives (continued)

### Flange Mount (Front: IP20, NEMA/UL Type Open; Back/Heatsink: IP66, NEMA/UL Type 4X)

Frames 3, 4, and 5 are only 600V AC drives. Frames 6 and 7 are dual-voltage drives, and can be operated at 600 V or 690V AC.

**Important:** Frames 3, 4, and 5 must not be used in common DC input-sharing applications with Frames 6 or larger drives. For more details, contact your local Rockwell Automation sales office or your Allen-Bradley distributor.

**Note:** Frame 6...7 IP00, NEMA Type Open drives can be converted to a flange mount drive (back/heatsink: IP66, NEMA/UL Type 4X) with an optional user installed flange kit (kit 20-750-FLNG4-F6 for Frame 6, and kit 20-750-FLNG4-F7 for Frame 7). See page 95 for 600V, Frame 6...7 IP00, NEMA Type Open drives.

| Normal Duty |       |      |     | Heavy Duty  |       |      |     | Cat. No. <sup>(1)(2)</sup> | Frame Size |
|-------------|-------|------|-----|-------------|-------|------|-----|----------------------------|------------|
| Outputs Amp |       |      | Hp  | Output Amps |       |      | Hp  |                            |            |
| Cont.       | 1 min | 3 s  |     | Cont.       | 1 min | 3 s  |     |                            |            |
| 1.7         | 1.9   | 2.6  | 1   | 1.7         | 1.4   | 2.6  | 1   | 20G11FE1P7JA0NNNNN         | 3          |
| 2.7         | 3     | 4.1  | 2   | 1.7         | 2.6   | 4.1  | 1   | 20G11FE2P7JA0NNNNN         |            |
| 3.9         | 4.29  | 5.85 | 3   | 2.7         | 4.1   | 5.9  | 2   | 20G11FE3P9JA0NNNNN         |            |
| 6.1         | 6.7   | 9.2  | 5   | 3.9         | 5.9   | 9.2  | 3   | 20G11FE6P1JA0NNNNN         |            |
| 9           | 9.9   | 13.5 | 7.5 | 6.1         | 9.2   | 13.5 | 5   | 20G11FE9P0JA0NNNNN         |            |
| 11          | 12.1  | 16.5 | 10  | 9           | 13.5  | 16.5 | 7.5 | 20G11FE011JA0NNNNN         |            |
| 17          | 18.7  | 25.5 | 15  | 11          | 16.5  | 25.5 | 10  | 20G11FE017JA0NNNNN         |            |
| 22          | 24.2  | 33   | 20  | 17          | 25.5  | 33   | 15  | 20G11FE022JA0NNNNN         |            |
| 27          | 29.7  | 40.5 | 25  | 22          | 33    | 40.5 | 20  | 20G11FE027JA0NNNNN         | 4          |
| 32          | 35.2  | 48   | 30  | 27          | 40.5  | 48.6 | 25  | 20G11FE032JA0NNNNN         |            |
| 41          | 45.1  | 61.5 | 40  | 32          | 48    | 61.5 | 30  | 20G11FE041JA0NNNNN         | 5          |
| 52          | 57.2  | 78   | 50  | 41          | 61.5  | 78.0 | 40  | 20G11FE052JA0NNNNN         |            |

(1) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(2) The 11th character determines default Filtering and Common Mode Cap jumper configuration. "J" = Installed, "A" = Removed.

## 690V AC, Three-phase Drives

IP00/IP20, NEMA/UL Type Open<sup>(1)</sup>

| Light Duty <sup>(2)</sup> |       |      | Normal Duty |       |      |      | Heavy Duty  |       |      |      | Cat. No. <sup>(3)(4)</sup>        | Frame Size        |
|---------------------------|-------|------|-------------|-------|------|------|-------------|-------|------|------|-----------------------------------|-------------------|
| Output Amps               |       | kW   | Output Amps |       |      | kW   | Output Amps |       |      | kW   |                                   |                   |
| Cont.                     | 1 min |      | Cont.       | 1 min | 3 s  |      | Cont.       | 1 min | 3 s  |      |                                   |                   |
| —                         | —     | —    | 12          | 13.2  | 18   | 7.5  | 9           | 13.5  | 18   | 5.5  | 20G1ANF012JNONNNNN <sup>(5)</sup> | 6                 |
|                           |       |      | 15          | 16.5  | 22.5 | 11   | 12          | 18    | 22.5 | 7.5  | 20G1ANF015JNONNNNN <sup>(5)</sup> |                   |
|                           |       |      | 20          | 22    | 30   | 15   | 15          | 22.5  | 30   | 11   | 20G1ANF020JNONNNNN <sup>(5)</sup> |                   |
|                           |       |      | 23          | 25.3  | 34.5 | 18.5 | 20          | 30    | 36   | 15   | 20G1ANF023JNONNNNN <sup>(5)</sup> |                   |
|                           |       |      | 30          | 33    | 45   | 22   | 23          | 34.5  | 45   | 18.5 | 20G1ANF030JNONNNNN <sup>(5)</sup> |                   |
|                           |       |      | 34          | 37.4  | 51   | 30   | 30          | 45    | 54   | 22   | 20G1ANF034JNONNNNN <sup>(5)</sup> |                   |
|                           |       |      | 46          | 50.6  | 69   | 37   | 34          | 51    | 69   | 30   | 20G1ANF046JNONNNNN <sup>(5)</sup> |                   |
|                           |       |      | 50          | 55    | 75   | 45   | 46          | 69    | 83   | 37   | 20G1ANF050JNONNNNN <sup>(5)</sup> |                   |
|                           |       |      | 61          | 67    | 92   | 55   | 50          | 75    | 92   | 45   | 20G1ANF061JNONNNNN <sup>(5)</sup> |                   |
|                           |       |      | 82          | 90    | 123  | 75   | 61          | 92    | 123  | 55   | 20G1ANF082JNONNNNN <sup>(5)</sup> |                   |
|                           |       |      | 98          | 108   | 147  | 90   | 82          | 123   | 148  | 75   | 20G1ANF098JNONNNNN <sup>(5)</sup> |                   |
|                           |       |      | 119         | 131   | 179  | 110  | 98          | 147   | 179  | 90   | 20G1ANF119JNONNNNN <sup>(5)</sup> |                   |
|                           |       |      | 142         | 156   | 213  | 132  | 119         | 179   | 214  | 110  | 20G1ANF142JNONNNNN <sup>(5)</sup> |                   |
|                           |       |      | 171         | 188   | 257  | 160  | 142         | 213   | 257  | 132  | 20G1ANF171JNONNNNN <sup>(5)</sup> | 7                 |
|                           |       |      | 212         | 233   | 318  | 200  | 171         | 257   | 318  | 160  | 20G1ANF212JNONNNNN <sup>(5)</sup> |                   |
|                           |       |      | 263         | 289   | 395  | 250  | 212         | 318   | 395  | 200  | 20G1ANF263JNONNNNN <sup>(5)</sup> |                   |
|                           |       |      | 330         | 363   | 315  | 265  | 292         | 398   | 250  | 215  | 323                               |                   |
| 370                       | 407   | 355  | 330         | 363   | 495  | 315  | 265         | 398   | 477  | 250  | 20G1A*F330JNONNNNN <sup>(6)</sup> |                   |
| 410                       | 451   | 400  | 370         | 407   | 555  | 355  | 308         | 462   | 554  | 300  | 20G1A*F370JNONNNNN <sup>(6)</sup> |                   |
| 460                       | 506   | 450  | 415         | 457   | 623  | 400  | 370         | 555   | 666  | 355  | 20G1A*F415JNONNNNN <sup>(6)</sup> |                   |
| 500                       | 550   | 500  | 460         | 506   | 690  | 450  | 375         | 563   | 675  | 375  | 20G1A*F460JNONNNNN <sup>(6)</sup> |                   |
| 530                       | 583   | 530  | 500         | 550   | 750  | 500  | 413         | 620   | 743  | 400  | 20G1A*F500JNONNNNN <sup>(6)</sup> |                   |
| 650                       | 715   | 630  | 590         | 649   | 885  | 560  | 460         | 690   | 828  | 450  | 20G11*F590JNONNNNN <sup>(6)</sup> | 9 <sup>(7)</sup>  |
| 710                       | 781   | 710  | 650         | 715   | 975  | 630  | 500         | 750   | 900  | 500  | 20G11*F650JNONNNNN <sup>(6)</sup> |                   |
| 790                       | 869   | 800  | 710         | 781   | 1065 | 710  | 590         | 885   | 1062 | 560  | 20G11*F710JNONNNNN <sup>(6)</sup> |                   |
| 860                       | 946   | 850  | 765         | 842   | 1148 | 750  | 650         | 975   | 1170 | 630  | 20G11*F765JNONNNNN <sup>(6)</sup> |                   |
| 960                       | 1056  | 900  | 795         | 875   | 1193 | 800  | 750         | 1125  | 1350 | 710  | 20G11*F795JNONNNNN <sup>(6)</sup> |                   |
| 1020                      | 1122  | 1000 | 960         | 1056  | 1440 | 900  | 795         | 1193  | 1431 | 800  | 20G11*F960JNONNNNN <sup>(6)</sup> |                   |
| 1150                      | 1265  | 1100 | 1040        | 1144  | 1560 | 1000 | 865         | 1298  | 1557 | 900  | 20G11*F1K0JNONNNNN <sup>(6)</sup> | 10 <sup>(7)</sup> |
| 1485                      | 1634  | 1500 | 1400        | 1540  | 2100 | 1400 | 1160        | 1740  | 2088 | 1120 | 20G11*F1K4JNONNNNN <sup>(6)</sup> |                   |

(1) Frames 6...7 are IP00, NEMA/UL Type Open. Frames 8...10 are IP20, NEMA/UL Type 1. Frames 6...7 can be converted to IP20, NEMA/UL Type 1 with optional kit (20-750-NEMA1-Fx), where x is the frame size of the drive.

(2) Light Duty rating only available on Frame 8...10 drives. Light Duty allows 110% overload for 1 minute, and does not have a 3 second overload rating.

(3) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(4) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(5) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

(6) The 6th character (designated by an \* in this table) determines Enclosure Type and Depth. "B" = IP20, NEMA/UL Type 1, MCC style 600 mm (23.6 in.) deep, and "L" = IP20, NEMA/UL Type 1, MCC style 800 mm (31.5 in.).

(7) A roll-out cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. Refer to page 131.

## 690V AC, Three-phase Drives (continued)

## IP54, NEMA/UL Type 12

| Light Duty <sup>(1)</sup> |       |      | Normal Duty |       |      |      | Heavy Duty  |       |      |      | Cat. No. <sup>(2)(3)</sup>        | Frame Size        |
|---------------------------|-------|------|-------------|-------|------|------|-------------|-------|------|------|-----------------------------------|-------------------|
| Output Amps               |       | kW   | Output Amps |       |      | kW   | Output Amps |       |      | kW   |                                   |                   |
| Cont.                     | 1 min |      | Cont.       | 1 min | 3 s  |      | Cont.       | 1 min | 3 s  |      |                                   |                   |
| —                         | —     | —    | 12          | 13.2  | 18   | 7.5  | 9           | 13.5  | 18   | 5.5  | 20G1AGF012JNONNNNN <sup>(4)</sup> | 6                 |
|                           |       |      | 15          | 16.5  | 22.5 | 11   | 12          | 18    | 22.5 | 7.5  | 20G1AGF015JNONNNNN <sup>(4)</sup> |                   |
|                           |       |      | 20          | 22    | 30   | 15   | 15          | 22.5  | 30   | 11   | 20G1AGF020JNONNNNN <sup>(4)</sup> |                   |
|                           |       |      | 23          | 25.3  | 34.5 | 18.5 | 20          | 30    | 36   | 15   | 20G1AGF023JNONNNNN <sup>(4)</sup> |                   |
|                           |       |      | 30          | 33    | 45   | 22   | 23          | 34.5  | 45   | 18.5 | 20G1AGF030JNONNNNN <sup>(4)</sup> |                   |
|                           |       |      | 34          | 37.4  | 51   | 30   | 30          | 45    | 54   | 22   | 20G1AGF034JNONNNNN <sup>(4)</sup> |                   |
|                           |       |      | 46          | 50.6  | 69   | 37   | 34          | 51    | 69   | 30   | 20G1AGF046JNONNNNN <sup>(4)</sup> |                   |
|                           |       |      | 50          | 55    | 75   | 45   | 46          | 69    | 83   | 37   | 20G1AGF050JNONNNNN <sup>(4)</sup> |                   |
|                           |       |      | 61          | 67    | 92   | 55   | 50          | 75    | 92   | 45   | 20G1AGF061JNONNNNN <sup>(4)</sup> |                   |
|                           |       |      | 82          | 90    | 123  | 75   | 61          | 92    | 123  | 55   | 20G1AGF082JNONNNNN <sup>(4)</sup> |                   |
|                           |       |      | 98          | 108   | 147  | 90   | 82          | 123   | 148  | 75   | 20G1AGF098JNONNNNN <sup>(4)</sup> |                   |
|                           |       |      | 119         | 131   | 179  | 110  | 98          | 147   | 179  | 90   | 20G1AGF119JNONNNNN <sup>(4)</sup> |                   |
|                           |       |      | 142         | 156   | 213  | 132  | 119         | 179   | 214  | 110  | 20G1AGF142JNONNNNN <sup>(4)</sup> |                   |
|                           |       |      | 171         | 188   | 257  | 160  | 142         | 213   | 257  | 132  | 20G1AGF171JNONNNNN <sup>(4)</sup> |                   |
|                           |       |      | 212         | 233   | 318  | 200  | 171         | 257   | 318  | 160  | 20G1AGF212JNONNNNN <sup>(4)</sup> |                   |
|                           |       |      | 263         | 289   | 395  | 250  | 212         | 318   | 395  | 200  | 20G1AGF263JNONNNNN <sup>(4)</sup> |                   |
| 330                       | 363   | 315  | 265         | 292   | 398  | 250  | 215         | 323   | 387  | 200  | 20G1AJF265JNONNNNN                | 8 <sup>(5)</sup>  |
| 370                       | 407   | 355  | 330         | 363   | 495  | 315  | 265         | 398   | 477  | 250  | 20G1AJF330JNONNNNN                |                   |
| 410                       | 451   | 400  | 370         | 407   | 555  | 355  | 308         | 462   | 554  | 300  | 20G1AJF370JNONNNNN                |                   |
| 460                       | 506   | 450  | 415         | 457   | 623  | 400  | 370         | 555   | 666  | 355  | 20G1AJF415JNONNNNN                |                   |
| 500                       | 550   | 500  | 460         | 506   | 690  | 450  | 375         | 563   | 675  | 375  | 20G1AJF460JNONNNNN                |                   |
| 530                       | 583   | 530  | 500         | 550   | 750  | 500  | 413         | 620   | 743  | 400  | 20G1AJF500JNONNNNN                | 9 <sup>(5)</sup>  |
| 650                       | 715   | 630  | 590         | 649   | 885  | 560  | 460         | 690   | 828  | 450  | 20G11JF590JNONNNNN                |                   |
| 710                       | 781   | 710  | 650         | 715   | 975  | 630  | 500         | 750   | 900  | 500  | 20G11JF650JNONNNNN                |                   |
| 790                       | 869   | 800  | 710         | 781   | 1065 | 710  | 590         | 885   | 1062 | 560  | 20G11JF710JNONNNNN                |                   |
| 860                       | 946   | 850  | 765         | 842   | 1148 | 750  | 650         | 975   | 1170 | 630  | 20G11JF765JNONNNNN                |                   |
| 960                       | 1056  | 900  | 795         | 875   | 1193 | 800  | 750         | 1125  | 1350 | 710  | 20G11JF795JNONNNNN                |                   |
| 1020                      | 1122  | 1000 | 960         | 1056  | 1440 | 900  | 795         | 1193  | 1431 | 800  | 20G11JF960JNONNNNN                |                   |
| 1150                      | 1265  | 1100 | 1040        | 1144  | 1560 | 1000 | 865         | 1298  | 1557 | 900  | 20G11JF1K0JNONNNNN                | 10 <sup>(5)</sup> |
| 1485                      | 1634  | 1500 | 1400        | 1540  | 2100 | 1400 | 1160        | 1740  | 2088 | 1120 | 20G11JF1K4JNONNNNN                |                   |

(1) Light Duty rating only available on Frame 8...10 drives. Light Duty allows 110% overload for 1 minute, and does not have a 3 second overload rating.

(2) The 5th character determines Input Type; "1" = AC input with precharge and DC terminals, and "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(3) The 11th character determines default Filtering and Common Mode Cap jumper configuration; "J" = Installed, and "A" = Removed.

(4) The 12th character determines whether an internal dynamic braking IGBT is included; "A" = Internal dynamic braking transistor installed, and "N" = No internal dynamic braking transistor.

(5) A roll-out cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. Refer to page 131.

### Flange Mount (Front: IP20, NEMA/UL Type Open; Back/Heatsink: IP66, NEMA/UL Type 4X)

**Note:** Frame 6...7 IP00, NEMA Type Open drives can be converted to a flange mount drive (Back/Heatsink: IP66, NEMA/UL Type 4X) with an optional user installed flange kit (20-750-FLNG4-F6 for Frame 6, and 20-750-FLNG4-F7 for Frame 7).

See page 100 for 690V, Frame 6...7 IP00, NEMA Type Open drives.

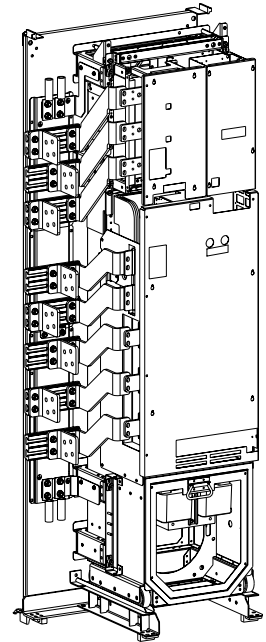
## PowerFlex 755 Floor Mount Drives for Open Frame Designs

Floor mount, open frame drives are for applications that require power ranges from 215 kW to 1500kW (250 Hp...2000 Hp) and are contained within an enclosure of your choosing. These drives use the same drive unit(s) as standard IP20 and IP54 product. Open Frame applications can accommodate either AC input or Common Bus DC input systems.

Floor mount, open frame drives can also be horizontally mounted, with derating. Refer to publication [750-IN020](#) for details.

To order an IP00 drive:

1. Using the tables that follow, locate your desired drive output values.
2. Select the Base Drive Catalog Number for your desired output values.
3. Note the Quantity Required.
4. Order the specified quantity (1, 2, or 3) of the Base Drive Catalog Number.
5. Refer to page 130 for option kits and the PowerFlex 755 IP00 NEMA/UL Open Type Drive Installation Instructions, publication [750-IN020](#) for installation details.



### 380...400V AC, Three-phase and 540V DC Input Drives<sup>(1)</sup>

| Light Duty  |      | Normal Duty |      | Heavy Duty  |      | Base Drive Cat. No. <sup>(2)</sup> | Quantity Required | Equivalent Frame Size |
|-------------|------|-------------|------|-------------|------|------------------------------------|-------------------|-----------------------|
| Output Amps |      | Output Amps |      | Output Amps |      |                                    |                   |                       |
| Cont.       |      | Cont.       |      | Cont.       |      |                                    |                   |                       |
| 540         | 315  | 460         | 250  | 385         | 200  | 20G11TC460JNONNNNN                 | 1                 | 8                     |
| 585         | 315  | 540         | 315  | 456         | 250  | 20G11TC540JNONNNNN                 |                   |                       |
| 612         | 355  | 567         | 315  | 472         | 250  | 20G11TC567JNONNNNN                 |                   |                       |
| 750         | 400  | 650         | 355  | 540         | 315  | 20G11TC650JNONNNNN                 |                   |                       |
| 796         | 450  | 750         | 400  | 585         | 315  | 20G11TC750JNONNNNN                 |                   |                       |
| 832         | 450  | 770         | 400  | 642         | 355  | 20G11TC770JNONNNNN                 |                   |                       |
| 1040        | 560  | 910         | 500  | 750         | 400  | 20G11TC460JNONNNNN                 | 2                 | 9                     |
| 1090        | 630  | 1040        | 560  | 880         | 500  | 20G11TC540JNONNNNN                 |                   |                       |
| 1175        | 710  | 1090        | 630  | 910         | 500  | 20G11TC567JNONNNNN                 |                   |                       |
| 1465        | 800  | 1175        | 710  | 1040        | 560  | 20G11TC650JNONNNNN                 |                   |                       |
| 1480        | 850  | 1465        | 800  | 1090        | 630  | 20G11TC750JNONNNNN                 |                   |                       |
| 1600        | 900  | 1480        | 850  | 1175        | 710  | 20G11TC770JNONNNNN                 |                   |                       |
| 1715        | 1000 | 1590        | 900  | 1325        | 710  | 20G11TC567JNONNNNN                 | 3                 | 10                    |
| 2330        | 1400 | 2150        | 1250 | 1800        | 1000 | 20G11TC770JNONNNNN                 |                   |                       |

(1) A roll-out cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. Refer to page 131.

(2) The 11th character determines default Filtering and Common Mode Cap jumper configuration. "J" = Installed, "A" = Removed.

## PowerFlex 755 Floor Mount Drives for Open Frame Designs (continued)

480V AC, Three-phase and 650V DC Input Drives<sup>(1)</sup>

| Light Duty (-LD) |      | Normal Duty (-ND) |      | Heavy Duty (-HD) |      | Base Drive Cat. No. | Quantity Required | Equivalent Frame Size |
|------------------|------|-------------------|------|------------------|------|---------------------|-------------------|-----------------------|
| Output Amps      | Hp   | Output Amps       | Hp   | Output Amps      | Hp   |                     |                   |                       |
| Cont.            |      | Cont.             |      | Cont.            |      |                     |                   |                       |
| 485              | 400  | 430               | 350  | 370              | 300  | 20G11TD430JNONNNNN  | 1                 | 8                     |
| 545              | 450  | 485               | 400  | 414              | 350  | 20G11TD485JNONNNNN  |                   |                       |
| 590              | 500  | 545               | 450  | 454              | 350  | 20G11TD545JNONNNNN  |                   |                       |
| 710              | 600  | 617               | 500  | 485              | 400  | 20G11TD617JNONNNNN  |                   |                       |
| 765              | 650  | 710               | 600  | 545              | 450  | 20G11TD710JNONNNNN  |                   |                       |
| 800              | 700  | 740               | 650  | 617              | 500  | 20G11TD740JNONNNNN  |                   |                       |
| 960              | 800  | 800               | 700  | 710              | 600  | 20G11TD430JNONNNNN  | 2                 | 9                     |
| 1045             | 900  | 960               | 800  | 795              | 700  | 20G11TD485JNONNNNN  |                   |                       |
| 1135             | 1000 | 1045              | 900  | 800              | 750  | 20G11TD545JNONNNNN  |                   |                       |
| 1365             | 1100 | 1135              | 1000 | 960              | 800  | 20G11TD617JNONNNNN  |                   |                       |
| 1420             | 1250 | 1365              | 1100 | 1045             | 900  | 20G11TD710JNONNNNN  |                   |                       |
| 1540             | 1350 | 1420              | 1250 | 1135             | 1000 | 20G11TD740JNONNNNN  |                   |                       |
| 1655             | 1500 | 1525              | 1350 | 1270             | 1100 | 20G11TD545JNONNNNN  | 3                 | 10                    |
| 2240             | 2000 | 2070              | 1750 | 1730             | 1650 | 20G11TD740JNONNNNN  |                   |                       |

(1) A roll-out cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. Refer to page 131.

600V AC, Three-phase and 810V DC Input Drives<sup>(1)</sup>

| Light Duty (-LD) |      | Normal Duty (-ND) |      | Heavy Duty (-HD) |      | Base Drive Cat. No. | Quantity Required | Equivalent Frame Size |
|------------------|------|-------------------|------|------------------|------|---------------------|-------------------|-----------------------|
| Output Amps      | Hp   | Output Amps       | Hp   | Output Amps      | Hp   |                     |                   |                       |
| Cont.            |      | Cont.             |      | Cont.            |      |                     |                   |                       |
| 355              | 350  | 295               | 300  | 272              | 250  | 20G11TE295JNONNNNN  | 1                 | 8                     |
| 395              | 400  | 355               | 350  | 295              | 300  | 20G11TE355JNONNNNN  |                   |                       |
| 435              | 450  | 395               | 400  | 329              | 350  | 20G11TE395JNONNNNN  |                   |                       |
| 460              | 500  | 435               | 450  | 355              | 350  | 20G11TE435JNONNNNN  |                   |                       |
| 510              | 500  | 460               | 500  | 395              | 400  | 20G11TE460JNONNNNN  |                   |                       |
| 545              | 550  | 510               | 500  | 425              | 450  | 20G11TE510JNONNNNN  |                   |                       |
| 690              | 700  | 595               | 600  | 510              | 500  | 20G11TE295JNONNNNN  | 2                 | 9                     |
| 760              | 800  | 630               | 700  | 595              | 600  | 20G11TE355JNONNNNN  |                   |                       |
| 835              | 900  | 760               | 800  | 630              | 700  | 20G11TE395JNONNNNN  |                   |                       |
| 900              | 950  | 825               | 900  | 700              | 750  | 20G11TE435JNONNNNN  |                   |                       |
| 980              | 1000 | 900               | 950  | 760              | 800  | 20G11TE460JNONNNNN  |                   |                       |
| 1045             | 1100 | 980               | 1000 | 815              | 900  | 20G11TE510JNONNNNN  |                   |                       |
| 1220             | 1200 | 1110              | 1100 | 920              | 1000 | 20G11TE395JNONNNNN  | 3                 | 10                    |
| 1530             | 1500 | 1430              | 1400 | 1190             | 1250 | 20G11TE510JNONNNNN  |                   |                       |

(1) A roll-out cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. Refer to page 131.

## PowerFlex 755 Floor Mount Drives for Open Frame Designs (continued)

690V AC, Three-phase and 932V DC Input Drives<sup>(1)</sup>

| Light Duty (-LD) |      | Normal Duty (-ND) |      | Heavy Duty (-HD) |      | Base Drive Cat. No. <sup>(2)</sup> | Quantity Required | Equivalent Frame Size |
|------------------|------|-------------------|------|------------------|------|------------------------------------|-------------------|-----------------------|
| Output Amps      |      | Output Amps       |      | Output Amps      |      |                                    |                   |                       |
| Cont.            |      | Cont.             |      | Cont.            |      |                                    |                   |                       |
| 330              | 315  | 265               | 250  | 215              | 200  | 20G11TF265JNONNNNN                 | 1                 | 8                     |
| 370              | 355  | 330               | 315  | 265              | 250  | 20G11TF330JNONNNNN                 |                   |                       |
| 410              | 400  | 370               | 355  | 308              | 300  | 20G11TF370JNONNNNN                 |                   |                       |
| 460              | 450  | 415               | 400  | 370              | 355  | 20G11TF415JNONNNNN                 |                   |                       |
| 500              | 500  | 460               | 450  | 375              | 375  | 20G11TF460JNONNNNN                 |                   |                       |
| 530              | 530  | 500               | 500  | 413              | 400  | 20G11TF500JNONNNNN                 |                   |                       |
| 650              | 630  | 590               | 560  | 460              | 450  | 20G11TF265JNONNNNN                 | 2                 | 9                     |
| 710              | 710  | 650               | 630  | 500              | 500  | 20G11TF330JNONNNNN                 |                   |                       |
| 790              | 800  | 710               | 710  | 590              | 560  | 20G11TF370JNONNNNN                 |                   |                       |
| 860              | 850  | 765               | 750  | 650              | 630  | 20G11TF415JNONNNNN                 |                   |                       |
| 960              | 900  | 795               | 800  | 750              | 710  | 20G11TF460JNONNNNN                 |                   |                       |
| 1020             | 1000 | 960               | 900  | 795              | 800  | 20G11TF500JNONNNNN                 |                   |                       |
| 1150             | 1100 | 1040              | 1000 | 865              | 900  | 20G11TF370JNONNNNN                 | 3                 | 10                    |
| 1485             | 1500 | 1400              | 1400 | 1160             | 1120 | 20G11TF500JNONNNNN                 |                   |                       |

(1) A roll-out cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. Refer to 131.

(2) The 11th character determines default Filtering and Common Mode Cap jumper configuration. "J" = Installed, "A" = Removed.

## PowerFlex 755 Floor Mount Drives for Open Frame Designs (continued)

Kits listed here provide electrical connection, mounting and ventilation provisions along with the control pod and its corresponding cables for PowerFlex 755 Floor Mount Open Frame designs. Other accessories shown include the rollout cart and EMC cores. Refer to publication [750-IN020](#) for details.

### PowerFlex 755 IP00 Option Kits

| Description                                                            | Required?               | Frame 8           |                | Frame 9           |      | Frame 10          |      |
|------------------------------------------------------------------------|-------------------------|-------------------|----------------|-------------------|------|-------------------|------|
|                                                                        |                         | Cat. No.          | Qty.           | Cat. No.          | Qty. | Cat. No.          | Qty. |
| Field Termination, Converter, AC Input <sup>(5)</sup>                  | Recommended             | 20-750-BUS2-F8    | 1              | 20-750-BUS2-F9    | 1    | 20-750-BUS2-F10   | 1    |
| Field Termination, Inverter, AC Output <sup>(5)</sup>                  |                         | 20-750-BUS3-F8    |                | 20-750-BUS3-F9    |      | 20-750-BUS3-F10   |      |
| Field Termination, Inverter, DC Bus                                    |                         | 20-750-BUS4-F8    |                | 20-750-BUS4-F9    |      | 20-750-BUS4-F10   |      |
| Field Termination, DC Input, Common Bus Precharge <sup>(1)(2)(5)</sup> |                         | 20-750-BUS5-F8    |                | 20-750-BUS5-F9    |      | 20-750-BUS5-F10   |      |
| Pod, Bucket Assembly                                                   | Required <sup>(4)</sup> | 20-750-POD1-F8    | <sup>(3)</sup> | 20-750-POD1-F8    |      | 20-750-POD1-F8    |      |
| Pod, Cable, 24 Volt Supply <sup>(4)</sup>                              |                         | 20-750-PH1-F8     |                | 20-750-PH2-F9     |      | 20-750-PH3-F10    |      |
| Cable, Fiber Optic, 560 mm (22 in.) <sup>(4)</sup>                     |                         | 20-750-FCBL1-F8   |                | —                 |      | —                 |      |
| Cable, Fiber Optic, 2.8 m (110 in.) <sup>(4)</sup>                     |                         | —                 |                | 20-750-FCBL1-F10  | 2    | 20-750-FCBL1-F10  | 3    |
| Transceiver, Fiber Optic                                               |                         |                   |                | SK-R1-FTR1-F8     | 1    | SK-R1-FTR1-F8     | 2    |
| POD, Remote Mounting Kit                                               | Optional                | 20-750-RPD1-F8    | 1              | 20-750-RPD1-F8    | 2    | 20-750-RPD1-F8    | 3    |
| Mounting Kit, Back Panel                                               | Recommended             | 20-750-MNT2-F8    |                | 20-750-MNT2-F9    | 1    | 20-750-MNT2-F10   | 1    |
| Mounting Kit, Floor                                                    |                         | 20-750-MNT3-F8    |                | 20-750-MNT3-F9    |      | 20-750-MNT3-F10   | 1    |
| Duct, Top Outlet                                                       |                         | 20-750-DUCT2-F8   |                | 20-750-DUCT2-F8   | 2    | 20-750-DUCT2-F8   | 3    |
| Duct, Bottom Inlet <sup>(6)</sup>                                      |                         | 20-750-DUCT4-F8   |                | 20-750-DUCT4-F8   |      | 20-750-DUCT4-F8   |      |
| Roll-Out Cart                                                          |                         | 20-750-CART1-F8   |                | 20-750-CART1-F8   | 1    | 20-750-CART1-F8   | 1    |
| Control Power Circuit Breaker <sup>(1)</sup>                           |                         | 1489-A2D130       |                | 1489-A2D130       |      | 1489-A2D130       |      |
| Control Power Circuit Breaker Lock <sup>(1)</sup>                      |                         | 1489-AALOA        |                | 1489-AALOA        |      | 1489-AALOA        |      |
| EMC Core, Converter Input, AC Input                                    | Optional                | 20-750-EMCBUS1-F8 |                | 20-750-EMCBUS1-F8 |      | 20-750-EMCBUS1-F8 |      |
| EMC Core, Inverter Output                                              |                         | 20-750-EMCCM1-F8  |                | 20-750-EMCCM1-F8  |      | 20-750-EMCCM1-F8  |      |

(1) Common DC input drives only.

(2) EMC input cores are included with the 20-750-BUS5-Fx kits.

(3) 24 volt supply cable is included with each Frame 8 drive unit.

(4) 20-750-PH1-Fx and 20-750-FCBL1-Fx kits are used if the Control Pod is mounted in the drive. If the Control Pod is to be remote mounted (up to 23 m or 75 ft away), order a 20-750-RPD1-Fx kit instead.

(5) Input and Output Field Termination kits required to meet UL certification

(6) Only required when air inlet from bottom of cabinet is required

## Power Options for PowerFlex 755 Floor Mount, AC Input Drives

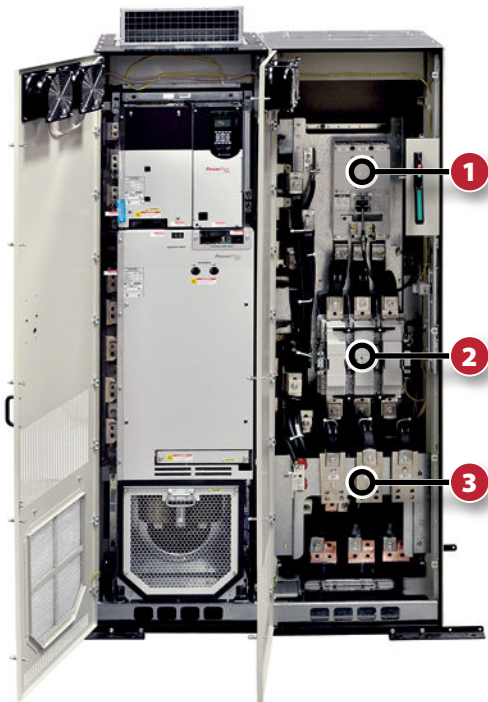
Pre-engineered, factory installed options are available with the PowerFlex 755 floor mount drives, which includes disconnects, reactors, contactors, MCC bus and wiring only bays.

To configure a catalog number for a floor-mount drive with options, perform the following steps:

1. Select the base drive catalog number from the tables on pages 108...111. Drive selection is based on the output amps and corresponding system overload(s) required by the application.
2. Select the duty rating. See the Required Options table on page 107 for duty rating details. For example: 21G1ALC460JN0NNNNN-**LD**.
3. Select the desired enclosure type as described on pages 108...111. For example: 21G1AL**C**460JN0NNNNN-LD.
4. Select Power Disconnect and/or Wire Only Bay option from the Required Options table on page 107. Add the desired option codes to the end of the base drive catalog number, separating each option code with a dash. For example: 21G1ALC460JN0NNNNN-LD-**P3**.
5. If options listed in the Additional Options table on page 107 are required, add the option code(s) to the end of the drive catalog number, separating each code with a dash. For example: 21G1ALC460JN0NNNNN-LD-P3-**P11**.

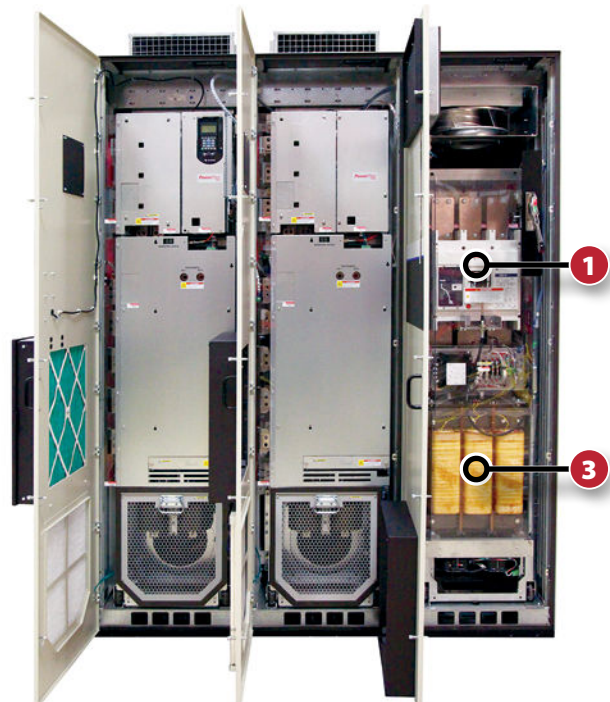
**Note:** A 600 mm wide cabinet bay is added to the right of the drive cabinet(s) to house the power options. The Wiring Only Bay option (-P14) also adds a 600 mm wide cabinet bay to the right of the drive cabinet(s).

**Frame 8 with Power Option Bay**



Input power landed on line-side of power disconnect.

**Frame 9 with Power Option Bay**



Input power landed behind circuit breaker, which is accessed by extracting rollout chassis.

**1** Power Disconnect  
Options -P3 or -P5

See Required Options on page 107.

**2** Contactor  
Options -P11 or -P12

See Additional Options on page 107.

**3** Reactor  
Options -L1, -L2, -L3, or -L4

See Additional Options on page 107.

## Power Options for PowerFlex 755 Floor Mount, AC Input Drives (continued)

### Required Options

| Type                                         | Option |                                               | Frame Size            | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------|--------|-----------------------------------------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| System Overload Duty Cycle <sup>(1)(2)</sup> | LD     | Light Duty                                    | 8...10                | 100% continuous current, 110% current for 1 minute.                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                              | ND     | Normal Duty                                   |                       | 100% continuous current, 110% current for 1 minute, 150% for 3 seconds.                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                                              | HD     | Heavy Duty                                    |                       | 100% continuous current, 150% current for 1 minute, 180% for 3 seconds.                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Power Disconnect <sup>(1)</sup>              | P3     | Input Thermal Magnetic Circuit Breaker        | 8...10 <sup>(3)</sup> | This option is for disconnecting drive power. An Allen-Bradley 140G Molded Case Circuit Breaker is provided. Frame 8 drives include flange style handle operators that are door interlocking and padlockable. Frame 9 drive circuit breakers are pushbutton actuated with door interlocks and are padlockable.                                                                                                                                                                                                               |
|                                              | P5     | Input Non-Fused Molded Case Disconnect Switch | 8 Only                | This option is for disconnecting drive power. An Allen-Bradley 140G Molded Case Switch is provided. All switches include flange style handle operators that are door interlocking and padlockable.<br><b>Note:</b> PowerFlex 755 Frame 8 converter modules input fuses installed as standard equipment do not provide branch protection.                                                                                                                                                                                     |
| Wiring Only Bay                              | P14    | Wiring Only Bay                               | 8...10                | This option identifies that an extra bay is provided for wiring the drive. This option extends the drive power bus from the drive bay into the option bay, making field connection options more flexible. No drive input protection is supplied with this option selection. If desired, a power option bay with a disconnect option can be added to the wiring bay. Documentation to reflect input disconnection and protection is customer supplied. See page 130 for more information on power cable entry/exit locations. |

(1) Only one option of this type can be selected.

(2) See following selection tables for specific rating information.

(3) Frame 10 ordered via Engineered-To-Order (ETO) process.

### Additional Options

| Type                            | Option |                       | Applicable Frame Size | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------------|--------|-----------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Contactors <sup>(4)(5)</sup>    | P11    | Input Contactor       | 8 Only                | A contactor is provided between the AC line and the drive. The contactor is controlled by customer supplied 120V AC (480V input) or 230V AC (400V input) remote contact closure logic. A terminal block for control is provided for customer use, and is wired to 1 N.O. and 1 N.C. auxiliary contact on the contactor.<br><b>Important:</b> The P11 option 'Alternate Contact Circuit' is not intended to be used as a Start/Stop circuit.                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                 | P12    | Output Contactor      |                       | A contactor is provided between the drive output and the motor. The contactor is controlled by customer supplied 120V AC (480V input) or 230V AC (400V input) remote contact closure logic. A terminal block for control is provided for customer use and is wired to 1 N.O. and 1 N.C. auxiliary contact on the contactor.<br><b>Note:</b> As an alternative to an output contactor, certain safety applications can be satisfied using the PowerFlex 750-Series Safe Torque Off Option Card (Cat. No. 20-750-S). Safe Torque Off is ideal for safety related applications requiring removal of rotational power to the motor without removing power from the drive. Safe Torque Off functionality offers the benefit of quick start-up after a demand on the safety system and helps reduce wear from repetitive start-up. It also provides safety ratings up to and including SIL3, PLc, and CAT 3. |
| Reactors <sup>(4)(6)</sup>      | L1     | 3% Input Reactor      | 8...9                 | Provides an open core drive input line reactor that mounts inside the power bay option enclosure. Typical impedance is 3%.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                 | L2     | 3% Output Reactor     |                       | Provides an open core drive output load reactor, which mounts inside the power bay option enclosure. Typical impedance is 3%.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                 | L3     | 5% Input Reactor      | 8 Only                | Provides an open core drive input line reactor that mounts inside the power bay option enclosure. Typical impedance is 5%.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                 | L4     | 5% Output Reactor     |                       | Provides an open core drive output load reactor, which mounts inside the power bay option enclosure. Typical impedance is 5%.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| MCC Power Bus <sup>(4)(7)</sup> | P20    | 1250 Amp Bus          | 8...10                | Provides a 1250 Amp MCC Bus.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                                 | P22    | 2000 Amp Bus          |                       | Provides a 2000 Amp MCC Bus.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                                 | P24    | 3000 Amp Bus          |                       | Provides a 3000 Amp MCC Bus.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Auxiliary Power                 | X1     | Auxiliary Transformer | 8 Only                | Auxiliary transformer providing 500VA. Available as an option on frame 8, IP20 units. This option is standard on all other cabinet configurations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

(4) Only one option of this type can be selected.

(5) Contactor options are not available for systems with MCC power bus.

(6) To accommodate a larger reactor, an 800 mm deep cabinet must be selected for the following Frame 8 drives; C750, C770, D710, D740 at light duty (LD), and C770 at normal-duty (ND).

(7) MCC bus is connected to the line side of the disconnect, as delivered from the factory.

## Power Options for PowerFlex 755 Floor Mount, AC Input Drives (continued)

### Enclosure Type Selections

| Code | Description                                                                                           |
|------|-------------------------------------------------------------------------------------------------------|
| B    | 600 mm deep, IP20/NEMA 1, standard color (RAL 7032)                                                   |
| L    | 800 mm deep, IP20/NEMA 1, standard color (RAL 7032)                                                   |
| P    | 800 mm deep, IP20/NEMA 1, with Motor Control Center (MCC) power bus option, standard color (RAL 7032) |
| W    | 800 mm deep, IP20/NEMA 1, with MCC power bus option, CENTERLINE 2100 gray (ASA49)                     |
| J    | 800 mm deep, IP54/NEMA 12, standard color (RAL 7032)                                                  |
| K    | 800 mm deep, IP54/NEMA 12, with MCC power bus option, standard color (RAL 7032)                       |
| Y    | 800 mm deep, IP54/NEMA 12, with MCC power bus option, CENTERLINE 2100 gray (ASA49)                    |

### 380...400V AC, Three-phase Input Drives<sup>(1)(2)</sup>

| Light Duty (-LD) |       |     |      | Normal Duty (-ND) |       |      |      | Heavy Duty (-HD) |       |      |      | Base Drive Cat. No. <sup>(3)(4)(5)</sup> | Frame Size |
|------------------|-------|-----|------|-------------------|-------|------|------|------------------|-------|------|------|------------------------------------------|------------|
| Output Amps      |       |     | kW   | Output Amps       |       |      | kW   | Output Amps      |       |      | kW   |                                          |            |
| Cont.            | 1 min | 3 s |      | Cont.             | 1 min | 3 s  |      | Cont.            | 1 min | 3 s  |      |                                          |            |
| 540              | 594   | —   | 315  | 460               | 506   | 693  | 250  | 385              | 578   | 693  | 200  | 21G1A*C460JNONNNNN                       | 8          |
| 585              | 644   |     | 315  | 540               | 594   | 821  | 315  | 456              | 684   | 821  | 250  | 21G1A*C540JNONNNNN                       |            |
| 612              | 673   |     | 355  | 567               | 624   | 851  | 315  | 472              | 708   | 851  | 250  | 21G1A*C567JNONNNNN                       |            |
| 750              | 825   |     | 400  | 650               | 715   | 975  | 355  | 540              | 810   | 975  | 315  | 21G1A*C650JNONNNNN                       |            |
| 796              | 876   |     | 450  | 750               | 825   | 1125 | 400  | 585              | 878   | 1125 | 315  | 21G1A*C750JNONNNNN                       |            |
| 832              | 915   |     | 450  | 770               | 847   | 1155 | 400  | 642              | 963   | 1155 | 355  | 21G1A*C770JNONNNNN                       |            |
| 1040             | 1144  | —   | 560  | 910               | 1001  | 1365 | 500  | 750              | 1125  | 1365 | 400  | 21G11*C910JNONNNNN                       | 9          |
| 1090             | 1199  |     | 630  | 1040              | 1144  | 1584 | 560  | 880              | 1320  | 1584 | 500  | 21G11*C1K0JNONNNNN                       |            |
| 1175             | 1293  |     | 710  | 1090              | 1199  | 1638 | 630  | 910              | 1365  | 1638 | 500  | 21G11*C1K1JNONNNNN                       |            |
| 1465             | 1612  |     | 800  | 1175              | 1293  | 1872 | 710  | 1040             | 1560  | 1872 | 560  | 21G11*C1K2JNONNNNN                       |            |
| 1480             | 1628  |     | 850  | 1465              | 1612  | 2198 | 800  | 1090             | 1635  | 2198 | 630  | 21G11*C1K4JNONNNNN                       | 10         |
| 1600             | 1760  |     | 900  | 1480              | 1628  | 2220 | 850  | 1175             | 1763  | 2220 | 710  | 21G11*C1K5JNONNNNN                       |            |
| 1715             | 1887  |     | 1000 | 1590              | 1749  | 2385 | 900  | 1325             | 1988  | 2385 | 710  | 21G11*C1K6JNONNNNN                       |            |
| 2330             | 2563  |     | 1400 | 2150              | 2365  | 3225 | 1250 | 1800             | 2700  | 3225 | 1000 | 21G11*C2K1JNONNNNN                       |            |

(1) Contact your local Rockwell Automation sales office or Allen-Bradley distributor for availability.

(2) A Roll-out Cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. Refer to page 131.

(3) The 5th character determines Input Type. "1" = AC input with precharge and DC terminals. "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(4) The 11th character determines default Filtering and Common Mode Cap jumper configuration. "J" = Installed, "A" = Removed.

(5) The 6th character (designated by an \* in this table) determines enclosure type. For that selection, refer to the Enclosure Type Selections table on this page.

## Power Options for PowerFlex 755 Floor Mount, AC Input Drives (continued)

### Enclosure Type Selections

| Code | Description                                                                                           |
|------|-------------------------------------------------------------------------------------------------------|
| B    | 600 mm deep, IP20/NEMA 1, standard color (RAL 7032)                                                   |
| L    | 800 mm deep, IP20/NEMA 1, standard color (RAL 7032)                                                   |
| P    | 800 mm deep, IP20/NEMA 1, with Motor Control Center (MCC) power bus option, standard color (RAL 7032) |
| W    | 800 mm deep, IP20/NEMA 1, with MCC power bus option, CENTERLINE 2100 gray (ASA49)                     |
| J    | 800 mm deep, IP54/NEMA 12, standard color (RAL 7032)                                                  |
| K    | 800 mm deep, IP54/NEMA 12, with MCC power bus option, standard color (RAL 7032)                       |
| Y    | 800 mm deep, IP54/NEMA 12, with MCC power bus option, CENTERLINE 2100 gray (ASA49)                    |

### 480V AC, Three-phase Input Drives<sup>(1)(2)</sup>

| Light Duty  |       |      |      | Normal Duty |       |      |      | Heavy Duty  |       |      |                    | Base Drive Cat. No. <sup>(3)(4)(5)</sup> | Frame Size |
|-------------|-------|------|------|-------------|-------|------|------|-------------|-------|------|--------------------|------------------------------------------|------------|
| Output Amps |       |      | Hp   | Output Amps |       |      | Hp   | Output Amps |       |      | Hp                 |                                          |            |
| Cont.       | 1 min | 3 s  |      | Cont.       | 1 min | 3 s  |      | Cont.       | 1 min | 3 s  |                    |                                          |            |
| 485         | 534   | —    | 400  | 430         | 473   | 666  | 350  | 370         | 555   | 666  | 300                | 21G1A*D430JNONNNNN                       | 8          |
| 545         | 600   |      | 450  | 485         | 534   | 745  | 400  | 414         | 621   | 745  | 350                | 21G1A*D485JNONNNNN                       |            |
| 590         | 649   |      | 500  | 545         | 600   | 818  | 450  | 454         | 681   | 818  | 350                | 21G1A*D545JNONNNNN                       |            |
| 710         | 781   |      | 600  | 617         | 679   | 926  | 500  | 485         | 728   | 926  | 400                | 21G1A*D617JNONNNNN                       |            |
| 765         | 842   |      | 650  | 710         | 781   | 1065 | 600  | 545         | 818   | 1065 | 450                | 21G1A*D710JNONNNNN                       |            |
| 800         | 880   |      | 700  | 740         | 817   | 1110 | 650  | 617         | 926   | 1110 | 500                | 21G1A*D740JNONNNNN                       |            |
| 960         | 1056  |      | 800  | 800         | 880   | 1278 | 700  | 710         | 1065  | 1278 | 600                | 21G11*D800JNONNNNN                       |            |
| 1045        | 1150  | 900  | 960  | 1056        | 1440  | 800  | 795  | 1193        | 1440  | 700  | 21G11*D960JNONNNNN |                                          |            |
| 1135        | 1249  | 1000 | 1045 | 1150        | 1568  | 900  | 800  | 1200        | 1568  | 750  | 21G11*D1K0JNONNNNN |                                          |            |
| 1365        | 1502  | 1100 | 1135 | 1249        | 1728  | 1000 | 960  | 1440        | 1728  | 800  | 21G11*D1K2JNONNNNN |                                          |            |
| 1420        | 1562  | 1250 | 1365 | 1502        | 2048  | 1100 | 1045 | 1568        | 2048  | 900  | 21G11*D1K3JNONNNNN |                                          |            |
| 1540        | 1694  | 1350 | 1420 | 1562        | 2130  | 1250 | 1135 | 1703        | 2130  | 1000 | 21G11*D1K4JNONNNNN |                                          |            |
| 1655        | 1821  | 1500 | 1525 | 1678        | 2288  | 1350 | 1270 | 1905        | 2288  | 1100 | 21G11*D1K5JNONNNNN | 10                                       |            |
| 2240        | 2464  | 2000 | 2070 | 2277        | 3105  | 1750 | 1730 | 2595        | 3105  | 1650 | 21G11*D2K0JNONNNNN |                                          |            |

(1) Contact your local Rockwell Automation sales office or Allen-Bradley distributor for availability.

(2) A Roll-out Cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. Refer to page 131.

(3) The 5th character determines Input Type. "1" = AC input with precharge and DC terminals. "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(4) The 11th character determines default Filtering and Common Mode Cap jumper configuration. "J" = Installed, "A" = Removed.

(5) The 6th character (designated by an \* in this table) determines enclosure type. For that selection, refer to the Enclosure Type Selections table on this page.

## Power Options for PowerFlex 755 Floor Mount, AC Input Drives (continued)

### Enclosure Type Selections

| Code | Description                                                                                           |
|------|-------------------------------------------------------------------------------------------------------|
| B    | 600 mm deep, IP20/NEMA 1, standard color (RAL 7032)                                                   |
| L    | 800 mm deep, IP20/NEMA 1, standard color (RAL 7032)                                                   |
| P    | 800 mm deep, IP20/NEMA 1, with Motor Control Center (MCC) power bus option, standard color (RAL 7032) |
| W    | 800 mm deep, IP20/NEMA 1, with MCC power bus option, CENTERLINE 2100 gray (ASA49)                     |
| J    | 800 mm deep, IP54/NEMA 12, standard color (RAL 7032)                                                  |
| K    | 800 mm deep, IP54/NEMA 12, with MCC power bus option, standard color (RAL 7032)                       |
| Y    | 800 mm deep, IP54/NEMA 12, with MCC power bus option, CENTERLINE 2100 gray (ASA49)                    |

### 600V AC, Three-phase Input Drives<sup>(1)(2)</sup>

| Light Duty  |       |     |      | Normal Duty |       |      |      | Heavy Duty  |       |      |      | Base Drive Cat. No. <sup>(3)(4)(5)</sup> | Frame Size |
|-------------|-------|-----|------|-------------|-------|------|------|-------------|-------|------|------|------------------------------------------|------------|
| Output Amps |       |     | Hp   | Output Amps |       |      | Hp   | Output Amps |       |      | Hp   |                                          |            |
| Cont.       | 1 min | 3 s |      | Cont.       | 1 min | 3 s  |      | Cont.       | 1 min | 3 s  |      |                                          |            |
| 355         | 391   | —   | 350  | 295         | 325   | 490  | 300  | 272         | 408   | 490  | 250  | 21G1A*E295JNONNNNN                       | 8          |
| 395         | 435   |     | 400  | 355         | 391   | 533  | 350  | 295         | 443   | 533  | 300  | 21G1A*E355JNONNNNN                       |            |
| 435         | 479   |     | 450  | 395         | 435   | 593  | 400  | 329         | 494   | 593  | 350  | 21G1A*E395JNONNNNN                       |            |
| 460         | 506   |     | 500  | 435         | 479   | 639  | 450  | 355         | 533   | 639  | 350  | 21G1A*E435JNONNNNN                       |            |
| 510         | 561   |     | 500  | 460         | 506   | 711  | 500  | 395         | 593   | 711  | 400  | 21G1A*E460JNONNNNN                       |            |
| 545         | 600   |     | 550  | 510         | 561   | 765  | 500  | 425         | 638   | 765  | 450  | 21G1A*E510JNONNNNN                       |            |
| 690         | 759   | —   | 700  | 595         | 655   | 918  | 600  | 510         | 765   | 918  | 500  | 21G11*E595JNONNNNN                       | 9          |
| 760         | 836   |     | 800  | 630         | 693   | 1071 | 700  | 595         | 893   | 1071 | 600  | 21G11*E630JNONNNNN                       |            |
| 835         | 919   |     | 900  | 760         | 836   | 1140 | 800  | 630         | 945   | 1140 | 700  | 21G11*E760JNONNNNN                       |            |
| 900         | 990   |     | 950  | 825         | 908   | 1260 | 900  | 700         | 1050  | 1260 | 750  | 21G11*E825JNONNNNN                       |            |
| 980         | 1078  |     | 1000 | 900         | 990   | 1368 | 950  | 760         | 1140  | 1368 | 800  | 21G11*E900JNONNNNN                       |            |
| 1045        | 1150  |     | 1100 | 980         | 1078  | 1470 | 1000 | 815         | 1223  | 1470 | 900  | 21G11*E980JNONNNNN                       |            |
| 1220        | 1342  | —   | 1200 | 1110        | 1221  | 1665 | 1100 | 920         | 1380  | 1665 | 1000 | 21G11*E1K1JNONNNNN                       | 10         |
| 1530        | 1683  |     | 1500 | 1430        | 1573  | 2145 | 1400 | 1190        | 1785  | 2145 | 1250 | 21G11*E1K4JNONNNNN                       |            |

(1) Contact your local Rockwell Automation sales office or Allen-Bradley distributor for availability.

(2) A Roll-out Cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. Refer to page 131.

(3) The 5th character determines Input Type: "1" = AC input with precharge and DC terminals. "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(4) The 11th character determines default Filtering and Common Mode Cap jumper configuration. "J" = Installed, "A" = Removed.

(5) The 6th character (designated by an \* in this table) determines enclosure type. For that selection, refer to the Enclosure Type Selections table on this page.

## Power Options for PowerFlex 755 Floor Mount, AC Input Drives (continued)

### Enclosure Type Selections

| Code | Description                                                                                           |
|------|-------------------------------------------------------------------------------------------------------|
| B    | 600 mm deep, IP20/NEMA 1, standard color (RAL 7032)                                                   |
| L    | 800 mm deep, IP20/NEMA 1, standard color (RAL 7032)                                                   |
| P    | 800 mm deep, IP20/NEMA 1, with Motor Control Center (MCC) power bus option, standard color (RAL 7032) |
| W    | 800 mm deep, IP20/NEMA 1, with MCC power bus option, CENTERLINE 2100 gray (ASA49)                     |
| J    | 800 mm deep, IP54/NEMA 12, standard color (RAL 7032)                                                  |
| K    | 800 mm deep, IP54/NEMA 12, with MCC power bus option, standard color (RAL 7032)                       |
| Y    | 800 mm deep, IP54/NEMA 12, with MCC power bus option, CENTERLINE 2100 gray (ASA49)                    |

### 690V AC, Three-phase Input Drives<sup>(1)(2)</sup>

| Light Duty  |       |      |      | Normal Duty |       |      |      | Heavy Duty  |       |      |                    | Base Drive Cat. No. <sup>(3)(4)(5)</sup> | Frame Size |
|-------------|-------|------|------|-------------|-------|------|------|-------------|-------|------|--------------------|------------------------------------------|------------|
| Output Amps |       |      | kW   | Output Amps |       |      | kW   | Output Amps |       |      | kW                 |                                          |            |
| Cont.       | 1 min | 3 s  |      | Cont.       | 1 min | 3 s  |      | Cont.       | 1 min | 3 s  |                    |                                          |            |
| 330         | 363   | —    | 315  | 265         | 292   | 375  | 250  | 215         | 323   | 375  | 200                | 21G1A*F265JNONNNNN                       | 8          |
| 370         | 407   |      | 355  | 330         | 363   | 473  | 315  | 265         | 398   | 473  | 250                | 21G1A*F330JNONNNNN                       |            |
| 410         | 451   |      | 400  | 370         | 407   | 555  | 355  | 308         | 462   | 555  | 300                | 21G1A*F370JNONNNNN                       |            |
| 460         | 506   |      | 450  | 415         | 457   | 639  | 400  | 370         | 555   | 639  | 355                | 21G1A*F415JNONNNNN                       |            |
| 500         | 550   |      | 500  | 460         | 506   | 675  | 450  | 375         | 563   | 675  | 375                | 21G1A*F460JNONNNNN                       |            |
| 530         | 583   |      | 530  | 500         | 550   | 750  | 500  | 413         | 620   | 750  | 400                | 21G1A*F500JNONNNNN                       |            |
| 650         | 715   |      | 630  | 590         | 649   | 885  | 560  | 460         | 690   | 885  | 450                | 21G11*F590JNONNNNN                       | 9          |
| 710         | 781   |      | 710  | 650         | 715   | 975  | 630  | 500         | 750   | 975  | 500                | 21G11*F650JNONNNNN                       |            |
| 790         | 869   |      | 800  | 710         | 781   | 1065 | 710  | 590         | 885   | 1065 | 560                | 21G11*F710JNONNNNN                       |            |
| 860         | 946   |      | 850  | 765         | 842   | 1170 | 750  | 650         | 975   | 1170 | 630                | 21G11*F765JNONNNNN                       |            |
| 960         | 1056  |      | 900  | 795         | 875   | 1350 | 800  | 750         | 1125  | 1350 | 710                | 21G11*F795JNONNNNN                       |            |
| 1020        | 1122  |      | 1000 | 960         | 1056  | 1440 | 900  | 795         | 1193  | 1440 | 800                | 21G11*F960JNONNNNN                       |            |
| 1150        | 1265  | 1100 | 1040 | 1144        | 1560  | 1000 | 865  | 1298        | 1560  | 900  | 21G11*F1K0JNONNNNN | 10                                       |            |
| 1485        | 1634  | 1500 | 1400 | 1540        | 2100  | 1400 | 1160 | 1740        | 2100  | 1120 | 21G11*F1K4JNONNNNN |                                          |            |

(1) Contact your local Rockwell Automation sales office or Allen-Bradley distributor for availability.

(2) A Roll-out Cart is required with Frame 8...10 drives to assist with power wiring and cabinet mounting. Refer to page 131.

(3) The 5th character determines Input Type: "1" = AC input with precharge and DC terminals. "A" = AC input with precharge and no DC terminals. For DC input drives, see [DRIVES-SG001](#), the PowerFlex Common Bus Configuration Selection Guide.

(4) The 11th character determines default Filtering and Common Mode Cap jumper configuration. "J" = Installed, "A" = Removed.

(5) The 6th character (designated by an \* in this table) determines enclosure type. For that selection, refer to the Enclosure Type Selections table on this page.

## Connect to a CENTERLINE Motor Control Center (MCC)

To select the splice kit best suited for your application, determine the following.

1. Are you connecting to a CENTERLINE® 2100 or CENTERLINE 2500 MCC?
2. While facing the front of the PowerFlex 755 drive, decide to which drive side that you want to connect.
3. Are you connecting PowerFlex 755 floor mount drives together, or are you connecting a PowerFlex 755 floor mount drive to a CENTERLINE MCC?

If you are connecting PowerFlex 755 floor mount drives together or if you are connecting a PowerFlex 755 floor mount drive to a CENTERLINE 2500 MCC, then use PowerFlex 755 CENTERLINE 2500 Splice Kits. Otherwise, use PowerFlex 755 CENTERLINE 2100 Splice Kits.

**NOTE:** A splice kit contains three splice plates.

### PowerFlex 755 CENTERLINE 2100 Splice Kits

A complete installation requires one transition section and one bus bar splicing kit. Splicing kits include all necessary hardware to complete connection of all three-phases.

| Mounting Channel                                      | Busbar Position <sup>(1)</sup>    | Amp Rating | Left-side Kit Cat No. | Right-side Kit Cat No. | Frame Sizes |
|-------------------------------------------------------|-----------------------------------|------------|-----------------------|------------------------|-------------|
| N/A                                                   | Transition section <sup>(2)</sup> | N/A        | 20-750-XSEC-LH-20G    | 20-750-XSEC-RH-20G     | 8...10      |
| For use with MCCs that have 1.5 in. mounting channels | Standard                          | 1200       | 20-750-XBUS-LHNB-1200 | 20-750-XBUS-RHNB-1200  | 8...10      |
|                                                       |                                   | 2000       | 20-750-XBUS-LHNB-2000 | 20-750-XBUS-RHNB-2000  |             |
|                                                       |                                   | 3000       | 20-750-XBUS-LHNB-3000 | 20-750-XBUS-RHNB-3000  |             |
|                                                       | Bumped back                       | 1200       | 20-750-XBUS-LHBB-1200 | 20-750-XBUS-RHBB-1200  |             |
|                                                       |                                   | 2000       | 20-750-XBUS-LHBB-2000 | 20-750-XBUS-RHBB-2000  |             |
|                                                       |                                   | 3000       | 20-750-XBUS-LHBB-3000 | 20-750-XBUS-RHBB-3000  |             |
| For use with MCCs that do not have mounting channels  | Standard                          | 1200       | 20-750-XBUS-LLNB-1200 | 20-750-XBUS-RLNB-1200  |             |
|                                                       |                                   | 2000       | 20-750-XBUS-LLNB-2000 | 20-750-XBUS-RLNB-2000  |             |
|                                                       |                                   | 3000       | 20-750-XBUS-LLNB-3000 | 20-750-XBUS-RLNB-3000  |             |
|                                                       | Bumped back                       | 1200       | 20-750-XBUS-LLBB-1200 | 20-750-XBUS-RLBB-1200  |             |
|                                                       |                                   | 2000       | 20-750-XBUS-LLBB-2000 | 20-750-XBUS-RLBB-2000  |             |
|                                                       |                                   | 3000       | 20-750-XBUS-LLBB-3000 | 20-750-XBUS-RLBB-3000  |             |

(1) All busbar positions are 20 in. deep.

(2) Hardware is included to install the optional 1.5 in. mounting channel.

### PowerFlex 755 CENTERLINE 2500 Splice Kits

Splicing kits include all necessary hardware to complete connection of all three-phases.

| Description                                                                                                            | Cat No.            | Frame Sizes |
|------------------------------------------------------------------------------------------------------------------------|--------------------|-------------|
| 1200A Splice Kit to connect right side of drive to a CENTERLINE® 2500 cabinet                                          | 20-750-MBUSR1-1200 | 8...10      |
| 2000A Splice Kit to connect right side of drive to a CENTERLINE 2500 cabinet                                           | 20-750-MBUSR1-2000 |             |
| 3000A Splice Kit to connect right side of drive to a CENTERLINE 2500 cabinet                                           | 20-750-MBUSR1-3200 |             |
| 1200A Splice Kit to connect multiple Frame 8...10 drives or to connect left side of drive to a CENTERLINE 2500 cabinet | 20-750-MBUSL1-1200 |             |
| 2000A Splice Kit to connect multiple Frame 8...10 drives or to connect left side of drive to a CENTERLINE 2500 cabinet | 20-750-MBUSL1-2000 |             |
| 3000A Splice Kit to connect multiple Frame 8...10 drives or to connect left side of drive to a CENTERLINE 2500 cabinet | 20-750-MBUSL1-3200 |             |

## PowerFlex 755 Empty Option Bay

This section is for applications with a PowerFlex 755 floor mount drive that need additional cabinet space. These added cabinets provide an elegant packaging option when expanding a PowerFlex 755, frame 8, 9, or 10 lineup. All Empty Option Bay cabinets match the standard color (RAL 7032) of the PowerFlex 755 Floor Mount Drive. Each Empty Option Bay includes a sub-panel. Reference publication For installation details, see publication [750-IN031](#).

The Right Mount Bus Bar kits listed below can only be installed to the right of a PowerFlex 755 Floor Mount Drive, when facing the front of the drive. If the application requires mounting the Empty Option Bay to the left of the PowerFlex 755 Floor Mount Drive, then the Rear Drive Bus Bar can be installed behind the drive unit(s). Power cabling is landed on the Rear Drive Bus Bars and passed through the cabinet side wall to the Empty Option Bay.

The Option Bay Hardware Kit listed below contains the door handle, an air barrier (for use between cabinets) and a door overlay label. One is required for each option bay.

### PowerFlex 755 Empty Option Bay<sup>(1)</sup>

| Description                                                                            | Cat. No.              | Frame Sizes |
|----------------------------------------------------------------------------------------|-----------------------|-------------|
| Option Bay, 600 mm wide by 600 mm deep, Beige <sup>(3)</sup>                           | 20-750-PBAY-66        | 8...10      |
| Option Bay, 800 mm wide by 600 mm deep, Beige <sup>(3)</sup>                           | 20-750-PBAY-86        |             |
| Option Bay, 1200 mm wide by 600 mm deep, Beige <sup>(3)</sup>                          | 20-750-PBAY-126       |             |
| Option Bay, 600 mm wide by 800 mm deep, Beige <sup>(4)</sup>                           | 20-750-PBAY-68        |             |
| Option Bay, 800 mm wide by 800 mm deep, Beige <sup>(4)</sup>                           | 20-750-PBAY-88        |             |
| Option Bay, 1200 mm wide by 800 mm deep, Beige <sup>(4)</sup>                          | 20-750-PBAY-128       |             |
| Option Bay Hardware Kit (one kit is required for each cabinet selected) <sup>(5)</sup> | 20-750-PBAY-HWD-1     |             |
| Option Bay Seal Kit, IP54                                                              | 20-750-PBAY-IP54      |             |
| Empty Bay, RH Bus Bar, 975 A, continuous <sup>(2)</sup>                                | 20-750-PBAY-RHBB-975  |             |
| Empty Bay, RH Bus Bar, 1235 A, continuous <sup>(2)</sup>                               | 20-750-PBAY-RHBB-1235 |             |
| Empty Bay, RH Bus Bar, 1625 A, continuous <sup>(2)</sup>                               | 20-750-PBAY-RHBB-1625 |             |
| Empty Bay, RH Bus Bar, 2437 A, continuous <sup>(2)</sup>                               | 20-750-PBAY-RHBB-2437 |             |
| Right Mount Bus Bar, Cable Connection, 2-Hole                                          | 20-750-PBAY-LBRK-2    |             |
| Right Mount Bus Bar, Cable Connection, 4-Hole                                          | 20-750-PBAY-LBRK-4    |             |
| Right Mount Bus Bar, Installation Kit, 3-Phase Connection <sup>(2)</sup>               | 20-750-PBAY-INS-3     |             |
| Right Mount Bus Bar, Installation Kit, DC Connection <sup>(2)</sup>                    | 20-750-PBAY-INS-2     |             |
| Rear Drive Bus Bar, Cable Connection <sup>(4)</sup>                                    | 20-750-PBAY-RBRK-2    |             |

- (1) Contact your local Rockwell Automation sales office or Allen-Bradley distributor for availability.
- (2) Installed to the right of any PowerFlex 755 floor mount drive except a Frame 8 with disconnect (-P3 or -P5 option).
- (3) Only use with 600mm deep cabinet (drive enclosure code B).
- (4) Only use with a 800 mm deep cabinet (drive enclosure code J, K, L, P, W or Y).
- (5) Hardware kit includes door handle, door overlay label and Formex air barrier (installed between cabinets).

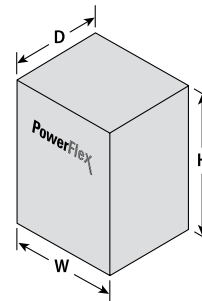


## Approximate Dimensions and Weights (Frames 1...7)

Dimensions are in mm (in.) - weights are in kg (lb)

### IP00/IP20, NEMA/UL Type Open

| Frame | H             | W           | D             | Weight                      |
|-------|---------------|-------------|---------------|-----------------------------|
| 1     | 400.5 (15.77) | 110 (4.33)  | 211 (8.31)    | 6 (12.75)                   |
| 2     | 424.2 (16.7)  | 134.5 (5.3) | 212 (8.35)    | 7.80 (17.2)                 |
| 3     | 454 (17.87)   | 190 (7.48)  |               | 11.8 (26.1)                 |
| 4     | 474 (18.66)   | 222 (8.74)  |               | 13.6 (30)                   |
| 5     | 550 (21.65)   | 270 (10.63) |               | 20.4 (45)                   |
| 6     | 665.5 (26.2)  | 308 (12.13) | 346.4 (13.64) | 38.6 (85)                   |
| 7     | 881.5 (34.7)  | 430 (16.93) | 349.6 (13.76) | 72.6...108.9<br>(160...240) |



### IP54, NEMA/UL Type 12

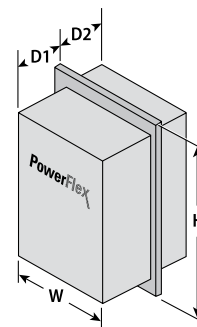
| Frame | H              | W            | D            | Weight <sup>(1)</sup> |
|-------|----------------|--------------|--------------|-----------------------|
| 2     | 543.2 (21.39)  | 215.3 (8.48) | 222.2 (8.75) | 8 (17)                |
| 3     | 551 (21.69)    | 268 (10.55)  | 220.1 (8.67) | 12 (26)               |
| 4     | 571 (22.48)    | 300 (11.81)  |              | 14 (30)               |
| 5     | 647 (25.47)    | 348 (13.7)   |              | 20 (45)               |
| 6     | 1298.3 (51.11) | 609.4 (24)   | 464.7 (18.3) | 91 (200)              |
| 7     | 1614 (63.54)   |              |              | 162 (357)             |

(1) Weights are approximate. Refer to [750-TD001](#), the PowerFlex 750-Series Technical Data, for detailed weight information.

### Flange Mount

| Frame | H             | W             | D1           | D2           | Weight <sup>(1)</sup> |
|-------|---------------|---------------|--------------|--------------|-----------------------|
| 2     | 481.8 (18.97) | 206.2 (8.12)  | 148.3 (5.84) | 63.7 (2.51)  | 8 (17.0)              |
| 3     | 515 (20.28)   | 260 (10.24)   | 127.4 (5.02) | 84.6 (3.33)  | 12 (26.0)             |
| 4     | 535 (21.06)   | 292 (11.50)   |              |              | 14 (30.0)             |
| 5     | 611 (24.06)   | 340 (13.39)   |              |              | 20 (45.0)             |
| 6     | 665.5 (26.20) | 308 (12.13)   | 208.4 (8.20) | 138.5 (5.43) | 38 (84.0)             |
| 7     | 875 (34.45)   | 430.0 (16.93) |              |              | 96 (212.0)            |

(1) Weights are approximate. Refer to [750-TD001](#), the PowerFlex 750-Series Technical Data, for detailed weight information.

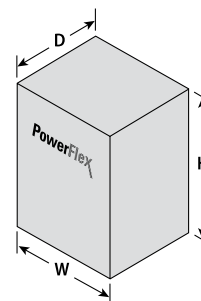


## Approximate Dimensions and Weights (Frames 8...10)

Dimensions are in mm (in.) - weights are in kg (lb)

### IP20, NEMA/UL Type 1, MCC Style Cabinet

| Frame                             | H           | W           | D                        | Weight      |
|-----------------------------------|-------------|-------------|--------------------------|-------------|
| 8                                 | 2453 (96.6) | 600 (23.6)  | 600 (23.6) or 800 (31.5) | 623 (1374)  |
| 8 with drive and option cabinets  |             | 1200 (47.2) |                          | 1145 (2525) |
| 9                                 |             |             |                          | 1246 (2748) |
| 9 with drive and option cabinets  |             | 1800 (70.9) | 800 (31.5)               | 2290 (5051) |
| 10                                |             |             | 600 (23.6) or 800 (31.5) | 1869 (4122) |
| 10 with drive and option cabinets |             | 2400 (94.5) | 800 (31.5)               | 3435 (7576) |



### IP54, NEMA Type 12, MCC Style Cabinet

| Frame                             | H           | W           | D                                    | Weight <sup>(1)</sup> |
|-----------------------------------|-------------|-------------|--------------------------------------|-----------------------|
| 8                                 | 2477 (97.5) | 600 (23.6)  | 800 (31.5)<br>898 (35.4) with filter | 644 (1419)            |
| 8 with drive and option cabinets  |             | 1200 (47.2) |                                      | 1166 (2570)           |
| 9                                 |             |             |                                      | 1287 (2838)           |
| 9 with drive and option cabinets  |             | 1800 (70.9) |                                      | 2332 (5141)           |
| 10                                |             |             |                                      | 1931 (4257)           |
| 10 with drive and option cabinets |             | 2400 (94.5) |                                      | 3498 (7711)           |

(1) Weights are approximate. Refer to [750-TD001](#), the PowerFlex 750-Series Technical Data, for detailed weight information.

### IP00, NEMA/UL Type Open<sup>(1)</sup>

| Frame | H            | W            | D           |
|-------|--------------|--------------|-------------|
| 8     | 2145 (84.45) | 778 (30.63)  | 425 (16.73) |
| 9     |              | 1578 (62.12) |             |
| 10    |              | 2378 (93.62) |             |

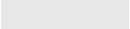
(1) Refer to [750-TD001](#), the PowerFlex 750-Series Technical Data, for detailed information.

### Maximum Component Weights, Frames 8...10

| Component                         | AC Input  | Common DC Input |
|-----------------------------------|-----------|-----------------|
| Converter/DC input with precharge | 64 (140)  | 64 (140)        |
| Inverter                          | 222 (490) | 165 (363)       |
| Drive assembly (Open, IP00)       | 286 (630) | 229 (504)       |

## PowerFlex 755 Floor Mount Drives Power Wiring Options

The following table describes the cabling options available for each Frame 8...10 drive enclosure. Refer to the PowerFlex 750-Series Technical Data, publication [750-TD001](#) for conduit plate dimensions.

|                                                                                                   |                                                                                                                                        |                                                                                                                 |
|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
|                  |                                                       |                              |
| <b>Adequate Spacing</b><br>Available conduit plates provide adequate spacing for typical cabling. | <b>Possible – Evaluation is Required</b><br>Available conduit plates must be evaluated to determine if cabling can fit. <sup>(1)</sup> | <b>Not Possible – Insufficient Spacing</b><br>Conduit plates are not available for the specified configuration. |

| Frame Size | Enclosure Rating     | Enclosure Code | Cabinet Layout                                     | Top Entry/<br>Top Exit | Top Entry/<br>Bottom Exit | Bottom Entry/<br>Top Exit | Bottom Entry/<br>Bottom Exit |   |
|------------|----------------------|----------------|----------------------------------------------------|------------------------|---------------------------|---------------------------|------------------------------|---|
| 8          | IP20, NEMA/UL Type 1 | B              | 600 mm Drive Cabinet                               | X                      |                           | X                         | 0                            |   |
|            |                      | L, P, W        | 800 mm Drive Cabinet                               | 0                      |                           | 0                         |                              |   |
|            |                      | B              | 600 mm Drive with Power Option Bay                 |                        |                           | X                         | 0                            |   |
|            |                      | L, P, W        | 800 mm Drive with Power Option Bay                 |                        |                           | 0                         |                              |   |
|            |                      | B              | 600 mm Drive with Wiring Bay                       |                        |                           |                           |                              |   |
|            |                      | L, P, W        | 800 mm Drive with Wiring Bay                       |                        |                           |                           |                              |   |
|            |                      | B              | 600 mm Drive with Power Option and Wiring Bays     |                        |                           |                           |                              |   |
|            |                      | L, P, W        | 800 mm Drive with Power Option Bay and Wiring Bays |                        |                           |                           |                              |   |
|            | IP54, NEMA 12        | J, K, Y        | 800 mm Drive Cabinet                               | X                      | X                         | X                         |                              |   |
|            |                      |                | 800 mm Drive with Power Option Bay                 |                        |                           | 0                         |                              | 0 |
|            |                      |                | 800 mm Drive with Wiring Bay                       |                        |                           |                           |                              |   |
|            |                      |                | 800 mm Drive with Power Option Bay and Wiring Bays |                        |                           |                           |                              |   |
| 9          | IP20, NEMA/UL Type 1 | B              | 600 mm Drive Cabinet                               | 0                      |                           | 0                         | 0                            |   |
|            |                      | L, P, W        | 800 mm Drive Cabinet                               |                        |                           |                           |                              |   |
|            |                      | B              | 600 mm Drive with Power Option Bay                 |                        |                           | X                         |                              |   |
|            |                      | L, P, W        | 800 mm Drive with Power Option Bay                 |                        |                           | 0                         |                              |   |
|            |                      | B              | 600 mm Drive with Wiring Bay                       |                        |                           |                           |                              |   |
|            |                      | L, P, W        | 800 mm Drive with Wiring Bay                       |                        |                           |                           |                              |   |
|            |                      | B              | 600 mm Drive with Power Option and Wiring Bays     |                        |                           |                           |                              |   |
|            |                      | L, P, W        | 800 mm Drive with Power Option Bay and Wiring Bays |                        |                           |                           |                              |   |
|            | IP54, NEMA 12        | J, K, Y        | 800 mm Drive Cabinet                               | X                      | X                         | X                         |                              |   |
|            |                      |                | 800 mm Drive with Power Option Bay                 | 0                      |                           | 0                         |                              |   |
|            |                      |                | 800 mm Drive with Wiring Bay                       |                        |                           |                           |                              |   |
|            |                      |                | 800 mm Drive with Power Option Bay and Wiring Bays |                        |                           |                           |                              |   |

(table continues on next page)

## PowerFlex 755 Floor Mount Drives Power Wiring Options (continued)

| Frame Size | Enclosure Rating     | Enclosure Code | Cabinet Layout                                     | Top Entry/<br>Top Exit | Top Entry/<br>Bottom Exit | Bottom Entry/<br>Top Exit | Bottom Entry/<br>Bottom Exit |
|------------|----------------------|----------------|----------------------------------------------------|------------------------|---------------------------|---------------------------|------------------------------|
| 10         | IP20, NEMA/UL Type 1 | B              | 600 mm Drive Cabinet                               | 0                      |                           | 0                         | 0                            |
|            |                      | L, P, W        | 800 mm Drive Cabinet                               |                        |                           |                           |                              |
|            |                      | B              | 600 mm Drive with Power Option Bay                 | X                      |                           | X                         |                              |
|            |                      | L, P, W        | 800 mm Drive with Power Option Bay                 | 0                      |                           | 0                         |                              |
|            |                      | B              | 600 mm Drive with Wiring Bay                       |                        |                           |                           |                              |
|            |                      | L, P, W        | 800 mm Drive with Wiring Bay                       |                        |                           |                           |                              |
|            |                      | B              | 600 mm Drive with Power Option and Wiring Bays     |                        |                           |                           |                              |
|            |                      | L, P, W        | 800 mm Drive with Power Option Bay and Wiring Bays |                        |                           |                           | X                            |
|            | IP54, NEMA 12        | J, K, Y        | 800 mm Drive Cabinet                               | X                      | X                         |                           |                              |
|            |                      |                | 800 mm Drive with Power Option Bay                 |                        | 0                         | 0                         |                              |
|            |                      |                | 800 mm Drive with Wiring Bay                       | 0                      |                           |                           |                              |
|            |                      |                | 800 mm Drive with Power Option Bay and Wiring Bays |                        |                           |                           |                              |

# PowerFlex 755TL/TR AC Drives

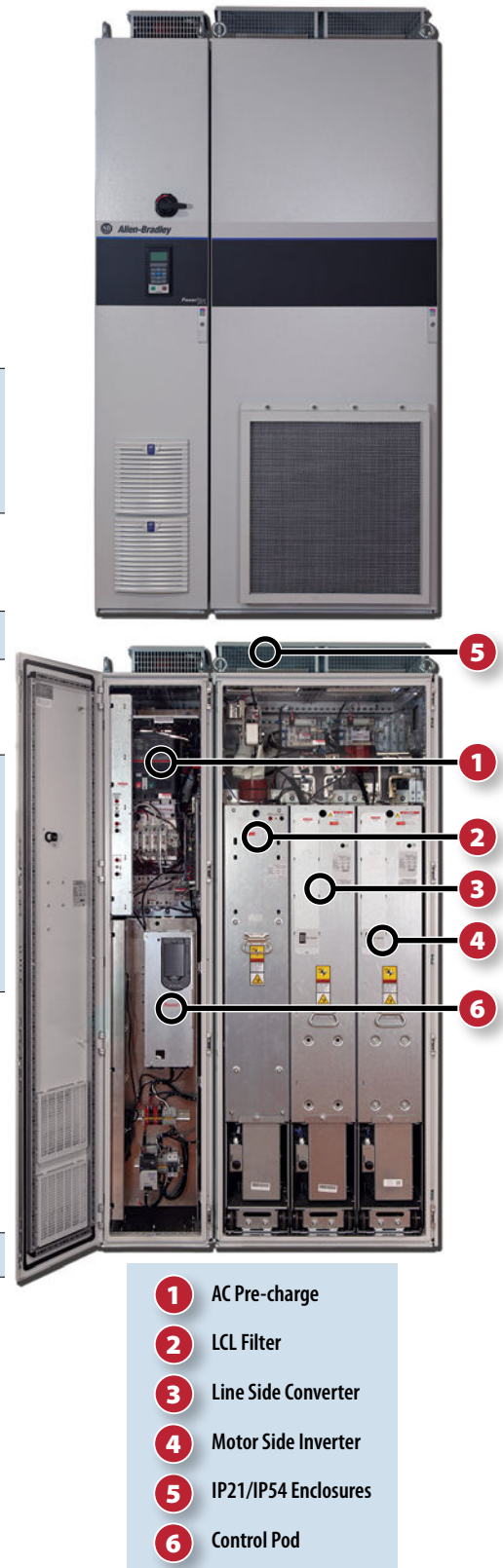
**160...2300 kW/250...3000 Hp in voltages from 400...690V**

The new Allen-Bradley PowerFlex 755TL and 755TR drives expand the proven PowerFlex 753 and 755 AC drive portfolio and provide solutions for harmonic mitigation and regeneration. The drives offer energy-saving features and a world-class footprint along with simplified installation and start-up.

The new PowerFlex drives use TotalFORCE technology to deliver exceptional motor control through precise, adaptive control of position, velocity and torque. TotalFORCE technology incorporates several patented features that are designed to help optimize your system and maintain productivity through improved machine uptime.

## PowerFlex 755TL and 755TR at a Glance

| Ratings                    | 755TL                                                                                                                                                                                                                                                                                                                                               | 755TR                                                                                                                                                                                                                |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 400V                       | 160...1250 kW                                                                                                                                                                                                                                                                                                                                       | 160...2000 kW                                                                                                                                                                                                        |
| 480V                       | 250...1800 Hp                                                                                                                                                                                                                                                                                                                                       | 250...3000 Hp                                                                                                                                                                                                        |
| 600V                       | 250...1500 Hp                                                                                                                                                                                                                                                                                                                                       | 250...2500 Hp                                                                                                                                                                                                        |
| 690V                       | 200...1400 kW                                                                                                                                                                                                                                                                                                                                       | 200...2300 kW                                                                                                                                                                                                        |
| <b>Motor Control</b>       | <ul style="list-style-type: none"> <li>Field Oriented Control</li> <li>Sensorless Vector Control</li> <li>Flux Vector Control</li> </ul>                                                                                                                                                                                                            | <ul style="list-style-type: none"> <li>V/Hz Control</li> <li>Economizer</li> </ul>                                                                                                                                   |
| <b>Enclosures</b>          | <ul style="list-style-type: none"> <li>IP21, UL Type 1</li> </ul>                                                                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>IP54, UL Type 12</li> </ul>                                                                                                                                                   |
| <b>Safety Options</b>      | <ul style="list-style-type: none"> <li>Hardwired Safe Torque Off SIL3, PLe, CAT 3</li> <li>Hardwired Safe Speed Monitor SIL3, PLe, CAT 4</li> </ul>                                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>Networked Safe Torque Off SIL3, PLe, CAT 3</li> </ul>                                                                                                                         |
| <b>Additional Features</b> | <ul style="list-style-type: none"> <li>Active front end ride-through control reduces downtime</li> <li>TotalFORCE Technology</li> <li>Energy-efficient regenerative capability</li> <li>Provides harmonic mitigation and power factor correction</li> <li>Optional built-in Dv/Dt filter designed to mitigate reflective wave phenomenon</li> </ul> | <ul style="list-style-type: none"> <li>Modular construction for easy install and maintenance</li> <li>Built-in dual port EtherNet/IP</li> <li>Predictive diagnostics help monitor drive components</li> </ul>        |
| <b>Certifications</b>      | <ul style="list-style-type: none"> <li>ABS</li> <li>AC156 Seismic Standards</li> <li>ATEX</li> <li>CAN/CSA</li> <li>CE Mark</li> <li>DNV</li> <li>EAC Mark</li> <li>IEC60721-3-3</li> </ul>                                                                                                                                                         | <ul style="list-style-type: none"> <li>ISA 71.04-1985</li> <li>KCC</li> <li>Lloyd's Register</li> <li>ODVA EtherNet/IP</li> <li>RCM</li> <li>SEMI F47</li> <li>UkrSepro Mark</li> <li>UL61800-5-1 (cULus)</li> </ul> |
| <b>Options</b>             | See page 124                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                      |



## PowerFlex 755TL AC Drive

The PowerFlex 755TL drive provides harmonic mitigation and power factor correction through the use of active front end technology. By reducing the adverse effects of harmonic distortion, the drive helps to improve energy efficiency, reduce energy costs and minimize power distribution issues on the factory floor. In addition, new TotalFORCE technology delivers exceptional motor control through precise, adaptive control of velocity, torque and position with patented features designed to help optimize your system and maintain productivity.

## PowerFlex 755TR AC Drive

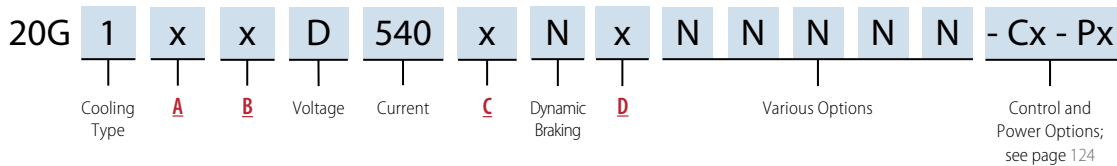
The PowerFlex 755TR drive has built-in regeneration capability that helps reduce energy consumption by delivering regenerative energy from motors back to the incoming supply. Line regeneration can reduce the need for braking resistors and associated cooling equipment and helps avoid wasteful dissipation of energy. The drive also offers harmonic mitigation and the benefits of TotalFORCE technology as well as a world-class footprint and simplified startup and installation.

## Additional Information

PowerFlex 755T Drive Solutions Brochure, publication [755T-BR001](#)

PowerFlex 750-Series Products with TotalFORCE Control Technical Data, publication [750-TD100](#)

## Catalog Number Explanation



**A**

| Input Type |                                   |
|------------|-----------------------------------|
| Code       | Description                       |
| F          | Regenerative and low harmonic AFE |
| G          | Low harmonic AFE <sup>(1)</sup>   |

<sup>(1)</sup> Low harmonic AFE (755TL) is only available up to 1800 Hp/1342 kW.

**B**

| Enclosure |                               |
|-----------|-------------------------------|
| Code      | Description                   |
| 3         | IP21, UL Type 1; floor mount  |
| 4         | IP54, UL Type 12; floor mount |

**C**

| Filtering and CM Cap Configuration |               |                              |                          |
|------------------------------------|---------------|------------------------------|--------------------------|
| Code                               | EMC Filtering | CM Cap Default Configuration | Reflected Wave Filtering |
| J                                  | Yes           | Jumper Installed             | No                       |
| K                                  | Yes           | Jumper Installed             | Yes                      |
| L                                  | No            | Jumper Installed             | No                       |
| M                                  | No            | Jumper Installed             | Yes                      |

**D**

| Door Mounted HIM |                                                                           |
|------------------|---------------------------------------------------------------------------|
| Code             | Operator Interface and Control                                            |
| A                | No door mounted HIM with TotalFORCE control                               |
| D                | Enhanced LCD, full numeric, IP66, NEMA Type 4X/12 with TotalFORCE control |

## Product Selection

### 400V AC, Three-phase Drives

#### IP21/IP54, UL Types 1/12

| Light Duty |       |       | Normal Duty |       |       |      |      | Heavy Duty |       |       |      |      | Base Cat. No.            | Frame Size        |
|------------|-------|-------|-------------|-------|-------|------|------|------------|-------|-------|------|------|--------------------------|-------------------|
| kW         | Cont. | 1 min | kW          | Cont. | 1 min | 3 s  | Hp   | kW         | Cont. | 1 min | 3 s  | Hp   |                          |                   |
| 200        | 367   | 404   | 160         | 302   | 332   | 453  | 200  | 132        | 260   | 390   | 468  | 200  | 20G1xxC302xNxNNNNN-Cx-Px | 8 <sup>(1)</sup>  |
| 250        | 460   | 506   | 200         | 367   | 404   | 551  | 250  | 160        | 302   | 453   | 544  | 250  | 20G1xxC367xNxNNNNN-Cx-Px |                   |
| 315        | 540   | 594   | 250         | 460   | 506   | 690  | 300  | 200        | 367   | 551   | 661  | 300  | 20G1xxC460xNxNNNNN-Cx-Px |                   |
|            | 585   | 644   | 315         | 540   | 594   | 810  | 350  | 250        | 460   | 690   | 828  | 350  | 20G1xxC540xNxNNNNN-Cx-Px |                   |
| 355        | 650   | 715   | 315         | 585   | 644   | 878  | 350  | 250        | 472   | 708   | 850  | 350  | 20G1xxC585xNxNNNNN-Cx-Px |                   |
| 400        | 750   | 825   | 355         | 650   | 715   | 975  | 400  | 315        | 540   | 810   | 972  | 400  | 20G1xxC650xNxNNNNN-Cx-Px |                   |
| 450        | 796   | 876   | 400         | 750   | 825   | 1125 | 450  | 315        | 585   | 878   | 1053 | 450  | 20G1xxC750xNxNNNNN-Cx-Px |                   |
|            | 832   | 915   | 400         | 770   | 847   | 1155 | 500  | 355        | 650   | 975   | 1170 | 500  | 20G1xxC770xNxNNNNN-Cx-Px |                   |
| 560        | 1040  | 1144  | 500         | 920   | 1012  | 1380 | 600  | 400        | 770   | 1155  | 1386 | 600  | 20G1xxC920xNxNNNNN-Cx-Px | 9 <sup>(1)</sup>  |
| 630        | 1090  | 1199  | 560         | 1040  | 1144  | 1560 | 700  | 500        | 920   | 1380  | 1656 | 700  | 20G1xxC1K0xNxNNNNN-Cx-Px |                   |
| 710        | 1182  | 1300  | 630         | 1112  | 1223  | 1668 | 750  | 500        | 1040  | 1560  | 1872 | 750  | 20G1xxC1K1xNxNNNNN-Cx-Px |                   |
| 800        | 1465  | 1612  | 710         | 1175  | 1293  | 1763 | 800  | 560        | 1090  | 1635  | 1962 | 800  | 20G1xxC1K2xNxNNNNN-Cx-Px |                   |
| 850        | 1581  | 1739  | 800         | 1465  | 1612  | 2198 | 900  | 630        | 1175  | 1763  | 2115 | 900  | 20G1xxC1K4xNxNNNNN-Cx-Px |                   |
| 1000       | 1715  | 1887  | 850         | 1590  | 1749  | 2385 | 1000 | 710        | 1465  | 2198  | 2637 | 1000 | 20G1xxC1K6xNxNNNNN-Cx-Px | 10 <sup>(1)</sup> |
| 1250       | 2150  | 2365  | 1000        | 1715  | 1887  | 2573 | 1100 | 800        | 1480  | 2220  | 2664 | 1100 | 20G1xxC1K7xNxNNNNN-Cx-Px |                   |
| 1400       | 2330  | 2563  | 1250        | 2156  | 2372  | 3234 | 1500 | 1000       | 1715  | 2573  | 3087 | 1500 | 20G1xxC2K1xNxNNNNN-Cx-Px |                   |
| 1800       | 3078  | 3386  | 1650        | 2849  | 3134  | 4274 | 2000 | 1400       | 2330  | 3495  | 4194 | 2000 | 20G1xxC2K8xNxNNNNN-Cx-Px | 11                |
| 2200       | 3846  | 4231  | 2000        | 3542  | 3896  | 5313 | 2400 | 1650       | 3032  | 4548  | 5458 | 2400 | 20G1xxC3K5xNxNNNNN-Cx-Px | 12                |

(1) Low harmonic AFE (755TL) is only available in frame sizes 8, 9, and 10.

## 480V AC, Three-phase Drives

## IP21/IP54, UL Types 1/12

| Light Duty |       |       |      | Normal Duty |       |       |      |      | Heavy Duty |       |       |      |      | Base Cat. No.            | Frame Size        |
|------------|-------|-------|------|-------------|-------|-------|------|------|------------|-------|-------|------|------|--------------------------|-------------------|
| kW         | Cont. | 1 min | Hp   | kW          | Cont. | 1 min | 3 s  | Hp   | kW         | Cont. | 1 min | 3 s  | Hp   |                          |                   |
| 200        | 361   | 397   | 300  | 186         | 302   | 332   | 453  | 250  | 149        | 248   | 372   | 446  | 200  | 20G1xxD302xNxNNNNN-Cx-Px | 8 <sup>(1)</sup>  |
| 250        | 430   | 473   | 350  | 224         | 361   | 397   | 542  | 300  | 186        | 302   | 453   | 544  | 250  | 20G1xxD361xNxNNNNN-Cx-Px |                   |
| 315        | 485   | 534   | 400  | 261         | 430   | 473   | 645  | 350  | 224        | 361   | 542   | 650  | 300  | 20G1xxD430xNxNNNNN-Cx-Px |                   |
|            | 545   | 600   | 450  | 298         | 505   | 556   | 758  | 400  | 261        | 430   | 645   | 774  | 350  | 20G1xxD505xNxNNNNN-Cx-Px |                   |
| 355        | 617   | 679   | 500  | 336         | 545   | 600   | 818  | 450  | 261        | 454   | 681   | 817  | 350  | 20G1xxD545xNxNNNNN-Cx-Px |                   |
| 400        | 710   | 781   | 600  | 373         | 617   | 679   | 926  | 500  | 298        | 485   | 728   | 873  | 400  | 20G1xxD617xNxNNNNN-Cx-Px |                   |
| 450        | 765   | 842   | 650  | 447         | 710   | 781   | 1065 | 600  | 336        | 545   | 818   | 981  | 450  | 20G1xxD710xNxNNNNN-Cx-Px |                   |
|            | 800   | 880   | 700  | 485         | 740   | 814   | 1110 | 650  | 373        | 617   | 926   | 1111 | 500  | 20G1xxD740xNxNNNNN-Cx-Px |                   |
| 560        | 960   | 1056  | 800  | 522         | 800   | 880   | 1200 | 700  | 447        | 740   | 1110  | 1332 | 600  | 20G1xxD800xNxNNNNN-Cx-Px | 9 <sup>(1)</sup>  |
| 630        | 1045  | 1150  | 900  | 597         | 960   | 1056  | 1440 | 800  | 522        | 800   | 1200  | 1440 | 700  | 20G1xxD960xNxNNNNN-Cx-Px |                   |
| 710        | 1135  | 1249  | 1000 | 671         | 1045  | 1150  | 1568 | 900  | 559        | 960   | 1440  | 1728 | 750  | 20G1xxD1K0xNxNNNNN-Cx-Px |                   |
| 800        | 1365  | 1502  | 1100 | 746         | 1135  | 1249  | 1703 | 1000 | 597        | 1045  | 1568  | 1881 | 800  | 20G1xxD1K1xNxNNNNN-Cx-Px |                   |
| 850        | 1520  | 1672  | 1250 | 820         | 1365  | 1502  | 2048 | 1100 | 671        | 1135  | 1703  | 2043 | 900  | 20G1xxD1K3xNxNNNNN-Cx-Px |                   |
| 1000       | 1655  | 1821  | 1500 | 932         | 1420  | 1562  | 2130 | 1250 | 746        | 1365  | 2048  | 2457 | 1000 | 20G1xxD1K4xNxNNNNN-Cx-Px | 10 <sup>(1)</sup> |
| 1250       | 2070  | 2277  | 1800 | 1119        | 1655  | 1821  | 2483 | 1500 | 820        | 1420  | 2130  | 2556 | 1100 | 20G1xxD1K6xNxNNNNN-Cx-Px |                   |
| 1400       | 2240  | 2464  | 2000 | 1342        | 2072  | 2279  | 3108 | 1800 | 1119       | 1655  | 2483  | 2979 | 1500 | 20G1xxD2K0xNxNNNNN-Cx-Px |                   |
| 1800       | 2960  | 3256  | 2600 | 1790        | 2738  | 3012  | 4107 | 2400 | 1491       | 2240  | 3360  | 4032 | 2000 | 20G1xxD2K6xNxNNNNN-Cx-Px | 11                |
| 2200       | 3696  | 4066  | 3300 | 2237        | 3404  | 3744  | 5106 | 3000 | 1790       | 2980  | 4470  | 5364 | 2400 | 20G1xxD3K4xNxNNNNN-Cx-Px | 12                |

(1) Low harmonic AFE (755TL) is only available in frame sizes 8, 9, and 10.

## 600V AC, Three-phase Drives

## IP21/IP54, UL Types 1/12

| Light Duty |       |       |      | Normal Duty |       |       |      |      | Heavy Duty |       |       |      |      | Base Cat. No.            | Frame Size        |
|------------|-------|-------|------|-------------|-------|-------|------|------|------------|-------|-------|------|------|--------------------------|-------------------|
| kW         | Cont. | 1 min | Hp   | kW          | Cont. | 1 min | 3 s  | Hp   | kW         | Cont. | 1 min | 3 s  | Hp   |                          |                   |
| 224        | 295   | 325   | 300  | 186         | 242   | 266   | 363  | 250  | 149        | 192   | 288   | 346  | 200  | 20G1xxE242xNxNNNNN-Cx-Px | 8 <sup>(1)</sup>  |
| 261        | 355   | 391   | 350  | 224         | 295   | 325   | 443  | 300  | 186        | 242   | 363   | 436  | 250  | 20G1xxE295xNxNNNNN-Cx-Px |                   |
| 298        | 395   | 435   | 400  | 261         | 355   | 391   | 533  | 350  | 224        | 295   | 443   | 531  | 300  | 20G1xxE355xNxNNNNN-Cx-Px |                   |
| 336        | 435   | 479   | 450  | 298         | 395   | 435   | 593  | 400  | 261        | 355   | 533   | 639  | 350  | 20G1xxE395xNxNNNNN-Cx-Px |                   |
| 373        | 510   | 561   | 500  | 336         | 435   | 479   | 653  | 450  | 298        | 395   | 593   | 711  | 400  | 20G1xxE435xNxNNNNN-Cx-Px |                   |
| 447        | 580   | 638   | 600  | 410         | 545   | 600   | 818  | 550  | 335        | 450   | 675   | 810  | 450  | 20G1xxE545xNxNNNNN-Cx-Px |                   |
| 522        | 690   | 759   | 700  | 447         | 580   | 638   | 870  | 600  | 410        | 545   | 818   | 981  | 550  | 20G1xxE595xNxNNNNN-Cx-Px | 9 <sup>(1)</sup>  |
| 597        | 760   | 836   | 800  | 485         | 690   | 759   | 1035 | 700  | 373        | 595   | 893   | 1071 | 600  | 20G1xxE690xNxNNNNN-Cx-Px |                   |
| 671        | 825   | 908   | 900  | 597         | 760   | 836   | 1140 | 800  | 522        | 690   | 1035  | 1242 | 700  | 20G1xxE760xNxNNNNN-Cx-Px |                   |
| 746        | 980   | 1078  | 1000 | 671         | 825   | 908   | 1238 | 900  | 597        | 760   | 1140  | 1368 | 800  | 20G1xxE825xNxNNNNN-Cx-Px |                   |
| 820        | 1102  | 1212  | 1100 | 746         | 980   | 1078  | 1470 | 1000 | 671        | 825   | 1238  | 1485 | 900  | 20G1xxE980xNxNNNNN-Cx-Px |                   |
| 932        | 1220  | 1342  | 1250 | 820         | 1045  | 1150  | 1568 | 1100 | 746        | 980   | 1470  | 1764 | 1000 | 20G1xxE1K1xNxNNNNN-Cx-Px | 10 <sup>(1)</sup> |
| 1119       | 1430  | 1573  | 1500 | 932         | 1220  | 1342  | 1830 | 1250 | 820        | 1045  | 1568  | 1881 | 1100 | 20G1xxE1K2xNxNNNNN-Cx-Px |                   |
| 1193       | 1624  | 1786  | 1600 | 1119        | 1430  | 1573  | 2145 | 1500 | 932        | 1220  | 1830  | 2196 | 1250 | 20G1xxE1K5xNxNNNNN-Cx-Px |                   |
| 1566       | 2146  | 2361  | 2100 | 1491        | 1946  | 2141  | 2919 | 2000 | 1342       | 1700  | 2550  | 3060 | 1800 | 20G1xxE2K0xNxNNNNN-Cx-Px | 11                |
| 1939       | 2668  | 2935  | 2600 | 1864        | 2420  | 2662  | 3630 | 2500 | 1566       | 2070  | 3105  | 3726 | 2100 | 20G1xxE2K4xNxNNNNN-Cx-Px | 12                |

(1) Low harmonic AFE (755TL) is only available in frame sizes 8, 9, and 10.

## 690V AC, Three-phase Drives

## IP21/IP54, UL Types 1/12

| Light Duty |       |       |      | Normal Duty |       |       |      |      | Heavy Duty |       |       |      |      | Base Cat. No.            | Frame Size        |
|------------|-------|-------|------|-------------|-------|-------|------|------|------------|-------|-------|------|------|--------------------------|-------------------|
| kW         | Cont. | 1 min | Hp   | kW          | Cont. | 1 min | 3 s  | Hp   | kW         | Cont. | 1 min | 3 s  | Hp   |                          |                   |
| 250        | 265   | 292   | 335  | 200         | 215   | 237   | 323  | 268  | 160        | 171   | 257   | 308  | 215  | 20G1xxF215xNxNNNNN-Cx-Px | 8 <sup>(1)</sup>  |
| 315        | 330   | 363   | 422  | 250         | 265   | 292   | 398  | 335  | 200        | 215   | 323   | 387  | 268  | 20G1xxF265xNxNNNNN-Cx-Px |                   |
| 355        | 370   | 407   | 476  | 315         | 330   | 363   | 495  | 422  | 250        | 265   | 398   | 477  | 335  | 20G1xxF330xNxNNNNN-Cx-Px |                   |
| 400        | 415   | 457   | 536  | 355         | 370   | 407   | 555  | 476  | 315        | 330   | 495   | 594  | 422  | 20G1xxF370xNxNNNNN-Cx-Px |                   |
| 450        | 460   | 506   | 603  | 400         | 415   | 457   | 623  | 536  | 355        | 370   | 555   | 666  | 476  | 20G1xxF415xNxNNNNN-Cx-Px |                   |
| 560        | 565   | 622   | 751  | 500         | 505   | 556   | 758  | 671  | 400        | 415   | 623   | 747  | 536  | 20G1xxF505xNxNNNNN-Cx-Px |                   |
| 630        | 650   | 715   | 845  | 560         | 565   | 622   | 848  | 751  | 500        | 505   | 758   | 909  | 671  | 20G1xxF565xNxNNNNN-Cx-Px | 9 <sup>(1)</sup>  |
| 710        | 735   | 809   | 952  | 630         | 650   | 715   | 975  | 845  | 560        | 565   | 848   | 1017 | 751  | 20G1xxF650xNxNNNNN-Cx-Px |                   |
| 800        | 820   | 902   | 1073 | 710         | 735   | 809   | 1103 | 952  | 630        | 650   | 975   | 1170 | 845  | 20G1xxF735xNxNNNNN-Cx-Px |                   |
| 900        | 920   | 1012  | 1207 | 800         | 820   | 902   | 1230 | 1073 | 710        | 735   | 1103  | 1323 | 952  | 20G1xxF820xNxNNNNN-Cx-Px |                   |
| 1000       | 1074  | 1181  | 1341 | 900         | 920   | 1012  | 1380 | 1207 | 800        | 820   | 1230  | 1476 | 1073 | 20G1xxF920xNxNNNNN-Cx-Px |                   |
| 1100       | 1150  | 1265  | 1475 | 1000        | 1030  | 1133  | 1545 | 1341 | 900        | 920   | 1380  | 1656 | 1207 | 20G1xxF1K0xNxNNNNN-Cx-Px |                   |
| 1250       | 1344  | 1478  | 1676 | 1100        | 1150  | 1265  | 1725 | 1475 | 1000       | 1030  | 1545  | 1854 | 1341 | 20G1xxF1K1xNxNNNNN-Cx-Px | 10 <sup>(1)</sup> |
| 1500       | 1582  | 1740  | 2012 | 1400        | 1419  | 1561  | 2129 | 1877 | 1100       | 1162  | 1743  | 2092 | 1475 | 20G1xxF1K4xNxNNNNN-Cx-Px |                   |
| 2000       | 2091  | 2300  | 2682 | 1800        | 1865  | 2052  | 2798 | 2414 | 1500       | 1535  | 2303  | 2763 | 2012 | 20G1xxF1K8xNxNNNNN-Cx-Px | 11                |
| 2500       | 2599  | 2859  | 3353 | 2300        | 2318  | 2550  | 3477 | 3084 | 2000       | 2020  | 3030  | 3636 | 2682 | 20G1xxF2K3xNxNNNNN-Cx-Px | 12                |

(1) Low harmonic AFE (755TL) is only available in frame sizes 8, 9, and 10.

## Control and Power Options for PowerFlex 755TL and TR Drives

Pre-engineered, factory installed options are available with the PowerFlex 755TL and 755TR drives.

To configure a catalog number for a PowerFlex 755T drive with options, perform the following steps:

2. Select the base drive catalog number from the tables on the previous pages. Drive selection is based on the output amps and corresponding system overload(s) required by the application.  
For example: 20G1xxC750xNxNNNNN-Cx-Px.
3. Select required control from the Control and Power Options table. For example: 20G1xxC750xNxNNNNN-**C0**-Px.
4. Select required power from the table. Add the desired option codes to the end of the base drive catalog number, separating each option code with a dash. For example: 20G1xxC750xNxNNNNN-**C0-P15**.
5. If needed, select other power options from the table. For example: 20G1xxC750xNxNNNNN-**C0-P15-P46**.

### Control and Power Options

| Type            | Option |                                        | Frame Sizes | Description                                                                                                              |
|-----------------|--------|----------------------------------------|-------------|--------------------------------------------------------------------------------------------------------------------------|
| Control Options | C0     | Torque Accuracy Control                | 8...12      | Option that enables increased torque performance capability and the ability to operate in a Field Oriented Control mode. |
| Power Options   | P15    | Top Cable Exit<br>(with wiring bay)    | 8...12      | Option that enables a user to bring in their motor cables from the top of the cabinet.                                   |
|                 | P16    | Top Cable Entry<br>(with wiring bay)   | 10...12     | Option that enables a user to bring in their power/input cables from the top of the cabinet.                             |
|                 | P17    | Top Cable Exit<br>(without wiring bay) | 8...9       | Option that enables a user to bring in their power/input cables from the top of the cabinet.                             |
|                 | P50    | DC Bus Conditioner                     | 8...12      | Eliminates peak voltage spikes on the system DC bus. Intended for systems that are not solidly grounded.                 |

## Approximate Dimensions and Weights (Frames 8...12)

Dimensions are in mm (in.) - weights are in kg (lb)

### PowerFlex 755TL Drives

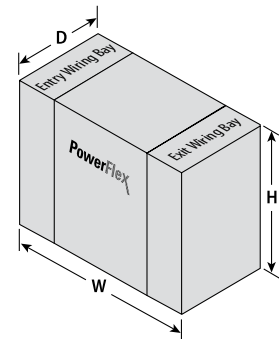
| Input Voltage | Normal Duty Rating | Width          | Combined Width - Drive with Optional Wiring Bays |                 |                 | Depth         |               | Height         |                | Weight           |                  |
|---------------|--------------------|----------------|--------------------------------------------------|-----------------|-----------------|---------------|---------------|----------------|----------------|------------------|------------------|
|               |                    | Drive          | With Entry Bay                                   | With Exit Bay   | With Both Bays  | IP21          | IP54          | IP21           | IP54           | Without Filter   | With Filter      |
| 400           | 160...400 kW       | 1200<br>(47.2) | (1)                                              | 1600<br>(63)    | (1)             | 675<br>(26.6) | 720<br>(28.3) | 2132<br>(83.9) | 2291<br>(90.2) | 861.8<br>(1900)  | 920.8<br>(2030)  |
| 480           | 250...650 Hp       |                |                                                  |                 |                 |               |               |                |                |                  |                  |
| 600           | 250...550 Hp       |                |                                                  |                 |                 |               |               |                |                |                  |                  |
| 690           | 200...500 kW       |                |                                                  |                 |                 |               |               |                |                |                  |                  |
| 400           | 400...800 kW       | 2000<br>(78.7) | (1)                                              | 2400<br>(94.5)  | (1)             | 675<br>(26.6) | 720<br>(28.3) | 2132<br>(83.9) | 2291<br>(90.2) | 1360.8<br>(3000) | 1419.7<br>(3130) |
| 480           | 650...1100 Hp      |                |                                                  |                 |                 |               |               |                |                |                  |                  |
| 600           | 550...1000 Hp      |                |                                                  |                 |                 |               |               |                |                |                  |                  |
| 690           | 500...900 kW       |                |                                                  |                 |                 |               |               |                |                |                  |                  |
| 400           | 800...1250 kW      | 3200<br>(126)  | 3600<br>(141.7)                                  | 3600<br>(141.7) | 4000<br>(157.5) | 675<br>(26.6) | 720<br>(28.3) | 2132<br>(83.9) | 2291<br>(90.2) | 2925.7<br>(6450) | 3043.6<br>(6710) |
| 480           | 1100...1800 Hp     |                |                                                  |                 |                 |               |               |                |                |                  |                  |
| 600           | 1000...1500 Hp     |                |                                                  |                 |                 |               |               |                |                |                  |                  |
| 690           | 900...1400 kW      |                |                                                  |                 |                 |               |               |                |                |                  |                  |

(1) Optional wiring bay is not required for top entry of power cables.

### PowerFlex 755TR Drives

| Input Voltage | Normal Duty Rating | Width           | Combined Width - Drive with Optional Wiring Bays |                 |                 | Depth         |               | Height         |                | Weight           |                  |
|---------------|--------------------|-----------------|--------------------------------------------------|-----------------|-----------------|---------------|---------------|----------------|----------------|------------------|------------------|
|               |                    | Drive           | With Entry Bay                                   | With Exit Bay   | With Both Bays  | IP21          | IP54          | IP21           | IP54           | Without Filter   | With Filter      |
| 400           | 160...400 kW       | 1200<br>(47.2)  | (1)                                              | 1600<br>(63)    | (1)             | 675<br>(26.6) | 720<br>(28.3) | 2132<br>(83.9) | 2291<br>(90.2) | 861.8<br>(1900)  | 920.8<br>(2030)  |
| 480           | 250...650 Hp       |                 |                                                  |                 |                 |               |               |                |                |                  |                  |
| 600           | 250...550 Hp       |                 |                                                  |                 |                 |               |               |                |                |                  |                  |
| 690           | 200...500 kW       |                 |                                                  |                 |                 |               |               |                |                |                  |                  |
| 400           | 400...800 kW       | 2000<br>(78.7)  | (1)                                              | 2400<br>(94.5)  | (1)             | 675<br>(26.6) | 720<br>(28.3) | 2132<br>(83.9) | 2291<br>(90.2) | 1360.8<br>(3000) | 1419.7<br>(3130) |
| 480           | 650...1100 Hp      |                 |                                                  |                 |                 |               |               |                |                |                  |                  |
| 600           | 550...1000 Hp      |                 |                                                  |                 |                 |               |               |                |                |                  |                  |
| 690           | 500...900 kW       |                 |                                                  |                 |                 |               |               |                |                |                  |                  |
| 400           | 800...1250 kW      | 3200<br>(126)   | 3600<br>(141.7)                                  | 3600<br>(141.7) | 4000<br>(157.5) | 675<br>(26.6) | 720<br>(28.3) | 2132<br>(83.9) | 2291<br>(90.2) | 2925.7<br>(6450) | 3043.6<br>(6710) |
| 480           | 1100...1800 Hp     |                 |                                                  |                 |                 |               |               |                |                |                  |                  |
| 600           | 1000...1500 Hp     |                 |                                                  |                 |                 |               |               |                |                |                  |                  |
| 690           | 900...1400 kW      |                 |                                                  |                 |                 |               |               |                |                |                  |                  |
| 400           | 1200...1650 kW     | 3800<br>(149.6) | 4600<br>(181.1)                                  | 4600<br>(181.1) | 5400<br>(212.6) | 675<br>(26.6) | 720<br>(28.3) | 2132<br>(83.9) | 2291<br>(90.2) | 3447.3<br>(7600) | 3565.2<br>(7860) |
| 480           | 1800...2400 Hp     |                 |                                                  |                 |                 |               |               |                |                |                  |                  |
| 600           | 1500...2000 Hp     |                 |                                                  |                 |                 |               |               |                |                |                  |                  |
| 690           | 1400...1800 kW     |                 |                                                  |                 |                 |               |               |                |                |                  |                  |
| 400           | 1650...2000 kW     | 4600<br>(181.1) | 5400<br>(212.6)                                  | 5400<br>(212.6) | 6200<br>(244.1) | 675<br>(26.6) | 720<br>(28.3) | 2132<br>(83.9) | 2291<br>(90.2) | 4286<br>(9450)   | 4463.3<br>(9840) |
| 480           | 2400...3000 Hp     |                 |                                                  |                 |                 |               |               |                |                |                  |                  |
| 600           | 2000...2500 Hp     |                 |                                                  |                 |                 |               |               |                |                |                  |                  |
| 690           | 1800...2300 kW     |                 |                                                  |                 |                 |               |               |                |                |                  |                  |

(1) Optional wiring bay is not required for top entry of power cables.



# PowerFlex 7-class Options

## Human Interface Modules



| Description                                                             | Cat. No.   | Used with PowerFlex Drive |         |             |
|-------------------------------------------------------------------------|------------|---------------------------|---------|-------------|
|                                                                         |            | 70                        | 753/755 | 755TL/755TR |
| No HIM (Blank Plate), Handheld/Local (Drive Mount)                      | 20-HIM-A0  | ✓                         | ✓       | ✓           |
| LCD Display, Full Numeric Keypad, Handheld/Local (Drive Mount)          | 20-HIM-A3  | ✓                         | —       | —           |
| LCD Display, Programmer Only, Handheld/Local (Drive Mount)              | 20-HIM-A5  | ✓                         | —       | —           |
| Enhanced, LCD, Full Numeric Keypad, Handheld/Local (Drive Mount)        | 20-HIM-A6  | ✓                         | ✓       | ✓           |
| Remote (Panel Mount) LCD Display, Full Numeric Keypad <sup>(1)(2)</sup> | 20-HIM-C3S | ✓                         | —       | —           |
| Remote (Panel Mount) LCD Display, Programmer Only <sup>(1)(2)</sup>     | 20-HIM-C5S | ✓                         | —       | —           |
| Enhanced, LCD, Full Numeric Keypad <sup>(1)(2)</sup>                    | 20-HIM-C6S | ✓                         | ✓       | ✓           |

(1) IP66, NEMA Type 4X/12—only for indoor use.

(2) Includes a 1202-C30 interface cable (3 m/9.8 ft) for connection to drive.

## Human Interface Module (HIM) Accessories

| Description                                                    | Cat. No.          | Used with PowerFlex Drive |         |             |    |
|----------------------------------------------------------------|-------------------|---------------------------|---------|-------------|----|
|                                                                |                   | 70                        | 753/755 | 755TL/755TR | DC |
| Bezel Kit for LCD HIMs, NEMA Type 1 <sup>(1)</sup>             | 20-HIM-B1         | ✓                         | ✓       | ✓           | ✓  |
| PowerFlex HIM Interface Cable, 1 m (3.3 ft) <sup>(2)</sup>     | 20-HIM-H10        | ✓                         | ✓       | ✓           | ✓  |
| Comm Option Cable Kit (Male-Male)                              |                   |                           |         |             |    |
| 0.33 m (1.1 ft)                                                | 1202-C03          | ✓                         | ✓       | ✓           | ✓  |
| 1 m (3.3 ft)                                                   | 1202-C10          | ✓                         | ✓       | ✓           | ✓  |
| 3 m (9.8 ft)                                                   | 1202-C30          | ✓                         | ✓       | ✓           | ✓  |
| 9 m (29.5 ft)                                                  | 1202-C90          | ✓                         | ✓       | ✓           | ✓  |
| Cable Kit (Male-Female) <sup>(3)</sup>                         |                   |                           |         |             |    |
| 0.33 m (1.1 ft)                                                | 1202-H03          | ✓                         | ✓       | ✓           | ✓  |
| 1 m (3.3 ft)                                                   | 1202-H10          | ✓                         | ✓       | ✓           | ✓  |
| 3 m (9.8 ft)                                                   | 1202-H30          | ✓                         | ✓       | ✓           | ✓  |
| 9 m (29.5 ft)                                                  | 1202-H90          | ✓                         | ✓       | ✓           | ✓  |
| DPI™ Cable Kit with Connectors, Tools and 100 m (328 ft) Cable | 1202-CBL-KIT-100M | ✓                         | ✓       | ✓           | ✓  |
| DPI Cable Connector Kit                                        | 1202-TB-KIT-SET   | ✓                         | ✓       | ✓           | ✓  |
| DPI/SCANport™ One to Two Port Splitter Cable                   | 1203-S03          | ✓                         | ✓       | ✓           | ✓  |

(1) Includes a 1202-C30 interface cable (3 m/9.8 ft) for connection to drive.

(2) Required only when HIM is used as handheld or remote.

(3) Required in addition to 20-HIM-H10 for distances up to a total maximum of 10 m (32.8 ft).

## Communication Option Kits

| Description                                  | Cat. No.         | Used with PowerFlex Drive |                  |             |    |
|----------------------------------------------|------------------|---------------------------|------------------|-------------|----|
|                                              |                  | 70                        | 753/755          | 755TL/755TR | DC |
| BACnet/IP Option Module                      | 20-750-BNETIP    | —                         | ✓                | —           | —  |
| BACnet® MS/TP RS485 Communication Adapter    | 20-COMM-B        | ✓                         | —                |             | ✓  |
| Coaxial ControlNet™ Option Module            | 20-750-CNETC     | —                         | ✓                | ✓           | —  |
| ControlNet™ Communication Adapter (Coax)     | 20-COMM-C        | ✓                         | ✓ <sup>(1)</sup> | —           | ✓  |
| DeviceNet™ Option Module                     | 20-750-DNET      | —                         | ✓                | ✓           | —  |
| DeviceNet™ Communication Adapter             | 20-COMM-D        | ✓                         | ✓ <sup>(1)</sup> | —           | ✓  |
| Dual-port EtherNet/IP Option Module          | 20-750-ENETR     | —                         | ✓                | ✓           | —  |
| EtherNet/IP™ Communication Adapter           | 20-COMM-E        | ✓                         | ✓ <sup>(1)</sup> | —           | ✓  |
| Dual-port EtherNet/IP™ Communication Adapter | 20-COMM-ER       | ✓                         | —                |             | ✓  |
| HVAC Communication Adapter                   | 20-COMM-H        | ✓                         | ✓ <sup>(1)</sup> |             | ✓  |
| CANopen® Communication Adapter               | 20-COMM-K        | ✓                         | ✓ <sup>(1)</sup> |             | ✓  |
| LonWorks® Communication Adapter              | 20-COMM-L        | ✓                         | ✓ <sup>(1)</sup> |             | ✓  |
| Modbus/TCP Communication Adapter             | 20-COMM-M        | ✓                         | ✓ <sup>(1)</sup> |             | ✓  |
| Profibus DPV1 Option Module                  | 20-750-PBUS      | —                         | ✓                | ✓           | —  |
| Single-port Profinet I/O Option Module       | 20-750-PNET      |                           | ✓                | ✓           |    |
| Dual-port Profinet I/O Option Module         | 20-750-PNET2P    |                           | ✓                | ✓           |    |
| PROFIBUS™ DP Communication Adapter           | 20-COMM-P        | ✓                         | ✓ <sup>(1)</sup> | —           | ✓  |
| ControlNet™ Communication Adapter (Fiber)    | 20-COMM-Q        | ✓                         | ✓ <sup>(1)</sup> |             | ✓  |
| RS485 DF1 Communication Adapter              | 20-COMM-S        | ✓                         | ✓ <sup>(1)</sup> |             | ✓  |
| External Communications Kit Power Supply     | 20-XCOMM-AC-PS1  | ✓                         | ✓                |             | ✓  |
| DPI External Communications Kit              | 20-XCOMM-DC-BASE | ✓                         | ✓                |             | ✓  |
| External DPI I/O Option Board <sup>(2)</sup> | 20-XCOMM-IO-OPT1 | ✓                         | ✓                |             | ✓  |
| Compact I/O Module (3 Channel)               | 1769-SM1         | ✓                         | ✓                |             | ✓  |

(1) Requires a Communication Carrier Card (20-750-20COMM or 20-750-20COMM-F1). Refer to the Communication Accessories table on page 128 for details.

(2) For use only with DPI External Communications Kits 20-XCOMM-DC-BASE.

## PowerFlex 750-Series Legacy Communication Compatibility

Most legacy communication adapters (20-COMM) can be used with the PowerFlex 753/755. However, the restrictions stated below do apply.

Frame 1 - It is recommended that the 20-750-20COMM-F1 Communication Carrier Card only be installed in Port 4. Port 5 is not accessible when this module is installed.

Frames 2 and larger - It is recommended that the 20-750-20COMM Communication Carrier Card be installed in Port 6. By using Port 4 or 5, the adjacent left port becomes inaccessible to other option modules and it can interfere with network cable connections.

| Adapter   |                    | Accesses Ports 0...6<br>for I/O Connections<br>(Implicit and Explicit<br>Messaging) | Accesses Ports 7 and<br>Higher<br>(I/O, Explicit Messaging) | Supports Drive<br>Add-on<br>Profiles | Supports Asian-<br>Languages <sup>(2)</sup> |
|-----------|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------|--------------------------------------|---------------------------------------------|
| Cat. No.  | Type               |                                                                                     |                                                             |                                      |                                             |
| 20-COMM-B | BACnet MS/TP       | Not Compatible                                                                      |                                                             |                                      |                                             |
| 20-COMM-C | ControlNet (Coax)  | ✓ v3.001 <sup>(2)</sup>                                                             | ✓ v3.001 <sup>(2)</sup>                                     | ✓ <sup>(3)</sup>                     | ✓ v3.001 <sup>(2)</sup>                     |
| 20-COMM-D | DeviceNet          | ✓ <sup>(4)</sup>                                                                    | Not Compatible                                              |                                      |                                             |
| 20-COMM-E | EtherNet/IP        | ✓ v4.001 <sup>(4)</sup>                                                             | ✓ v4.001 <sup>(2)</sup>                                     | ✓ <sup>(3)</sup>                     | ✓ v4.001 <sup>(2)</sup>                     |
| 20-COMM-H | RS-485 HVAC        | ✓ v2.009 <sup>(2)(5)</sup>                                                          | Not Compatible                                              |                                      |                                             |
| 20-COMM-K | CANopen            | ✓ v1.001 <sup>(2)</sup>                                                             |                                                             |                                      |                                             |
| 20-COMM-L | LonWorks           | ✓ v1.007 <sup>(2)</sup>                                                             |                                                             |                                      |                                             |
| 20-COMM-M | Modbus/TCP         | ✓ v2.001 <sup>(2)</sup>                                                             | ✓ v2.001 <sup>(2)</sup>                                     | Not Compatible                       | ✓ v2.001 <sup>(2)</sup>                     |
| 20-COMM-P | ControlNet (Fiber) | ✓ v1.006 <sup>(2)</sup>                                                             | ✓ v1.006 <sup>(2)</sup>                                     |                                      | Not Compatible                              |
| 20-COMM-Q | PROFIBUS DP        | ✓ v3.001 <sup>(2)</sup>                                                             | ✓ v3.001 <sup>(2)</sup>                                     | ✓ <sup>(3)</sup>                     | ✓ v3.001 <sup>(2)</sup>                     |
| 20-COMM-S | RS-485 DF1         | ✓ <sup>(4)</sup>                                                                    | Not Compatible                                              |                                      |                                             |

- (1) Chinese, Japanese, and Korean languages are supported at the time of publication.  
 (2) Requires this adapter firmware version or higher.  
 (3) Requires firmware version v1.05 or higher of the drive Add-on Profiles for Studio 5000 Logix Designer software.  
 (4) Controller must be capable of reading/writing 32-bit floating point (REAL) values.  
 (5) Supports all three modes of operation (RTU, P1, N2).

## Communication Accessories

| Description                                                                             | Cat. No.         | Used with PowerFlex Drive |         |          |
|-----------------------------------------------------------------------------------------|------------------|---------------------------|---------|----------|
|                                                                                         |                  | 70                        | 753/755 | 755TL/TR |
| Universal Serial Bus™ (USB) Converter includes 2m USB, 20-HIM-H10 and 22-HIM-H10 Cables | 1203-USB         | ✓                         | ✓       | ✓        |
| ControlNet T-tap Straight                                                               | 1786-TPS         | —                         | ✓       | —        |
| Communication Carrier Card for PowerFlex 750-Series Frame 1 drives                      | 20-750-20COMM-F1 |                           | ✓       |          |
| Communication Carrier Card for PowerFlex 750-Series Frame 2 or higher drives            | 20-750-20COMM    |                           | ✓       |          |

## I/O Option Kits

| Description                                                                                                               | Cat. No.          | Used with PowerFlex Drive |             |
|---------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------------|-------------|
|                                                                                                                           |                   | 753/755                   | 755TL/755TR |
| ATEX Option Module with 1 Thermosensor Input Connection (requires 11-Series I/O Module below)                             | 20-750-ATEX       | ✓ <sup>(1)</sup>          | ✓           |
| 24V DC 11-Series I/O Module with 1 Analog In, 1 Analog Out, 3 Digital In and 2 Relay Outputs                              | 20-750-1132C-2R   | ✓ <sup>(1)</sup>          | ✓           |
| 24V DC 11-Series I/O Module with 1 Analog In, 1 Analog Out, 3 Digital In, 1 Relay and 2 Transistor Outputs                | 20-750-1133C-1R2T | ✓ <sup>(1)</sup>          | ✓           |
| 115V AC 11-Series I/O Module with 1 Analog In, 1 Analog Out, 3 Digital In and 2 Relay Outputs                             | 20-750-1132D-2R   | ✓ <sup>(1)</sup>          | ✓           |
| 24V DC 22-Series I/O Module with 2 Analog In, 2 Analog Out, 6 Digital In and 2 Relay Outputs                              | 20-750-2262C-2R   | ✓ <sup>(1)</sup>          | ✓           |
| 115V AC 22-Series I/O Module with 2 Analog In, 2 Analog Out, 6 Digital In and 2 Relay Outputs                             | 20-750-2262D-2R   | ✓ <sup>(1)</sup>          | ✓           |
| 24V DC 22-Series I/O Module with 2 Analog In, 2 Analog Out, 6 Digital In, 3 Digital Out, 1 Relay and 2 Transistor Outputs | 20-750-2263C-1R2T | ✓ <sup>(1)</sup>          | ✓           |

(1) For kits to be used with CIP Motion instructions, the card can only be used in slot 7 of the PowerFlex 755 drive. It also requires PowerFlex 755 firmware version 12 and higher, and Studio 5000 version 28 and higher.

## Safety Options<sup>(1)</sup>

| Description                  | Cat. No.  | Used with PowerFlex Drive |                  |                     |                  |
|------------------------------|-----------|---------------------------|------------------|---------------------|------------------|
|                              |           | 70                        | 753              | 755                 | 755TL/755TR      |
| DriveGuard Safe Torque Off   | 20A-DG01  | ✓                         | —                | —                   | —                |
| Hardwired Safe Torque Off    | 20-750-S  | —                         | ✓                | ✓                   | ✓                |
| Hardwired Safe Speed Monitor | 20-750-S1 |                           | ✓ <sup>(2)</sup> | ✓ <sup>(2)</sup>    | ✓                |
| Networked Safe Torque Off    | 20-750-S3 |                           | —                | ✓ <sup>(3)(4)</sup> | ✓ <sup>(3)</sup> |

(1) All PowerFlex 7-series drives can accommodate only one safety option.

(2) Requires the Dual Incremental Encoder or Universal Feedback Option. Also requires the 20-750-EMCSSM1-F8 EMC Option Kit with Frame 8...9 drives.

(3) Requires Studio 5000 version 30 and higher.

(4) Requires PowerFlex 755 firmware version 13 and higher. This option is not allowed while controlling a PowerFlex drive in CIP Motion mode.

## Feedback Options

| Description                                                                   | Cat. No.      | Used with PowerFlex Drive |                  |             |
|-------------------------------------------------------------------------------|---------------|---------------------------|------------------|-------------|
|                                                                               |               | 70                        | 753/755          | 755TL/755TR |
| 5V/12V Encoder <sup>(1)</sup>                                                 | 20A-ENC-1     | ✓                         | —                | —           |
| Incremental Encoder                                                           | 20-750-ENC-1  | —                         | ✓ <sup>(2)</sup> | ✓           |
| Dual Incremental Encoder                                                      | 20-750-DENC-1 |                           | ✓ <sup>(2)</sup> | ✓           |
| Universal Feedback (includes Stegmann, Heidenhain, SSI, Biss, 5V Incremental) | 20-750-UFB-1  |                           | ✓ <sup>(3)</sup> | ✓           |

(1) Works only with PowerFlex 70 Enhanced Control.

(2) Homing and registration functions are not supported when using this device with Studio 5000 Logix Designer embedded motion instructions. To use these functions, the Universal Feedback Board (20-750-UFB-1) must be used.

(3) Only for PowerFlex 755 drives.

## Other Options

| Description                             | Cat. No.         | Used with PowerFlex Drive |         |             |
|-----------------------------------------|------------------|---------------------------|---------|-------------|
|                                         |                  | 70                        | 753/755 | 755TL/755TR |
| 115V AC Interface                       | AK-M9-115VAC-1   | ✓                         | —       | —           |
| Frame E Flange Gasket                   | AK-M9-GASKET1-E4 | ✓                         |         |             |
| Service Connection Board <sup>(1)</sup> | SK-M9-SCB1       | ✓                         |         |             |

(1) Provides temporary DPI/HIM connection for NEMA/UL Type 1 and Flange drives with cover removed.

## PowerFlex 750-Series Option Kits

| Description            |                                                                                                                                                                 | Frame Size           | Cat. No.          | Used with PowerFlex Drive |     |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------|---------------------------|-----|
|                        |                                                                                                                                                                 |                      |                   | 753                       | 755 |
| Auxiliary Power Supply | 24V Aux Power Supply                                                                                                                                            | 1...7 <sup>(1)</sup> | 20-750-APS        | ✓                         | ✓   |
| DC Bus Bar Option Kit  | DC Bus Bars for 380...480V AC drives                                                                                                                            | 6                    | 20-750-DCBB1-F6   | ✓                         | ✓   |
|                        |                                                                                                                                                                 | 7                    | 20-750-DCBB1-F7   | ✓                         | ✓   |
|                        | DC Bus Bars for 600...690V AC drives                                                                                                                            | 6                    | 20-750-DCBB2-F6   | ✓                         | ✓   |
|                        |                                                                                                                                                                 | 7                    | 20-750-DCBB2-F7   | ✓                         | ✓   |
| DC Bus Connection Kit  | Connects the drive DC bus terminals to the cabinet bus rails.                                                                                                   | 8                    | 20-750-BUS1A-F8   | ✓                         | ✓   |
| EMC Option Kit         | EMC Plate with Core for 380...480V AC drives                                                                                                                    | 1                    | 20-750-EMC1-F1    | ✓                         | ✓   |
|                        |                                                                                                                                                                 | 2                    | 20-750-EMC1-F2    | ✓                         | ✓   |
|                        |                                                                                                                                                                 | 3                    | 20-750-EMC1-F3    | ✓                         | ✓   |
|                        | EMC Plate with Core for 600V AC drives                                                                                                                          |                      | 20-750-EMC3-F3    | ✓                         | ✓   |
|                        | EMC Plate with Cores for 380...480V AC drives                                                                                                                   | 4                    | 20-750-EMC1-F4    | ✓                         | ✓   |
|                        |                                                                                                                                                                 | 5                    | 20-750-EMC1-F5    | ✓                         | ✓   |
|                        | EMC Plate with Cores for 600V AC drives                                                                                                                         | 4                    | 20-750-EMC3-F4    | ✓                         | ✓   |
|                        |                                                                                                                                                                 | 5                    | 20-750-EMC3-F5    | ✓                         | ✓   |
|                        | EMC Core for 380...480V AC drives                                                                                                                               | 1                    | 20-750-EMC2-F1    | ✓                         | ✓   |
|                        |                                                                                                                                                                 | 2                    | 20-750-EMC2-F2    | ✓                         | ✓   |
|                        |                                                                                                                                                                 | 3                    | 20-750-EMC2-F3    | ✓                         | ✓   |
|                        | EMC Core for 600V AC drives                                                                                                                                     |                      | 20-750-EMC4-F3    | ✓                         | ✓   |
|                        | EMC Cores for 380...480V AC drives                                                                                                                              | 4...5                | 20-750-EMC2-F45   | ✓                         | ✓   |
|                        | EMC Cores for 600V AC drives                                                                                                                                    | 4                    | 20-750-EMC4-F4    | ✓                         | ✓   |
|                        |                                                                                                                                                                 | 5                    | 20-750-EMC4-F5    | ✓                         | ✓   |
|                        | EMC Plate with Cores for 600...690V AC drives                                                                                                                   | 6                    | 20-750-EMC3-F6    | ✓                         | ✓   |
|                        |                                                                                                                                                                 | 7                    | 20-750-EMC3-F7    | ✓                         | ✓   |
|                        | EMC Plate with Cores for 600...690V AC drives (IP54 Only)                                                                                                       | 6                    | 20-750-EMC5-F6    | ✓                         | ✓   |
|                        |                                                                                                                                                                 | 7                    | 20-750-EMC5-F7    | ✓                         | ✓   |
|                        | EMC Core — Inverter-mounted output cores, for 380...690V AC input and DC input drives. One each for Frame 8, two each for Frame 9, and three each for Frame 10. | 8...10               | 20-750-EMCCM1-F8  | —                         | ✓   |
|                        | EMC Cores — Required when using the Safe Speed Monitor option 20-750-S1 with 380...690V drives.                                                                 |                      | 20-750-EMCSSM1-F8 |                           | ✓   |
|                        | Door Shielding Kit                                                                                                                                              | 10                   | 20-750-EMCDK1-F10 |                           | ✓   |
| Exhaust Hood           | Exhaust Hood — IP20, NEMA/UL Type 1 drives. <sup>(2)</sup>                                                                                                      | 8...10               | 20-750-HOOD1-F8   |                           | ✓   |

(1) Frame 8 and up drives can be powered from an external 24V DC source, a 20-750-APS is not required.

(2) Exhaust hood is standard on Frames 8...10, IP54-rated cabinets.

(table continues on next page)

## PowerFlex 750-Series Option Kits (continued)

| Description                     |                                                                                                                                                                                                                                                                                                                                                           | Frame Size | Cat. No.        | Used with PowerFlex Drive |     |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------------|---------------------------|-----|
|                                 |                                                                                                                                                                                                                                                                                                                                                           |            |                 | 753                       | 755 |
| Flange Adapter Kit              | Converts Open Type drive to external heatsink (flange) with NEMA/UL Type 1 integrity backside.<br>This kit is for use with IP20, NEMA/UL Type 0 drives and <b>does not provide</b> an air-tight or water-tight seal. Where sealing is required (for example, contaminated, dirty or wet environments), a drive with an “F” enclosure option must be used. | 2          | 20-750-FLNG1-F2 | ✓                         | ✓   |
|                                 |                                                                                                                                                                                                                                                                                                                                                           | 3          | 20-750-FLNG1-F3 | ✓                         | ✓   |
|                                 |                                                                                                                                                                                                                                                                                                                                                           | 4          | 20-750-FLNG1-F4 | ✓                         | ✓   |
|                                 |                                                                                                                                                                                                                                                                                                                                                           | 5          | 20-750-FLNG1-F5 | ✓                         | ✓   |
|                                 | Converts Open Type drive to external heatsink (flange) with NEMA/UL Type 4X/12 integrity backside.                                                                                                                                                                                                                                                        | 6          | 20-750-FLNG4-F6 | ✓                         | ✓   |
|                                 |                                                                                                                                                                                                                                                                                                                                                           | 7          | 20-750-FLNG4-F7 | ✓                         | ✓   |
| L Bus Bar Kit                   | Includes three L bus bars <sup>(3)</sup>                                                                                                                                                                                                                                                                                                                  | 8...10     | 20-750-LBRKT1   | —                         | ✓   |
| NEMA/UL Type 1 Option Kit       | NEMA/UL Type 1 Kit                                                                                                                                                                                                                                                                                                                                        | 1          | 20-750-NEMA1-F1 | ✓                         | ✓   |
|                                 |                                                                                                                                                                                                                                                                                                                                                           | 2          | 20-750-NEMA1-F2 | ✓                         | ✓   |
|                                 |                                                                                                                                                                                                                                                                                                                                                           | 3          | 20-750-NEMA1-F3 | ✓                         | ✓   |
|                                 |                                                                                                                                                                                                                                                                                                                                                           | 4          | 20-750-NEMA1-F4 | ✓                         | ✓   |
|                                 |                                                                                                                                                                                                                                                                                                                                                           | 5          | 20-750-NEMA1-F5 | ✓                         | ✓   |
|                                 |                                                                                                                                                                                                                                                                                                                                                           | 6          | 20-750-NEMA1-F6 | ✓                         | ✓   |
|                                 |                                                                                                                                                                                                                                                                                                                                                           | 7          | 20-750-NEMA1-F7 | ✓                         | ✓   |
| Power Terminal Extension        | Allows connection of two parallel leads to the AC terminals.<br><br>Provides additional protection against contact with the power terminals.                                                                                                                                                                                                              | 6          | 20-750-ACTE1-F6 | ✓                         | ✓   |
| 20-750-PTG1-F6                  |                                                                                                                                                                                                                                                                                                                                                           |            | ✓               | ✓                         |     |
| Power Terminal Guard            |                                                                                                                                                                                                                                                                                                                                                           | 7          | 20-750-PTG1-F7  | ✓                         | ✓   |
| Remote Control POD Mounting Kit | Hardware, fiber-optic, and power supply cables to remotely mount the control POD up to 23 m (75 ft) from the drive.                                                                                                                                                                                                                                       | 8...10     | 20-750-RPD1-F8  | —                         | ✓   |
| Roll-out Cart                   | A wheeled roll-out cart that facilitates drive installation and removal. Recommended for PowerFlex 755 Frame 8...10 drives.                                                                                                                                                                                                                               |            | 20-750-CART1-F8 |                           | ✓   |

(1) Frame 8 and up drives can be powered from an external 24V DC source, a 20-750-APS is not required.

(2) Exhaust hood is standard on Frames 8...10, IP54-rated cabinets.

(3) Frame 8 drive is factory shipped with two L bus bars per phase as standard, Frame 9 drive is factory shipped with four L bus bars per phase as standard, and Frame 10 drive is factory shipped with six L bus bars per phase as standard.

## PowerFlex 755T-Series Option Kits

| Description                                                | Cat. No.            | Used with PowerFlex Drive |       |
|------------------------------------------------------------|---------------------|---------------------------|-------|
|                                                            |                     | 755TL                     | 755TR |
| PowerFlex 750 Kit, AC Bus Bar, 600 mm, TE                  | 20-750-MTEBUS1-4K7  | ✓                         | ✓     |
| PowerFlex 750 Kit, AC Bus Bar, 400 mm, TE                  | 20-750-MTEBUS2-3K0  | ✓                         | ✓     |
| PowerFlex 750 Kit, AC Bus Bar, TE                          | 20-750-MTESPL1-F8M  | ✓                         | ✓     |
| PowerFlex 750 Kit, AC Bus Bar, TE, Al                      | 20-750-MTESPL2-F10M | ✓                         | ✓     |
| PowerFlex 750 Kit, AC Bus Bar, TE, Cu                      | 20-750-MTESPL3-F12M | ✓                         | ✓     |
| PowerFlex 750 Kit, Floor Bracket, 800 mm                   | 20-750-MMNT1-F10M   | ✓                         | ✓     |
| PowerFlex 750 Kit, Floor Bracket, 600 mm                   | 20-750-MMNT1-F9M    | ✓                         | ✓     |
| PowerFlex 750 Kit, Floor Bracket, 400 mm                   | 20-750-MMNT1-F8M    | ✓                         | ✓     |
| PowerFlex 750 Kit, Anti-tip                                | 20-750-MINV-ATIP    | ✓                         | ✓     |
| PowerFlex 750 Kit, Power Module Cart                       | 20-750-MCART1       | ✓                         | ✓     |
| PowerFlex 750 Kit, DC Precharge Module Lift <sup>(1)</sup> | 20-750-MCART2       | ✓                         | ✓     |
| PowerFlex 750 Kit, External Baying                         | 20-750-MEXTBAY1     | ✓                         | ✓     |
| PowerFlex 750 Kit, Service Ramp                            | 20-750-MRAMP1       | ✓                         | ✓     |
| PowerFlex 750 Kit, Empty Option Bay, 600 mm                | 20-750-MPBAY-600    | ✓                         | ✓     |
| PowerFlex 750 Kit, Empty Option Bay, 800 mm                | 20-750-MPBAY-800    | ✓                         | ✓     |
| PowerFlex 750 Kit, Torque Accuracy Module, 400/480V        | 20-750-MTAM1-CD     | ✓                         | ✓     |
| PowerFlex 750 Kit, Torque Accuracy Module, 600/690V        | 20-750-MTAM1-EF     | ✓                         | ✓     |
| PowerFlex 750 Kit, Ground Clamp                            | SK-RM-GRNDCLMP-185  | ✓                         | ✓     |
| PowerFlex 750 Kit, Ground Clamp                            | SK-RM-GRNDCLMP-75   | ✓                         | ✓     |
| PowerFlex 750 Kit, Ground Clamp                            | SK-RM-GRNDCLMP-16   | ✓                         | ✓     |
| PowerFlex 750 Kit, Ground Clamp                            | SK-RM-GRNDCLMP-50   | ✓                         | ✓     |
| PowerFlex 750 Kit, DC Bus Conditioner                      | 20-750-MDCBUS-COND  | ✓                         | ✓     |
| PowerFlex 750 Kit, AC Common Mode Core                     | 20-750-MACCM1-F8M   | ✓                         | ✓     |

(1) Requires 20-750-MCART1.

## PowerFlex 70 Small Duty Internal Dynamic Brake Resistors

Limited duty resistors mount directly to the back surface of the drive and require no extra panel space. Internal resistors are non-destructive and do not require a resistor overheat external safety circuit.

| PowerFlex 70 AC Drive                    |                                         |                         | Small Duty Internal DB Resistor |                                       |                           |                     |                                              |                                       |               |                                       |               |   |
|------------------------------------------|-----------------------------------------|-------------------------|---------------------------------|---------------------------------------|---------------------------|---------------------|----------------------------------------------|---------------------------------------|---------------|---------------------------------------|---------------|---|
| Normal<br>Duty <sup>(1)</sup><br>kW (Hp) | Heavy<br>Duty <sup>(1)</sup><br>kW (Hp) | Min DB Res<br>Ohms ±10% | Cat. No.                        | Resistance <sup>(2)</sup><br>Ohms ±5% | Continuous<br>Power<br>kW | Max<br>Energy<br>kJ | Max<br>Braking<br>Torque<br>% of ND<br>Motor | Application Type 1                    |               | Application Type 2                    |               |   |
|                                          |                                         |                         |                                 |                                       |                           |                     |                                              | Braking<br>Torque<br>% of ND<br>Motor | Duty<br>Cycle | Braking<br>Torque<br>% of ND<br>Motor | Duty<br>Cycle |   |
| 200...240 Volt AC Input Drives           |                                         |                         |                                 |                                       |                           |                     |                                              |                                       |               |                                       |               |   |
| 0.37 (0.5)                               | 0.25 (0.33)                             | 33                      | 20AB-DB1-A                      | 62                                    | 0.048                     | 8.3                 | 307%                                         | 100%                                  | 25.9%         | 150%                                  | 17.3%         |   |
| 0.75 (1)                                 | 0.55 (0.75)                             |                         |                                 |                                       |                           | 7.3                 | 300%                                         |                                       | 12.8%         |                                       | 8.5%          |   |
| 1.5 (2)                                  | 1.1 (1.5)                               |                         | 20AB-DB1-B                      |                                       | 0.028                     | 0.8                 | 160%                                         |                                       | 3.7%          |                                       | 2.5%          |   |
| 2.2 (3)                                  | 1.5 (2)                                 |                         |                                 |                                       |                           |                     | 109%                                         | 2.5%                                  | 109%          | 2.3%                                  |               |   |
| 4 (5)                                    | 3 (3)                                   | 30                      | 20AB-DB1-C                      |                                       | 0.04                      | 60%                 | 60%                                          | 3.3%                                  | —             | —                                     |               |   |
| 5.5 (7.5)                                | 4 (5)                                   | 21                      | 20AB-DB1-D                      | 22                                    | 0.036                     | 0.9                 | 117%                                         | 100%                                  | 1.3%          | 117%                                  | 1.1%          |   |
| 7.5 (10)                                 | 5.5 (7.5)                               |                         |                                 |                                       |                           |                     | 86%                                          | 86%                                   | 1.1%          | —                                     | —             |   |
| 400...480 Volt AC Input Drives           |                                         |                         |                                 |                                       |                           |                     |                                              |                                       |               |                                       |               |   |
| 0.37 (0.5)                               | 0.25 (0.33)                             | 68                      | 20AD-DB1-A                      | 115                                   | 0.048                     | 8.3                 | 320%                                         | 100%                                  | 25.9%         | 150%                                  | 17.3%         |   |
| 0.75 (1)                                 | 0.55 (0.75)                             |                         |                                 |                                       |                           | 9.0                 | 259%                                         |                                       | 12.8%         |                                       | 8.5%          |   |
| 1.5 (2)                                  | 1.1 (1.5)                               |                         | 2.4                             |                                       | 243%                      | 6.4%                | 4.3%                                         |                                       |               |                                       |               |   |
| 2.2 (3)                                  | 1.5 (2)                                 |                         | 20AD-DB1-B                      |                                       | 0.028                     | 0.9                 | 206%                                         | 2.5%                                  | 1.7%          |                                       |               |   |
| 4 (5)                                    | 3 (3)                                   | 129%                    |                                 |                                       |                           |                     | 1.4%                                         | 129%                                  | 1.1%          |                                       |               |   |
| 5.5 (7.5)                                | 4 (5)                                   | 74                      | 20AD-DB1-C                      |                                       | 0.04                      | 94%                 | 94%                                          | 1.5%                                  | —             | —                                     |               |   |
| 7.5 (10)                                 | 5.5 (7.5)                               |                         |                                 |                                       |                           | 69%                 | 69%                                          |                                       |               |                                       |               |   |
| 11 (15)                                  | 7.5 (10)                                | 44                      | 20AD-DB1-D                      |                                       | 62                        | 0.036               | 0.8                                          | 87%                                   | 87%           | 0.8%                                  | —             | — |
| 15 (20)                                  | 11 (15)                                 | 31                      |                                 |                                       |                           |                     |                                              | 64%                                   |               |                                       |               |   |
| 500...600 Volt AC Input Drives           |                                         |                         |                                 |                                       |                           |                     |                                              |                                       |               |                                       |               |   |
| 0.37 (0.5)                               | 0.25 (0.33)                             | 117                     | 20AD-DB1-A                      | 115                                   | 0.048                     | 8.3                 | 287%                                         | 100%                                  | 25.9%         | 150%                                  | 17.3%         |   |
| 0.75 (1)                                 | 0.55 (0.75)                             |                         |                                 |                                       |                           | 9.0                 | 263%                                         |                                       | 12.8%         |                                       | 8.5%          |   |
| 1.5 (2)                                  | 1.1 (1.5)                               |                         |                                 |                                       |                           | 2.4                 | 243%                                         |                                       | 6.4%          |                                       | 4.3%          |   |
| 2.2 (3)                                  | 1.5 (2)                                 | 80                      | 20AD-DB1-B                      |                                       | 0.028                     | 0.9                 | 202%                                         | 2.5%                                  | 147%          | 1.7%                                  |               |   |
| 4.0 (5)                                  | 3.0 (3)                                 |                         |                                 |                                       |                           |                     | 193%                                         | 1.4%                                  |               | 0.9%                                  |               |   |
| 5.5 (7.5)                                | 4.0 (5)                                 |                         | 20AD-DB1-C                      |                                       | 0.04                      | 147%                | 1.5%                                         | 147%                                  | 1.0%          |                                       |               |   |
| 7.5 (10)                                 | 5.5 (7.5)                               |                         |                                 |                                       |                           | 108%                | 1.1%                                         | 108%                                  |               |                                       |               |   |
| 11 (15)                                  | 7.5 (10)                                | 48                      | —                               |                                       | —                         | —                   | —                                            | —                                     | —             | —                                     | —             | — |
| 15 (20)                                  | 11 (15)                                 |                         |                                 |                                       |                           |                     |                                              |                                       |               |                                       |               |   |

(1) Duty cycle listed is based on full speed to zero speed deceleration. For constant regen at full speed, duty cycle capability is half of what is listed. Application Type 1 represents maximum capability up to 100% braking torque where possible. Application Type 2 represents more than 100% braking torque where possible, up to a maximum of 150%.

(2) Always check resistor Ohms against minimum resistance for drive being used.

## PowerFlex 70 Medium Duty External Dynamic Brake Resistors

These resistors provide a larger duty cycle capability than the internal type. Includes an internal thermal switch for use in external safety circuit.

| PowerFlex 70 AC Drive                 |                                      |                            | Medium Duty External DB Resistor |                                       |                        |                  |                                     |                                 |            |                                 |            |
|---------------------------------------|--------------------------------------|----------------------------|----------------------------------|---------------------------------------|------------------------|------------------|-------------------------------------|---------------------------------|------------|---------------------------------|------------|
| Normal Duty <sup>(1)</sup><br>kW (Hp) | Heavy Duty <sup>(1)</sup><br>kW (Hp) | Min DB Res<br>Ohms<br>±10% | Cat. No.                         | Resistance <sup>(2)</sup><br>Ohms ±5% | Continuous Power<br>kW | Max Energy<br>kJ | Max Braking Torque<br>% of ND Motor | Application Type 1              |            | Application Type 2              |            |
|                                       |                                      |                            |                                  |                                       |                        |                  |                                     | Braking Torque<br>% of ND Motor | Duty Cycle | Braking Torque<br>% of ND Motor | Duty Cycle |
| 200...240 Volt AC Input Drives        |                                      |                            |                                  |                                       |                        |                  |                                     |                                 |            |                                 |            |
| 0.37 (0.5)                            | 0.25 (0.33)                          | 33                         | AK-R2-091P500                    | 91                                    | 0.086                  | 17               | 293%                                | 100%                            | 46%        | 150%                            | 31%        |
| 0.75 (1)                              | 0.55 (0.75)                          |                            |                                  |                                       |                        |                  | 218%                                |                                 | 23%        |                                 | 15%        |
| 1.5 (2)                               | 1.1 (1.5)                            |                            |                                  |                                       |                        |                  | 109%                                |                                 | 11%        |                                 | 11%        |
| 2.2 (3)                               | 1.5 (2)                              | 30                         | AK-R2-047P500                    | 47                                    | 0.166                  | 33               | 144%                                | 79%                             | 15%        | 144%                            | —          |
| 4 (5)                                 | 3 (3)                                |                            |                                  |                                       |                        |                  | 79%                                 |                                 | 11%        |                                 |            |
| 5.5 (7.5)                             | 4 (5)                                |                            |                                  |                                       |                        |                  | 90%                                 |                                 | 10%        |                                 |            |
| 7.5 (10)                              | 5.5 (7.5)                            | 23                         | AK-R2-030P1K2                    | 30                                    | 0.26                   | 52               | 66%                                 | 66%                             |            |                                 |            |
| 400...480 Volt AC Input Drives        |                                      |                            |                                  |                                       |                        |                  |                                     |                                 |            |                                 |            |
| 0.37 (0.5)                            | 0.25 (0.33)                          | 68                         | AK-R2-360P500                    | 360                                   | 0.086                  | 17               | 305%                                | 100%                            | 47%        | 150%                            | 31%        |
| 0.75 (1)                              | 0.55 (0.75)                          |                            |                                  |                                       |                        |                  | 220%                                |                                 | 23%        |                                 | 15%        |
| 1.5 (2)                               | 1.1 (1.5)                            |                            |                                  |                                       |                        |                  | 110%                                |                                 | 12%        |                                 | 11%        |
| 2.2 (3)                               | 1.5 (2)                              | 74                         | AK-R2-120P1K2                    | 120                                   | 0.26                   | 52               | 197%                                | 90%                             | 24%        | 150%                            | 16%        |
| 4 (5)                                 | 3 (3)                                |                            |                                  |                                       |                        |                  | 124%                                |                                 | 13%        |                                 | 10%        |
| 5.5 (7.5)                             | 4 (5)                                |                            |                                  |                                       |                        |                  | 90%                                 |                                 | 10%        |                                 | —          |
| 7.5 (10)                              | 5.5 (7.5)                            | 66%                        | 66%                              |                                       |                        |                  |                                     |                                 |            |                                 |            |
| 11 (15) <sup>(3)</sup>                | 7.5 (10) <sup>(3)</sup>              | 44                         | <sup>(3)</sup>                   | 60                                    | 0.52                   | 104              | 90%                                 | 90%                             |            |                                 |            |
| 15 (20) <sup>(3)</sup>                | 11 (15) <sup>(3)</sup>               | 31                         |                                  |                                       |                        |                  | 66%                                 | 66%                             |            |                                 |            |
| 500...600 Volt AC Input Drives        |                                      |                            |                                  |                                       |                        |                  |                                     |                                 |            |                                 |            |
| 0.37 (0.5)                            | 0.25 (0.33)                          | 117                        | AK-R2-360P500                    | 360                                   | 0.086                  | 17               | 274%                                | 100%                            | 46%        | 150%                            | 31%        |
| 0.75 (1)                              | 0.55 (0.75)                          |                            |                                  |                                       |                        |                  | 251%                                |                                 | 23%        |                                 | 15%        |
| 1.5 (2)                               | 1.1 (1.5)                            |                            |                                  |                                       |                        |                  | 172%                                |                                 | 11%        |                                 | 8%         |
| 2.2 (3)                               | 1.5 (2)                              | 80                         | AK-R2-120P1K2                    | 120                                   | 0.26                   | 52               | 193%                                | 99%                             | 24%        | 141%                            | 16%        |
| 4 (5)                                 | 3 (3)                                |                            |                                  |                                       |                        |                  | 185%                                |                                 | 13%        |                                 | 9%         |
| 5.5 (7.5)                             | 4 (5)                                |                            |                                  |                                       |                        |                  | 141%                                |                                 | 9%         |                                 | 7%         |
| 7.5 (10)                              | 5.5 (7.5)                            | 48                         | <sup>(3)</sup>                   | 60                                    | 0.52                   | 104              | 103%                                | 7%                              | 7%         | 103%                            | 7%         |
| 11 (15) <sup>(3)</sup>                | 7.5 (10) <sup>(3)</sup>              |                            |                                  |                                       |                        |                  | 141%                                |                                 | 9%         |                                 |            |
| 15 (20) <sup>(3)</sup>                | 11 (15) <sup>(3)</sup>               |                            |                                  |                                       |                        |                  | 103%                                |                                 | 7%         |                                 |            |

(1) Duty cycle listed is based on full speed to zero speed deceleration. For constant regen at full speed, duty cycle capability is half of what is listed. Application Type 1 represents maximum capability up to 100% braking torque where possible. Application Type 2 represents more than 100% braking torque where possible, up to a maximum of 150%.

(2) Always check resistor Ohms against minimum resistance for drive being used.

(3) For 11 and 15 kW (15 and 20 Hp) applications, use two 7.5 kW (10 Hp) size resistors wired in parallel.

## Internal Dynamic Brake Resistor Kits

These resistors have a limited duty cycle. Refer to the PowerFlex Dynamic Braking Resistor Calculator, publication [PFLEX-AT001](#) to determine if an internal resistor is sufficient for your application. An external resistor may be required.

| Drive Input Voltage | Brake Resistance | Frame         | Cat. No.       | Used with PowerFlex Drive |         |
|---------------------|------------------|---------------|----------------|---------------------------|---------|
|                     | $\Omega$         |               |                | 70                        | 753/755 |
| 380...600V AC       | 115              | 1 (1...3 Hp)  | 20-750-DB1-D1A | —                         | ✓       |
|                     | 62               | 1 (5...10 Hp) | 20-750-DB1-D1  |                           | ✓       |
|                     | 62               | 2             | 20-750-DB1-D2  |                           | ✓       |

## Terminators

| Description <sup>(1)</sup>                  | Cat. No.  | Used with PowerFlex Drive |         |
|---------------------------------------------|-----------|---------------------------|---------|
|                                             |           | 70                        | 753/755 |
| For use with 3.7 kW (5 Hp) and below drives | 1204-TFA1 | ✓                         | ✓       |
| For use with 1.5 kW (2 Hp) and up drives    | 1204-TFB2 | ✓                         | ✓       |

(1) For selection information, refer to Appendix A of the Wiring and Grounding Guidelines for Pulse Width Modulated (PWM) AC Drives, publication [DRIVES-IN001](#).

## Reflected Wave Reduction Modules with Common Mode Choke

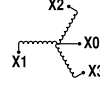
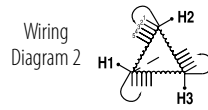
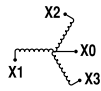
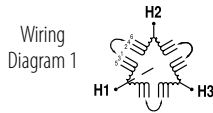
| Description <sup>(1)</sup> | Cat. No.      | Used with PowerFlex Drive |         |
|----------------------------|---------------|---------------------------|---------|
|                            |               | 70                        | 753/755 |
| 17A with Common Mode Choke | 1204-RWC-17-A | ✓                         | ✓       |

(1) For selection information, refer to Appendix A of the Wiring and Grounding Guidelines for Pulse Width Modulated (PWM) AC Drives, publication [DRIVES-IN001](#).

## Reflected Wave Reduction Modules

| Voltage       | ND kW | ND Hp | Cat. No.       | Used with PowerFlex Drive |         |
|---------------|-------|-------|----------------|---------------------------|---------|
|               |       |       |                | 70                        | 753/755 |
| 380...480V AC | 4     | 5     | 1321-RWR8-DP   | ✓                         | ✓       |
|               | 5.5   | 7.5   | 1321-RWR12-DP  | ✓                         | ✓       |
|               | 7.5   | 10    | 1321-RWR18-DP  | ✓                         | ✓       |
|               | 11    | 15    | 1321-RWR25-DP  | ✓                         | ✓       |
|               | 15    | 20    | 1321-RWR35-DP  | ✓                         | ✓       |
|               | 18.5  | 25    | 1321-RWR35-DP  | ✓                         | ✓       |
|               | 22    | 30    | 1321-RWR45-DP  | ✓                         | ✓       |
|               | 30    | 40    | 1321-RWR55-DP  | ✓                         | ✓       |
|               | 37    | 50    | 1321-RWR80-DP  | ✓                         | ✓       |
|               | 45    | 60    | 1321-RWR80-DP  | —                         | ✓       |
|               | 55    | 75    | 1321-RWR100-DP |                           | ✓       |
|               | 75    | 100   | 1321-RWR130-DP |                           | ✓       |
|               | 90    | 125   | 1321-RWR160-DP |                           | ✓       |
|               | 110   | 150   | 1321-RWR200-DP |                           | ✓       |
|               | 149   | 200   | 1321-RWR250-DP |                           | ✓       |
|               | 187   | 250   | 1321-RWR320-DP |                           | ✓       |
| 500...600V AC | 4     | 5     | 1321-RWR8-EP   | ✓                         | ✓       |
|               | 5.5   | 7.5   | 1321-RWR12-EP  | ✓                         | ✓       |
|               | 7.5   | 10    | 1321-RWR12-EP  | ✓                         | —       |
|               |       |       | 1321-RWR18-EP  | —                         | ✓       |
|               | 11    | 15    | 1321-RWR18-EP  | ✓                         | —       |
|               |       |       | 1321-RWR25-EP  | —                         | ✓       |
|               | 15    | 20    | 1321-RWR25-EP  | ✓                         | —       |
|               |       |       | 1321-RWR35-EP  | —                         | ✓       |
|               | 18.5  | 25    | 1321-RWR35-EP  | ✓                         | ✓       |
|               | 22    | 30    | 1321-RWR35-EP  | ✓                         | —       |
|               |       |       | 1321-RWR45-EP  | —                         | ✓       |
|               | 30    | 40    | 1321-RWR45-EP  | ✓                         | —       |
|               |       |       | 1321-RWR55-EP  | —                         | ✓       |
|               | 37    | 50    | 1321-RWR55-EP  | ✓                         | —       |
|               |       |       | 1321-RWR80-EP  | —                         | ✓       |
|               | 45    | 60    | 1321-RWR80-EP  |                           | ✓       |
|               | 55    | 75    | 1321-RWR100-EP |                           | ✓       |
|               | 75    | 100   | 1321-RWR130-EP |                           | ✓       |
|               | 90    | 125   | 1321-RWR160-EP |                           | ✓       |
|               | 110   | 150   | 1321-RWR200-EP |                           | ✓       |
|               | 149   | 200   | 1321-RWR250-EP |                           | ✓       |

## Isolation Transformers - IP32, NEMA/UL Type 3R Standalone, 4...6% Nominal Impedance



| Motor Rating |      | Wiring Diagram          | 240V, 60 Hz, Three-Phase Primary & 240V Secondary <sup>(1)</sup> | 460V, 60 Hz, Three-Phase Primary & 460V Secondary | 575V, 60 Hz, Three-Phase Primary & 575V Secondary <sup>(1)</sup> | Used with PowerFlex Drive |         |
|--------------|------|-------------------------|------------------------------------------------------------------|---------------------------------------------------|------------------------------------------------------------------|---------------------------|---------|
| kW           | Hp   |                         | Cat. No.                                                         | Cat. No.                                          | Cat. No.                                                         | 70                        | 753/755 |
| 0.25         | 0.33 | 1                       | 1321-3TW005-AA                                                   | 1321-3TW005-BB                                    | —                                                                | ✓                         | —       |
| 0.37         | 0.5  |                         |                                                                  |                                                   | 1321-3TW005-CC                                                   | ✓                         | ✓       |
| 0.55         | 0.75 |                         |                                                                  |                                                   | —                                                                | ✓                         | —       |
| 0.75         | 1    |                         |                                                                  |                                                   | 1321-3TW005-CC                                                   | ✓                         | ✓       |
| 1.1          | 1.5  |                         |                                                                  |                                                   | —                                                                | ✓                         | —       |
| 1.5          | 2    |                         |                                                                  |                                                   | 1321-3TW005-CC                                                   | ✓                         | ✓       |
| 2.2          | 3    |                         |                                                                  |                                                   | 1321-3TW005-CC                                                   | ✓                         | ✓       |
| 22           | 30   | 2                       | 1321-3TW040-AA                                                   | 1321-3TW040-BB                                    | 1321-3TW040-CC                                                   | ✓                         | ✓       |
| 30           | 40   |                         | 1321-3TW051-AA                                                   | 1321-3TW051-BB                                    | 1321-3TW051-CC                                                   | ✓                         | ✓       |
| 37           | 50   |                         | 1321-3TH063-AA                                                   | 1321-3TH063-BB                                    | 1321-3TH063-CC                                                   | ✓                         | ✓       |
| 45           | 60   |                         | 1321-3TH075-AA                                                   | 1321-3TH075-BB                                    | 1321-3TH075-CC                                                   | —                         | ✓       |
| 55           | 75   |                         | 1321-3TH093-AA                                                   | 1321-3TH093-BB                                    | 1321-3TH093-CC                                                   |                           | ✓       |
| 75           | 100  |                         | 1321-3TH118-AA                                                   | 1321-3TH118-BB                                    | 1321-3TH118-CC                                                   |                           | ✓       |
| 90           | 125  |                         | 1321-3TH145-AA                                                   | 1321-3TH145-BB                                    | 1321-3TH145-CC                                                   |                           | ✓       |
| 110          | 150  |                         | 1321-3TH175-AA                                                   | 1321-3TH175-BB                                    | 1321-3TH175-CC                                                   |                           | ✓       |
| 149          | 200  |                         | 1321-3TH220-AA                                                   | 1321-3TH220-BB                                    | 1321-3TH220-CC                                                   |                           | ✓       |
| 187          | 250  |                         | —                                                                | 1321-3TH275-BB                                    | 1321-3TH275-CC                                                   |                           | ✓       |
| 224          | 300  | 1321-3TH330-BB          |                                                                  | 1321-3TH330-CC                                    | ✓                                                                |                           |         |
| 224          | 1    | —                       |                                                                  | 1321-3TH330-CC                                    | ✓                                                                |                           |         |
| 261          |      | 350                     |                                                                  | 1321-3TH440-BB                                    | 1321-3TH440-CC                                                   |                           | ✓       |
| 298          |      | 400                     |                                                                  | 1321-3TH440-BB                                    | 1321-3TH550-CC                                                   | ✓                         |         |
| 336          |      | 450                     |                                                                  | 1321-3TH550-BB                                    | 1321-3TH550-CC                                                   | ✓                         |         |
| 373          |      | 500                     |                                                                  | 1321-3TH550-BB                                    | 1321-3TH660-CC                                                   | ✓                         |         |
| 410          |      | 550                     |                                                                  | —                                                 | 1321-3TH660-CC                                                   | ✓                         |         |
| 448          |      | 600                     |                                                                  | 1321-3TH660-BB                                    | 1321-3TH770-CC                                                   | ✓                         |         |
| 522          |      | 700                     |                                                                  | 1321-3TH770-BB                                    | 1321-3TH770-CC                                                   | ✓                         |         |
| 597          |      | 800                     | 1321-3TH880-BB                                                   | 1321-3TH880-CC                                    | ✓                                                                |                           |         |
| 671          |      | 900                     | —                                                                | 900 kVA <sup>(2)</sup>                            | 950 kVA <sup>(2)</sup>                                           | ✓                         |         |
| 709          | 950  | —                       |                                                                  | 1000 kVA <sup>(2)</sup>                           | ✓                                                                |                           |         |
| 746          | 1000 | 1000 kVA <sup>(2)</sup> |                                                                  | 1100 kVA <sup>(2)</sup>                           | ✓                                                                |                           |         |
| 821          | 1100 | 1200 kVA <sup>(2)</sup> |                                                                  | —                                                 | ✓                                                                |                           |         |
| 895          | 1200 | —                       |                                                                  | 1200 kVA <sup>(2)</sup>                           | ✓                                                                |                           |         |
| 933          | 1250 | 1200 kVA <sup>(2)</sup> |                                                                  | —                                                 | ✓                                                                |                           |         |
| 1007         | 1350 | 1300 kVA <sup>(2)</sup> |                                                                  |                                                   | ✓                                                                |                           |         |
| 1119         | 1500 | 1500 kVA <sup>(2)</sup> |                                                                  | 1500 kVA <sup>(2)</sup>                           | ✓                                                                |                           |         |
| 1492         | 2000 | 2000 kVA <sup>(2)</sup> | —                                                                | ✓                                                 |                                                                  |                           |         |

(1) Not applicable for the PowerFlex 755.

(2) 1321 Isolation Transformer solution is not available. Approximate drive kVA is listed.

**Input and Output Reactors - 200...240V, 50/60 Hz, Three-Phase, 3% Impedance**

| kW   | Hp   | Duty   | Input Line Reactor <sup>(1)</sup> |                       | Output Reactor <sup>(1)</sup> |                       | Used with PowerFlex Drive |         |
|------|------|--------|-----------------------------------|-----------------------|-------------------------------|-----------------------|---------------------------|---------|
|      |      |        | IP00 (Open Style)                 | IP11 (NEMA/UL Type 1) | IP00 (Open Style)             | IP11 (NEMA/UL Type 1) | 70                        | 753/755 |
| 0.25 | 0.33 | Normal | 1321-3R2-D                        | 1321-3RA2-D           | 1321-3R2-D                    | 1321-3RA2-D           | ✓                         | —       |
| 0.37 | 0.5  | Normal | 1321-3R2-D                        | 1321-3RA2-D           | 1321-3R2-D                    | 1321-3RA2-D           | ✓                         | ✓       |
|      |      | Heavy  | 1321-3R2-D                        | 1321-3RA2-D           | 1321-3R4-A                    | 1321-3RA4-A           | —                         | ✓       |
| 0.55 | 0.75 | Heavy  | 1321-3R4-A                        | 1321-3RA4-A           | 1321-3R4-D                    | 1321-3RA4-D           | ✓                         | —       |
| 0.75 | 1    | Normal | 1321-3R4-A                        | 1321-3RA4-A           | 1321-3R4-A                    | 1321-3RA4-A           | ✓                         | ✓       |
|      |      | Heavy  | 1321-3R4-A                        | 1321-3RA4-A           | 1321-3R8-A                    | 1321-3RA8-A           | —                         | ✓       |
| 1.1  | 1.5  | Heavy  | 1321-3R8-B                        | 1321-3RA8-B           | 1321-3R8-B                    | 1321-3RA8-B           | ✓                         | —       |
| 1.5  | 2    | Normal | 1321-3R8-A                        | 1321-3RA8-A           | 1321-3R8-A                    | 1321-3RA8-A           | ✓                         | ✓       |
|      |      | Heavy  | 1321-3R8-A                        | 1321-3RA8-A           | 1321-3R12-A                   | 1321-3RA12-A          | ✓                         | ✓       |
| 2.2  | 3    | Normal | 1321-3R12-A                       | 1321-3RA12-A          | 1321-3R12-A                   | 1321-3RA12-A          | ✓                         | ✓       |
|      |      | Heavy  | 1321-3R12-A                       | 1321-3RA12-A          | 1321-3R18-A                   | 1321-3RA18-A          | ✓                         | ✓       |
| 4    | 5    | Normal | 1321-3R18-A                       | 1321-3RA18-A          | 1321-3R18-A                   | 1321-3RA18-A          | ✓                         | ✓       |
|      |      | Heavy  | 1321-3R18-A                       | 1321-3RA18-A          | 1321-3R25-A                   | 1321-3RA25-A          | ✓                         | ✓       |
| 5.5  | 7.5  | Normal | 1321-3R25-A                       | 1321-3RA25-A          | 1321-3R25-A                   | 1321-3RA25-A          | ✓                         | ✓       |
|      |      | Heavy  | 1321-3R25-A                       | 1321-3RA25-A          | 1321-3R35-A                   | 1321-3RA35-A          | ✓                         | ✓       |
| 7.5  | 10   | Normal | 1321-3R35-A                       | 1321-3RA35-A          | 1321-3R35-A                   | 1321-3RA35-A          | ✓                         | ✓       |
|      |      | Heavy  | 1321-3R35-A                       | 1321-3RA35-A          | 1321-3R45-A                   | 1321-3RA45-A          | ✓                         | ✓       |
| 11   | 15   | Normal | 1321-3R45-A                       | 1321-3RA45-A          | 1321-3R45-A                   | 1321-3RA45-A          | ✓                         | ✓       |
|      |      | Heavy  | 1321-3R45-A                       | 1321-3RA45-A          | 1321-3R55-A                   | 1321-3RA55-A          | ✓                         | ✓       |
| 15   | 20   | Normal | 1321-3R55-A                       | 1321-3RA55-A          | 1321-3R55-A                   | 1321-3RA55-A          | ✓                         | ✓       |
|      |      | Heavy  | 1321-3R55-A                       | 1321-3RA55-A          | 1321-3R80-A                   | 1321-3RA80-A          | ✓                         | ✓       |
| 18.5 | 25   | Normal | 1321-3R80-A                       | 1321-3RA80-A          | 1321-3R80-A                   | 1321-3RA80-A          | ✓                         | ✓       |
|      |      | Heavy  | 1321-3R80-A                       | 1321-3RA80-A          | 1321-3R80-A                   | 1321-3RA80-A          | —                         | ✓       |
| 22   | 30   | Normal | 1321-3R80-A                       | 1321-3RA80-A          | 1321-3R80-A                   | 1321-3RA80-A          | —                         | ✓       |
|      |      | Heavy  | 1321-3R80-A                       | 1321-3RA80-A          | 1321-3R100-A                  | 1321-3RA100-A         |                           | ✓       |
| 30   | 40   | Normal | 1321-3R100-A                      | 1321-3RA100-A         | 1321-3R100-A                  | 1321-3RA100-A         |                           | ✓       |
|      |      | Heavy  | 1321-3R100-A                      | 1321-3RA100-A         | 1321-3R130-A                  | 1321-3RA130-A         |                           | ✓       |
| 37   | 50   | Normal | 1321-3R130-A                      | 1321-3RA130-A         | 1321-3R130-A                  | 1321-3RA130-A         |                           | ✓       |
|      |      | Heavy  | 1321-3R130-A                      | 1321-3RA130-A         | 1321-3R160-A                  | 1321-3RA160-A         |                           | ✓       |
| 45   | 60   | Normal | 1321-3R160-A                      | 1321-3RA160-A         | 1321-3R160-A                  | 1321-3RA160-A         |                           | ✓       |
|      |      | Heavy  | 1321-3R160-A                      | 1321-3RA160-A         | 1321-3R200-A                  | 1321-3RA200-A         |                           | ✓       |
| 55   | 75   | Normal | 1321-3R200-A                      | 1321-3RA200-A         | 1321-3R200-A                  | 1321-3RA200-A         |                           | ✓       |
|      |      | Heavy  | 1321-3R200-A                      | 1321-3RA200-A         | 1321-3RB320-A                 | 1321-3RAB320-A        |                           | ✓       |
| 66   | 100  | Normal | 1321-3RB320-A                     | 1321-3RAB320-A        | 1321-3RB320-A                 | 1321-3RAB320-A        |                           | ✓       |
|      |      | Heavy  | 1321-3RB320-A                     | 1321-3RAB320-A        | 1321-3RB320-A                 | 1321-3RAB320-A        |                           | ✓       |
| 90   | 125  | Normal | 1321-3RB320-A                     | 1321-3RAB320-A        | 1321-3RB320-A                 | 1321-3RAB320-A        |                           | ✓       |
|      |      | Heavy  | 1321-3RB320-A                     | 1321-3RAB320-A        | 1321-3RB400-A                 | 1321-3RAB400-A        |                           | ✓       |
| 110  | 150  | Normal | 1321-3RB400-A                     | 1321-3RAB400-A        | 1321-3RB400-A                 | 1321-3RAB400-A        |                           | ✓       |
| 132  | 200  | Normal | 1321-3R500-A                      | 1321-3RA500-A         | 1321-3R500-A                  | 1321-3RA500-A         |                           | ✓       |

(1) Input line reactors were sized based on the NEC fundamental motor amps. Output line reactors were sized based on the VFD rated output currents.

**Input and Output Reactors - 200...240V, 50/60 Hz, Three-Phase, 5% Impedance**

| kW   | Hp   | Duty   | Input Line Reactor <sup>(1)</sup> |                       | Output Reactor <sup>(1)</sup> |                       | Used with PowerFlex Drive |         |
|------|------|--------|-----------------------------------|-----------------------|-------------------------------|-----------------------|---------------------------|---------|
|      |      |        | IP00 (Open Style)                 | IP11 (NEMA/UL Type 1) | IP00 (Open Style)             | IP11 (NEMA/UL Type 1) | 70                        | 753/755 |
| 0.25 | 0.33 | Heavy  | 1321-3R2-A                        | 1321-3RA2-A           | 1321-3R2-A                    | 1321-3RA2-A           | ✓                         | —       |
| 0.37 | 0.5  | Normal | 1321-3R2-A                        | 1321-3RA2-A           | 1321-3R2-A                    | 1321-3RA2-A           | ✓                         | ✓       |
|      |      | Heavy  | 1321-3R2-A                        | 1321-3RA2-A           | 1321-3R4-A                    | 1321-3RA4-A           | —                         | ✓       |
| 0.55 | 0.75 | Heavy  | 1321-3R4-B                        | 1321-3RA4-B           | 1321-3R4-B                    | 1321-3RA4-B           | ✓                         | —       |
| 0.75 | 1    | Normal | 1321-3R4-B                        | 1321-3RA4-B           | 1321-3R4-B                    | 1321-3RA4-B           | ✓                         | ✓       |
|      |      | Heavy  | 1321-3R4-B                        | 1321-3RA4-B           | 1321-3R8-B                    | 1321-3RA8-B           | —                         | ✓       |
| 1.1  | 1.5  | Heavy  | 1321-3R8-B                        | 1321-3RA8-B           | 1321-3R8-B                    | 1321-3RA8-B           | ✓                         | —       |
| 1.5  | 2    | Normal | 1321-3R8-B                        | 1321-3RA8-B           | 1321-3R8-B                    | 1321-3RA8-B           | ✓                         | ✓       |
|      |      | Heavy  | 1321-3R8-B                        | 1321-3RA8-B           | 1321-3R12-B                   | 1321-3RA12-B          | ✓                         | ✓       |
| 2.2  | 3    | Normal | 1321-3R12-B                       | 1321-3RA12-B          | 1321-3R12-B                   | 1321-3RA12-B          | ✓                         | ✓       |
|      |      | Heavy  | 1321-3R12-B                       | 1321-3RA12-B          | 1321-3R18-B                   | 1321-3RA18-B          | ✓                         | ✓       |
| 4    | 5    | Normal | 1321-3R18-B                       | 1321-3RA18-B          | 1321-3R18-B                   | 1321-3RA18-B          | ✓                         | ✓       |
|      |      | Heavy  | 1321-3R18-B                       | 1321-3RA18-B          | 1321-3R25-B                   | 1321-3RA25-B          | ✓                         | ✓       |
| 5.5  | 7.5  | Normal | 1321-3R25-B                       | 1321-3RA25-B          | 1321-3R25-B                   | 1321-3RA25-B          | ✓                         | ✓       |
|      |      | Heavy  | 1321-3R25-B                       | 1321-3RA25-B          | 1321-3R35-B                   | 1321-3RA35-B          | ✓                         | ✓       |
| 7.5  | 10   | Normal | 1321-3R35-B                       | 1321-3RA35-B          | 1321-3R35-B                   | 1321-3RA35-B          | ✓                         | ✓       |
|      |      | Heavy  | 1321-3R35-B                       | 1321-3RA35-B          | 1321-3R45-B                   | 1321-3RA45-B          | ✓                         | ✓       |
| 11   | 15   | Normal | 1321-3R45-B                       | 1321-3RA45-B          | 1321-3R45-B                   | 1321-3RA45-B          | ✓                         | ✓       |
|      |      | Heavy  | 1321-3R45-B                       | 1321-3RA45-B          | 1321-3R55-B                   | 1321-3RA55-B          | ✓                         | ✓       |
| 15   | 20   | Normal | 1321-3R55-B                       | 1321-3RA55-B          | 1321-3R55-B                   | 1321-3RA55-B          | ✓                         | ✓       |
|      |      | Heavy  | 1321-3R55-B                       | 1321-3RA55-B          | 1321-3R80-B                   | 1321-3RA80-B          | ✓                         | ✓       |
| 18.5 | 25   | Normal | 1321-3R80-B                       | 1321-3RA80-B          | 1321-3R80-B                   | 1321-3RA80-B          | —                         | ✓       |
|      |      | Heavy  | 1321-3R80-B                       | 1321-3RA80-B          | 1321-3R80-B                   | 1321-3RA80-B          |                           | ✓       |
| 22   | 30   | Normal | 1321-3R80-B                       | 1321-3RA80-B          | 1321-3R80-B                   | 1321-3RA80-B          |                           | ✓       |
|      |      | Heavy  | 1321-3R80-B                       | 1321-3RA80-B          | 1321-3R100-B                  | 1321-3RA100-B         |                           | ✓       |
| 30   | 40   | Normal | 1321-3R100-B                      | 1321-3RA100-B         | 1321-3R100-B                  | 1321-3RA100-B         |                           | ✓       |
|      |      | Heavy  | 1321-3R100-B                      | 1321-3RA100-B         | 1321-3R130-B                  | 1321-3RA130-B         |                           | ✓       |
| 37   | 50   | Normal | 1321-3R130-B                      | 1321-3RA130-B         | 1321-3R130-B                  | 1321-3RA130-B         |                           | ✓       |
|      |      | Heavy  | 1321-3R130-B                      | 1321-3RA130-B         | 1321-3R160-B                  | 1321-3RA160-B         |                           | ✓       |
| 45   | 60   | Normal | 1321-3R160-B                      | 1321-3RA160-B         | 1321-3R160-B                  | 1321-3RA160-B         |                           | ✓       |
|      |      | Heavy  | 1321-3R160-B                      | 1321-3RA160-B         | 1321-3R200-B                  | 1321-3RA200-B         |                           | ✓       |
| 55   | 75   | Normal | 1321-3R200-B                      | 1321-3RA200-B         | 1321-3R200-B                  | 1321-3RA200-B         |                           | ✓       |
|      |      | Heavy  | 1321-3R200-B                      | 1321-3RA200-B         | 1321-3RB320-B                 | 1321-3RAB320-B        |                           | ✓       |
| 66   | 100  | Normal | 1321-3RB320-B                     | 1321-3RAB320-B        | 1321-3RB320-B                 | 1321-3RAB320-B        |                           | ✓       |
|      |      | Heavy  | 1321-3RB320-B                     | 1321-3RAB320-B        | 1321-3RB320-B                 | 1321-3RAB320-B        |                           | ✓       |
| 90   | 125  | Normal | 1321-3RB320-B                     | 1321-3RAB320-B        | 1321-3RB320-B                 | 1321-3RAB320-B        |                           | ✓       |
|      |      | Heavy  | 1321-3RB320-B                     | 1321-3RAB320-B        | 1321-3RB400-B                 | 1321-3RAB400-B        |                           | ✓       |
| 110  | 150  | Normal | 1321-3RB400-B                     | 1321-3RAB400-B        | 1321-3RB400-B                 | 1321-3RAB400-B        |                           | ✓       |
| 132  | 200  | Normal | 1321-3R500-B                      | 1321-3RA500-B         | 1321-3R500-B                  | 1321-3RA500-B         |                           | ✓       |

(1) Input line reactors were sized based on the NEC fundamental motor amps. Output line reactors were sized based on the VFD rated output currents.

**Input and Output Reactors - 380...480V, 50/60 Hz, Three-Phase, 3% Impedance**

| kW    | Hp   | Duty         | Input Line Reactor <sup>(1)</sup> |                       | Output Reactor <sup>(1)</sup> |                       | Used with PowerFlex Drive |         |
|-------|------|--------------|-----------------------------------|-----------------------|-------------------------------|-----------------------|---------------------------|---------|
|       |      |              | IP00 (Open Style)                 | IP11 (NEMA/UL Type 1) | IP00 (Open Style)             | IP11 (NEMA/UL Type 1) | 70                        | 753/755 |
| 0.25  | 0.33 | Heavy        | 1321-3R1-C                        | 1321-3RA1-C           | 1321-3R2-B                    | 1321-3RA2-B           | ✓                         | —       |
| 0.37  | 0.5  | Normal       |                                   |                       |                               |                       | ✓                         |         |
| 0.55  | 0.75 | Heavy        | 1321-3R2-A                        | 1321-3RA2-A           | 1321-3R2-A                    | 1321-3RA2-A           | ✓                         |         |
| 0.75  | 1    | Normal       |                                   |                       |                               |                       | ✓                         | ✓       |
| 1.1   | 1.5  | Heavy        | 1321-3R4-C                        | 1321-3RA4-C           | 1321-3R4-B                    | 1321-3RA4-B           | ✓                         | ✓       |
| 1.5   | 2    | Normal       | 1321-3R4-B                        | 1321-3RA4-B           |                               |                       | ✓                         | ✓       |
|       |      | Heavy        |                                   |                       | 1321-3R8-C                    | 1321-3RA8-C           | ✓                         | ✓       |
| 2.2   | 3    | Normal       | 1321-3R8-C                        | 1321-3RA8-C           |                               |                       | ✓                         | ✓       |
|       |      | Heavy        |                                   |                       | 1321-3R8-B                    | 1321-3RA8-B           | ✓                         | ✓       |
| 4     | 5    | Normal       | 1321-3R8-B                        | 1321-3RA8-B           |                               |                       | ✓                         | ✓       |
|       |      | Heavy        |                                   |                       | 1321-3R12-B                   | 1321-3RA12-B          | ✓                         | ✓       |
| 5.5   | 7.5  | Normal       | 1321-3R12-B                       | 1321-3RA12-B          |                               |                       | ✓                         | ✓       |
|       |      | Heavy        |                                   |                       | 1321-3R18-B                   | 1321-3RA18-B          | ✓                         | ✓       |
| 7.5   | 10   | Normal       | 1321-3R18-B                       | 1321-3RA18-B          |                               |                       | ✓                         | ✓       |
|       |      | Heavy        |                                   |                       | 1321-3R25-B                   | 1321-3RA25-B          | ✓                         | ✓       |
| 11    | 15   | Normal       | 1321-3R25-B                       | 1321-3RA25-B          |                               |                       | ✓                         | ✓       |
|       |      | Heavy        |                                   |                       | ✓                             | ✓                     |                           |         |
| 15    | 20   | Normal       | 1321-3R35-B                       | 1321-3RA35-B          | ✓                             | ✓                     |                           |         |
|       |      | Heavy        |                                   |                       | 1321-3R35-B                   | 1321-3RA35-B          | ✓                         | ✓       |
| 18.5  | 25   | Normal       | 1321-3R35-B                       | 1321-3RA35-B          |                               |                       | ✓                         | ✓       |
|       |      | Heavy        |                                   |                       | 1321-3R45-B                   | 1321-3RA45-B          | ✓                         | ✓       |
| 22    | 30   | Normal       | 1321-3R45-B                       | 1321-3RA45-B          |                               |                       | ✓                         | ✓       |
|       |      | Heavy        |                                   |                       | 1321-3R55-B                   | 1321-3RA55-B          | ✓                         | ✓       |
| 30    | 40   | Normal       | 1321-3R55-B                       | 1321-3RA55-B          |                               |                       | ✓                         | ✓       |
|       |      | Heavy        |                                   |                       | 1321-3R80-B                   | 1321-3RA80-B          | ✓                         | ✓       |
| 37    | 50   | Normal       | 1321-3R80-B                       | 1321-3RA80-B          |                               |                       | ✓                         | ✓       |
|       |      | Heavy        |                                   |                       | —                             | ✓                     | ✓                         |         |
| 45    | 60   | Normal/Heavy | 1321-3R100-B                      | 1321-3RA100-B         |                               | ✓                     | ✓                         |         |
| 55    |      |              |                                   |                       |                               | 75                    | ✓                         | ✓       |
| 75    |      |              |                                   |                       |                               | 100                   | ✓                         | ✓       |
| 90    |      |              |                                   |                       |                               | 125                   | ✓                         | ✓       |
| 110   | 150  | Normal       | 1321-3R200-B                      | 1321-3RA200-B         |                               | ✓                     | ✓                         |         |
| Heavy |      | ✓            |                                   |                       | ✓                             |                       |                           |         |
| —     | 200  | Normal/Heavy | 1321-3RB250-B                     | 1321-3RAB250-B        | ✓                             | ✓                     |                           |         |
| 132   | —    |              |                                   |                       | ✓                             | ✓                     |                           |         |
| 160   | 250  |              |                                   |                       | 1321-3RB320-B                 | 1321-3RAB320-B        | ✓                         | ✓       |
| 200   | 300  | Normal       | 1321-3RB400-B                     | 1321-3RAB400-B        | ✓                             | ✓                     |                           |         |
|       |      | Heavy        |                                   |                       | ✓                             | ✓                     |                           |         |
| —     | 350  | Normal/Heavy | 1321-3R500-B                      | 1321-3R500-B          | ✓                             | ✓                     |                           |         |
| 250   | —    |              |                                   |                       | 1321-3RA500-B                 | 1321-3RA500-B         | ✓                         | ✓       |

(table continues on next page)

**Input and Output Reactors - 380...480V, 50/60 Hz, Three-Phase, 3% Impedance (continued)**

| kW   | Hp   | Duty <sup>(2)</sup> | Input Line Reactor <sup>(1)</sup> |                       | Output Reactor <sup>(1)</sup> |                       | Used with<br>PowerFlex<br>Drive |
|------|------|---------------------|-----------------------------------|-----------------------|-------------------------------|-----------------------|---------------------------------|
|      |      |                     | IP00 (Open Style)                 | IP11 (NEMA/UL Type 1) | IP00 (Open Style)             | IP11 (NEMA/UL Type 1) | 753/755                         |
| —    | 400  | Light/Normal/Heavy  | 1321-3R500-B                      | 1321-3RA500-B         | 1321-3R500-B                  | 1321-3RA500-B         | ✓                               |
| 315  | —    |                     | 1321-3R600-B                      | 1321-3RA600-B         | 1321-3R600-B                  | 1321-3RA600-B         | ✓                               |
| —    | 450  |                     |                                   |                       |                               |                       | ✓                               |
| 355  | —    |                     | 1321-3R750-B                      | 1321-3RA750-B         | 1321-3R750-B                  | 1321-3RA750-B         | ✓                               |
| —    | 500  | Light               | 1321-3R600-B                      | 1321-3RA600-B         | 1321-3R600-B                  | 1321-3RA600-B         | ✓                               |
|      |      | Normal/Heavy        | 1321-3R750-B                      | 1321-3RA750-B         | 1321-3R750-B                  | 1321-3RA750-B         | ✓                               |
| 400  | —    | Light/Heavy         |                                   |                       |                               |                       | ✓                               |
|      |      | Normal              | 1321-3R850-B                      | 1321-3RA850-B         | 1321-3R850-B                  | 1321-3RA850-B         | ✓                               |
| —    | 600  | Light/Normal/Heavy  | 1321-3R750-B                      | 1321-3RA750-B         | 1321-3R750-B                  | 1321-3RA750-B         | ✓                               |
| 450  | —    | Light               | 1321-3R850-B                      | 1321-3RA850-B         | 1321-3R850-B                  | 1321-3RA850-B         | ✓                               |
| —    | 650  |                     |                                   |                       |                               |                       | ✓                               |
|      |      | Normal              | 1321-3R750-B                      | 1321-3RA750-B         | 1321-3R750-B                  | 1321-3RA750-B         | ✓                               |
| —    | 700  | Light/Normal/Heavy  | 1321-3R850-B                      | 1321-3RA850-B         | 1321-3R850-B                  | 1321-3RA850-B         | ✓                               |
| —    | 750  | Heavy               |                                   |                       |                               |                       | ✓                               |
| 500  | —    | Normal/Heavy        | 1321-3R1000-B                     | 1321-3RA1000-B        | 1321-3R1000-B                 | 1321-3RA1000-B        | ✓                               |
| —    | 800  | Light/Normal/Heavy  |                                   |                       |                               |                       | ✓                               |
| 560  | —    |                     | 1321-3R600-B                      | 1321-3RA600-B         | 1321-3R600-B                  | 1321-3RA600-B         | ✓ <sup>(3)</sup>                |
| 630  | 900  |                     |                                   |                       | 1321-3R600-B                  | 1321-3RA600-B         | ✓ <sup>(3)</sup>                |
| 710  | 1000 |                     |                                   |                       |                               |                       | ✓ <sup>(3)</sup>                |
| 800  | 1100 | Light/Normal        | 1321-3R750-B                      | 1321-3RA750-B         | 1321-3R750-B                  | 1321-3RA750-B         | ✓ <sup>(3)</sup>                |
| 850  | —    |                     |                                   |                       |                               |                       | ✓ <sup>(3)</sup>                |
| 900  | —    | Light               | 1321-3R850-B                      | 1321-3RA850-B         | 1321-3R850-B                  | 1321-3RA850-B         | ✓ <sup>(3)</sup>                |
| —    | 1250 | Light/Normal        | 1321-3R750-B                      | 1321-3RA750-B         | 1321-3R750-B                  | 1321-3RA750-B         | ✓ <sup>(3)</sup>                |
| —    | 1350 | Light               | 1321-3R850-B                      | 1321-3RA850-B         | 1321-3R850-B                  | 1321-3RA850-B         | ✓ <sup>(3)</sup>                |
| —    | 1500 |                     |                                   |                       |                               |                       | ✓ <sup>(4)</sup>                |
| 1000 | —    |                     |                                   |                       |                               |                       | ✓ <sup>(4)</sup>                |
| —    | 2000 |                     |                                   |                       |                               |                       | ✓ <sup>(4)</sup>                |
| 1400 | —    |                     |                                   |                       |                               |                       | ✓ <sup>(4)</sup>                |

(1) Input line reactors were sized based on the NEC fundamental motor amps. Output line reactors were sized based on the VFD rated output currents.

(2) Light Duty refers only to PowerFlex 755 drives.

(3) Requires two reactors wired in parallel.

(4) Requires three reactors wired in parallel.

**Input and Output Reactors - 380...480V, 50/60 Hz, Three-Phase, 5% Impedance**

| kW   | Hp   | Duty         | Input Line Reactor <sup>(1)</sup> |                       | Output Reactor <sup>(1)</sup> |                       | Used with PowerFlex Drive |             |   |   |  |  |  |  |
|------|------|--------------|-----------------------------------|-----------------------|-------------------------------|-----------------------|---------------------------|-------------|---|---|--|--|--|--|
|      |      |              | IP00 (Open Style)                 | IP11 (NEMA/UL Type 1) | IP00 (Open Style)             | IP11 (NEMA/UL Type 1) | 70                        | 753/755     |   |   |  |  |  |  |
| 0.25 | 0.33 | Heavy        | 1321-3R1-B                        | 1321-3RA1-B           | 1321-3R2-C                    | 1321-3RA2-C           | ✓                         | —           |   |   |  |  |  |  |
| 0.37 | 0.5  | Normal       |                                   |                       |                               |                       | ✓                         |             |   |   |  |  |  |  |
| 0.55 | 0.75 | Heavy        |                                   |                       |                               |                       | ✓                         |             |   |   |  |  |  |  |
| 0.75 | 1    | Normal       | 1321-3R2-B                        | 1321-3RA2-B           | ✓                             | ✓                     |                           |             |   |   |  |  |  |  |
| 1.1  | 1.5  | Heavy        | 1321-3R4-D                        | 1321-3RA4-D           | 1321-3R4-D                    | 1321-3RA4-D           | ✓                         | ✓           |   |   |  |  |  |  |
| 1.5  | 2    | Normal       |                                   |                       |                               |                       | ✓                         | ✓           |   |   |  |  |  |  |
|      |      | Heavy        |                                   |                       |                               |                       | 1321-3R8-D                | 1321-3RA8-D | ✓ | ✓ |  |  |  |  |
| 2.2  | 3    | Normal       | 1321-3R8-D                        | 1321-3RA8-D           | 1321-3R8-C                    | 1321-3RA8-C           | ✓                         | ✓           |   |   |  |  |  |  |
|      |      | Heavy        |                                   |                       |                               |                       | ✓                         | ✓           |   |   |  |  |  |  |
| 4    | 5    | Normal       | 1321-3R8-C                        | 1321-3RA8-C           | 1321-3R12-C                   | 1321-3RA12-C          | ✓                         | ✓           |   |   |  |  |  |  |
|      |      | Heavy        |                                   |                       |                               |                       | ✓                         | ✓           |   |   |  |  |  |  |
| 5.5  | 7.5  | Normal       | 1321-3R12-C                       | 1321-3RA12-C          | 1321-3R18-C                   | 1321-3RA18-C          | ✓                         | ✓           |   |   |  |  |  |  |
|      |      | Heavy        |                                   |                       |                               |                       | ✓                         | ✓           |   |   |  |  |  |  |
| 7.5  | 10   | Normal       | 1321-3R18-C                       | 1321-3RA18-C          | 1321-3R25-C                   | 1321-3RA25-C          | ✓                         | ✓           |   |   |  |  |  |  |
|      |      | Heavy        |                                   |                       |                               |                       | ✓                         | ✓           |   |   |  |  |  |  |
| 11   | 15   | Normal/Heavy | 1321-3R25-C                       | 1321-3RA25-C          | 1321-3R25-C                   | 1321-3RA25-C          | ✓                         | ✓           |   |   |  |  |  |  |
| 15   | 20   | Normal       |                                   |                       |                               |                       | ✓                         | ✓           |   |   |  |  |  |  |
|      |      | Heavy        | 1321-3R35-C                       | 1321-3RA35-C          | 1321-3R35-C                   | 1321-3RA35-C          | ✓                         | ✓           |   |   |  |  |  |  |
| 18.5 | 25   | Normal       |                                   |                       |                               |                       | ✓                         | ✓           |   |   |  |  |  |  |
|      |      | Heavy        | 1321-3R45-C                       | 1321-3RA45-C          | 1321-3R45-C                   | 1321-3RA45-C          | ✓                         | ✓           |   |   |  |  |  |  |
| 22   | 30   | Normal       |                                   |                       |                               |                       | ✓                         | ✓           |   |   |  |  |  |  |
|      |      | Heavy        | 1321-3R55-C                       | 1321-3RA55-C          | 1321-3R55-C                   | 1321-3RA55-C          | ✓                         | ✓           |   |   |  |  |  |  |
| 30   | 40   | Normal       |                                   |                       |                               |                       | ✓                         | ✓           |   |   |  |  |  |  |
|      |      | Heavy        | 1321-3R80-C                       | 1321-3RA80-C          | 1321-3R80-C                   | 1321-3RA80-C          | ✓                         | ✓           |   |   |  |  |  |  |
| 37   | 50   | Normal       |                                   |                       |                               |                       | ✓                         | ✓           |   |   |  |  |  |  |
|      |      | Heavy        | 1321-3R100-C                      | 1321-3RA100-C         | 1321-3R100-C                  | 1321-3RA100-C         | —                         | ✓           |   |   |  |  |  |  |
| 45   | 60   | Normal/Heavy |                                   |                       |                               |                       | —                         | ✓           |   |   |  |  |  |  |
| 55   | 75   | Normal/Heavy | 1321-3R100-C                      | 1321-3RA100-C         | 1321-3R100-C                  | 1321-3RA100-C         | —                         | ✓           |   |   |  |  |  |  |
| 75   | 100  |              | 1321-3R130-C                      | 1321-3RA130-C         | 1321-3R130-C                  | 1321-3RA130-C         |                           | ✓           |   |   |  |  |  |  |
| 90   | 125  |              | 1321-3R160-C                      | 1321-3RA160-C         | 1321-3R160-C                  | 1321-3RA160-C         |                           | ✓           |   |   |  |  |  |  |
| 110  | 150  |              | 1321-3R200-C                      | 1321-3RA200-C         | 1321-3R200-C                  | 1321-3RA200-C         |                           | ✓           |   |   |  |  |  |  |
|      |      | Heavy        | 1321-3RB250-C                     | 1321-3RAB250-C        | 1321-3RB250-C                 | 1321-3RAB250-C        |                           | ✓           |   |   |  |  |  |  |
| —    | 200  | Normal/Heavy |                                   |                       |                               |                       |                           | ✓           |   |   |  |  |  |  |
| 132  | —    | Normal/Heavy | 1321-3RB320-C                     | 1321-3RAB320-C        | 1321-3RB320-C                 | 1321-3RAB320-C        |                           | ✓           |   |   |  |  |  |  |
| 160  | 250  |              | 1321-3RB400-C                     | 1321-3RAB400-C        | 1321-3RB400-C                 | 1321-3RAB400-C        |                           | ✓           |   |   |  |  |  |  |
| —    | 300  |              |                                   |                       |                               |                       |                           | ✓           |   |   |  |  |  |  |
| 200  | —    |              | 1321-3R500-C                      | 1321-3RA500-C         | 1321-3R500-C                  | 1321-3RA500-C         |                           | ✓           |   |   |  |  |  |  |
| —    | 350  | Normal/Heavy |                                   |                       |                               |                       |                           | ✓           |   |   |  |  |  |  |
| 250  | —    |              |                                   |                       |                               |                       |                           | ✓           |   |   |  |  |  |  |

(table continues on next page)

**Input and Output Reactors - 380...480V, 50/60 Hz, Three-Phase, 5% Impedance (continued)**

| kW   | Hp   | Duty <sup>(2)</sup> | Input Line Reactor <sup>(1)</sup> |                       | Output Reactor <sup>(1)</sup> |                       | Used with<br>PowerFlex<br>Drive |
|------|------|---------------------|-----------------------------------|-----------------------|-------------------------------|-----------------------|---------------------------------|
|      |      |                     | IP00 (Open Style)                 | IP11 (NEMA/UL Type 1) | IP00 (Open Style)             | IP11 (NEMA/UL Type 1) | 753/755                         |
| —    | 400  | Light/Normal/Heavy  | 1321-3R500-C                      | 1321-3RA500-C         | 1321-3R500-C                  | 1321-3RA500-C         | ✓                               |
| 315  | —    |                     | 1321-3R600-C                      | 1321-3RA600-C         | 1321-3R600-C                  | 1321-3RA600-C         | ✓                               |
| —    | 450  |                     |                                   |                       |                               |                       | ✓                               |
| 355  | —    |                     | 1321-3R750-C                      | 1321-3RA750-C         | 1321-3R750-C                  | 1321-3RA750-C         | ✓                               |
| —    | 500  | Light               | 1321-3R600-C                      | 1321-3RA600-C         | 1321-3R600-C                  | 1321-3RA600-C         | ✓                               |
|      |      | Normal/Heavy        | 1321-3R750-C                      | 1321-3RA750-C         | 1321-3R750-C                  | 1321-3RA750-C         | ✓                               |
| 400  | —    | Light/Heavy         |                                   |                       |                               |                       | ✓                               |
|      |      | Normal              | 1321-3R850-C                      | 1321-3RA850-C         | 1321-3R850-C                  | 1321-3RA850-C         | ✓                               |
| —    | 600  | Light/Normal/Heavy  | 1321-3R750-C                      | 1321-3RA750-C         | 1321-3R750-C                  | 1321-3RA750-C         | ✓                               |
| 450  | —    | Light               | 1321-3R850-C                      | 1321-3RA850-C         | 1321-3R850-C                  | 1321-3RA850-C         | ✓                               |
| 500  | —    | Normal/Heavy        | 1321-3R1000-C                     | 1321-3RA1000-C        | 1321-3R1000-C                 | 1321-3RA1000-C        | ✓                               |
| —    | 650  | Light               | 1321-3R850-C                      | 1321-3RA850-C         | 1321-3R850-C                  | 1321-3RA850-C         | ✓                               |
|      |      | Normal              | 1321-3R750-C                      | 1321-3RA750-C         | 1321-3R750-C                  | 1321-3RA750-C         | ✓                               |
| —    | 700  | Light/Normal/Heavy  | 1321-3R850-C                      | 1321-3RA850-C         | 1321-3R850-C                  | 1321-3RA850-C         | ✓                               |
| —    | 750  | Heavy               |                                   |                       |                               |                       | ✓                               |
| —    | 800  | Light/Normal/Heavy  | 1321-3R1000-C                     | 1321-3RA1000-C        | 1321-3R1000-C                 | 1321-3RA1000-C        | ✓                               |
| 560  | —    |                     | 1321-3R600-C                      | 1321-3RA600-C         | 1321-3R600-C                  | 1321-3RA600-C         | ✓ <sup>(3)</sup>                |
| 630  | —    |                     |                                   |                       |                               |                       | ✓ <sup>(3)</sup>                |
| —    | 900  |                     |                                   |                       |                               |                       | ✓ <sup>(3)</sup>                |
| 710  | —    |                     |                                   |                       |                               |                       | ✓ <sup>(3)</sup>                |
| —    | 1000 |                     |                                   |                       |                               |                       | ✓ <sup>(3)</sup>                |
| —    | 1100 | Light/Normal        | 1321-3R750-C                      | 1321-3RA750-C         | 1321-3R750-C                  | 1321-3RA750-C         | ✓ <sup>(3)</sup>                |
| 800  | —    |                     |                                   |                       |                               |                       | ✓ <sup>(3)</sup>                |
| 850  | —    |                     |                                   |                       |                               |                       | ✓ <sup>(3)</sup>                |
| —    | 1250 |                     |                                   |                       |                               |                       | ✓ <sup>(3)</sup>                |
| 900  | —    | Light               | 1321-3R850-C                      | 1321-3RA850-C         | 1321-3R850-C                  | 1321-3RA850-C         | ✓ <sup>(3)</sup>                |
| —    | 1350 |                     |                                   |                       |                               |                       | ✓ <sup>(3)</sup>                |
| —    | 1500 |                     |                                   |                       |                               |                       | ✓ <sup>(4)</sup>                |
| 1000 | —    |                     |                                   |                       |                               |                       | ✓ <sup>(4)</sup>                |
| —    | 2000 |                     |                                   |                       |                               |                       | ✓ <sup>(4)</sup>                |
| 1400 | —    |                     |                                   |                       |                               |                       | ✓ <sup>(4)</sup>                |

(1) Input line reactors were sized based on the NEC fundamental motor amps. Output line reactors were sized based on the VFD rated output currents.

(2) Light Duty refers only to PowerFlex 755 drives.

(3) Requires two output reactors wired in parallel.

(4) Requires three reactors wired in parallel.

**Input and Output Reactors - 500...690V, 50/60 Hz, Three-Phase, 3% Impedance**

| kW   | Hp   | Duty               | Input Line Reactor <sup>(1)</sup> |                             | Output Reactor <sup>(1)</sup> |                             | Used with PowerFlex Drive |             |
|------|------|--------------------|-----------------------------------|-----------------------------|-------------------------------|-----------------------------|---------------------------|-------------|
|      |      |                    | IP00 (Open Style)                 | IP11 (NEMA/UL Type 1)       | IP00 (Open Style)             | IP11 (NEMA/UL Type 1)       | 70                        | 753/755     |
| 0.25 | 0.33 | Heavy              | 1321-3R1-C <sup>(2)</sup>         | 1321-3RA1-C <sup>(2)</sup>  | 1321-3R1-B <sup>(2)</sup>     | 1321-3RA1-B <sup>(2)</sup>  | ✓                         | —           |
| 0.37 | 0.5  | Normal             |                                   |                             |                               |                             | ✓                         |             |
| 0.55 | 0.75 | Heavy              | 1321-3R2-B <sup>(2)</sup>         | 1321-3RA2-B <sup>(2)</sup>  | 1321-3R2-B <sup>(2)</sup>     | 1321-3RA2-B <sup>(2)</sup>  | ✓                         |             |
| 0.75 | 1    | Normal             |                                   |                             |                               |                             | ✓                         | ✓           |
|      |      | Heavy              | 1321-3R2-A <sup>(2)</sup>         | -1321-3RA2-A <sup>(2)</sup> | 1321-3R4-D <sup>(2)</sup>     | 1321-3RA4-D <sup>(2)</sup>  | —                         | ✓           |
| 1.1  | 1.5  |                    |                                   |                             |                               |                             | ✓                         | —           |
| 1.5  | 2    | Normal             | 1321-3R4-C <sup>(2)</sup>         | 1321-3RA4-C <sup>(2)</sup>  | 1321-3R4-C <sup>(2)</sup>     | 1321-3RA4-C <sup>(2)</sup>  | ✓                         | ✓           |
|      |      | Heavy              |                                   |                             |                               |                             | ✓                         |             |
|      |      | Normal             | 1321-3R4-D <sup>(2)</sup>         | 1321-3RA4-D <sup>(2)</sup>  | 1321-3R4-D <sup>(2)</sup>     | 1321-3RA4-D <sup>(2)</sup>  | —                         | ✓           |
|      |      | Heavy              |                                   |                             |                               |                             | ✓                         |             |
| 2.2  | 3    | Normal             | 1321-3R4-C <sup>(2)</sup>         | 1321-3RA4-C <sup>(2)</sup>  | 1321-3R4-C <sup>(2)</sup>     | 1321-3RA4-C <sup>(2)</sup>  | ✓                         | ✓           |
|      |      | Heavy              |                                   |                             |                               |                             | ✓                         |             |
| 4    | 5    | Normal             | 1321-3R8-C <sup>(2)</sup>         | 1321-3RA8-C <sup>(2)</sup>  | 1321-3R8-C <sup>(2)</sup>     | 1321-3RA8-C <sup>(2)</sup>  | ✓                         | ✓           |
|      |      | Heavy              |                                   |                             |                               |                             | ✓                         |             |
|      |      |                    | 1321-3R12-C <sup>(2)</sup>        | 1321-3RA12-C <sup>(2)</sup> | 1321-3R12-C <sup>(2)</sup>    | 1321-3RA12-C <sup>(2)</sup> | ✓                         | ✓           |
| 5.5  | 7.5  | Normal             |                                   |                             |                               |                             | ✓                         |             |
|      |      | Heavy              | 1321-3R12-B <sup>(2)</sup>        | 1321-3RA12-B <sup>(2)</sup> | 1321-3R12-B <sup>(2)</sup>    | 1321-3RA12-B <sup>(2)</sup> | ✓                         | ✓           |
| 7.5  | 10   | Normal             |                                   |                             |                               |                             | ✓                         |             |
|      |      | Heavy              | 1321-3R18-B <sup>(2)</sup>        | 1321-3RA18-B <sup>(2)</sup> | 1321-3R18-B <sup>(2)</sup>    | 1321-3RA18-B <sup>(2)</sup> | ✓                         | ✓           |
| 11   | 15   | Normal             |                                   |                             |                               |                             | ✓                         |             |
|      |      | Heavy              | 1321-3R25-B <sup>(2)</sup>        | 1321-3RA25-B <sup>(2)</sup> | 1321-3R25-B <sup>(2)</sup>    | 1321-3RA25-B <sup>(2)</sup> | ✓                         | ✓           |
| 15   | 20   | Normal             |                                   |                             |                               |                             | ✓                         |             |
|      |      | Heavy              | 1321-3R35-C <sup>(2)</sup>        | 1321-3RA35-C <sup>(2)</sup> | 1321-3R35-C <sup>(2)</sup>    | 1321-3RA35-C <sup>(2)</sup> | ✓                         | ✓           |
| 18.5 | 25   | Normal             |                                   |                             |                               |                             | ✓                         |             |
|      |      | Heavy              | 1321-3R35-B <sup>(2)</sup>        | 1321-3RA35-B <sup>(2)</sup> | 1321-3R35-B <sup>(2)</sup>    | 1321-3RA35-B <sup>(2)</sup> | ✓                         | ✓           |
| 22   | 30   | Normal             |                                   |                             |                               |                             | ✓                         |             |
|      |      | Heavy              | 1321-3R45-B <sup>(2)</sup>        | 1321-3RA45-B <sup>(2)</sup> | 1321-3R45-B <sup>(2)</sup>    | 1321-3RA45-B <sup>(2)</sup> | ✓                         | ✓           |
| 30   | 40   | Normal             |                                   |                             |                               |                             | ✓                         |             |
|      |      | Heavy              | 1321-3R55-B <sup>(2)</sup>        | 1321-3RA55-B <sup>(2)</sup> | 1321-3R55-B <sup>(2)</sup>    | 1321-3RA55-B <sup>(2)</sup> | ✓                         | ✓           |
| 37   | 50   | Normal             |                                   |                             |                               |                             | ✓                         |             |
|      |      | Heavy              | 1321-3R55-B                       | 1321-3RA55-B                | 1321-3R55-B                   | 1321-3RA55-B                | —                         | ✓           |
|      |      |                    |                                   |                             |                               |                             |                           | 1321-3R80-B |
| 45   | 60   | Normal/Heavy       | 1321-3R80-B                       | 1321-3RA80-B                | 1321-3R100-B                  | 1321-3RA100-B               |                           | ✓           |
| 55   | 75   |                    |                                   |                             |                               |                             |                           | ✓           |
| 75   | 100  |                    |                                   |                             |                               |                             |                           | ✓           |
| 90   | 125  |                    |                                   |                             |                               |                             |                           | ✓           |
| 110  | 150  | Normal             | 1321-3R160-B                      | 1321-3RA160-B               | 1321-3R160-B                  | 1321-3RA160-B               |                           | ✓           |
| —    | 300  | Heavy              | 1321-3RB320-B                     | 1321-3RAB320-B              | 1321-3RB320-B                 | 1321-3RAB320-B              |                           | ✓           |
| 200  | —    |                    | 1321-3R250-B                      | 1321-3RA250-B               | 1321-3R250-B                  | 1321-3RA250-B               |                           | ✓           |
| —    | 350  | Light/Normal/Heavy | 1321-3RB400-B                     | 1321-3RAB400-B              | 1321-3RB400-B                 | 1321-3RAB400-B              |                           | ✓           |
| 250  | —    | Normal/Heavy       | 1321-3RB320-B                     | 1321-3RAB320-B              | 1321-3RB320-B                 | 1321-3RAB320-B              |                           | ✓           |

(table continues on next page)

**Input and Output Reactors - 500...690V, 50/60 Hz, Three-Phase, 3% Impedance (continued)**

| kW   | Hp   | Duty                      | Input Line Reactor <sup>(1)</sup> |                       | Output Reactor <sup>(1)</sup> |                       | Used with PowerFlex Drive |                  |               |   |
|------|------|---------------------------|-----------------------------------|-----------------------|-------------------------------|-----------------------|---------------------------|------------------|---------------|---|
|      |      |                           | IP00 (Open Style)                 | IP11 (NEMA/UL Type 1) | IP00 (Open Style)             | IP11 (NEMA/UL Type 1) | 753/755                   |                  |               |   |
| —    | 400  | Light/Normal/Heavy        | 1321-3RB400-B                     | 1321-3RAB400-B        | 1321-3RB400-B                 | 1321-3RAB400-B        | ✓                         |                  |               |   |
| 300  | —    | Heavy                     |                                   |                       |                               |                       | ✓                         |                  |               |   |
| —    | 450  | Light/Normal/Heavy        | 1321-3R500-B                      | 1321-3RA500-B         | 1321-3R500-B                  | 1321-3RA500-B         | ✓                         |                  |               |   |
| 315  | —    | Light/Normal              | 1321-3RB400-B                     | 1321-3RAB400-B        | 1321-3RB400-B                 | 1321-3RAB400-B        | ✓                         |                  |               |   |
| —    | 500  | Light/Normal/Heavy        | 1321-3R600-B                      | 1321-3RA600-B         | 1321-3R600-B                  | 1321-3RA600-B         | ✓                         |                  |               |   |
| 355  | —    |                           | 1321-3R500-B                      | 1321-3RA500-B         | 1321-3R500-B                  | 1321-3RA500-B         | ✓                         |                  |               |   |
| —    | 550  | Light                     | 1321-3R600-B                      | 1321-3RA600-B         | 1321-3R600-B                  | 1321-3RA600-B         | ✓                         |                  |               |   |
| 375  | —    | Heavy                     | 1321-3R500-B                      | 1321-3RA500-B         | 1321-3R500-B                  | 1321-3RA500-B         | ✓                         |                  |               |   |
| 400  |      | Light/Normal/Heavy        |                                   |                       |                               |                       | ✓                         |                  |               |   |
| —    | 600  | Normal/Heavy              | 1321-3R600-B                      | 1321-3RA600-B         | 1321-3R600-B                  | 1321-3RA600-B         | ✓                         |                  |               |   |
| 450  | —    | Light/Normal              |                                   |                       |                               |                       | ✓                         |                  |               |   |
| 500  |      | Light/Normal/Heavy        | 1321-3R600-B                      | ✓                     |                               |                       |                           |                  |               |   |
| —    | 700  | Light<br><br>Normal/Heavy | 1321-3R750-B                      | 1321-3RA750-B         | 1321-3R750-B                  | 1321-3RA750-B         | ✓                         |                  |               |   |
| 530  | —    |                           | 1321-3R600-B                      | 1321-3RA600-B         | 1321-3R600-B                  | 1321-3RA600-B         | ✓                         |                  |               |   |
| 560  |      |                           | 1321-3R750-B                      | 1321-3RA750-B         | 1321-3R750-B                  | 1321-3RA750-B         | ✓                         |                  |               |   |
| —    | 750  |                           | Heavy                             | 1321-3R850-B          | 1321-3RA850-B                 | 1321-3R850-B          | 1321-3RA850-B             | ✓                |               |   |
| —    | 800  |                           | Light/Normal/Heavy                |                       |                               |                       |                           | ✓                |               |   |
| 630  | —    | 1321-3R750-B              | 1321-3RA750-B                     |                       |                               |                       |                           | 1321-3R750-B     | 1321-3RA750-B | ✓ |
| —    | 900  | 1321-3R850-B              | 1321-3RA850-B                     |                       |                               |                       |                           | 1321-3R850-B     | 1321-3RA850-B | ✓ |
| 710  | —    |                           |                                   |                       |                               |                       | ✓                         |                  |               |   |
| —    | 950  | Light/Normal              | 1321-3R1000-B                     | 1321-3RA1000-B        | 1321-3R1000-B                 | 1321-3RA1000-B        | ✓                         |                  |               |   |
| 750  | —    | Normal                    | 1321-3R850-B                      | 1321-3RA850-B         | 1321-3R850-B                  | 1321-3RA850-B         | ✓                         |                  |               |   |
| 800  |      | Light/Normal/Heavy        | 1321-3R1000-B                     | 1321-3RA1000-B        | 1321-3R1000-B                 | 1321-3RA1000-B        | ✓                         |                  |               |   |
| —    | 1000 | Light/Normal              |                                   |                       |                               |                       | ✓                         |                  |               |   |
| —    | 1100 | Light                     | 1321-3R600-B                      | 1321-3RA600-B         | 1321-3R600-B                  | 1321-3RA600-B         | ✓ <sup>(3)</sup>          |                  |               |   |
| 850  | —    |                           | 1321-3R1000-B                     | 1321-3RA1000-B        | 1321-3R1000-B                 | 1321-3RA1000-B        | ✓                         |                  |               |   |
| 900  | —    | Light/Normal              | 1321-3R600-B                      | 1321-3RA600-B         | 1321-3R600-B                  | 1321-3RA600-B         | ✓ <sup>(3)</sup>          |                  |               |   |
| 1000 |      | Light                     | 1321-3R600-B                      | 1321-3RA600-B         |                               |                       | ✓ <sup>(3)</sup>          |                  |               |   |
| 1100 |      | Light/Normal              |                                   |                       |                               |                       | ✓ <sup>(4)</sup>          |                  |               |   |
| —    |      | 1200                      | Light                             |                       |                               |                       |                           | ✓ <sup>(4)</sup> |               |   |
| 1500 | —    | Light/Normal              |                                   |                       |                               |                       | ✓ <sup>(4)</sup>          |                  |               |   |
| —    | 1500 | Light                     |                                   |                       |                               |                       | ✓ <sup>(4)</sup>          |                  |               |   |

(1) Input line reactors were sized based on the NEC fundamental motor amps. Output line reactors were sized based on the VFD rated output currents.

(2) Only rated for 600V and cannot be used on 690V applications.

(3) Requires two reactors wired in parallel.

(4) Requires three reactors wired in parallel.

**Input and Output Reactors - 500...690V, 50/60 Hz, Three-Phase, 5% Impedance**

| kW   | Hp   | Duty               | Input Line Reactor <sup>(1)</sup> |                             | Output Reactor <sup>(1)</sup> |                             | Used with PowerFlex Drive  |                             |   |   |
|------|------|--------------------|-----------------------------------|-----------------------------|-------------------------------|-----------------------------|----------------------------|-----------------------------|---|---|
|      |      |                    | IP00 (Open Style)                 | IP11 (NEMA/UL Type 1)       | IP00 (Open Style)             | IP11 (NEMA/UL Type 1)       | 70                         | 753/755                     |   |   |
| 0.25 | 0.33 | Heavy              | 1321-3R1-A <sup>(2)</sup>         | 1321-3RA1-A <sup>(2)</sup>  | 1321-3R1-B <sup>(2)</sup>     | 1321-3RA1-B <sup>(2)</sup>  | ✓                          | —                           |   |   |
| 0.37 | 0.5  | Normal             | 1321-3R1-B <sup>(2)</sup>         | 1321-3RA1-B <sup>(2)</sup>  |                               |                             | ✓                          |                             |   |   |
| 0.55 | 0.75 | Heavy              | 1321-3R2-C <sup>(2)</sup>         | 1321-3RA2-C <sup>(2)</sup>  | 1321-3R2-C <sup>(2)</sup>     | 1321-3RA2-C <sup>(2)</sup>  | ✓                          |                             |   |   |
| 0.75 | 1    | Normal             |                                   |                             |                               |                             | ✓                          | ✓                           |   |   |
|      |      | Heavy              | 1321-3R2-B <sup>(2)</sup>         | 1321-3RA2-B <sup>(2)</sup>  | 1321-3R4-D <sup>(2)</sup>     | 1321-3RA4-D <sup>(2)</sup>  | —                          | ✓                           |   |   |
| 1.1  | 1.5  |                    |                                   |                             |                               |                             | ✓                          | —                           |   |   |
| 1.5  | 2    | Normal/Heavy       |                                   |                             |                               |                             | ✓                          | ✓                           |   |   |
| 2.2  | 3    | Normal             |                                   |                             |                               |                             | ✓                          | ✓                           |   |   |
|      |      | Heavy              |                                   |                             |                               |                             | 1321-3R8-D <sup>(2)</sup>  | 1321-3RA8-D <sup>(2)</sup>  | ✓ | ✓ |
| 4    | 5    | Normal             | ✓                                 | ✓                           |                               |                             |                            |                             |   |   |
|      |      | Heavy              | 1321-3R12-C <sup>(2)</sup>        | 1321-3RA12-C <sup>(2)</sup> | 1321-3R12-C <sup>(2)</sup>    | 1321-3RA12-C <sup>(2)</sup> | ✓                          | ✓                           |   |   |
| 5.5  | 7.5  | Normal/Heavy       |                                   |                             |                               |                             | ✓                          | ✓                           |   |   |
| 7.5  | 10   | Normal             | 1321-3R18-C <sup>(2)</sup>        | 1321-3RA18-C <sup>(2)</sup> | 1321-3R18-C <sup>(2)</sup>    | 1321-3RA18-C <sup>(2)</sup> | ✓                          | ✓                           |   |   |
|      |      | Heavy              |                                   |                             |                               |                             | ✓                          | ✓                           |   |   |
| 11   | 15   | Normal             | 1321-3R18-C <sup>(2)</sup>        | 1321-3RA18-C <sup>(2)</sup> | 1321-3R25-C <sup>(2)</sup>    | 1321-3RA25-C <sup>(2)</sup> | ✓                          | ✓                           |   |   |
|      |      | Heavy              |                                   |                             |                               |                             | ✓                          | ✓                           |   |   |
| 15   | 20   | Normal             | 1321-3R25-C <sup>(2)</sup>        | 1321-3RA25-C <sup>(2)</sup> | 1321-3R35-C <sup>(2)</sup>    | 1321-3RA35-C <sup>(2)</sup> | ✓                          | ✓                           |   |   |
|      |      | Heavy              |                                   |                             |                               |                             | ✓                          | ✓                           |   |   |
| 18.5 | 25   | Normal/Heavy       | 1321-3R35-C <sup>(2)</sup>        | 1321-3RA35-C <sup>(2)</sup> |                               |                             | 1321-3R35-C <sup>(2)</sup> | 1321-3RA35-C <sup>(2)</sup> | ✓ | ✓ |
| 22   | 30   | Normal             |                                   |                             |                               |                             |                            |                             | ✓ | ✓ |
|      |      | Heavy              | 1321-3R45-C <sup>(2)</sup>        | 1321-3RA45-C <sup>(2)</sup> | 1321-3R45-C <sup>(2)</sup>    | 1321-3RA45-C <sup>(2)</sup> | ✓                          | ✓                           |   |   |
| 30   | 40   | Normal             |                                   |                             |                               |                             | ✓                          | ✓                           |   |   |
|      |      | Heavy              | 1321-3R55-C <sup>(2)</sup>        | 1321-3RA55-C <sup>(2)</sup> | 1321-3R55-C <sup>(2)</sup>    | 1321-3RA55-C <sup>(2)</sup> | ✓                          | ✓                           |   |   |
| 37   | 50   | Normal             |                                   |                             |                               |                             | ✓                          | ✓                           |   |   |
|      |      | Heavy              | 1321-3R80-C                       | 1321-3RA80-C                | 1321-3R80-C                   | 1321-3RA80-C                | —                          | ✓                           |   |   |
| 45   | 60   | Normal/Heavy       | 1321-3R80-C                       | 1321-3RA80-C                | 1321-3R80-C                   | 1321-3RA80-C                |                            | ✓                           |   |   |
| 55   | 75   |                    | 1321-3R80-C                       | 1321-3RA80-C                | 1321-3R80-C                   | 1321-3RA80-C                |                            | ✓                           |   |   |
| 75   | 100  |                    | 1321-3R100-C                      | 1321-3RA100-C               | 1321-3R100-C                  | 1321-3RA100-C               |                            | ✓                           |   |   |
| 90   | 125  |                    | 1321-3R130-C                      | 1321-3RA130-C               | 1321-3R130-C                  | 1321-3RA130-C               |                            | ✓                           |   |   |
| 110  | 150  | Normal             | 1321-3R160-C                      | 1321-3RA160-C               | 1321-3R160-C                  | 1321-3RA160-C               |                            | ✓                           |   |   |
| —    | 300  | Heavy              | 1321-3RB320-C                     | 1321-3RAB320-C              | 1321-3RB320-C                 | 1321-3RAB320-C              |                            | ✓                           |   |   |
| 200  | —    |                    | 1321-3R250-C                      | 1321-3RA250-C               | 1321-3R250-C                  | 1321-3RA250-C               |                            | ✓                           |   |   |
| —    | 350  | Light/Normal/Heavy | 1321-3RB400-C                     | 1321-3RAB400-C              | 1321-3RB400-C                 | 1321-3RAB400-C              |                            | ✓                           |   |   |
| 250  | —    | Normal/Heavy       | 1321-3RB320-C                     | 1321-3RAB320-C              | 1321-3RB320-C                 | 1321-3RAB320-C              |                            | ✓                           |   |   |
| —    | 400  | Light/Normal/Heavy | 1321-3RB400-C                     | 1321-3RAB400-C              | 1321-3RB400-C                 | 1321-3RAB400-C              |                            | ✓                           |   |   |

(table continues on next page)

**Input and Output Reactors - 500...690V, 50/60 Hz, Three-Phase, 5% Impedance (continued)**

| kW   | Hp   | Duty               | Input Line Reactor <sup>(1)</sup> |                       | Output Reactor <sup>(1)</sup> |                       | Used with<br>PowerFlex<br>Drive |
|------|------|--------------------|-----------------------------------|-----------------------|-------------------------------|-----------------------|---------------------------------|
|      |      |                    | IP00 (Open Style)                 | IP11 (NEMA/UL Type 1) | IP00 (Open Style)             | IP11 (NEMA/UL Type 1) | 753/755                         |
| 300  | —    | Heavy              | 1321-3RB400-C                     | 1321-3RAB400-C        | 1321-3RB400-C                 | 1321-3RAB400-C        | ✓                               |
| 315  | —    | Light/Normal       |                                   |                       |                               |                       | ✓                               |
| —    | 450  | Light/Normal/Heavy | 1321-3R500-C                      | 1321-3RA500-C         | 1321-3R500-C                  | 1321-3RA500-C         | ✓                               |
| —    | 500  | Light/Normal       | 1321-3R600-C                      | 1321-3RA600-C         | 1321-3R600-C                  | 1321-3RA600-C         | ✓                               |
| 355  | —    | Light/Normal/Heavy | 1321-3R500-C                      | 1321-3RA500-C         | 1321-3R500-C                  | 1321-3RA500-C         | ✓                               |
| —    | 550  | Light              | 1321-3R600-C                      | 1321-3RA600-C         | 1321-3R600-C                  | 1321-3RA600-C         | ✓                               |
| 375  | —    | Heavy              | 1321-3R500-C                      | 1321-3RA500-C         | 1321-3R500-C                  | 1321-3RA500-C         | ✓                               |
| 400  | —    | Light/Normal/Heavy |                                   |                       |                               |                       | ✓                               |
| —    | 600  | Normal/Heavy       | 1321-3R600-C                      | 1321-3RA600-C         | 1321-3R600-C                  | 1321-3RA600-C         | ✓                               |
| 450  | —    | Light/Normal/Heavy |                                   |                       |                               |                       | ✓                               |
| 500  | —    | Heavy              |                                   |                       |                               |                       | ✓                               |
| —    | 700  | Light/Normal/Heavy | 1321-3R750-C                      | 1321-3RA750-C         | 1321-3R750-C                  | 1321-3RA750-C         | ✓                               |
| 530  | —    | Light              | 1321-3R600-C                      | 1321-3RA600-C         | 1321-3R600-C                  | 1321-3RA600-C         | ✓                               |
| —    | 750  | Heavy              | 1321-3R750-C                      | 1321-3RA750-C         | 1321-3R750-C                  | 1321-3RA750-C         | ✓                               |
| 560  | —    | Normal/Heavy       |                                   |                       |                               |                       | ✓                               |
| —    | 800  | Light/Normal/Heavy | 1321-3R850-C                      | 1321-3RA850-C         | 1321-3R850-C                  | 1321-3RA850-C         | ✓                               |
| 630  | —    |                    | 1321-3R750-C                      | 1321-3RA750-C         | 1321-3R750-C                  | 1321-3RA750-C         | ✓                               |
| —    | 900  |                    | 1321-3R850-C                      | 1321-3RA850-C         | 1321-3R850-C                  | 1321-3RA850-C         | ✓                               |
| —    | 950  | Light/Normal       | 1321-3R1000-C                     | 1321-3RA1000-C        | 1321-3R1000-C                 | 1321-3RA1000-C        | ✓                               |
| 710  | —    | Light/Normal/Heavy | 1321-3R850-C                      | 1321-3RA850-C         | 1321-3R850-C                  | 1321-3RA850-C         | ✓                               |
| 750  | —    | Normal             |                                   |                       |                               |                       | ✓                               |
| —    | 1000 | Light/Normal       | 1321-3R1000-C                     | 1321-3RA1000-C        | 1321-3R1000-C                 | 1321-3RA1000-C        | ✓                               |
| 800  | —    | Light/Normal/Heavy |                                   |                       |                               |                       | ✓                               |
| —    | 1100 | Light              | 1321-3R600-C                      | 1321-3RA600-C         | 1321-3R600-C                  | 1321-3RA600-C         | ✓ <sup>(3)</sup>                |
| 850  | —    |                    | 1321-3R1000-C                     | 1321-3RA1000-C        | 1321-3R1000-C                 | 1321-3RA1000-C        | ✓                               |
| 900  | —    | Light/Normal       | 1321-3R600-C                      | 1321-3RA600-C         | 1321-3R600-C                  | 1321-3RA600-C         | ✓ <sup>(3)</sup>                |
| 1000 | —    | Light              |                                   |                       |                               |                       | ✓ <sup>(3)</sup>                |
| 1100 | —    | Light/Normal       |                                   |                       |                               |                       | ✓ <sup>(4)</sup>                |
| —    | 1200 | Light              |                                   |                       |                               |                       | ✓ <sup>(4)</sup>                |
| 1500 | —    | Light/Normal       |                                   |                       |                               |                       | ✓ <sup>(4)</sup>                |
| —    | 1500 | Light              |                                   |                       |                               |                       | ✓ <sup>(4)</sup>                |

(1) Input line reactors were sized based on the NEC fundamental motor amps. Output line reactors were sized based on the VFD rated output currents.

(2) Only rated for 600V and cannot be used on 690V applications.

(3) Requires two output reactors wired in parallel.

(4) Requires three reactors wired in parallel.

# PowerFlex DC Drive

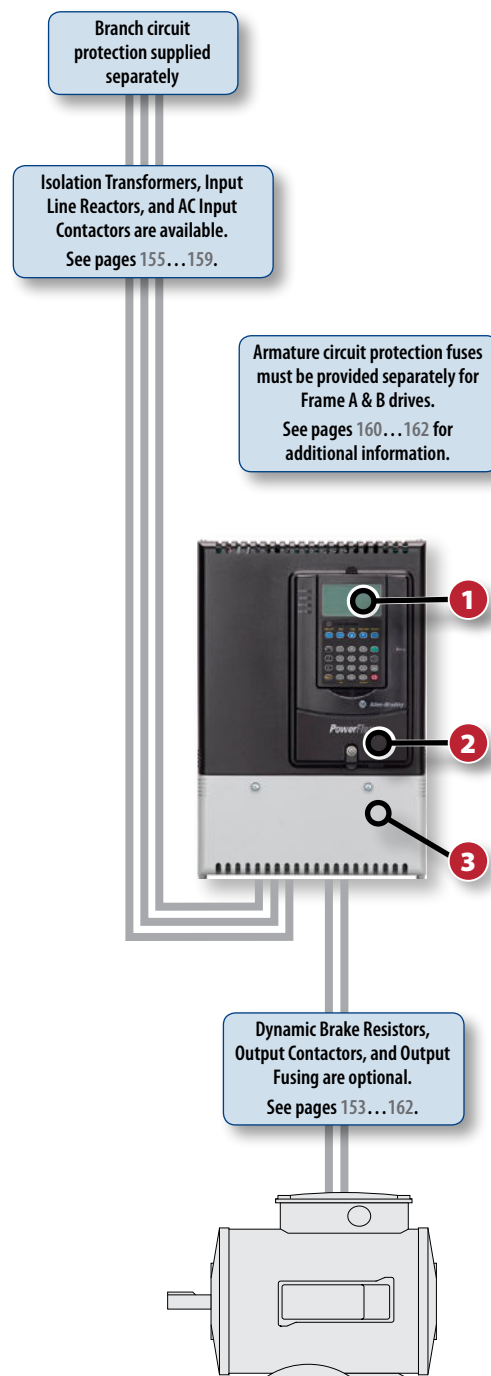
**1.2...1044 kW/1.5...1400 Hp in voltages from 200...690V**

The PowerFlex DC drive combines powerful performance with flexible control to produce a highly functional, cost effective drive and control solution. This drive also offers many features that allow the user to easily configure the drive for most application needs. Drive modules are available in IP20 Open Type enclosures, in both regenerative and non-regenerative configurations. The PowerFlex DC comes standard with an armature converter, regulated field converter for field weakening or economy applications, an advanced regulator with integrated DPI functionality, DC tachometer, and encoder capability.

## PowerFlex DC at a Glance

|                            |                                                                                                                                                                                                          |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Ratings</b>             |                                                                                                                                                                                                          |
| 200...240V                 | 1.2...224 kW / 1.5...300 Hp / 7...1050 A                                                                                                                                                                 |
| 380...480V                 | 1.5...671 kW / 2...900 Hp / 4.1...1494 A                                                                                                                                                                 |
| 500...600V                 | 37...932 kW / 50...1250 Hp / 67.5...1688 A                                                                                                                                                               |
| 690V                       | 298...1044 kW / 400...1400 Hp / 452...1582 A                                                                                                                                                             |
| <b>Motor Control</b>       | <ul style="list-style-type: none"> <li>• Regenerative and Non-regenerative</li> <li>• Field Weakening and Economize</li> </ul>                                                                           |
| <b>Enclosures</b>          | <ul style="list-style-type: none"> <li>• IP20, NEMA/UL Type Open</li> </ul>                                                                                                                              |
| <b>Additional Features</b> | <ul style="list-style-type: none"> <li>• Overload Protection</li> <li>• PID Control (Speed or Torque)</li> <li>• Adaptive Gain, Droop, Feedback Loss Switchover</li> <li>• TorqProve™ Control</li> </ul> |
| <b>Certifications</b>      | <ul style="list-style-type: none"> <li>• c-UL-us</li> <li>• CE</li> <li>• EAC</li> <li>• KCC</li> <li>• RCM</li> <li>• RoHS</li> </ul>                                                                   |
| <b>Options</b>             | See pages 152...162                                                                                                                                                                                      |

- 1** LCD Numeric HIM shown (optional). See page 152 for other options.
- 2** Multiple Communications options for industrial networks are available. See page 152.
- 3** Embedded I/O: 8 digital inputs, 4 digital outputs, 3 analog inputs, 2 analog outputs, and 2 relay outputs. See page 152 for other options.

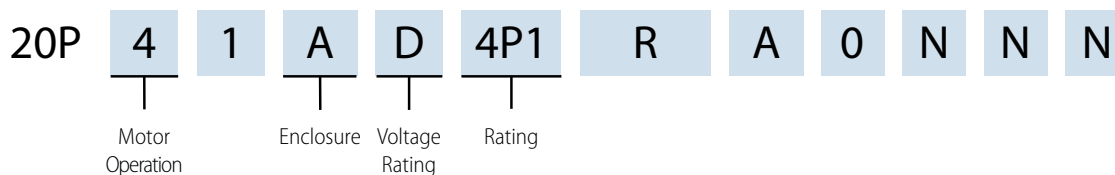


## Additional Information

PowerFlex Digital DC Drive Technical Data, publication [20P-TD001](#)

PowerFlex Digital DC Drive User Manual, publication [20P-UM001](#)

## Catalog Number Explanation



## Product Selection

### IP00/IP20, NEMA/UL Type Open

All drives are rated 150% overload for 60 seconds, 200% for 3 seconds.

#### 200...240V AC, Three-Phase Drives

| Drive Output Rating - 230V AC Input |                |      | Regenerative Drives<br>Cat. No. | Frame<br>Size |
|-------------------------------------|----------------|------|---------------------------------|---------------|
| Normal Duty kW                      | Normal Duty Hp | Amps |                                 |               |
| 1.2                                 | 1.5            | 7    | 20P41AB7P0RA0NNN                | A             |
| 1.5                                 | 2              | 9    | 20P41AB9P0RA0NNN                |               |
| 2.2                                 | 3              | 12   | 20P41AB012RA0NNN                |               |
| 3.7                                 | 5              | 20   | 20P41AB020RA0NNN                |               |
| 5.5                                 | 7.5            | 29   | 20P41AB029RA0NNN                |               |
| 7.5                                 | 10             | 38   | 20P41AB038RA0NNN                |               |
| 11                                  | 15             | 55   | 20P41AB055RA0NNN                |               |
| 15                                  | 20             | 73   | 20P41AB073RA0NNN                |               |
| 18.5                                | 25             | 93   | 20P41AB093RA0NNN                |               |
| 22                                  | 30             | 110  | 20P41AB110RA0NNN                |               |
| 30                                  | 40             | 146  | 20P41AB146RA0NNN                | B             |
| 37                                  | 50             | 180  | 20P41AB180RA0NNN                |               |
| 45                                  | 60             | 218  | 20P41AB218RA0NNN                |               |
| 56                                  | 75             | 265  | 20P41AB265RA0NNN                |               |
| 75                                  | 100            | 360  | 20P41AB360RA0NNN                |               |
| 93                                  | 125            | 434  | 20P41AB434RA0NNN                |               |
| 112                                 | 150            | 521  | 20P41AB521RA0NNN                | C             |
| 149                                 | 200            | 700  | 20P41AB700RA0NNN                |               |
| 186                                 | 250            | 875  | 20P41AB875RA0NNN                | D             |
| 224                                 | 300            | 1050 | 20P41AB1K0RA0NNN                |               |

**380...480V AC, Three-Phase Drives**

| Drive Output Rating - 460V AC Input |                |      | Non-regenerative Drives | Regenerative Drives | Frame Size |
|-------------------------------------|----------------|------|-------------------------|---------------------|------------|
| Normal Duty kW                      | Normal Duty Hp | Amps | Cat. No.                | Cat. No.            |            |
| 1.5                                 | 2              | 4.1  | 20P21AD4P1RA0NNN        | 20P41AD4P1RA0NNN    | A          |
| 2.2                                 | 3              | 6    | 20P21AD6P0RA0NNN        | 20P41AD6P0RA0NNN    |            |
| 3.7                                 | 5              | 10   | 20P21AD010RA0NNN        | 20P41AD010RA0NNN    |            |
| 5.5                                 | 7.5            | 14   | 20P21AD014RA0NNN        | 20P41AD014RA0NNN    |            |
| 7.5                                 | 10             | 19   | 20P21AD019RA0NNN        | 20P41AD019RA0NNN    |            |
| 11                                  | 15             | 27   | 20P21AD027RA0NNN        | 20P41AD027RA0NNN    |            |
| 15                                  | 20             | 35   | 20P21AD035RA0NNN        | 20P41AD035RA0NNN    |            |
| 18.5                                | 25             | 45   | 20P21AD045RA0NNN        | 20P41AD045RA0NNN    |            |
| 22                                  | 30             | 52   | 20P21AD052RA0NNN        | 20P41AD052RA0NNN    |            |
| 30                                  | 40             | 73   | 20P21AD073RA0NNN        | 20P41AD073RA0NNN    |            |
| 37                                  | 50             | 86   | 20P21AD086RA0NNN        | 20P41AD086RA0NNN    |            |
| 45                                  | 60             | 100  | 20P21AD100RA0NNN        | 20P41AD100RA0NNN    |            |
| 56                                  | 75             | 129  | 20P21AD129RA0NNN        | 20P41AD129RA0NNN    |            |
| 75                                  | 100            | 167  | 20P21AD167RA0NNN        | 20P41AD167RA0NNN    | B          |
| 93                                  | 125            | 207  | 20P21AD207RA0NNN        | 20P41AD207RA0NNN    |            |
| 112                                 | 150            | 250  | 20P21AD250RA0NNN        | 20P41AD250RA0NNN    |            |
| 149                                 | 200            | 330  | 20P21AD330RA0NNN        | 20P41AD330RA0NNN    |            |
| 187                                 | 250            | 412  | 20P21AD412RA0NNN        | 20P41AD412RA0NNN    |            |
| 224                                 | 300            | 495  | 20P21AD495RA0NNN        | 20P41AD495RA0NNN    | C          |
| 298                                 | 400            | 667  | 20P21AD667RA0NNN        | 20P41AD667RA0NNN    |            |
| 373                                 | 500            | 830  | 20P21AD830RA0NNN        | 20P41AD830RA0NNN    | D          |
| 447                                 | 600            | 996  | 20P21AD996RA0NNN        | 20P41AD996RA0NNN    |            |
| 552                                 | 700            | 1162 | 20P21AD1K1RA0NNN        | 20P41AD1K1RA0NNN    |            |
| 597                                 | 800            | 1328 | 20P21AD1K3RA0NNN        | 20P41AD1K3RA0NNN    |            |
| 671                                 | 900            | 1494 | 20P21AD1K4RA0NNN        | 20P41AD1K4RA0NNN    |            |

**500...600V AC, Three-Phase Drives**

| Drive Output Rating - 460V AC Input |                |       | Non-regenerative Drives<br>Cat. No. | Regenerative Drives<br>Cat. No. | Frame<br>Size |
|-------------------------------------|----------------|-------|-------------------------------------|---------------------------------|---------------|
| Normal Duty kW                      | Normal Duty Hp | Amps  |                                     |                                 |               |
| 37                                  | 50             | 67.5  | 20P21AE067RA0NNN                    | 20P41AE067RA0NNN                | B             |
| 56                                  | 75             | 101.3 | 20P21AE101RA0NNN                    | 20P41AE101RA0NNN                |               |
| 75                                  | 100            | 135   | 20P21AE135RA0NNN                    | 20P41AE135RA0NNN                |               |
| 149                                 | 200            | 270   | 20P21AE270RA0NNN                    | 20P41AE270RA0NNN                |               |
| 224                                 | 300            | 405   | 20P21AE405RA0NNN                    | 20P41AE405RA0NNN                |               |
| 298                                 | 400            | 540   | 20P21AE540RA0NNN                    | 20P41AE540RA0NNN                | C             |
| 373                                 | 500            | 675   | 20P21AE675RA0NNN                    | 20P41AE675RA0NNN                |               |
| 447                                 | 600            | 810   | 20P21AE810RA0NNN                    | 20P41AE810RA0NNN                | D             |
| 597                                 | 800            | 1080  | 20P21AE1K0RA0NNN                    | 20P41AE1K0RA0NNN                |               |
| 671                                 | 900            | 1215  | 20P21AE1K2RA0NNN                    | 20P41AE1K2RA0NNN                |               |
| 746                                 | 1000           | 1350  | 20P21AE1K3RA0NNN                    | 20P41AE1K3RA0NNN                |               |
| 932                                 | 1250           | 1688  | 20P21AE1K6RA0NNN                    | 20P41AE1K6RA0NNN                |               |

**690V AC, Three-Phase Drives**

| Drive Output Rating - 460V AC Input |                |      | Non-regenerative Drives<br>Cat. No. | Regenerative Drives<br>Cat. No. | Frame<br>Size |
|-------------------------------------|----------------|------|-------------------------------------|---------------------------------|---------------|
| Normal Duty kW                      | Normal Duty Hp | Amps |                                     |                                 |               |
| 298                                 | 400            | 452  | 20P21AF452RA0NNN                    | 20P41AF452RA0NNN                | C             |
| 373                                 | 500            | 565  | 20P21AF565RA0NNN                    | 20P41AF565RA0NNN                |               |
| 447                                 | 600            | 678  | 20P21AF678RA0NNN                    | 20P41AF678RA0NNN                | D             |
| 552                                 | 700            | 791  | 20P21AF791RA0NNN                    | 20P41AF791RA0NNN                |               |
| 597                                 | 800            | 904  | 20P21AF904RA0NNN                    | 20P41AF904RA0NNN                |               |
| 671                                 | 900            | 1017 | 20P21AF1K0RA0NNN                    | 20P41AF1K0RA0NNN                |               |
| 746                                 | 1000           | 1130 | 20P21AF1K1RA0NNN                    | 20P41AF1K1RA0NNN                |               |
| 820                                 | 1100           | 1243 | 20P21AF1K2RA0NNN                    | 20P41AF1K2RA0NNN                |               |
| 932                                 | 1250           | 1413 | 20P21AF1K4RA0NNN                    | 20P41AF1K4RA0NNN                |               |
| 1044                                | 1400           | 1582 | 20P21AF1K5RA0NNN                    | 20P41AF1K5RA0NNN                |               |

# PowerFlex DC Drive Options



Blank Plate



20-HIM-A3



20-HIM-A5



20-HIM-A6



20-HIM-C3S



20-HIM-C5S



20-HIM-C6S

## Human Interface Modules

| Description                                                             | Cat. No.   |
|-------------------------------------------------------------------------|------------|
| No HIM (Blank Plate), Handheld/Local (Drive Mount)                      | 20-HIM-A0  |
| LCD Display, Full Numeric Keypad, Handheld/Local (Drive Mount)          | 20-HIM-A3  |
| LCD Display, Programmer Only, Handheld/Local (Drive Mount)              | 20-HIM-A5  |
| Enhanced, LCD, Full Numeric Keypad, Handheld/Local (Drive Mount)        | 20-HIM-A6  |
| Remote (Panel Mount) LCD Display, Full Numeric Keypad <sup>(1)(2)</sup> | 20-HIM-C3S |
| Remote (Panel Mount) LCD Display, Programmer Only <sup>(1)(2)</sup>     | 20-HIM-C5S |
| Enhanced, LCD, Full Numeric Keypad <sup>(1)(2)</sup>                    | 20-HIM-C6S |

(1) IP66, NEMA Type 4X/12—for indoor use only.

(2) Includes a 1202-C30 interface cable (3 m/9.8 ft) for connection to drive.

## Human Interface Module (HIM) Accessories

| Description                                                | Cat. No.   |
|------------------------------------------------------------|------------|
| Bezel Kit for LCD HIMs, NEMA Type 1 <sup>(1)</sup>         | 20-HIM-B1  |
| PowerFlex HIM Interface Cable, 1 m (3.3 ft) <sup>(2)</sup> | 20-HIM-H10 |
| Cable Kit (Male-Female) <sup>(3)</sup>                     |            |
| 0.33 m (1.1 ft)                                            | 1202-H03   |
| 1 m (3.3 ft)                                               | 1202-H10   |
| 3 m (9.8 ft)                                               | 1202-H30   |
| 9 m (29.5 ft)                                              | 1202-H90   |
| DPI/SCANport™ One to Two Port Splitter Cable               | 1203-S03   |

(1) Includes a 1202-C30 interface cable (3 m/9.8 ft) for connection to drive.

(2) Required only when HIM is used as handheld or remote.

(3) Required in addition to 20-HIM-H10 for distances up to a total maximum of 10 m (32.8 ft).

## Communication Accessories

| Description                                                                           | Cat. No. |
|---------------------------------------------------------------------------------------|----------|
| Universal Serial Bus™ (USB) Converter includes 2m USB, 20-HIM-H10 & 22-HIM-H10 Cables | 1203-USB |

## Communication Option Kits

| Description                                    | Cat. No.         |
|------------------------------------------------|------------------|
| BACnet® MS/TP RS485 Communication Adapter      | 20-COMM-B        |
| ControlNet™ Communication Adapter (Coax)       | 20-COMM-C        |
| DeviceNet™ Communication Adapter               | 20-COMM-D        |
| EtherNet/IP™ Communication Adapter             | 20-COMM-E        |
| Dual port EtherNet/IP™ Communication Adapter   | 20-COMM-ER       |
| HVAC Communication Adapter                     | 20-COMM-H        |
| Modbus/TCP Communication Adapter               | 20-COMM-M        |
| PROFIBUS™ DP Communication Adapter             | 20-COMM-P        |
| ControlNet™ Communication Adapter (Fiber)      | 20-COMM-Q        |
| RS485 DF1 Communication Adapter                | 20-COMM-S        |
| External Communications Kit Power Supply       | 20-XCOMM-AC-PS1  |
| DPI External Communications Kit <sup>(2)</sup> | 20-XCOMM-DC-BASE |
| External DPI I/O Option Board                  | 20-XCOMM-IO-OPT1 |
| Compact I/O Module (3 Channel)                 | 1769-SM1         |

(1) This item has Silver Series status. For information, refer to <http://www.rockwellautomation.com/global/solutions-services/capabilities/migration-solutions/product-search/overview.page>.

(2) For use only with DPI External Communications Kits 20-XCOMM-DC-BASE.

## I/O Option Kits

| Description                                                                          | Cat. No.  |
|--------------------------------------------------------------------------------------|-----------|
| I/O Expansion Board (4 - 24V DC Digital Inputs, 4 Digital Outputs, 2 Analog Outputs) | 20P-SSV62 |
| 115V AC to 24V DC 8 Channel I/O Converter Board (converts 8 Digital Inputs)          | 20P-SS20L |

## Feedback Options

| Description                     | Cat. No.   |
|---------------------------------|------------|
| Resolver Feedback Option Module | 20P-RES-A0 |

## Dynamic Brake Resistors Kits and DC Output Contactors - 230V AC Input Drives

| Frame | Drive Current Rating Code | DC Amps | AC Line Amps | Hp  | Dynamic Brake Resistor Kit Cat. No. | Armature Voltage | Total DB Resistance | DC Loop Contactor Cat. No. <sup>(2)</sup> |                          | DC Contactor Crimp Lugs <sup>(3)</sup> Cat. No. |
|-------|---------------------------|---------|--------------|-----|-------------------------------------|------------------|---------------------|-------------------------------------------|--------------------------|-------------------------------------------------|
|       |                           |         |              |     |                                     | Volts            | Ohms                | Drive without Dynamic Brake               | Drive with Dynamic Brake |                                                 |
| A     | 7P0                       | 7       | 5.7          | 1.5 | 1370-DBL62                          | 240              | 20                  | 1370-NC56                                 | 1370-DC56                | 1370-LG40                                       |
|       | 9P0                       | 9       | 7.4          | 2   | 1370-DBL63                          | 240              | 20                  | 1370-NC56                                 | 1370-DC56                | 1370-LG40                                       |
|       | 012                       | 12      | 9.8          | 3   | 1370-DBL64                          | 240              | 15                  | 1370-NC56                                 | 1370-DC56                | 1370-LG40                                       |
|       | 020                       | 20      | 16           | 5   | 1370-DBL65                          | 240              | 8.6                 | 1370-NC56                                 | 1370-DC56                | 1370-LG40                                       |
|       | 029                       | 29      | 24           | 7.5 | 1370-DBL66                          | 240              | 6                   | 1370-NC56                                 | 1370-DC56                | 1370-LG40                                       |
|       | 038                       | 38      | 31           | 10  | 1370-DBL67                          | 240              | 5                   | 1370-NC56                                 | 1370-DC56                | 1370-LG40                                       |
|       | 055                       | 55      | 45           | 15  | 1370-DBL68                          | 240              | 3.5                 | 1370-NC56                                 | 1370-DC56                | 1370-LG56                                       |
|       | 073                       | 73      | 60           | 20  | 1370-DBL69                          | 240              | 2.6                 | 1370-NC110                                | 1370-DC110               | 1370-LG92                                       |
|       | 093                       | 93      | 76           | 25  | 1370-DBL70                          | 240              | 2                   | 1370-NC110                                | 1370-DC110               | 1370-LG92                                       |
|       | 110                       | 110     | 90           | 30  | 1370-DBL71                          | 240              | 2                   | 1370-NC110                                | 1370-DC110               | 1370-LG110                                      |
| B     | 146                       | 146     | 119          | 40  | 1370-DBL72                          | 240              | 1.4                 | 1370-NC180                                | 1370-DC180               | 1370-LG160                                      |
|       | 180                       | 180     | 147          | 50  | 1370-DBL73                          | 240              | 1.0                 | 1370-NC180                                | 1370-DC180               | 1370-LG180                                      |
|       | 218                       | 218     | 178          | 60  | 1370-DBL74                          | 240              | 1.0                 | 1370-NC280                                | 1370-DC280               | 1370-LG228                                      |
|       | 265                       | 265     | 217          | 75  | 1370-DBL75                          | 240              | 0.67                | 1370-NC280                                | 1370-DC280               | 1370-LG268                                      |
|       | 360                       | 360     | 294          | 100 | 1370-DBL76                          | 240              | 0.47                | (1)                                       | (1)                      | (4)                                             |
|       | 434                       | 434     | 355          | 125 | (1)                                 | 240              | 0.4                 | (1)                                       | (1)                      | (4)                                             |
| C     | 521                       | 521     | 426          | 150 | (1)                                 | 240              | 0.322               | (1)                                       | (1)                      | (4)                                             |
|       | 700                       | 700     | 572          | 200 | (1)                                 | 240              | 0.25                | (1)                                       | (1)                      | (4)                                             |
| D     | 875                       | 875     | 715          | 250 | (1)                                 | 240              | 0.2                 | (1)                                       | (1)                      | (4)                                             |
|       | 1K0                       | 1050    | 858          | 300 | (1)                                 | 240              | 0.2                 | (1)                                       | (1)                      | (4)                                             |

(1) No dynamic brake resistor kit is available for this drive rating—must be sourced locally.

(2) Coil voltage equals 115V AC, 50/60 Hz.

(3) For more information, see the DC Contactor Crimp Lug Kit Specifications in the PowerFlex Digital DC Drive Technical Data, publication [20P-TD001](#).

(4) Wire and lug size are dependent on enclosure dimensions and local codes.

## Dynamic Brake Resistors Kits and DC Output Contactors - 460V AC Input Drives

| Frame | Drive Current Rating Code | DC Amps | AC Line Amps | Hp  | Dynamic Brake Resistor Kit Cat. No. | Armature Voltage | Total DB Resistance | DC Loop Contactor Cat. No. <sup>(2)</sup> |                          | DC Contactor Crimp Lugs <sup>(3)</sup> Cat. No. |
|-------|---------------------------|---------|--------------|-----|-------------------------------------|------------------|---------------------|-------------------------------------------|--------------------------|-------------------------------------------------|
|       |                           |         |              |     |                                     | Volts            | Ohms                | Drive without Dynamic Brake               | Drive with Dynamic Brake |                                                 |
| A     | 4P1                       | 4.1     | 3.3          | 2   | 1370-DBH63                          | 500              | 81                  | 1370-NC56                                 | 1370-DC56                | 1370-LG40                                       |
|       | 6P0                       | 6       | 4.9          | 3   | 1370-DBH64                          | 500              | 62                  | 1370-NC56                                 | 1370-DC56                | 1370-LG40                                       |
|       | 010                       | 10      | 8.2          | 5   | 1370-DBH65                          | 500              | 45                  | 1370-NC56                                 | 1370-DC56                | 1370-LG40                                       |
|       | 014                       | 14      | 11.4         | 7.5 | 1370-DBH66                          | 500              | 27                  | 1370-NC56                                 | 1370-DC56                | 1370-LG40                                       |
|       | 019                       | 19      | 15.5         | 10  | 1370-DBH67                          | 500              | 20                  | 1370-NC56                                 | 1370-DC56                | 1370-LG40                                       |
|       | 027                       | 27      | 22.1         | 15  | 1370-DBH68                          | 500              | 12                  | 1370-NC56                                 | 1370-DC56                | 1370-LG40                                       |
|       | 035                       | 35      | 28.6         | 20  | 1370-DBH69                          | 500              | 10                  | 1370-NC56                                 | 1370-DC56                | 1370-LG40                                       |
|       | 045                       | 45      | 36.8         | 25  | 1370-DBH70                          | 500              | 9                   | 1370-NC56                                 | 1370-DC56                | 1370-LG52                                       |
|       | 052                       | 52      | 42.5         | 30  | 1370-DBH71                          | 500              | 7                   | 1370-NC56                                 | 1370-DC56                | 1370-LG52                                       |
|       | 073                       | 73      | 59.6         | 40  | 1370-DBH72                          | 500              | 5.2                 | 1370-NC110                                | 1370-DC110               | 1370-LG92                                       |
|       | 086                       | 86      | 70.3         | 50  | 1370-DBH73                          | 500              | 4                   | 1370-NC110                                | 1370-DC110               | 1370-LG92                                       |
|       | 100                       | 100     | 81.7         | 60  | 1370-DBH74                          | 500              | 4                   | 1370-NC110                                | 1370-DC110               | 1370-LG110                                      |
|       | 129                       | 129     | 105.4        | 75  | 1370-DBH75                          | 500              | 3                   | 1370-NC180                                | 1370-DC180               | 1370-LG140                                      |
| B     | 167                       | 167     | 136.4        | 100 | 1370-DBH76                          | 500              | 2.1                 | 1370-NC180                                | 1370-DC180               | 1370-LG180                                      |
|       | 207                       | 207     | 169.1        | 125 | 1370-DBH77                          | 500              | 2.1                 | 1370-NC280                                | 1370-DC280               | 1370-LG228                                      |
|       | 250                       | 250     | 204.3        | 150 | 1370-DBH78                          | 500              | 1.5                 | 1370-NC280                                | 1370-DC280               | 1370-LG268                                      |
|       | 330                       | 330     | 269.6        | 200 | 1370-DBH79                          | 500              | 1.05                | (1)                                       | (1)                      | (4)                                             |
|       | 412                       | 412     | 336.6        | 250 | (1)                                 | 500              | 1                   | (1)                                       | (1)                      | (4)                                             |
| C     | 495                       | 495     | 404.4        | 300 | (1)                                 | 500              | 0.8                 | (1)                                       | (1)                      | (4)                                             |
|       | 667                       | 667     | 544.9        | 400 | (1)                                 | 500              | 0.625               | (1)                                       | (1)                      | (4)                                             |
| D     | 800                       | 830     | 678.1        | 500 | (1)                                 | 500              | 0.463               | (1)                                       | (1)                      | (4)                                             |
|       | 960                       | 996     | 813.7        | 600 | (1)                                 | 500              | 0.322               | (1)                                       | (1)                      | (4)                                             |
|       | 1K1                       | 1162    | 949.4        | 700 | (1)                                 | 500              | 0.322               | (1)                                       | (1)                      | (4)                                             |
|       | 1K3                       | 1328    | 1085.0       | 800 | (1)                                 | 500              | 0.255               | (1)                                       | (1)                      | (4)                                             |
|       | 1K4                       | 1494    | 1220.6       | 900 | (1)                                 | 500              | 0.255               | (1)                                       | (1)                      | (4)                                             |

(1) No dynamic brake resistor kit is available for this drive rating—must be sourced locally.

(2) Coil voltage equals 115V AC, 50/60 Hz.

(3) For more information, see the DC Contactor Crimp Lug Kit Specifications in the PowerFlex Digital DC Drive Technical Data, publication [20P-TD001](#).

(4) Wire and lug size are dependent on enclosure dimensions and local codes.

## AC Input Line Reactors and Contactors - 230V AC Input Drives

An AC contactor is not required if a DC contactor is used in the armature circuit.

| Drive Cat. No.   | DC Amps | AC Line Amps | Hp  | IP00 (Open Style)<br>Line Reactor Cat. No. | Line Reactor kW (Hp) | AC Input Contactor<br>Cat. No. |
|------------------|---------|--------------|-----|--------------------------------------------|----------------------|--------------------------------|
| Regenerative     |         |              |     |                                            |                      |                                |
| 20P41AB7P0RA0NNN | 7       | 5.7          | 1.5 | 1321-3R8-A                                 | 0.75 (1)             | 100-C12D10                     |
| 20P41AB9P0RA0NNN | 9       | 7.4          | 2   | 1321-3R12-A                                | 1.49 (2)             | 100-C12D10                     |
| 20P41AB012RA0NNN | 12      | 9.8          | 3   | 1321-3R18-A                                | 0.75...3.7 (1...5)   | 100-C12D10                     |
| 20P41AB020RA0NNN | 20      | 16           | 5   | 1321-3R18-A                                | 0.75...3.7 (1...5)   | 100-C23D10                     |
| 20P41AB029RA0NNN | 29      | 24           | 7.5 | 1321-3R55-A                                | 5.5...11 (7.5...15)  | 100-C30D10                     |
| 20P41AB038RA0NNN | 38      | 31           | 10  | 1321-3R55-A                                | 5.5...11 (7.5...15)  | 100-C37D10                     |
| 20P41AB055RA0NNN | 55      | 45           | 15  | 1321-3R55-A                                | 5.5...11 (7.5...15)  | 100-C60D10                     |
| 20P41AB073RA0NNN | 73      | 60           | 20  | 1321-3R80-A                                | 15 (20)              | 100-C60D10                     |
| 20P41AB093RA0NNN | 93      | 76           | 25  | 1321-3R100-A                               | 18.5...22 (25...30)  | 100-C85D10                     |
| 20P41AB110RA0NNN | 110     | 90           | 30  | 1321-3R100-A                               | 18.5...22 (25...30)  | 100-D110D11                    |
| 20P41AB146RA0NNN | 146     | 119          | 40  | 1321-3R160-A                               | 30...37 (40...50)    | 100-D140D11                    |
| 20P41AB180RA0NNN | 180     | 147          | 50  | 1321-3R160-A                               | 30...37 (40...50)    | 100-D180D11                    |
| 20P41AB218RA0NNN | 218     | 178          | 60  | 1321-3RB250-A                              | 45...56 (60...75)    | 100-D180D11                    |
| 20P41AB265RA0NNN | 265     | 217          | 75  | 1321-3RB250-A                              | 45...56 (60...75)    | 100-D250ED11                   |
| 20P41AB360RA0NNN | 360     | 294          | 100 | 1321-3RB320-A                              | 75 (100)             | 100-D300ED11                   |
| 20P41AB434RA0NNN | 434     | 355          | 125 | 1321-3RB400-A                              | 93 (125)             | 100-D420ED11                   |
| 20P41AB521RA0NNN | 521     | 426          | 150 | 1321-3R500-A                               | 112 (150)            | 100-D630ED11                   |
| 20P41AB700RA0NNN | 700     | 572          | 200 | 1321-3R600-A                               | 149 (200)            | 100-D630ED11                   |
| 20P41AB875RA0NNN | 875     | 715          | 250 | 1321-3R750-A                               | 186 (250)            | 100-D860ED11                   |
| 20P41AB1K0RA0NNN | 1050    | 858          | 300 | 1321-3R850-A                               | 224 (300)            | 100-D860ED11                   |

## AC Input Line Reactors and Contactors - 460V AC Input Drives

| Drive Cat. No.   |                  | DC Amps | AC Line Amps | Hp  | IP00 (Open Style)<br>Line Reactor Cat. No. | Line Reactor<br>kW (Hp) | AC Input Contactor<br>Cat. No. |
|------------------|------------------|---------|--------------|-----|--------------------------------------------|-------------------------|--------------------------------|
| Non-Regenerative | Regenerative     |         |              |     |                                            |                         |                                |
| 20P21AD4P1RA0NNN | 20P41AD4P1RA0NNN | 4.1     | 3.3          | 2   | 1321-3R4-A                                 | 0.55 (0.75)             | 100-C12D10                     |
| 20P21AD6P0RA0NNN | 20P41AD6P0RA0NNN | 6       | 4.9          | 3   | 1321-3R8-A                                 | 0.75 (1)                | 100-C12D10                     |
| 20P21AD010RA0NNN | 20P41AD010RA0NNN | 10      | 8.2          | 5   | 1321-3R18-B                                | 1.5...7.5 (2...10)      | 100-C12D10                     |
| 20P21AD014RA0NNN | 20P41AD014RA0NNN | 14      | 11.4         | 7.5 | 1321-3R18-B                                | 1.5...7.5 (2...10)      | 100-C12D10                     |
| 20P21AD019RA0NNN | 20P41AD019RA0NNN | 19      | 15.5         | 10  | 1321-3R18-B                                | 1.5...7.5 (2...10)      | 100-C23D10                     |
| 20P21AD027RA0NNN | 20P41AD027RA0NNN | 27      | 22.1         | 15  | 1321-3R55-B                                | 11...22 (15...30)       | 100-C23D10                     |
| 20P21AD035RA0NNN | 20P41AD035RA0NNN | 35      | 28.6         | 20  | 1321-3R55-B                                | 11...22 (15...30)       | 100-C30D10                     |
| 20P21AD045RA0NNN | 20P41AD045RA0NNN | 45      | 36.8         | 25  | 1321-3R55-B                                | 11...22 (15...30)       | 100-C37D10                     |
| 20P21AD052RA0NNN | 20P41AD052RA0NNN | 52      | 42.5         | 30  | 1321-3R55-B                                | 11...22 (15...30)       | 100-C43D10                     |
| 20P21AD073RA0NNN | 20P41AD073RA0NNN | 73      | 59.6         | 40  | 1321-3R80-B                                | 30 (40)                 | 100-C60D10                     |
| 20P21AD086RA0NNN | 20P41AD086RA0NNN | 86      | 70.3         | 50  | 1321-3R100-B                               | 37...45 (50...60)       | 100-C85D10                     |
| 20P21AD100RA0NNN | 20P41AD100RA0NNN | 100     | 81.7         | 60  | 1321-3R100-B                               | 37...45 (50...60)       | 100-C85D10                     |
| 20P21AD129RA0NNN | 20P41AD129RA0NNN | 129     | 105.4        | 75  | 1321-3R160-B                               | 56...75 (75...100)      | 100-D110D11                    |
| 20P21AD167RA0NNN | 20P41AD167RA0NNN | 167     | 136.4        | 100 | 1321-3R160-B                               | 56...75 (75...100)      | 100-D140D11                    |
| 20P21AD207RA0NNN | 20P41AD207RA0NNN | 207     | 169.1        | 125 | 1321-3RB250-B                              | 93...112 (125...150)    | 100-D180D11                    |
| 20P21AD250RA0NNN | 20P41AD250RA0NNN | 250     | 204.3        | 150 | 1321-3RB250-B                              | 93...112 (125...150)    | 100-D210ED11                   |
| 20P21AD330RA0NNN | 20P41AD330RA0NNN | 330     | 269.6        | 200 | 1321-3RB320-B                              | 149 (200)               | 100-D300ED11                   |
| 20P21AD412RA0NNN | 20P41AD412RA0NNN | 412     | 336.6        | 250 | 1321-3RB400-B                              | 186.4 (250)             | 100-D420ED11                   |
| 20P21AD495RA0NNN | 20P41AD495RA0NNN | 495     | 404.4        | 300 | 1321-3R500-B                               | 223.7 (300)             | 100-D420ED11                   |
| 20P21AD667RA0NNN | 20P41AD667RA0NNN | 667     | 544.9        | 400 | 1321-3R600-B                               | 298.3 (400)             | 100-D630ED11                   |
| 20P21AD830RA0NNN | 20P41AD830RA0NNN | 830     | 678.1        | 500 | 1321-3R750-B                               | 372.8 (500)             | 100-D860ED11                   |
| 20P21AD996RA0NNN | 20P41AD996RA0NNN | 996     | 813.7        | 600 | 1321-3R850-B                               | 447.4 (600)             | 100-D860ED11                   |
| 20P21AD1K1RA0NNN | 20P41AD1K1RA0NNN | 1162    | 949.4        | 700 | 1321-3R1000-B                              | 552 (700)               | 100-G860KD22                   |
| 20P21AD1K3RA0NNN | 20P41AD1K3RA0NNN | 1328    | 1085.0       | 800 | 2 x1321-3R600-B                            | 596.6 (800)             | 100-G860KD22                   |
| 20P21AD1K4RA0NNN | 20P41AD1K4RA0NNN | 1494    | 1220.6       | 900 | 2 x1321-3R600-B                            | 671.1 (900)             | 100-G1200KD12                  |

**AC Input Line Reactors and Contactors - 575V AC Input Drives**

| Drive Cat. No.   |                  | DC Amps | AC Line Amps | Hp   | IP00 (Open Style)<br>Line Reactor Cat. No. | Line Reactor<br>kW (Hp) | AC Input Contactor<br>Cat. No. |
|------------------|------------------|---------|--------------|------|--------------------------------------------|-------------------------|--------------------------------|
| Non-Regenerative | Regenerative     |         |              |      |                                            |                         |                                |
| 20P21AE067RA0NNN | 20P41AE067RA0NNN | 67.5    | 55.1         | 50   | 1321-3R55-B                                | 37 (50)                 | 100-C60D10                     |
| 20P21AE101RA0NNN | 20P41AE101RA0NNN | 101.25  | 82.7         | 75   | 1321-3R100-B                               | 56 (75)                 | 100-C85D10                     |
| 20P21AE135RA0NNN | 20P41AE135RA0NNN | 135     | 110.3        | 100  | 1321-3R130-B                               | 75 (100)                | 100-D110D11                    |
| 20P21AE270RA0NNN | 20P41AE270RA0NNN | 270     | 220.6        | 200  | 1321-3RB250-B                              | 149 (200)               | 100-D250ED11                   |
| 20P21AE405RA0NNN | 20P41AE405RA0NNN | 405     | 330.9        | 300  | 1321-3RB320-B                              | 224 (300)               | 100-D420ED11                   |
| 20P21AE540RA0NNN | 20P41AE540RA0NNN | 540     | 441.2        | 400  | 1321-3RB500-B                              | 298 (400)               | 100-D630ED11                   |
| 20P21AE675RA0NNN | 20P41AE675RA0NNN | 675     | 551.5        | 500  | 1321-3R600-B                               | 373 (500)               | 100-D630ED11                   |
| 20P21AE810RA0NNN | 20P41AE810RA0NNN | 810     | 661.8        | 600  | 1321-3R750-B                               | 447 (600)               | 100-D860ED11                   |
| 20P21AE1K0RA0NNN | 20P41AE1K0RA0NNN | 1080    | 882.4        | 800  | 1321-3R1000-B                              | 597 (800)               | 100-G700KD22                   |
| 20P21AE1K2RA0NNN | 20P41AE1K2RA0NNN | 1215    | 992.7        | 900  | 1321-3R1000-B                              | 671 (900)               | 100-G860KD22                   |
| 20P21AE1K3RA0NNN | 20P41AE1K3RA0NNN | 1350    | 1103.0       | 1000 | 2 x 1321-3R600-B                           | 746 (1000)              | 100-G1000KD12                  |
| 20P21AE1K6RA0NNN | 20P41AE1K6RA0NNN | 1687.5  | 1378.7       | 1250 | 2 X 1321-3R750-B                           | —                       | (1)                            |

(1) No AC input contactor is available for this drive rating—must be sourced locally.

**AC Input Line Reactors and Contactors - 690V AC Input Drives**

| Drive Cat. No.   |                  | DC Amps | AC Line Amps | Hp   | IP00 (Open Style)<br>Line Reactor Cat. No. | Line Reactor<br>kW (Hp) | AC Input Contactor<br>Cat. No. |
|------------------|------------------|---------|--------------|------|--------------------------------------------|-------------------------|--------------------------------|
| Non-Regenerative | Regenerative     |         |              |      |                                            |                         |                                |
| 20P21AF452RA0NNN | 20P41AF452RA0NNN | 452     | 369          | 400  | 1321-3RB500-C                              | —                       | 100-D420ED11                   |
| 20P21AF565RA0NNN | 20P41AF565RA0NNN | 565     | 462          | 500  | 1321-3RB600-C                              |                         | 100-D630ED11                   |
| 20P21AF678RA0NNN | 20P41AF678RA0NNN | 678     | 554          | 600  | 1321-3R750-C                               |                         | 100-D630ED11                   |
| 20P21AF791RA0NNN | 20P41AF791RA0NNN | 791     | 646          | 700  | 1321-3R750-C                               |                         | 100-D860ED11                   |
| 20P21AF904RA0NNN | 20P41AF904RA0NNN | 904     | 739          | 800  | 1321-3R1000-C                              |                         | 100-D860ED11                   |
| 20P21AF1K0RA0NNN | 20P41AF1K0RA0NNN | 1017    | 831          | 900  | 1321-3R1000-C                              |                         | 100-D860ED11                   |
| 20P21AF1K1RA0NNN | 20P41AF1K1RA0NNN | 1130    | 923          | 1000 | 2 X 1321-3R600-C                           |                         | 100-G700KD22                   |
| 20P21AF1K2RA0NNN | 20P41AF1K2RA0NNN | 1243    | 1016         | 1100 | 2 X 1321-3R600-C                           |                         | 100-G860KD22                   |
| 20P21AF1K4RA0NNN | 20P41AF1K4RA0NNN | 1412.5  | 1154         | 1250 | 2 X 1321-3R750-C                           |                         | 100-G1200KD12                  |
| 20P21AF1K5RA0NNN | 20P41AF1K5RA0NNN | 1582    | 1292         | 1400 | 2 X 1321-3R750-C                           |                         | 100-G1200KD12                  |

### Isolation Transformers - IP32, NEMA / UL Type 3R Standalone, 4...6% Nominal Impedance

Isolation transformers are available for installations that have specific types of AC supply configurations or require drive protection due to AC line disturbances.

| Three-Phase Primary |                        |         | Three-Phase Secondary   |                         |                         |
|---------------------|------------------------|---------|-------------------------|-------------------------|-------------------------|
| kVA                 | Kw (Hp)                | Voltage | 230V Secondary Cat. No. | 460V Secondary Cat. No. | 575V Secondary Cat. No. |
| 5                   | 1.2...2.2<br>(1.5...3) | 230     | 1321-3TW005-AA          | 1321-3TW005-AB          | —                       |
|                     |                        | 460     | 1321-3TW005-BA          | 1321-3TW005-BB          |                         |
|                     |                        | 575     | 1321-3TW005-CA          | 1321-3TW005-CB          |                         |
| 40                  | 22 (30)                | 230     | 1321-3TW040-AA          | 1321-3TW040-AB          |                         |
|                     |                        | 460     | 1321-3TW040-BA          | 1321-3TW040-BB          |                         |
|                     |                        | 575     | 1321-3TW040-CA          | 1321-3TW040-CB          |                         |
| 51                  | 30 (40)                | 230     | 1321-3TW051-AA          | 1321-3TW051-AB          |                         |
|                     |                        | 460     | 1321-3TW051-BA          | 1321-3TW051-BB          |                         |
|                     |                        | 575     | 1321-3TW051-CA          | 1321-3TW051-CB          |                         |
| 63                  | 37 (50)                | 230     | 1321-3TH063-AA          | 1321-3TH063-AB          | 1321-3TH063-AC          |
|                     |                        | 460     | 1321-3TH063-BA          | 1321-3TH063-BB          | 1321-3TH063-BC          |
|                     |                        | 575     | 1321-3TH063-CA          | 1321-3TH063-CB          | 1321-3TH063-CC          |
| 75                  | 45 (60)                | 230     | 1321-3TH075-AA          | 1321-3TH075-AB          | 1321-3TH075-AC          |
|                     |                        | 460     | 1321-3TH075-BA          | 1321-3TH075-BB          | 1321-3TH075-BC          |
|                     |                        | 575     | 1321-3TH075-CA          | 1321-3TH075-CB          | 1321-3TH075-CC          |
| 93                  | 56 (75)                | 230     | 1321-3TH093-AA          | 1321-3TH093-AB          | 1321-3TH093-AC          |
|                     |                        | 460     | 1321-3TH093-BA          | 1321-3TH093-BB          | 1321-3TH093-BC          |
|                     |                        | 575     | 1321-3TH093-CA          | 1321-3TH093-CB          | 1321-3TH093-CC          |
| 118                 | 75 (100)               | 230     | 1321-3TH118-AA          | 1321-3TH118-AB          | 1321-3TH118-AC          |
|                     |                        | 460     | 1321-3TH118-BA          | 1321-3TH118-BB          | 1321-3TH118-BC          |
|                     |                        | 575     | 1321-3TH118-CA          | 1321-3TH118-CB          | 1321-3TH118-CC          |
| 145                 | 93 (125)               | 230     | 1321-3TH145-AA          | 1321-3TH145-AB          | 1321-3TH145-AC          |
|                     |                        | 460     | 1321-3TH145-BA          | 1321-3TH145-BB          | 1321-3TH145-BC          |
|                     |                        | 575     | 1321-3TH145-CA          | 1321-3TH145-CB          | 1321-3TH145-CC          |
| 175                 | 112 (150)              | 230     | 1321-3TH175-AA          | 1321-3TH175-AB          | 1321-3TH175-AC          |
|                     |                        | 460     | 1321-3TH175-BA          | 1321-3TH175-BB          | 1321-3TH175-BC          |
|                     |                        | 575     | 1321-3TH175-CA          | 1321-3TH175-CB          | 1321-3TH175-CC          |
| 220                 | 145 (200)              | 230     | 1321-3TH220-AA          | 1321-3TH220-AB          | 1321-3TH220-AC          |
|                     |                        | 460     | 1321-3TH220-BA          | 1321-3TH220-BB          | 1321-3TH220-BC          |
|                     |                        | 575     | 1321-3TH220-CA          | 1321-3TH220-CB          | 1321-3TH220-CC          |
| 275                 | 187 (250)              | 230     | 1321-3TH275-AA          | 1321-3TH275-AB          | 1321-3TH275-AC          |
|                     |                        | 460     | 1321-3TH275-BA          | 1321-3TH275-BB          | 1321-3TH275-BC          |
|                     |                        | 575     | 1321-3TH275-CA          | 1321-3TH275-CB          | 1321-3TH275-CC          |
| 330                 | 224 (300)              | 230     | 1321-3TH330-AA          | 1321-3TH330-AB          | 1321-3TH330-AC          |
|                     |                        | 460     | 1321-3TH330-BA          | 1321-3TH330-BB          | 1321-3TH330-BC          |
|                     |                        | 575     | 1321-3TH330-CA          | 1321-3TH330-CB          | 1321-3TH330-CC          |

(table continues on next page)

**Isolation Transformers - IP32, NEMA / UL Type 3R Standalone, 4...6% Nominal Impedance (continued)**

| Three-Phase Primary |           |         | Three-Phase Secondary   |                         |                         |
|---------------------|-----------|---------|-------------------------|-------------------------|-------------------------|
| kVA                 | Kw (Hp)   | Voltage | 230V Secondary Cat. No. | 460V Secondary Cat. No. | 575V Secondary Cat. No. |
| 440                 | 298 (400) | 230     | —                       | 1321-3TH440-AB          | 1321-3TH440-AC          |
|                     |           | 460     |                         | 1321-3TH440-BB          | 1321-3TH440-BC          |
|                     |           | 575     |                         | 1321-3TH440-CB          | 1321-3TH440-CC          |
| 550                 | 373 (500) | 230     |                         | 1321-3TH550-AB          | 1321-3TH550-AC          |
|                     |           | 460     |                         | 1321-3TH550-BB          | 1321-3TH550-BC          |
|                     |           | 575     |                         | 1321-3TH550-CB          | 1321-3TH550-CC          |
| 660                 | 448 (600) | 230     |                         | 1321-3TH660-AB          | 1321-3TH660-AC          |
|                     |           | 460     |                         | 1321-3TH660-BB          | 1321-3TH660-BC          |
|                     |           | 575     |                         | 1321-3TH660-CB          | 1321-3TH660-CC          |
| 770                 | 522 (700) | 230     |                         | 1321-3TH770-AB          | 1321-3TH770-AC          |
|                     |           | 460     |                         | 1321-3TH770-BB          | 1321-3TH770-BC          |
|                     |           | 575     |                         | 1321-3TH770-CB          | 1321-3TH770-CC          |
| 880                 | 597 (800) | 230     |                         | 1321-3TH880-AB          | 1321-3TH880-AC          |
|                     |           | 460     |                         | 1321-3TH880-BB          | 1321-3TH880-BC          |
|                     |           | 575     |                         | 1321-3TH880-CB          | 1321-3TH880-CC          |

**Frame D Terminal Adapter Kits**

The following frame D drives require the listed terminal adapter kits in order to meet UL installation requirements.

| Voltage Class | Drive Current Rating Code | U, V, W Terminal Adapter Kit | C, D Terminal Adapter Kit |
|---------------|---------------------------|------------------------------|---------------------------|
| 230           | 1K0                       | SK-20P-S726172               | —                         |
| 460           | 1K1                       | SK-20P-S726171               |                           |
|               | 1K3                       |                              |                           |
|               | 1K4                       |                              |                           |
| 575           | 1K0                       | SK-20P-S726172               | SK-20P-S726173            |
|               | 1K2                       | SK-20P-S726171               |                           |
|               | 1K3                       |                              |                           |
|               | 1K6                       |                              |                           |
| 690           | 1K0                       | SK-20P-S726172               | —                         |
|               | 1K1                       | SK-20P-S726171               |                           |
|               | 1K2                       |                              |                           |
|               | 1K4                       |                              |                           |
|               | 1K5                       |                              |                           |

### Frame A and Frame B AC Input Line Fuses - 230V AC Input Drives

| Frame | Drive Current Rating Code | DC Amps | AC Line Amps | Bussmann         |                         | Mersen             |                                |
|-------|---------------------------|---------|--------------|------------------|-------------------------|--------------------|--------------------------------|
|       |                           |         |              | Ferrule FWP Type | North American FWP Type | Ferrule A70QS Type | North American A70P/A70QS Type |
| A     | 7P0                       | 7       | 5.7          | FWP-10A14F       | FWP-10B                 | A70QS10-14F        | A70P10-4                       |
|       | 9P0                       | 9       | 7.4          | FWP-15A14F       | FWP-15B                 | A70QS16-14F        | A70P15-4                       |
|       | 012                       | 12      | 9.8          | FWP-20A14F       | FWP-20B                 | A70QS20-14F        | A70P20-4                       |
|       | 020                       | 20      | 16           | FWP-25A14F       | FWP-25B                 | A70QS25-14F        | A70P25-4                       |
|       | 029                       | 29      | 24           | FWP-40A22F       | FWP-40B                 | A70QS40-22F        | A70QS40-4                      |
|       | 038                       | 38      | 31           | FWP-63A22F       | FWP-60B                 | A70QS63-22F        | A70QS60-4                      |
|       | 055                       | 55      | 45           | FWP-80A22F       | FWP-80B                 | A70QS80-22F        | A70QS80-4                      |
|       | 073                       | 73      | 60           | —                | FWP-100A                | —                  | A70QS100-4K                    |
|       | 093                       | 93      | 76           |                  | FWP-150A                |                    | A70QS150-4K                    |
|       | 110                       | 110     | 90           |                  | FWP-175A                |                    | A70QS175-4K                    |
| B     | 146                       | 146     | 119          |                  | FWP-250A                |                    | A70QS250-4                     |
|       | 180                       | 180     | 147          |                  | FWP-300A                |                    | A70QS300-4                     |
|       | 218                       | 218     | 178          |                  | FWP-350A                |                    | A70QS350-4                     |
|       | 265                       | 265     | 217          |                  | FWP-400A                |                    | A70QS400-4                     |
|       | 360                       | 360     | 294          |                  | FWP-600A                |                    | A70QS600-4K                    |
|       | 434                       | 434     | 355          |                  | FWP-600A                |                    | A70QS600-4                     |

### Frame A and Frame B AC Input Line Fuses - 460V AC Input Drives

| Frame | Drive Current Rating Code | DC Amps | AC Line Amps | Bussmann         |                         | Mersen             |                                |
|-------|---------------------------|---------|--------------|------------------|-------------------------|--------------------|--------------------------------|
|       |                           |         |              | Ferrule FWP Type | North American FWP Type | Ferrule A70QS Type | North American A70P/A70QS Type |
| A     | 4P1                       | 4.1     | 3.3          | FWP-10A14F       | FWP-10B                 | A70QS10-14F        | A70P10-4                       |
|       | 6P0                       | 6       | 4.9          | FWP-10A14F       | FWP-10B                 | A70QS10-14F        | A70P10-4                       |
|       | 010                       | 10      | 8.2          | FWP-20A14F       | FWP-20B                 | A70QS20-14F        | A70P25-4                       |
|       | 014                       | 14      | 11.4         | FWP-25A14F       | FWP-25B                 | A70QS25-14F        | A70P25-4                       |
|       | 019                       | 19      | 15.5         | FWP-25A14F       | FWP-25B                 | A70QS25-14F        | A70P25-4                       |
|       | 027                       | 27      | 22.1         | FWP-40A22F       | FWP-40B                 | A70QS40-22F        | A70QS40-4                      |
|       | 035                       | 35      | 28.6         | FWP-63A22F       | FWP-60B                 | A70QS63-22F        | A70QS60-4                      |
|       | 045                       | 45      | 36.8         | FWP-80A22F       | FWP-80B                 | A70QS80-22F        | A70QS80-4                      |
|       | 052                       | 52      | 42.5         | FWP-80A22F       | FWP-80B                 | A70QS80-22F        | A70QS80-4                      |
|       | 073                       | 73      | 59.6         | —                | FWP-100A                | —                  | A70QS100-4K                    |
|       | 086                       | 86      | 70.3         |                  | FWP-150A                |                    | A70QS150-4K                    |
|       | 100                       | 100     | 81.7         |                  | FWP-175A                |                    | A70QS175-4K                    |
|       | 129                       | 129     | 105.4        |                  | FWP-175A                |                    | A70QS175-4K                    |
| B     | 167                       | 167     | 136.4        |                  | FWP-300A                |                    | A70QS300-4                     |
|       | 207                       | 207     | 169.1        |                  | FWP-350A                |                    | A70QS350-4                     |
|       | 250                       | 250     | 204.3        |                  | FWP-400A                |                    | A70QS400-4                     |
|       | 330                       | 330     | 269.6        |                  | FWP-600A                |                    | A70QS600-4K                    |
|       | 412                       | 412     | 336.6        |                  | FWP-600A                |                    | A70QS600-4                     |

**Frame B AC Input Line Fuses - 575V AC Input Drives**

| Frame | Drive Current Rating Code | DC Amps | AC Line Amps | Bussmann         |                         | Mersen             |                                |
|-------|---------------------------|---------|--------------|------------------|-------------------------|--------------------|--------------------------------|
|       |                           |         |              | Ferrule FWP Type | North American FWP Type | Ferrule A70QS Type | North American A70P/A70QS Type |
| B     | 067                       | 67.5    | 55.1         | —                | FWP-100A                | —                  | A70QS100-4                     |
|       | 101                       | 101.3   | 82.7         |                  | FWP-175A                |                    | A70QS175-4K                    |
|       | 135                       | 135     | 110.3        |                  | FWP-225A                |                    | A70QS225-4                     |
|       | 270                       | 270     | 220.6        |                  | FWP-450A                |                    | A70QS450-4                     |
|       | 405                       | 405     | 330.9        |                  | FWP-600A                |                    | A70QS600-4K                    |

**Frame A and Frame B Armature DC Output Fuses - 230V AC Input Drives**

| Frame | Drive Current Rating Code | DC Amps | AC Line Amps | Bussmann         |                         | Mersen             |                                |
|-------|---------------------------|---------|--------------|------------------|-------------------------|--------------------|--------------------------------|
|       |                           |         |              | Ferrule FWP Type | North American FWP Type | Ferrule A70QS Type | North American A70P/A70QS Type |
| A     | 7P0                       | 7       | 5.7          | FWP-15A14F       | FWP-15B                 | A70QS16-14F        | A70P15-4                       |
|       | 9P0                       | 9       | 7.4          | FWP-20A14F       | FWP-20B                 | A70QS20-14F        | A70P20-4                       |
|       | 012                       | 12      | 9.8          | FWP-25A14F       | FWP-25B                 | A70QS25-14F        | A70P25-4                       |
|       | 020                       | 20      | 16           | FWP-40A14F       | FWP-40B                 | A70QS40-14F        | A70QS40-4                      |
|       | 029                       | 29      | 24           | FWP-63A22F       | FWP-60B                 | A70QS63-22F        | A70QS60-4                      |
|       | 038                       | 38      | 31           | FWP-80A22F       | FWP-80B                 | A70QS80-22F        | A70QS80-4                      |
|       | 055                       | 55      | 45           | —                | FWP-125A                | —                  | A70QS125-4K                    |
|       | 073                       | 73      | 60           |                  | FWP-150A                |                    | A70QS150-4K                    |
|       | 093                       | 93      | 76           |                  | FWP-200A                |                    | A70QS200-4K                    |
|       | 110                       | 110     | 90           |                  | FWP-225A                |                    | A70QS250-4                     |
| B     | 146                       | 146     | 119          |                  | FWP-300A                |                    | A70QS300-4                     |
|       | 180                       | 180     | 147          |                  | FWP-350A                |                    | A70QS350-4                     |
|       | 218                       | 218     | 178          |                  | FWP-450A                |                    | A70QS450-4                     |
|       | 265                       | 265     | 217          |                  | FWP-600A                |                    | A70QS600-4K                    |
|       | 360                       | 360     | 294          |                  | FWP-700A                |                    | A70QS700-4                     |
|       | 434                       | 434     | 355          |                  | FWP-900A                |                    | A70P900-4                      |

### Frame A and Frame B Armature DC Output Fuses - 460V AC Input Drives

| Frame | Drive Current Rating Code | DC Amps | AC Line Amps | Bussmann         |                         | Mersen             |                                |
|-------|---------------------------|---------|--------------|------------------|-------------------------|--------------------|--------------------------------|
|       |                           |         |              | Ferrule FWP Type | North American FWP Type | Ferrule A70QS Type | North American A70P/A70QS Type |
| A     | 4P1                       | 4.1     | 3.3          | FWP-10A14F       | FWP-10B                 | A70QS10-14F        | A70P10-4                       |
|       | 6P0                       | 6       | 4.9          | FWP-15A14F       | FWP-15B                 | A70QS16-14F        | A70P15-4                       |
|       | 010                       | 10      | 8.2          | FWP-20A14F       | FWP-20B                 | A70QS20-14F        | A70P20-4                       |
|       | 014                       | 14      | 11.4         | FWP-30A14F       | FWP-30B                 | A70QS32-14F        | A70P30-4                       |
|       | 019                       | 19      | 15.5         | FWP-40A14F       | FWP-40B                 | A70QS40-14F        | A70QS40-4                      |
|       | 027                       | 27      | 22.1         | FWP-63A22F       | FWP-60B                 | A70QS63-22F        | A70QS60-4                      |
|       | 035                       | 35      | 28.6         | FWP-80A22F       | FWP-70B                 | A70QS80-22F        | A70QS70-4                      |
|       | 045                       | 45      | 36.8         | FWP-100A22F      | FWP-90B                 | —                  | A70QS90-4                      |
|       | 052                       | 52      | 42.5         | FWP-100A22F      | FWP-100B                |                    | A70QS100-4                     |
|       | 073                       | 73      | 59.6         | —                | FWP-150A                |                    | A70QS150-4K                    |
|       | 086                       | 86      | 70.3         |                  | FWP-175A                |                    | A70QS175-4K                    |
|       | 100                       | 100     | 81.7         |                  | FWP-200A                |                    | A70QS200-4K                    |
|       | 129                       | 129     | 105.4        |                  | FWP-250A                |                    | A70QS250-4                     |
| B     | 167                       | 167     | 136.4        |                  | FWP-350A                |                    | A70QS350-4                     |
|       | 207                       | 207     | 169.1        |                  | FWP-400A                |                    | A70QS400-4                     |
|       | 250                       | 250     | 204.3        |                  | FWP-500A                |                    | A70QS500-4K                    |
|       | 330                       | 330     | 269.6        |                  | FWP-700A                |                    | A70QS700-4                     |
|       | 412                       | 412     | 336.6        |                  | FWP-800A                |                    | A70QS800-4                     |

### Frame B Armature DC Output Fuses - 575V AC Input Drives

| Frame | Drive Current Rating Code | DC Amps | AC Line Amps | Bussmann         |                         | Mersen             |                                |
|-------|---------------------------|---------|--------------|------------------|-------------------------|--------------------|--------------------------------|
|       |                           |         |              | Ferrule FWP Type | North American FWP Type | Ferrule A70QS Type | North American A70P/A70QS Type |
| B     | 067                       | 67.5    | 55.1         | FWP-125A         | A70QS125-4K             | —                  | A70QS100-4                     |
|       | 101                       | 101.3   | 82.7         | FWP-200A         | A70QS200-4K             |                    | A70QS175-4K                    |
|       | 135                       | 135     | 110.3        | FWP-250A         | A70QS250-4              |                    | A70QS225-4                     |
|       | 270                       | 270     | 220.6        | FWP-600A         | A70QS600-4K             |                    | A70QS450-4                     |
|       | 405                       | 405     | 330.9        | FWP-800A         | A70QS800-4              |                    | A70QS600-4K                    |

# Notes

# PowerFlex AC Drives

|                                                   | PowerFlex 4M AC Drive                                                                                                                                                                            | PowerFlex 400 AC Drive                                                                                                                                                                                          |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Motor Control                                     | • Volts per Hertz                                                                                                                                                                                | • Volts per Hertz                                                                                                                                                                                               |
| Application                                       | • Open loop speed regulation                                                                                                                                                                     | • Open loop speed regulation                                                                                                                                                                                    |
| Ratings 100-115V 1 Phase In/3 Phase 230V Out      | • 0.2...1.1 kW • 0.25...1.5 Hp • 1.6...6 A                                                                                                                                                       | • N/A                                                                                                                                                                                                           |
| Ratings 200-240V                                  | • 0.2...7.5 kW • 0.25...10 Hp • 1.6...33 A                                                                                                                                                       | • 2.2...37 kW • 3.0...50 Hp • 12...145 A                                                                                                                                                                        |
| Ratings 400-480V                                  | • 0.4...11 kW • 0.5...15 Hp • 1.5...24 A                                                                                                                                                         | • 2.2...250 kW • 3.0...350 Hp • 6...460 A                                                                                                                                                                       |
| Ratings 500-600V                                  | • N/A                                                                                                                                                                                            | • N/A                                                                                                                                                                                                           |
| Ambient Temperature*<br>Limit for Enclosure Types | • IP20: -10 to 50 °C (14 to 122 °F)<br>• IP20 zero stacking: -10 to 40 °C (14 to 104 °F)                                                                                                         | • IP20, NEMA/UL Type Open, Frame C: -10 to 50 °C (14 to 122 °F)<br>• IP20, NEMA/UL Type Open, Frame D and up: -10 to 45 °C (14 to 113 °F)<br>• IP30, NEMA/UL Type Open, all frames: -10 to 45 °C (14 to 113 °F) |
| EMC Filters                                       | • Internal (1 phase 240V and 3 phase 480V)<br>• External (1 & 3 phase)                                                                                                                           | • External                                                                                                                                                                                                      |
| Standards and Certifications                      | • c-UL-us, CE, RCM, RoHS, KCC, EAC, REACH                                                                                                                                                        | • c-UL-us, CE, RCM, RoHS, KCC, EAC, REACH                                                                                                                                                                       |
| Overload Capability                               | • 150% for 60 s<br>• 200% for 3 s                                                                                                                                                                | • 110% for 60 s                                                                                                                                                                                                 |
| Output Frequency Range                            | • 0...400 Hz                                                                                                                                                                                     | • 0...320 Hz                                                                                                                                                                                                    |
| User Interface                                    | • Local keypad<br>• Remote keypad<br>• Studio 5000 Software<br>• Connected Components Workbench Software                                                                                         | • Local keypad<br>• Remote keypad<br>• Studio 5000 Software<br>• Connected Components Workbench Software                                                                                                        |
| Communications Options                            | • Integral RS485 (Modbus RTU)<br>• Optional: *EtherNet/IP, *ControlNet, *DeviceNet, *Bluetooth®, *LonWorks®, *PROFIBUS DP<br>*Optional network for use only with DSI External Communications Kit | • Integral RS485 (Modbus RTU, Metasys N2, P1-FLN)<br>• Optional: *EtherNet/IP, *ControlNet, *DeviceNet, BACnet, *Bluetooth®, *LonWorks®, *PROFIBUS DP                                                           |
| Analog Inputs                                     | • Qty. 1 (unipolar voltage)                                                                                                                                                                      | • Qty. 2 (1 bipolar voltage or current, 1 unipolar voltage or current)                                                                                                                                          |
| Analog Outputs                                    | • None                                                                                                                                                                                           | • Qty. 2 (unipolar voltage or current)                                                                                                                                                                          |
| PTC Inputs                                        | • Qty. 1 (uses an analog input)                                                                                                                                                                  | • Qty. 1 (uses an analog input)                                                                                                                                                                                 |
| Digital Inputs                                    | • Qty. 5 (24V DC, 2 programmable)                                                                                                                                                                | • Qty. 7 (24V DC, 4 programmable)                                                                                                                                                                               |
| Relay Outputs                                     | • Qty. 1 (form C)                                                                                                                                                                                | • Qty. 2 (form C)                                                                                                                                                                                               |
| Transistor Outputs                                | • None                                                                                                                                                                                           | • Qty. 1                                                                                                                                                                                                        |
| Dynamic Braking                                   | • Internal IGBT except catalog numbers ending in "3"                                                                                                                                             | • No                                                                                                                                                                                                            |
| Safety                                            | • No                                                                                                                                                                                             | • No                                                                                                                                                                                                            |
| Found on Page                                     | • 21                                                                                                                                                                                             | • 24                                                                                                                                                                                                            |

\* Environmental considerations may apply

| PowerFlex 523 AC Drive                                                                                                                                                                                                                                                                                                            | PowerFlex 525 AC Drive                                                                                                                                                                                                                                                                                                            | PowerFlex 527 AC Drive                                                                                                                                                                                                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• Volts per Hertz</li> <li>• Sensorless vector control</li> </ul>                                                                                                                                                                                                                          | <ul style="list-style-type: none"> <li>• Volts per Hertz • Sensorless vector control</li> <li>• Closed loop velocity vector control</li> <li>• Permanent magnet motor control</li> </ul>                                                                                                                                          | <ul style="list-style-type: none"> <li>• Volts per Hertz • Sensorless vector control</li> <li>• Closed loop velocity vector control</li> </ul>                                                                                                      |
| <ul style="list-style-type: none"> <li>• Open loop speed regulation</li> </ul>                                                                                                                                                                                                                                                    | <ul style="list-style-type: none"> <li>• Open loop speed regulation</li> <li>• Closed loop speed regulation</li> </ul>                                                                                                                                                                                                            | <ul style="list-style-type: none"> <li>• Open loop speed regulation</li> <li>• Closed loop speed regulation</li> </ul>                                                                                                                              |
| • 0.2...1.1 kW • 0.25...1.5 Hp • 1.6...6 A                                                                                                                                                                                                                                                                                        | • 0.4...1.1 kW • 0.5...1.5 Hp • 2.5...6 A                                                                                                                                                                                                                                                                                         | • 0.4...1.1 kW • 0.5...1.5 Hp • 2.5...6 A                                                                                                                                                                                                           |
| • 0.2...15 kW • 0.25...20 Hp • 1.6...62.1 A                                                                                                                                                                                                                                                                                       | • 0.4...15 kW • 0.5...20 Hp • 2.5...62.1 A                                                                                                                                                                                                                                                                                        | • 0.4...15 kW • 0.5...20 Hp • 2.5...62.1 A                                                                                                                                                                                                          |
| • 0.4...22 kW • 0.5...30 Hp • 1.4...43 A                                                                                                                                                                                                                                                                                          | • 0.4...22 kW • 0.5...30 Hp • 1.4...43 A                                                                                                                                                                                                                                                                                          | • 0.4...22 kW • 0.5...30 Hp • 1.4...43 A                                                                                                                                                                                                            |
| • 0.4...22 kW • 0.5...30 Hp • 0.9...32 A                                                                                                                                                                                                                                                                                          | • 0.4...22 kW • 0.5...30 Hp • 0.9...32 A                                                                                                                                                                                                                                                                                          | • 0.4...22 kW • 0.5...30 Hp • 0.9...32 A                                                                                                                                                                                                            |
| <ul style="list-style-type: none"> <li>• IP20: -20 to 50 °C (-4 to 122 °F)</li> <li>• IP20 Zero Stacking: -20* to 45 °C (-4 to 113 °F)</li> <li>• IP20: -20 to 60 °C (140 °F), with current derating</li> <li>• IP20: -20 to 70 °C: (158 °F) with current derating and optional control module fan kit</li> </ul>                 | <ul style="list-style-type: none"> <li>• IP20: -20 to 50 °C (-4 to 122 °F)</li> <li>• IP20 Zero Stacking: -20* to 45 °C (-4 to 113 °F)</li> <li>• IP20: -20 to 60 °C (140 °F), with current derating</li> <li>• IP20: -20 to 70 °C: (158 °F) with current derating and optional control module fan kit</li> </ul>                 | <ul style="list-style-type: none"> <li>• IP20: -20 to 50 °C (-4 to 122 °F)</li> <li>• IP20 Zero Stacking: -20* to 45 °C (-4 to 113 °F)</li> <li>• IP20: -20 to 70 °C: (158 °F) with current derating and optional control module fan kit</li> </ul> |
| <ul style="list-style-type: none"> <li>• Internal (1 phase 240V and 3 phase 480V)</li> <li>• External (1 &amp; 3 phase)</li> </ul>                                                                                                                                                                                                | <ul style="list-style-type: none"> <li>• Internal (1 phase 240V and 3 phase 480V)</li> <li>• External (1 &amp; 3 phase)</li> </ul>                                                                                                                                                                                                | <ul style="list-style-type: none"> <li>• Internal (1 phase 240V and 3 phase 480V)</li> <li>• External (1 &amp; 3 phase)</li> </ul>                                                                                                                  |
| <ul style="list-style-type: none"> <li>• AC-156, c-UL-us, CE, RCM, RoHS, KCC, EAC, REACH, SEMI F47</li> </ul>                                                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>• AC-156, ATEX, c-UL-us, CE, RCM, RoHS, KCC, EAC, REACH, SEMI F47, Lloyd's Register, TUV-FS</li> </ul>                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>• AC-156, ATEX, c-UL-us, CE, RCM, RoHS, KCC, EAC, REACH, SEMI F47, Lloyd's Register, TUV-FS, ODVA CIP/Safety</li> </ul>                                                                                      |
| <ul style="list-style-type: none"> <li>• Normal duty application: 110% - 60 s, 150% - 3 s (For 20 Hp &amp; above)</li> <li>• Heavy duty application: 150% - 60 s, 180% - 3 s (200% - 3 secs programmable)</li> </ul>                                                                                                              | <ul style="list-style-type: none"> <li>• Normal duty application: 110% - 60 s, 150% - 3 s (For 20 Hp &amp; above)</li> <li>• Heavy duty application: 150% - 60 s, 180% - 3 s (200% - 3 secs programmable)</li> </ul>                                                                                                              | <ul style="list-style-type: none"> <li>• Normal duty application: 110% - 60 secs, 150% - 3 s (For 20 Hp &amp; above)</li> <li>• Heavy duty application: 150% - 60 secs, 180% - 3 s (200% - 3 secs programmable)</li> </ul>                          |
| • 0...500 Hz                                                                                                                                                                                                                                                                                                                      | • 0...500 Hz                                                                                                                                                                                                                                                                                                                      | • 0...590 Hz                                                                                                                                                                                                                                        |
| <ul style="list-style-type: none"> <li>• 5 Digits, 16 segments QuickView™ LCD display with multiple languages and local keypad • Remote keypad</li> <li>• MainsFree™ programming via USB • Application specific parameter group AppView™ and CustomView™</li> <li>• Studio 5000 • Connected Components Workbench (CCW)</li> </ul> | <ul style="list-style-type: none"> <li>• 5 Digits, 16 segments QuickView™ LCD display with multiple languages and local keypad • Remote keypad</li> <li>• MainsFree™ programming via USB • Application specific parameter group AppView™ and CustomView™</li> <li>• Studio 5000 • Connected Components Workbench (CCW)</li> </ul> | <ul style="list-style-type: none"> <li>• Studio 5000 Logix Designer</li> </ul>                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• Integral RS485 (Modbus RTU)</li> <li>• Optional: Dual-port EtherNet/IP, DeviceNet, PROFIBUS DP</li> </ul>                                                                                                                                                                                | <ul style="list-style-type: none"> <li>• Built-in EtherNet/IP Port</li> <li>• Integral RS485 (Modbus RTU)</li> <li>• Optional: Dual-port EtherNet/IP, DeviceNet, PROFIBUS DP</li> </ul>                                                                                                                                           | <ul style="list-style-type: none"> <li>• Built-in dual-port EtherNet/IP</li> </ul>                                                                                                                                                                  |
| • Qty. 1 (unipolar voltage or current)                                                                                                                                                                                                                                                                                            | • Qty. 2 (1 bipolar voltage, 1 current)                                                                                                                                                                                                                                                                                           | • Qty. 2 (1 bipolar voltage, 1 current)                                                                                                                                                                                                             |
| • Qty. 1 (unipolar voltage or current)                                                                                                                                                                                                                                                                                            | • Qty. 1 (unipolar voltage or current)                                                                                                                                                                                                                                                                                            | • Qty. 1 (unipolar voltage or current)                                                                                                                                                                                                              |
| • Qty. 1 (uses an analog input)                                                                                                                                                                                                                                                                                                   | • Qty. 1 (uses an analog input)                                                                                                                                                                                                                                                                                                   | • Qty. 1 (uses an analog input)                                                                                                                                                                                                                     |
| • Qty. 5 (24V DC, 4 programmable)                                                                                                                                                                                                                                                                                                 | • Qty. 7 (24V DC, 6 programmable)                                                                                                                                                                                                                                                                                                 | • Qty. 4 (24V DC, 3 programmable)                                                                                                                                                                                                                   |
| • Qty. 1 (form C)                                                                                                                                                                                                                                                                                                                 | • Qty. 2 (1 form A Relay, 1 form B Relay)                                                                                                                                                                                                                                                                                         | • Qty. 2 (1 form A Relay, 1 form B Relay)                                                                                                                                                                                                           |
| • None                                                                                                                                                                                                                                                                                                                            | • Qty. 2                                                                                                                                                                                                                                                                                                                          | • Qty. 2                                                                                                                                                                                                                                            |
| • Internal IGBT                                                                                                                                                                                                                                                                                                                   | • Internal IGBT                                                                                                                                                                                                                                                                                                                   | • Internal IGBT                                                                                                                                                                                                                                     |
| • No                                                                                                                                                                                                                                                                                                                              | • Built-in Safe Torque Off, SIL2, PLd, CAT 3                                                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>• Built-in Safe Torque Off, SIL 3, PLe, CAT 3</li> <li>• Built-in Networked Safety SIL 3, PLe, CAT 3</li> </ul>                                                                                              |
| • 37                                                                                                                                                                                                                                                                                                                              | • 41                                                                                                                                                                                                                                                                                                                              | • 45                                                                                                                                                                                                                                                |

# PowerFlex AC and DC Drives

|                                               | PowerFlex 70 AC Drive                                                                                                                                                                                                                                                                                                        | PowerFlex 753 AC Drive                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Motor Control                                 | <ul style="list-style-type: none"> <li>Flux vector control with and without an encoder</li> <li>Sensorless vector control • Volts per Hertz</li> </ul>                                                                                                                                                                       | <ul style="list-style-type: none"> <li>Flux vector control with and without an encoder</li> <li>Sensorless vector control • Volts per Hertz</li> <li>Permanent magnet motor control (interior only)</li> </ul>                                                                                                                                                   |
| Application                                   | <ul style="list-style-type: none"> <li>Open loop speed regulation • Closed loop speed regulation</li> <li>Accurate torque and speed regulation</li> </ul>                                                                                                                                                                    | <ul style="list-style-type: none"> <li>Open loop speed regulation • Closed loop speed regulation</li> <li>Accurate torque and speed regulation • Indexer positioning</li> </ul>                                                                                                                                                                                  |
| Single-phase Input with Derate                | • Yes                                                                                                                                                                                                                                                                                                                        | • Yes                                                                                                                                                                                                                                                                                                                                                            |
| Ratings 200-240V                              | • 0.37...18.5 kW • 0.5...25 Hp • 2.2...70 A                                                                                                                                                                                                                                                                                  | • 0.37...132 kW • 0.5...200 Hp • 2.2...477 A                                                                                                                                                                                                                                                                                                                     |
| Ratings 400-480V                              | • 0.37...37 kW • 0.5...50 Hp • 1.1...72 A                                                                                                                                                                                                                                                                                    | • 0.75...270 kW • 1...400 Hp • 2.1...477 A                                                                                                                                                                                                                                                                                                                       |
| Ratings 500-600V                              | • 0.37...37 kW • 0.5...50 Hp • 0.9...52 A                                                                                                                                                                                                                                                                                    | • 1...300 Hp • 1.7...289 A                                                                                                                                                                                                                                                                                                                                       |
| Ratings 690V                                  | • N/A                                                                                                                                                                                                                                                                                                                        | • 7.5...250 kW • 12...263 A                                                                                                                                                                                                                                                                                                                                      |
| Ambient Temperature Limit for Enclosure Types | <ul style="list-style-type: none"> <li>IP20, NEMA/UL Type 1: 0 to 50 °C (32 to 122 °F)</li> <li>Flange mount: 0 to 50 °C (32 to 122 °F)</li> <li>IP66, NEMA/UL Type 4X/12 indoor: 0 to 40 °C (32 to 104 °F)</li> </ul>                                                                                                       | <ul style="list-style-type: none"> <li>IP00/IP20, NEMA/UL Open Type = 0-50 °C (32-122 °F)**</li> <li>NEMA/UL Type 1 Kit = 0-40 °C (32-104 °F) • Flange mount front: IP00/IP20, NEMA/UL Open Type = 0-50 °C (32-122 °F)**</li> <li>Flange mount back: IP66, NEMA/UL Type 4X = 0-40 °C (32-104 °F)</li> <li>IP54, NEMA/UL Type 12 = 0-40 °C (32-104 °F)</li> </ul> |
| EMC Filters                                   | • Internal                                                                                                                                                                                                                                                                                                                   | • Internally mounted option                                                                                                                                                                                                                                                                                                                                      |
| Standards and Certifications                  | • ABS, c-UL-us, CE*, EAC, KCC, Lloyd's Register, NSF Certified (IP66, NEMA/UL Type 4X/12 only), RCM*, RoHS, SEMI F47, AC-156, TUV FS, ABS, RINA                                                                                                                                                                              | • ABS, c-UL-us, CE, EAC, KCC, Lloyd's Register, RCM, RoHS, SEMI F47, AC-156, TUV FS****, ABS, RINA, ATEX***                                                                                                                                                                                                                                                      |
| Overload Capability                           | <ul style="list-style-type: none"> <li>Normal duty application: 110% - 60 s, 150% - 3 s</li> <li>Heavy duty application: 150% - 60 s, 200% - 3 s</li> </ul>                                                                                                                                                                  | <ul style="list-style-type: none"> <li>Normal duty application: 110% - 60 s, 150% - 3 s</li> <li>Heavy duty application: 150% - 60 s, 180% - 3 s</li> </ul>                                                                                                                                                                                                      |
| Output Frequency Range                        | • 0...500 Hz                                                                                                                                                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>0...325 Hz @ 2 kHz PWM</li> <li>0...590 Hz @ 4 kHz PWM****</li> </ul>                                                                                                                                                                                                                                                     |
| User Interface                                | <ul style="list-style-type: none"> <li>Local PowerFlex HIMs</li> <li>Remote PowerFlex HIMs</li> <li>Studio 5000 Software</li> <li>Connected Components Workbench Software</li> </ul>                                                                                                                                         | <ul style="list-style-type: none"> <li>Local PowerFlex HIMs</li> <li>Remote PowerFlex HIMs</li> <li>Studio 5000 Software</li> <li>Connected Components Workbench Software</li> </ul>                                                                                                                                                                             |
| Communications Options                        | <ul style="list-style-type: none"> <li>Internal DPI • DeviceNet • ControlNet (Coax or Fiber)</li> <li>Single or Dual-port Ethernet/IP options</li> <li>RS485 DF1 • BACnet • RS485 HVAC (Modbus RTU, Metasys N2, Siemens P1) • PROFIBUS DP • Interbus</li> <li>External SCANport • Modbus/TCP • CANopen • LonWorks</li> </ul> | <ul style="list-style-type: none"> <li>Single or Dual-port Ethernet/IP options • ControlNet (Coax or Fiber) • DeviceNet • RS485 DF1</li> <li>PROFIBUS DP • BACnet/IP • Modbus/TCP • HVAC (Modbus RTU, FLN P1, Metasys N2) • ProfiNet IO</li> <li>LonWorks • CANopen</li> </ul>                                                                                   |
| Conformal Coating                             | • Standard                                                                                                                                                                                                                                                                                                                   | • Standard                                                                                                                                                                                                                                                                                                                                                       |
| Analog Inputs                                 | • Qty. 2 (1 bipolar voltage or current, 1 unipolar voltage or current)                                                                                                                                                                                                                                                       | • Up to 7 total (bipolar voltage or current)                                                                                                                                                                                                                                                                                                                     |
| Analog Outputs                                | • Qty. 1 (unipolar voltage or current)                                                                                                                                                                                                                                                                                       | • Up to 7 total (bipolar voltage or current)                                                                                                                                                                                                                                                                                                                     |
| PTC Inputs                                    | • Qty. 1 (uses an analog input)                                                                                                                                                                                                                                                                                              | • Up to 3 total                                                                                                                                                                                                                                                                                                                                                  |
| Digital Inputs                                | • Qty. 6 (24V DC or 115V AC, option card required for 115V)                                                                                                                                                                                                                                                                  | • Up to 21 total (Qty. 21 - 24V DC or Qty. 19 - 115V AC)                                                                                                                                                                                                                                                                                                         |
| Relay Outputs                                 | • Qty. 2 (form C)                                                                                                                                                                                                                                                                                                            | • Up to 7 total                                                                                                                                                                                                                                                                                                                                                  |
| Transistor Outputs                            | • None                                                                                                                                                                                                                                                                                                                       | • Up to 7 total                                                                                                                                                                                                                                                                                                                                                  |
| Internal Brake Transistor                     | • Standard                                                                                                                                                                                                                                                                                                                   | • Standard (frames 1-5) Optional (frame 6-7)                                                                                                                                                                                                                                                                                                                     |
| AC Input Choke                                | • No                                                                                                                                                                                                                                                                                                                         | • No                                                                                                                                                                                                                                                                                                                                                             |
| DC Link Choke                                 | • FR C-E Yes                                                                                                                                                                                                                                                                                                                 | • Yes                                                                                                                                                                                                                                                                                                                                                            |
| Common Mode Choke                             | • External option                                                                                                                                                                                                                                                                                                            | • External option                                                                                                                                                                                                                                                                                                                                                |
| Safety                                        | • Hardwired Safe Torque Off SIL2, PLd, CAT 3 - option                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>Hardwired Safe Torque Off SIL3, PLc, CAT 3 - option</li> <li>Hardwired Safe Speed Monitor SIL3, PLc, CAT 4 - option</li> </ul>                                                                                                                                                                                            |
| Found on Page                                 | • 57                                                                                                                                                                                                                                                                                                                         | • 66                                                                                                                                                                                                                                                                                                                                                             |

\* CE certification testing has not been performed on 600V drives

\*\* Frame 7, 477A Output, All Enclosures = 0-40 °C (32-104 °F)

\*\*\* Requires 11-Series I/O and ATEX daughter card options

\*\*\*\* Derating @4 kHz; see technical specifications

\*\*\*\*\* Requires 20-750-50 or 20-750-51 card to be installed

| PowerFlex 755<br>Wall Mount AC Drive                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | PowerFlex 755<br>Floor Mount AC Drive                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PowerFlex DC Drive                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| <ul style="list-style-type: none"> <li>Flux vector control with and without an encoder</li> <li>Sensorless vector control • Volts per Hertz</li> <li>Surface mount and interior permanent magnet motor control (with and without encoder) Frames 1 - 7</li> <li>Open loop speed regulation • Closed loop speed regulation • Accurate torque and speed regulation</li> <li>Accurate positioning with PCAM, indexer and gearing</li> <li>Yes</li> <li>0.37...132 kW • 0.5...200 Hp • 2.2...477 A</li> <li>0.75...270 kW • 1...400 Hp • 2.1...477 A</li> <li>1...300 Hp • 1.7...289 A</li> <li>7.5...250 kW • 12...263 A</li> <li>IP00/IP20, NEMA/UL Open Type = 0-50 °C (32-122 °F)**</li> <li>NEMA/UL Type 1 kit = 0-40 °C (32-104 °F) • Flange mount front: IP00/IP20, NEMA/UL Open Type = 0-50 °C (32-122 °F)**</li> <li>Flange mount back: IP66, NEMA/UL Type 4X = 0-40 °C (32-104 °F) • IP54, NEMA/UL Type 12 = 0-40 °C (32-104 °F)</li> <li>Internally mounted option</li> <li>ABS, c-UL-us, CE, EAC, KCC, Lloyd's Register, RCM, RoHS, SEMI F47, AC-156, TUV FS****, ABS, RINA, ATEX***</li> <li>Normal duty application: 110% - 60 s, 150% - 3 s</li> <li>Heavy duty application: 150% - 60s, 180% - 3 s</li> <li>0...325 Hz @ 2 kHz PWM</li> <li>0...590 Hz @ 4 kHz PWM****</li> <li>Local PowerFlex HIMs</li> <li>Remote PowerFlex HIMs</li> <li>Studio 5000 Software</li> <li>Connected Components Workbench Software</li> <li>Built-In EtherNet/IP port or Dual-port EtherNet/IP option module • ControlNet (coax or fiber)</li> <li>DeviceNet • BACnet/IP • RS485 DFI • PROFIBUS DP • Modbus/TCP • HVAC (Modbus RTU, FLN P1, Metasys N2) • ProfiNet IO</li> <li>LonWorks • CANopen</li> <li>Standard</li> <li>Up to 10 total (bipolar voltage or current)</li> <li>Up to 10 total (bipolar voltage or current)</li> <li>Up to 5 total</li> <li>Up to 31 total (24V DC or 115V AC)</li> <li>Up to 10 total (form C)</li> <li>Up to 10 total</li> <li>Standard (frames 1-5) Optional (frame 6-7)</li> <li>No</li> <li>Yes</li> <li>External option</li> <li>Hardwired Safe Torque Off SIL3, PLc, CAT 3 - option</li> <li>Networked Safe Torque Off SIL3, PLc, CAT 3 - option</li> <li>Hardwired Safe Speed Monitor SIL3, PLc, CAT 4 - option</li> <li>82</li> </ul> | <ul style="list-style-type: none"> <li>Flux vector control with and without an encoder</li> <li>Sensorless vector control • Volts per Hertz</li> <li>Surface mount and interior permanent magnet motor control (with encoder)</li> <li>Open loop speed regulation • Closed loop speed regulation • Accurate torque and speed regulation</li> <li>Accurate positioning with PCAM, indexer and gearing</li> <li>No</li> <li>N/A</li> <li>200...1400 kW • 300...2000 Hp • 370...2330 A</li> <li>250...1500 Hp • 272...1530 A</li> <li>200...1500 kW • 215...1485 A</li> <li>IP00/IP20, NEMA/UL Open Type = 0-40 °C (32-104 °F)</li> <li>IP54, NEMA/UL Type 12 = 0-40 °C (32-104 °F)</li> <li>Operation to 50 °C (122 °F) with derating</li> <li>Internally mounted option</li> <li>ABS, c-UL-us, CE, EAC, KCC, Lloyd's Register, RCM, RoHS, SEMI F47, AC-156, TUV FS****, ABS, RINA, ATEX***</li> <li>Normal duty application • 110% - 60 s, 150% - 3 s</li> <li>Heavy duty application • 150% - 60 s, 180% - 3 s</li> <li>Light duty application (frames 8-10) • 110% - 60 s</li> <li>0...325 Hz @ 2 kHz PWM</li> <li>0...590 Hz @ 4 kHz PWM****</li> <li>Local PowerFlex HIMs</li> <li>Optional door-mounted PowerFlex HIMs</li> <li>Studio 5000 Software</li> <li>Connected Components Workbench Software</li> <li>Built-in EtherNet/IP port or Dual-port EtherNet/IP option module • ControlNet (coax or fiber)</li> <li>DeviceNet • BACnet/IP</li> <li>RS485 DFI • PROFIBUS DP • Modbus/TCP</li> <li>HVAC (Modbus RTU, FLN P1, Metasys N2)</li> <li>ProfiNet IO • LonWorks • CANopen</li> <li>Standard</li> <li>Up to 10 total (bipolar voltage or current)</li> <li>Up to 10 total (bipolar voltage or current)</li> <li>Up to 5 total</li> <li>Up to 31 total (24V DC or 115V AC)</li> <li>Up to 10 total (form C)</li> <li>Up to 10 total</li> <li>Frames 8-10 require external brake module</li> <li>No</li> <li>Yes</li> <li>External option</li> <li>Hardwired Safe Torque Off SIL3, PLc, CAT 3 - option</li> <li>Networked Safe Torque Off SIL3, PLc, CAT 3 - option</li> <li>Hardwired Safe Speed Monitor SIL3, PLc, CAT 4 - option</li> <li>82</li> </ul> | <ul style="list-style-type: none"> <li>Regenerative and Non-regenerative</li> <li>Field weakening and Economize</li> <li>Open loop speed regulation</li> <li>Closed loop speed regulation</li> <li>Accurate torque regulation</li> <li>N/A</li> <li>1.2...224 kW • 1.5...300 Hp</li> <li>7...1050 A</li> <li>1.5...671 kW • 2...900 Hp</li> <li>4.1...1494 A</li> <li>37...932 kW/50...1250 Hp/67.5...1688 A</li> <li>298...1044 kW/400...1400 Hp/452...1582 A</li> <li>IP 20 / Open = 50 °C (104 °F)</li> <li>55 °C (131 °F) with derating</li> <li>External</li> <li>c-UL-us, CE, EAC, KCC, RCM, RoHS</li> <li>Heavy Duty Application: 150% - 60 s, 200% - 3 s</li> <li>1000:1 DC Tach</li> <li>100:1 Armature feedback</li> <li>1000:1 Digital Incremental Encoder/Resolver</li> <li>Local PowerFlex HIMs</li> <li>Remote PowerFlex HIMs</li> <li>Studio 5000 Software</li> <li>Connected Components Workbench Software</li> <li>Internal DPI</li> <li>Options: single or dual-port EtherNet/IP, ControlNet, DeviceNet, BACNet, HVAC comm adapter, Modbus, PROFIBUS DP</li> <li>Standard</li> <li>7</li> <li>3 - Configurable (13 bit + sign, each ±V or mA)</li> <li>8 - Configurable (24V DC)</li> <li>2 - Configurable (11-Bit + sign, each ±V)</li> <li>4 - Configurable (24V DC)</li> <li>2 - Configurable Relay (NO)</li> <li>Armature Regen or Dynamic Braking Resistor</li> <li>No</li> <li>148</li> </ul> |

# PowerFlex AC Drives

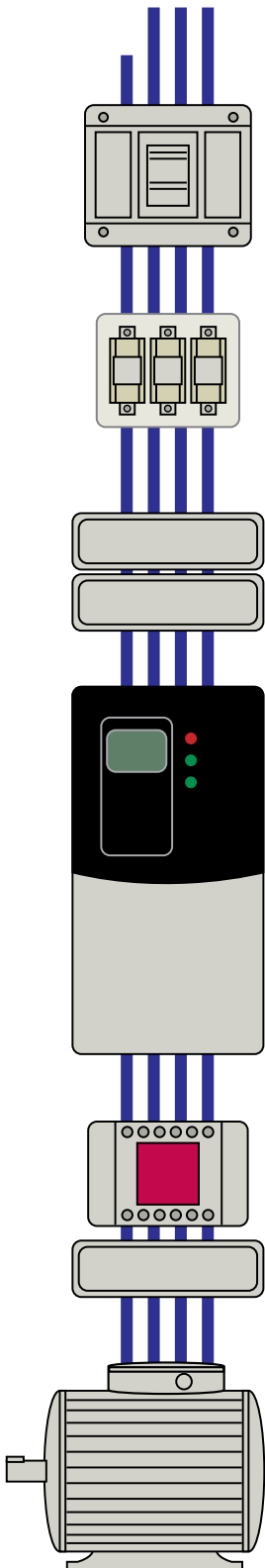
|                                                      | PowerFlex 755TL AC Drive                                                                                                                                                                                                                        | PowerFlex 755TR AC Drive                                                                                                                                                                                                                        | PowerFlex 755TM AC Drive                                                                                                                                                                                                                                               |
|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>TotalFORCE Technology Motor Control</b>           | <ul style="list-style-type: none"> <li>Flux Vector Control • Sensorless vector</li> <li>Volts per Hertz • Economizer</li> <li>Field oriented control</li> </ul>                                                                                 | <ul style="list-style-type: none"> <li>Flux Vector Control • Sensorless vector</li> <li>Volts per Hertz • Economizer</li> <li>Field oriented control</li> </ul>                                                                                 | <ul style="list-style-type: none"> <li>Flux Vector Control • Sensorless vector</li> <li>Volts per Hertz • Economizer</li> <li>Field oriented control</li> </ul>                                                                                                        |
| <b>Application</b>                                   | <ul style="list-style-type: none"> <li>Open loop speed regulation • Closed loop speed regulation • Precise torque and speed regulation • Indexer positioning</li> </ul>                                                                         | <ul style="list-style-type: none"> <li>Open loop speed regulation • Closed loop speed regulation • Precise torque and speed regulation • Indexer positioning</li> </ul>                                                                         | <ul style="list-style-type: none"> <li>Open loop speed regulation • Closed loop speed regulation • Precise torque and speed regulation • Indexer positioning</li> </ul>                                                                                                |
| <b>Single-phase Input w/Derate</b>                   | • No                                                                                                                                                                                                                                            | • No                                                                                                                                                                                                                                            | • No                                                                                                                                                                                                                                                                   |
| <b>Ratings 200-240V</b>                              | • N/A                                                                                                                                                                                                                                           | • N/A                                                                                                                                                                                                                                           | • N/A                                                                                                                                                                                                                                                                  |
| <b>Ratings 400-480V</b>                              | <ul style="list-style-type: none"> <li>160...1250 kW (302...2156 A) @ 400V</li> <li>250...1800 Hp (302...2072 A) @ 480V</li> </ul>                                                                                                              | <ul style="list-style-type: none"> <li>160...2000 kW (302...3542 A) @ 400V</li> <li>250...3000 Hp (302...3404 A) @ 480V</li> </ul>                                                                                                              | <ul style="list-style-type: none"> <li>Common Bus Inverter:<br/>160...2000 kW (302...3542 A) @ 400V / 250...3000 Hp (302...3404 A) @ 480V</li> <li>Regenerative Bus Supplies:<br/>188...2204 kW (324...3801 A) @ 400V / 216...2436 kW (311...3501 A) @ 480V</li> </ul> |
| <b>Ratings 500-600V</b>                              | • 250...1500 Hp (242...1430 A) @ 600V                                                                                                                                                                                                           | • 250...2500 Hp (242...2420 A) @ 600V                                                                                                                                                                                                           | <ul style="list-style-type: none"> <li>Common Bus Inverter:<br/>250...2500 Hp (242...2420 A) @ 600V</li> <li>Regenerative Bus:<br/>217...2164 kW (249...2489 A) @ 600V</li> </ul>                                                                                      |
| <b>Ratings 690V</b>                                  | • 200...1400 kW (215...1419 A) @ 690V                                                                                                                                                                                                           | • 200...2300 kW (215...2318 A) @ 690V                                                                                                                                                                                                           | <ul style="list-style-type: none"> <li>Common Bus Inverter:<br/>200...2300 kW (215...2318 A) @ 690V</li> <li>Regenerative Bus Supplies:<br/>221...2379 kW (221...2379 A) @ 690V</li> </ul>                                                                             |
| <b>Ambient Temperature Limit for Enclosure Types</b> | <ul style="list-style-type: none"> <li>-20...40 °C</li> <li>-20...55 °C with derate</li> </ul>                                                                                                                                                  | <ul style="list-style-type: none"> <li>-20...40 °C</li> <li>-20...55 °C with derate</li> </ul>                                                                                                                                                  | <ul style="list-style-type: none"> <li>-20...40 °C</li> <li>-20...55 °C with derate</li> </ul>                                                                                                                                                                         |
| <b>EMC Filters</b>                                   | • Internally mounted option                                                                                                                                                                                                                     | • Internally mounted option                                                                                                                                                                                                                     | • Internally mounted option                                                                                                                                                                                                                                            |
| <b>Standards and Certifications</b>                  | <ul style="list-style-type: none"> <li>ABS, AC156 Seismic Standards, ATEX, CAN/CSA, CE Mark, DNV, EAC Mark, IEC60721-3-3, ISA 71.04-1985, KCC, Lloyd's Register, ODVA EtherNet/IP, RCM, SEMI F47, UkrSepro Mark, UL61800-5-1 (cULus)</li> </ul> | <ul style="list-style-type: none"> <li>ABS, AC156 Seismic Standards, ATEX, CAN/CSA, CE Mark, DNV, EAC Mark, IEC60721-3-3, ISA 71.04-1985, KCC, Lloyd's Register, ODVA EtherNet/IP, RCM, SEMI F47, UkrSepro Mark, UL61800-5-1 (cULus)</li> </ul> | <ul style="list-style-type: none"> <li>ABS, AC156 Seismic Standards, ATEX, CAN/CSA, CE Mark, DNV, EAC Mark, IEC60721-3-3, ISA 71.04-1985, KCC, Lloyd's Register, ODVA EtherNet/IP, RCM, SEMI F47, UkrSepro Mark, UL61800-5-1 (cULus)</li> </ul>                        |
| <b>Overload Capability</b>                           | <ul style="list-style-type: none"> <li>Normal duty: 110% - 60 s, 150% - 3 s</li> <li>Heavy duty: 150% - 60 s, 180% - 3 s</li> <li>Light duty: 110% - 60 s</li> </ul>                                                                            | <ul style="list-style-type: none"> <li>Normal duty: 110% - 60 s, 150% - 3 s</li> <li>Heavy duty: 150% - 60 s, 180% - 3 s</li> <li>Light duty: 110% - 60 s</li> </ul>                                                                            | <ul style="list-style-type: none"> <li>Normal duty: 110% - 60 s, 150% - 3 s</li> <li>Heavy duty: 150% - 60 s, 180% - 3 s</li> <li>Light duty: 110% - 60 s</li> </ul>                                                                                                   |
| <b>Output Frequency Range</b>                        | <ul style="list-style-type: none"> <li>0...325 Hz @ 1.33 kHz carrier</li> <li>0...325 Hz @ 2 kHz carrier</li> <li>0...590 Hz @ 4 kHz carrier</li> </ul>                                                                                         | <ul style="list-style-type: none"> <li>0...325 Hz @ 1.33 kHz carrier</li> <li>0...325 Hz @ 2 kHz carrier</li> <li>0...590 Hz @ 4 kHz carrier</li> </ul>                                                                                         | <ul style="list-style-type: none"> <li>0...325 Hz @ 1.33 kHz carrier</li> <li>0...325 Hz @ 2 kHz carrier</li> <li>0...590 Hz @ 4 kHz carrier</li> </ul>                                                                                                                |
| <b>User Interface</b>                                | <ul style="list-style-type: none"> <li>Local PowerFlex HIMs</li> <li>Remote PowerFlex HIMs</li> <li>Studio 5000 Software</li> <li>Connected Components Workbench Software</li> </ul>                                                            | <ul style="list-style-type: none"> <li>Local PowerFlex HIMs</li> <li>Remote PowerFlex HIMs</li> <li>Studio 5000 Software</li> <li>Connected Components Workbench Software</li> </ul>                                                            | <ul style="list-style-type: none"> <li>Local PowerFlex HIMs</li> <li>Remote PowerFlex HIMs</li> <li>Studio 5000 Software</li> <li>Connected Components Workbench Software</li> </ul>                                                                                   |
| <b>Communications Options</b>                        | <ul style="list-style-type: none"> <li>Internal DPI</li> <li>Built-in dual EtherNet/IP ports</li> <li>Options: ControlNet, DeviceNet, PROFIBUS DP, PROFINET</li> </ul>                                                                          | <ul style="list-style-type: none"> <li>Internal DPI</li> <li>Built-in dual EtherNet/IP ports</li> <li>Options: ControlNet, DeviceNet, PROFIBUS DP, PROFINET</li> </ul>                                                                          | <ul style="list-style-type: none"> <li>Internal DPI</li> <li>Built-in dual EtherNet/IP ports</li> <li>Options: ControlNet, DeviceNet, PROFIBUS DP, PROFINET</li> </ul>                                                                                                 |
| <b>Conformal Coating</b>                             | • Standard                                                                                                                                                                                                                                      | • Standard                                                                                                                                                                                                                                      | • Standard                                                                                                                                                                                                                                                             |
| <b>Analog Inputs</b>                                 | • Up to 10 total                                                                                                                                                                                                                                | • Up to 10 total                                                                                                                                                                                                                                | • Up to 10 total                                                                                                                                                                                                                                                       |
| <b>Analog Outputs</b>                                | • Up to 10 total                                                                                                                                                                                                                                | • Up to 10 total                                                                                                                                                                                                                                | • Up to 10 total                                                                                                                                                                                                                                                       |
| <b>PTC Inputs</b>                                    | • Up to 5 total                                                                                                                                                                                                                                 | • Up to 5 total                                                                                                                                                                                                                                 | • Up to 5 total                                                                                                                                                                                                                                                        |
| <b>Digital Inputs</b>                                | • Up to 31 total                                                                                                                                                                                                                                | • Up to 31 total                                                                                                                                                                                                                                | • Up to 31 total                                                                                                                                                                                                                                                       |
| <b>Relay Outputs</b>                                 | • Up to 10 total                                                                                                                                                                                                                                | • Up to 10 total                                                                                                                                                                                                                                | • Up to 10 total                                                                                                                                                                                                                                                       |
| <b>Transistor Outputs</b>                            | • Up to 10 total                                                                                                                                                                                                                                | • Up to 10 total                                                                                                                                                                                                                                | • Up to 10 total                                                                                                                                                                                                                                                       |
| <b>Internal Brake Transistor</b>                     | • No                                                                                                                                                                                                                                            | • No                                                                                                                                                                                                                                            | • No                                                                                                                                                                                                                                                                   |
| <b>AC Input Choke</b>                                | • No                                                                                                                                                                                                                                            | • No                                                                                                                                                                                                                                            | • No                                                                                                                                                                                                                                                                   |
| <b>DC Link Choke</b>                                 | • Yes                                                                                                                                                                                                                                           | • Yes                                                                                                                                                                                                                                           | • Yes                                                                                                                                                                                                                                                                  |
| <b>Common Mode Choke</b>                             | • Optional accessory                                                                                                                                                                                                                            | • Optional accessory                                                                                                                                                                                                                            | • Optional accessory                                                                                                                                                                                                                                                   |
| <b>Safety</b>                                        | <ul style="list-style-type: none"> <li>Hardwired Safe Torque Off SIL3 PLe, CAT 3</li> <li>Networked Safe Torque Off SIL3 PLe, CAT 3</li> <li>Hardwired Safe Speed Monitor SIL3, PLe, CAT 4</li> </ul>                                           | <ul style="list-style-type: none"> <li>Hardwired Safe Torque Off SIL3 PLe, CAT 3</li> <li>Networked Safe Torque Off SIL3 PLe, CAT 3</li> <li>Hardwired Safe Speed Monitor SIL3, PLe, CAT 4</li> </ul>                                           | <ul style="list-style-type: none"> <li>Hardwired Safe Torque Off SIL3 PLe, CAT 3</li> <li>Networked Safe Torque Off SIL3 PLe, CAT 3</li> <li>Hardwired Safe Speed Monitor SIL3, PLe, CAT 4</li> </ul>                                                                  |
| <b>Found on Page</b>                                 | • 118                                                                                                                                                                                                                                           | • 118                                                                                                                                                                                                                                           | • See Common DC Bus Selection Guide, pub DRIVES-SG001                                                                                                                                                                                                                  |

This glossary of terms provides more detailed explanations of the phrases and technologies referenced in this selection guide.

|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Adaptive Control</b>                         | <p>PowerFlex Drives with TotalForce technology continuously monitor the application and automatically adjust for optimal system performance.</p> <p>As your equipment operates, load observer and adaptive tuning monitor the variables that can change over time and automatically make adjustments to compensate for the mechanical changes that occur, which includes load dynamics and high frequency resonances. Together, load observer and adaptive tuning help to reduce commissioning time and mechanical wear while improving the performance of most applications.</p>                          |
| <b>AppView®</b>                                 | <p>This feature of the PowerFlex® 523 and 525 drives provides parameter groups for several of the most common applications, including conveyors, mixers, compressors, pumps, and blowers. With the settings to run these applications already in place, you can get your machine up and running faster, helping to increase productivity.</p>                                                                                                                                                                                                                                                              |
| <b>Connected Components Workbench™ software</b> | <p>Connected Components Workbench software is a set of collaborative tools supporting the Guardmaster® Configurable Safety Relay, Micro800™ controllers, PowerFlex drives and PanelView™ component operator interface products. It is based on proven Rockwell Automation and Microsoft Visual Studio technology and offers controller programming, device configuration and integration with HIM editor. Program your controllers, configure your devices, and design your operator interface screens using this software and help minimize your initial machine development with this free software.</p> |
| <b>CustomView™</b>                              | <p>Customize your machine and help reduce future design and development time by quickly defining your own group of parameters. AppView and CustomView tools are both available for use with the PowerFlex 523 and 525 drives through the integral HIM, Connected Components Workbench software, and the Studio 5000 Logix Designer® application.</p>                                                                                                                                                                                                                                                       |
| <b>DeviceLogix™</b>                             | <p>This technology for the PowerFlex 753 and 755 drives lets you control outputs and manage status information locally within the drive, allowing you to operate the drive independently or complementary to supervisory control to help improve system performance and productivity. With DeviceLogix, you can speed reaction time by processing in the drive which reduces dependency on network throughput.</p>                                                                                                                                                                                         |
| <b>FORCE Technology</b>                         | <p>This Allen-Bradley patented Field Oriented Control is a version of Flux Vector Control. It provides excellent low speed/zero speed performance and delivers accurate torque and speed regulation.</p>                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>MainsFree™</b>                               | <p>A feature of PowerFlex 523 and 525 drives where you can connect your control module to a personal computer with a standard USB cable and quick upload, download, and flash the drive with new settings.</p>                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>QuickView™</b>                               | <p>A feature of PowerFlex 523 and 525 drives where the dynamic LCD HIM supports multiple languages and features descriptive QuickView scrolling text.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Premier Integration</b>                      | <p>This is the exclusive experience of integrating Allen-Bradley motor control devices into the Allen-Bradley Logix control platform. Use just one software tool to help reduce your programming time, ease startup and commissioning and streamline diagnostics. To learn more, refer to the Premier Integration white paper, publication <a href="#">IMCPI-WP001</a>.</p>                                                                                                                                                                                                                                |

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Pump Off</b>               | This unique feature specific for oil well applications is a patented pump-off function that measures the torque and currents on a motor to determine flow from a well. This alternative to traditional mechanical flow meters allows pump operators to optimize production based on the flow of the well and can also help reduce downtime by protecting the rod and motor assets. Learn more about this feature for the PowerFlex 753 and 755 drives at <a href="#">PFLEX-AP004</a> .                                                                                                                                                                                                                 |
| <b>Safe Speed Monitor</b>     | Provides a solution for applications using PowerFlex 750-Series or PowerFlex 755TL/755TR/755TM drives that can benefit from access to a safety zone while there is limited motion. In addition, Safe Speed Monitor has an integrated monitoring relay to save additional panel space and installation labor. This option carries a safety rating up to and including PLe/SIL3 and Cat 4. The Safe Speed Monitor option helps you safely monitor and control the speed of your application, which allows operators to perform process or maintenance work without stopping the machine.                                                                                                                 |
| <b>Safe Torque Off</b>        | PowerFlex 70 and 753 AC drives are available with optional Safe Torque Off functionality offering Safe-off control. Safe Torque Off is a standard built-in feature on the PowerFlex 525 AC drive. And the PowerFlex 527, 755, 755TL, 755TR and 755TM drives provide a choice for Safe Torque Off implementation. They offer hardwired Safe Torque Off as well as the option of Networked Safety, a controller-based safety function that is configured in the Studio 5000 Logix Designer environment and delivered via EtherNet/IP.                                                                                                                                                                    |
| <b>TotalFORCE™ Technology</b> | <p>PowerFlex 755TL/755TR/755TM drives are the first to offer TotalFORCE technology. This new drive technology is the evolution of the Allen-Bradley variable speed control platform. It delivers precise, responsive control of position, velocity and torque for electric motors and incorporates several patented features that are designed to help optimize your system and maintain productivity. Features of TotalFORCE Technology include:</p> <ul style="list-style-type: none"><li>• Concurrent and independent control of flux and torque</li><li>• High bandwidth motor control</li><li>• High performance torque smoothness and accuracy</li><li>• Supports multiple motor types</li></ul> |
| <b>TorqProve™</b>             | This feature helps verify control of the load in crane and hoisting applications. TorqProve helps alleviate concerns with brake timing and environmental changes and can significantly reduce wear and tear on the mechanical brake with smooth operation and reduced machine stress. This standard feature is available in PowerFlex 755, 755TL, 755TR and 755TM AC drives, PowerFlex DC drives and as a control option for PowerFlex 7000 medium voltage drives.                                                                                                                                                                                                                                     |

# Line & Load Options



## AC supply source

Input line reactor recommended when line voltage imbalances are greater than 2%.

## Input Fusing and Circuit Breakers

The recommended fuse types are listed in the product user manuals.

Rockwell Automation offers a full line of Allen-Bradley® circuit breakers and motor protection devices to help meet many of your application needs.

## Line reactor

Needs to be applied if:

- a) Installation site has switched power factor correction capacitors
- b) Installation site has power interruptions or voltage dips
- c) The transformer is too large in comparison to the drive

(Refer to publication: [DRIVES-IN001](#) ).

## Input filter

Compact PowerFlex drives: External EMC filter required for EMC compliance. With PowerFlex 523, 525 and 527 AC drives, EMC filtering is embedded at 200V and 400V. Architecture drives: External EMC filter only required with long motor cables and/or specific immunity requirements.

## AC drive

Normal duty (ND) rating: 110% overload for 1 minute and 150% overload for 3 seconds. No excessive starting overload, transient overload or high duty cycle. The majority of typical AC drive applications are ND.

Heavy duty (HD) rating: 150% overload for 1 minute and 180% overload for 3 seconds. Required for high starting torque (e.g., heavily loaded conveyors), high brake-away torque (e.g., extruders and mixers) and high running torque (e.g., reciprocating compressors).

## Output device or cable termination

Required if motor cable lengths exceed stated values

(Refer to publication: [DRIVES-IN001](#) ).

## AC motor

## Why Choose Allen-Bradley?

Get The Right Components,  
At The Right Price, Right When  
You Need Them

You'll find the highest-quality Essential Components at a fair price, an intuitive product selection, and fast delivery. The wide breadth of our component offering fits most applications so you do not pay for more than you need. Additionally, you will get components that perform to your specifications, with the services and support you demand. Refer to the Essential Components Catalog, publication [EG-CA100 -EN-P](#) to learn more.





# Rockwell Automation Services

We understand your need to capture and use production information, reduce downtime, improve safety, increase productivity and perform diagnostics—because they're our goals too.

Rockwell Automation can help you improve the performance of your people and maximize your automation investment with services like:

## Start-up and Commissioning

- We can help you commission and start-up your new Allen-Bradley drive or system, and in turn, reduce the time between integration and actual start-up
- Our standard process validates that the necessary electrical, mechanical and environmental criteria have been met and the appropriate steps have been taken to ensure proper equipment operation
- Our highly experienced Field Service Professionals work with you to:
  - Help ensure on-time production
  - Improve equipment operation
  - Reduce risk of performance problems and premature equipment failures
  - Reduce total maintenance costs

## Parts Management Agreement (PMA)

- Provides quick access to Rockwell Automation spare parts
- Reduces operating costs to maintain and manage inventory
- We own and manage your spare parts inventory for a fixed monthly or quarterly cost

## Drives Training Curriculum

- Maximize job and automation asset performance through skill-building courses that introduce concepts and techniques to help properly wire drives and diagnose specific faults
- Exercises offer extensive hands-on practice using the drive

## Safety Services

- Meet industry and global safety compliance regulations
- Rockwell Automation Machine Safety Consultants can perform any safety assessment and can assist at any step of a safeguarding project



## Preventive Maintenance

- Regularly scheduled maintenance for your automation and related equipment to prevent potential problems and help extend component and system life
- Your preventive maintenance program provides the following and much more:
  - Full-service warranty
  - 24/7 remote troubleshooting
  - Fully warranted remanufactured replacement parts to ensure compatibility

## Remanufacturing Services

- Remanufacturing and Exchange Services go far beyond other repair services with a comprehensive remanufacturing process that restores failed Allen-Bradley® and Reliance Electric™ equipment to its original operating condition to make sure it will function reliably

## Online & Phone Support

- TechConnect<sup>SM</sup> Support provides unlimited, real-time access to our technical support engineers
- Rockwell Automation Knowledgebase is the online resource for technical information, assistance, technical notes, software updates, product/service e-mail notifications, and more

## Assurance<sup>TM</sup> Integrated Support

- An annual guaranteed support agreement helps keep your systems running by combining remote support, replacement parts and on-site service into one comprehensive agreement, for one flat fee
- Minimize equipment downtime, eliminate unplanned repair expenses, ease staffing burdens and lower the total lifecycle cost of your assets

**For more information, visit: [www.rockwellautomation.com/global/go/services](http://www.rockwellautomation.com/global/go/services)**

# Notes

# Notes

# Notes

# Rockwell Automation Services

## Global Support. Local Address. Peace of Mind.

Providing the resources you need, when and where you need them, Rockwell Automation has an integrated, global network of ISO-certified repair centers, exchange hubs, field service professionals, IACET-recognized training centers, certified technical phone support centers and online tools.

[www.rockwellautomation.com/global/go/services](http://www.rockwellautomation.com/global/go/services)

### Meet Your Everyday Technical Needs

| Remote Support & Monitoring                                                                                                                                                                                                                                     | Training Services                                                                                                                                                                                 | OnSite Services                                                                                                                                                                   | Repair Services                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Real-time product, system and application-level support</li><li>• Unlimited online resources and tools</li><li>• Live chat and support forums</li><li>• Secure equipment monitoring, alarming and diagnostics</li></ul> | <ul style="list-style-type: none"><li>• Instructor-led and computer or web-based courses</li><li>• Virtual classroom</li><li>• Training assessments</li><li>• Workstations and job aids</li></ul> | <ul style="list-style-type: none"><li>• Embedded engineering</li><li>• Preventive maintenance</li><li>• Migrations and conversions</li><li>• Start-up and commissioning</li></ul> | <ul style="list-style-type: none"><li>• Product remanufacturing</li><li>• Repair services on a full range of industrial automation brands and products</li></ul> |
|                                                                                                                                                                                |                                                                                                                  |                                                                                                 |                                                                               |

### Maximize Your Automation Investment

| MRO Demand Management                                                                                                                                                                                       | Lifecycle Extension & Migrations                                                                                                                                                                       | Network & Security Services                                                                                                                                                              | Safety Services                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Comprehensive asset management planning</li><li>• Reliability services</li><li>• Warranty tracking</li><li>• Quick access to global spare parts inventory</li></ul> | <ul style="list-style-type: none"><li>• Installed Base Evaluation™</li><li>• Pinpoint obsolescence risk</li><li>• Tools and lifecycle support service agreements to mitigate production risk</li></ul> | <ul style="list-style-type: none"><li>• Control system lifecycle services</li><li>• Manage network convergence</li><li>• Security technology, policies and procedures services</li></ul> | <ul style="list-style-type: none"><li>• Safety assessments and remediation</li><li>• Safety design, integration and validation services</li></ul> |
|                                                                                                                          |                                                                                                                     |                                                                                                      |                                                              |

Visit the Rockwell Automation Support Center at [www.rockwellautomation.com/knowledgebase](http://www.rockwellautomation.com/knowledgebase) for technical information and assistance, plus:

- View technical/application notes
- Obtain software patches
- Subscribe for product/service email notifications
- Submit a Question, Live Chat, Support Forums and more

Visit Get Support Now at [www.rockwellautomation.com/go/support](http://www.rockwellautomation.com/go/support) to select your country and find your local support information.



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**[www.rockwellautomation.com](http://www.rockwellautomation.com)**

#### Power, Control and Information Solutions Headquarters

Americas: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444

Europe/Middle East/Africa: Rockwell Automation NV, Pegasus Park, De Kleetlaan 12a, 1831 Diegem, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640

Asia Pacific: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846