Bulletin 1606-XLE, -XLP, -XLS Switched Mode Power Supplies

Allen-Bradley

Excellent Performance. Superior Efficiency.

Features and Benefits

Industry-Leading Efficiency

- Intelligent circuit design with long-life electrolytic capacitors
- Generates minimal heat
- Allows up to 50% additional power reserve without reducing output voltage, while minimizing ripple and noise

Wide Power Range and Feature Set

- Multiple single- and three-phase inputs available for global applications
- Redundancy modules provide a means for managing dual power supplies for back-up power
- Multiple output voltages available

Compact Size

- Saves space on plant floor
- Expands plant flexibility

Approvals

- CE marked
- cULus and cURus listed

Overview

Leading the industry in performance and reliability, the Allen-Bradley® Bulletin 1606-XLS, -XLE and -XLP power supplies from Rockwell Automation® meet most worldwide single- and three-phase application requirements. Featuring top of the line efficiency, Bulletin 1606 power supplies help reduce costs and energy consumption. Plus, these compact power supplies are designed and manufactured to accept wide ranges of both AC and DC input voltages and are tested to meet global safety standards.

So, whether you are looking for a standard product covering a broad range of applications or a compact unit to save precious space and costs, there is sure to be an excellent fit for your unique power needs.

Bulletin 1606-XLE Essential Switched Mode Power Supplies

Designed with simplicity in mind, the XLE line offers high performing, ultra slim power supplies with the most basic feature set. These products contain the essential features for long service life and high reliability. This line is ideal if you are interested in a cost-effective solution to power your operations.

- Rated outputs between 80…960 W (3.3…40 A at 24V DC)
- Cost-effective solution for single-phase applications

	Input Voltage	Output Voltage [V DC]	Output Power [W]	Output Current [A]	Steady State Input Current			Cat. No.
					120V AC	230V AC	400V AC-480V AC	
Bulletin 1606-XLE Essential Single Phase ✶	100…120/200…240V AC	24…28	80	3.3	1.50	0.68	–	1606-XLE80E
		24…28	120	5	2.34	1.23		606-XLE120E
		24…28	120	5	2.34	1.23		❄ 1606-XLE120EC
	90…132V AC	24…28	120	5	1.23	–		1606-XLE120EN
	180…264V AC	24…28	120	5	–	1.17		1606-XLE120EE
	100…120/200…240V AC	24…28	240	10	4.34	2.23		1606-XLE240E
	90…132V AC	24…28	240	10	3.73	–		1606-XLE240EN
	180…264V AC	24…28	240	10	–	2.20		1606-XLE240EE
	100…120/200…240V AC	24…28	240	10	4.34	2.00		1606-XLE240EP
	100…120/200…240V AC	48…52	240	5	4.34	2.23		♦ 1606-XLE240F
	100…240V AC	24…28	480	20	4.36	2.33		1606-XLE480EP
	100…240V AC	48…56	480	10	4.36	2.33		1606-XLE480FP
Three Phase ✶	380…480V AC, 600V DC	12…15	96	8	–	–	2x 0.56	1606-XLE96B-2
	380…480V AC, 600V DC	48…56	240	5			3x 0.60	606-XLE240F-3
	380…480V AC, 600V DC	24…28	120	5			0.68	1606-XLE120E-2
	380…480V AC, 600V DC	24…28	240	10			3x 0.60	1606-XLE240E-3
	480 V AC	24	960	40			3x 1.40	1606-XLE960DX-3N
	480 V AC	48	960	20			3x 1.40	1606-XLE960MX-3N

Bulletin 1606-XLP Compact Switched Mode Power Supplies

When saving critical space is one of your main objectives, the XLP line is an excellent choice. These devices are equipped with many of the same features and certifications as previous generations and support low-power applications. This line is ideal if you require a cost-effective way to save space while delivering safe and reliable power.

- Rated outputs between 15…100 W (0.6…4.2 A at 24V DC)
- Multiple output voltages available
- Smaller, cost-effective solution for low power applications

	Input Voltage	Output Voltage [V DC]	Output Power [W]	Output Current [A]	Steady State Input Current			Cat. No.
					120V AC	230V AC	400V AC-480V AC	
Bulletin 1606-XLP Compact Single Phase ⌘	100…240V AC, 85…375V DC	5…5.5	15	3	0.28	0.17	–	1606-XLP15A
		12…15	15	1.3	0.28	0.17		1606-XLP15B
		24…28	15	0.6	0.28	0.17		1606-XLP15E
		5…5.5	25	5	0.60	0.30		1606-XLP25A
		10…12	30	3	0.60	0.25		1606-XLP30B
		24…28	30	1.3	0.60	0.35		1606-XLP30E
		24…28	30	1.3	0.54	0.30		1606-XLP30EQ
		± 12/15	36	2.8	0.65	0.40		1606-XLP36C
		12…15	50	4.2	1.00	0.60		1606-XLP50B
		24…28	50	2.1	0.77	0.44		1606-XLP50E
		24…28	50	2.1	1.00	0.60		1606-XLP50EZ
		48…56	50	1	1.00	0.60		1606-XLP50F
	100…240V AC, 110…300V DC	12…15	54	4.5	0.91	0.54		1606-XLP60BQ
		12…15	54	4.5	0.97	0.61		1606-XLP60BQT
		24…28	60	2.5	0.98	0.58		1606-XLP60EQ
		24…28	60	2.5	1.05	0.66		1606-XLP60EQT
	100…120/220…240V AC, 220…375V DC	24…28	72	3	1.60	0.80		1606-XLP72E
		12…15	90	7.5	1.90	0.90		✠ ♦ 1606-XLP90B
	100…200/200…240V AC, 220…375V DC	24…28	95	3.9	2.00	0.95		♦ 1606-XLP95E
		24…28	100	4.2	2.10	1.00		✠ ♦ 1606-XLP100E
		48…56	100	2.1	2.10	1.00		✠ ♦ 1606-XLP100F
Two Phase ✠ ⌘ ✦	380…480V AC	24…28	90	3.75	–	–	2x 0.36	1606-XLP90E-2
		24…28	100	4.2	–	–	2x 0.40	1606-XLP100E-2

Bulletin 1606-XLS Performance Switched Mode Power Supplies

Building on the successful design of its predecessors, the XLS line couples a new technology that significantly reduces unit size yet delivers a 150% power boost. Sleek and compact, these highly efficient devices have enough reserve current available to start even your most stubborn loads.

- Rated outputs between 80…960 W (3.3...40 A at 24V DC)
- 150% power boost feature handles start-up loads
- Buffer modules provide a short boost function, buffering load currents during typical main faults, switching events or load peaks

	Input Voltage	Output Voltage [V DC]	Output Power [W]	Output Current [A]	Steady State Input Current			Cat. No.
					120V AC	230V AC	400V AC-480V AC	
Bulletin 1606-XLS Performance Single Phase ⌘ ✦	100…240V AC, 110…300V DC	24…28	80	3.3	1.42	0.82	–	1606-XLS80E
		24…28	120	5	1.10	0.62		1606-XLS120E
		24…28	120	5	1.10	0.62		1606-XLS120EA
		12…15	180	15	1.65	0.93		1606-XLS180B
		24…28	240	10	2.22	1.22		1606-XLS240E
		24…28	240	10	2.22	1.22		1606-XLS240EA
		24…28	240	10	2.22	1.22		❄ 1606-XLS240EC
		48…56	240	5	2.22	1.22		1606-XLS240F
		28…32	240	8	2.22	1.22		1606-XLS240K
		24…28	480	20	4.56	2.48		1606-XLS480E
		24…28	480	20	4.56	2.48		1606-XLS480EA
		24…28	480	20	4.56	2.48		❄ 1606-XLS480EC
	200…240V AC	24…28	480	20	–	4.45		1606-XLS480EE
	100…240V AC, 110…300V DC	48…56	480	10	4.56	2.48		1606-XLS480F
		36…42	480	13.3	4.56	2.48		1606-XLS480G
	200…240V AC, 220…300V DC	24…28	960	34.3	–	4.6		1606-XLS960EE
		48…56	960	20	–	4.6		1606-XLS960FE
Three Phase ⌘ ✦	380…480V AC, 600V DC	24…28	480	20			3x 0.65	1606-XLS480E-3
	380…480V AC, 600V DC	24…28	480	20			3x 0.65	❄ 1606-XLS480E-3C
	360…900V DC	24…28	480	20			3x 0.85	1606-XLS480E-D
	380…480V AC, 600V DC	48…56	480	10			3x 0.65	1606-XLS480F-3
		36…42	480	13.3			3x 0.65	1606-XLS480G-3
		24…28	960	40			3x 1.35	1606-XLS960E-3
		48…54	960	20			3x 1.35	1606-XLS960F-3

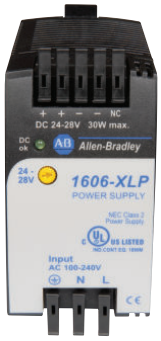
* For additional surge and filter protection, see Bulletin 4983 products
** Requires 2PCS, 1 per phase

⌘ Parallel operation (inclined characteristic)
✦ Meets EN 61000-3-2 PFC harmonics
❄ The C suffix of the cat. no. indicates that the product has conformal coating
✶ Parallel operation is for 1 + 1 redundancy only
✠ Single/parallel operation (inclined characteristic) selectable via jumper

Bulletin 1606 Special Modules

	Input Voltage	Output Voltage [V DC]	Output Power [W]	Output Current [A]	Steady State Input Current		Cat. No.
					120V AC	230V AC	
Bulletin 1606 Special Modules	10…60V DC	Vin 1 - .9V typ	384	16	-	-	1606-XLPRED
	24…60V DC	Vin 1 - .9V typ	480	20	-	-	1606-XLERED
	100…120/200…240V AC	24…28	80	3.3	1.50	0.68	1606-XLEDNET3
	10…60V DC	Vin 1 - .9V typ	480	20	-	-	1606-XLSRED
	24…28	Vin 2.15 typ	960	40	-	-	1606-XLSRED40
	24…28	Vin 2.7 typ	1920	80	-	-	1606-XLSRED80
	100…240V AC, 110…300V DC	24	91	3.8	1.02	0.48	1606-XLSDNET4
	100…240V AC, 110…300V DC	24	192	8	2.13	1.00	1606-XLSDNET8
Bulletin 1606 Special Modules with UPS	22.5…30V DC	22.5	240	10	-	-	1606-XLS240-UPS
	22.5…30V DC	22.5	240	10	-	-	1606-XLS240-UPSC
	22.5…30V DC	12/22.5	240	5/10	-	-	1606-XLS240-UPSD
	22.5…30V DC	22.5	240	10	-	-	1606-XLS240-UPSE
	24…28.8V DC	22.5…27.8	480	20	-	-	1606-XLSBUFFER24
	48…56V DC	45…54	960	10	-	-	1606-XLSBUFFER48

Comparison



	XLE Series	XLP Series	XLS Series
AC input voltage	115/230 auto select	115/230 auto select	100/240 wide range
DC input voltage Single- / three-phase	210-375/450-780	85-375	88-375/450-780
Watt range [W]	80-960	15-100	80-960
Adj. output voltage	Yes	Yes	Yes
Multiple output voltage [V]	12, 24, 48	5 12, 15, 24, 48	12, 24, 30, 36, 48
Power boost	20% power boost	-	50% power boost
DC-OK signal	Yes*	Yes	Yes
Temperature range	-25…+60 ˚C	-40…+70 ˚C	-25…+60 ˚C
Efficiency	90…92%	80…90%	91.6….95%
Terminals	Screw	Screw/Spring Clamp	Spring clamp

* DC–OK contact available on select models only.

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