

Allen-Bradley PowerFlex 527 AC Drive



A New Spin on Motor Control

PowerFlex® 527 AC drives are ideal for machines that use a combination of servo drives and AC drives and would benefit from a common user experience for configuration and programming within the Rockwell Software Studio 5000 Logix Designer™ environment.

- Power ratings of 0.4 to 22 kW/ 0.5 to 30 Hp in global voltage classes from 100-600V to meet a wide range of applications
- New level of integration uses the pre-defined motion instruction sets within Studio 5000® for machine control and motor synchronization
- Once programmed, drive configuration files can more easily be transferred to a new machine without painstaking line-by-line copying
- Logix Programmable Automation Controllers (PACs) can automatically detect a replaced drive and download all configuration settings over EtherNet/IP™, helping reduce downtime.
- Built-in dual-port EtherNet/IP provides topology flexibility and Device Level Ring functionality
- A choice of safety options for hardwired or network Safe Torque-Off helps protect personnel and assets

Integrated Safety on EtherNet/IP

- Helps reduce the hardware, wiring and labor costs associated with implementing a SIL 3/PLe safety solution
- Reduces panel space and allows access to more diagnostic data on machine safety faults and causes, without requiring contactors or relays



Are you looking for ways to improve machine performance while reducing costs and complexity? You're not alone. That's why Rockwell Automation has developed the new Allen-Bradley® PowerFlex 527 AC drive, with features that help you simplify how you design, develop and deliver your machines.

A New Level of Premier Integration

The PowerFlex 527 AC drive takes a new approach to integration. This is the first AC drive completely integrated with Allen-Bradley Logix controllers and exclusively configured and programmed in the Rockwell Software® Studio 5000 environment. Using a single software tool, this combination of products allows you to reduce cost and engineering time while developing a more competitive machine.

The PowerFlex 527 Variable Frequency Drive is an ideal complement to machines using Allen-Bradley CompactLogix™, ControlLogix® or GuardLogix® PACs and Allen-Bradley Kinetix® servo drives. The PowerFlex 527 AC drive uses embedded motion instructions that are shared with Kinetix servo drives, providing the same user experience for configuration, programming and control of both types of drives, helping save valuable engineering time.

PowerFlex 527 drives offer a lower-cost solution for machines and applications – such as pumps, fans, infeed and outfeed conveyors – that need simple speed control for induction motors. The servo drives handle the more precise control operations involving speed, torque and position control.



LISTEN.
THINK.
SOLVE.

Integrated Safety Enhances Diagnostics

For years, Rockwell Automation has been providing safety solutions that help you protect personnel and assets as well as reduce machine downtime. Now, we're offering the expanded benefits of an advanced type of safety – Integrated Safety – for both the PowerFlex 527 AC drive and Kinetix 5500 servo drive.

With Integrated Safety, the drives receive safety commands from an Allen-Bradley GuardLogix PAC via EtherNet/IP. Having the controller manage safety helps reduce the hardware, wiring and labor costs associated with implementing a SIL 3/PLe safety solution.

The use of integrated – over the network – safety also reduces panel space and allows access to more diagnostic data on machine safety faults and causes, without requiring contactors or relays. The detailed diagnostics help to streamline the commissioning and troubleshooting of safety-related faults. In addition, Integrated Safety helps you save time and reduce labor costs by allowing you to seamlessly implement and change safety zoning in Studio 5000 Logix Designer software.

To further simplify use, the PowerFlex 527 AC drive and Kinetix 5500 servo drive have identical safety interfaces within the Studio 5000 Logix environment. This commonality helps reduce engineering time.



Leveraging Studio 5000 Logix Designer as the single software package to configure and program motion, drive and safety control helps you reduce commissioning time, training costs and time to market.

Specifications

Power Ratings	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
Motor Control	• Volts per Hertz • Sensorless Vector Control • Closed Loop Velocity Vector Control
Application	• Open Loop Speed Regulation • Closed Loop Speed Regulation
Overload Capability	• Normal Duty Application: 110% - 60 secs, 150% - 3 secs (For 20 Hp & above) • Heavy Duty Application: 150% - 60 secs, 180% - 3 secs (200% - 3 secs programmable)
Output Frequency Range	• 0...590 Hz
User Interface	• 5 Digits, 16 segments LCD display with multiple languages and local keypad (IP Address only) • Studio 5000 exclusively - Drive is configured via embedded motion instruction
EMC Filters	• Internal (1 phase 240V and 3 phase 480V) • External (1 & 3 phase)
Configuration	Studio 5000 Logix Designer™ application
Safety	• Built-in Hardwired Safe Torque-Off SIL3/PLe, Cat 3 • Built-in Network Safe Torque-Off SIL3/PLe, Cat 3
Communications	Built-in dual-port EtherNet/IP
Dimensions mm (in)	Frame A: 152 (5.98) H x 72 (2.83) W x 172 (6.77) D Frame B: 180 (7.08) H x 87 (3.42) W x 172 (6.77) D Frame C: 220 (8.66) H x 109 (4.29) W x 184 (7.24) D Frame D: 260 (10.23) H x 130 (5.11) W x 212 (8.34) D Frame E: 300 (11.81) H x 185 (7.28) W x 279 (10.98) D

For more information, go to
<http://www.ab.rockwellautomation.com/Drives/PowerFlex-527>

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