

Highlights

- 500W AC-DC / 3"x5" footprint
- Universal input: (90~264VAC or 120~370VDC)
- Up to 92% efficiency
- 12V auxiliary output (0.3A)
- 5V standby output (1A with fan, 0.6A without fan)
- PFC > 0.9
- Convection cooling for 240W
- 3 years warranty

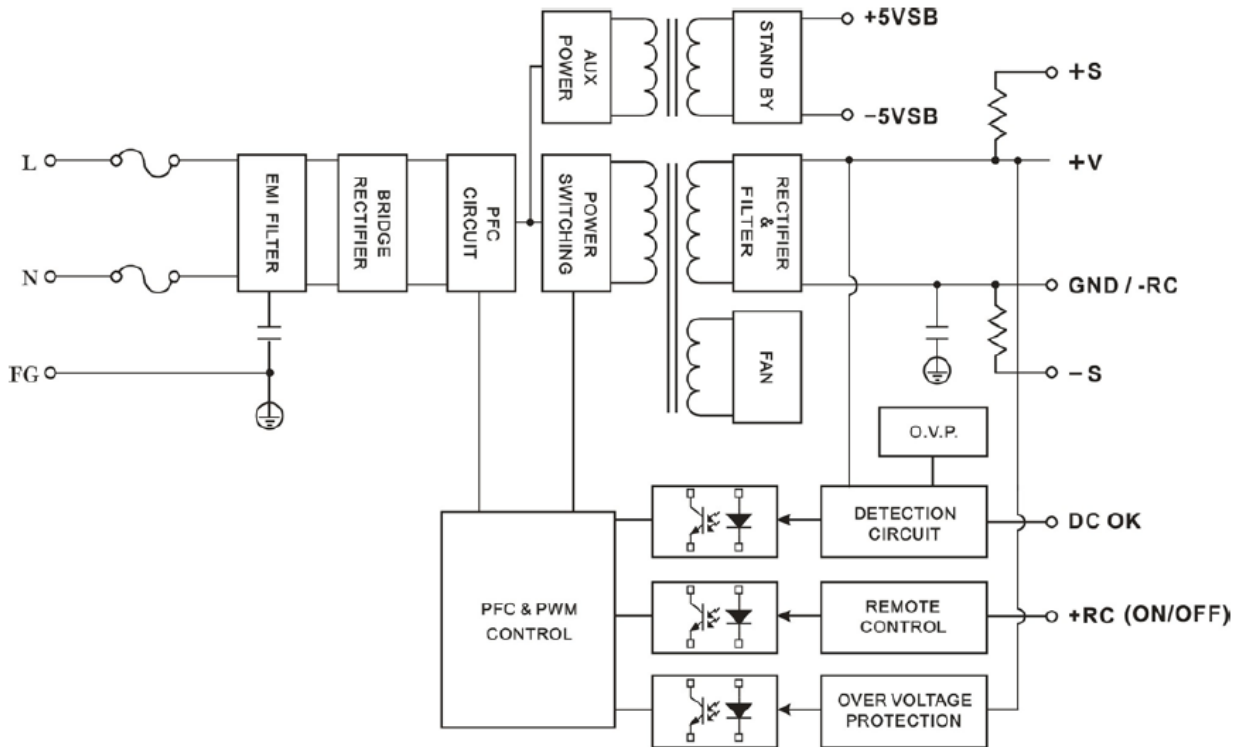


Model		XL500-12	XL500-24	XL500-48
Output	Rated Output Voltage	12V	24V	48V
	Rated Current (with 30 CFM)	41.5A	20.8A	10.41A
	Current (convection cooling), 115Vac	19.16A	9.58A	4.8A
	Current (convection cooling), 230Vac	20A	10A	5A
	Maximum Rated Power (Pmax)	500 W (with 30 CFM fan) 230 W (115Vac) / 240 W (230Vac)		
	Ripple & Noise (Max.)	150 mVp-p	240 mVp-p	480 mVp-p
	Voltage adjustable Range	±4%	±4%	±3%
	Voltage Tolerance	±2%		
	Line regulation (115-264 Vac)	±1%		
	Load regulation (10-100%)(typ)	±1.2%	±1%	±1%
	Minimum load	3%		
	Maximum capacitive load	10,000uF	5,000uF	2,500uF
Hold up time	8 ms (min)			
Input	Voltage Range	90~264VAC, 120~370VDC		
	Frequency Range	50/60 Hz, 47-63 Hz		
	Power Factor	>0.95 at full load		
	Efficiency (typical) at 230Vac	88%	90%	92%
	AC Current (typ)	6A/115Vac 3A/230Vac		
	Inrush Current (max)	Cold start 40A (115Vac) / 80A (230Vac)		
	Leakage current	< 0.5mA/240VAC		
Protection	Over power protection	Auto recovery		
	Over voltage protection	Zener diode clamp		
	Over temperature protection	Auto recovery		
	Short circuit protection	Auto recovery		

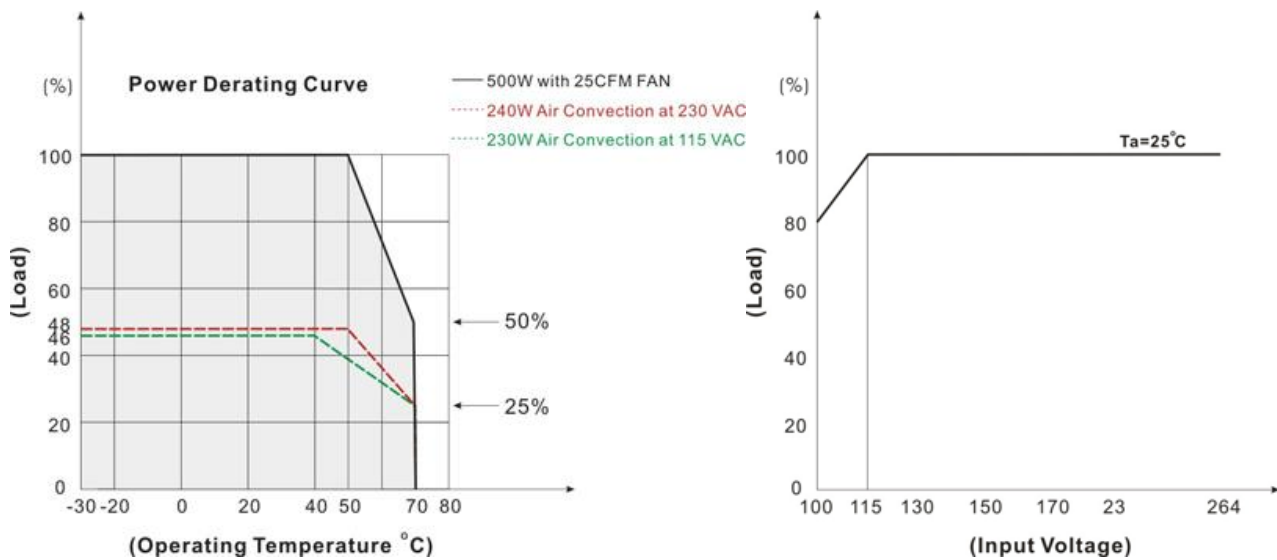
Model		XL500-12	XL500-24	XL500-48
Environment	Operating Temperature	-30~+70°C (refer to de-rating curve)		
	Storage Temperature	-30~+85°C		
	Temperature-coefficient	±0.03%/°C (0~50°C), ±0.05%/°C (-30~0°C)		
	Humidity	95%RH		
	MTBF	>160000 hours Compliance: MIL-HDBK-217F		
	Vibration	10~500Hz, 2G 10mins/cycle, for 60mins, applied on X,Y,Z axes		
Safety, EMC, Isolation	Safety Standards	UL 60950-1 2 nd edition, CE, CB		
	Surge	1kV L-N, 2kV L N-FG		
	EMI Conduction & Radiation	EN55022 class B, radiated class A		
	EMS Immunity	EN55024		
	Isolation: Input – Output	3000 Vac or 4242 Vdc		
	Isolation: Input – FG	1500 Vac		
	Isolation: Output – FG	500 Vac		
Others	Cooling	Convection / 30 CFM Fan		
	Dimension (LxWxH)	5.0 x 3.0 x 1.28 Inches (127.0 x 76.2 x 32.5 mm). Tolerance +/-0.5 mm		
	Weight	0.46kg		

Notes	<ol style="list-style-type: none"> 1. Ripple & noise are measured with 20MHz of bandwidth with a 0.1uf & 47uf parallel capacitors. 2. It's recommended to add Varistor 14S471K at L / N input side in parallel. 3. Hold up time measured at 90% Vout 4. Main Vout >3% load, 12V (Aux)/0.3A, 12V (Aux) needs 0.1A minimum load. 5. Derating may be required under low input voltage, refer to derating curve for more details.
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Block Diagram:

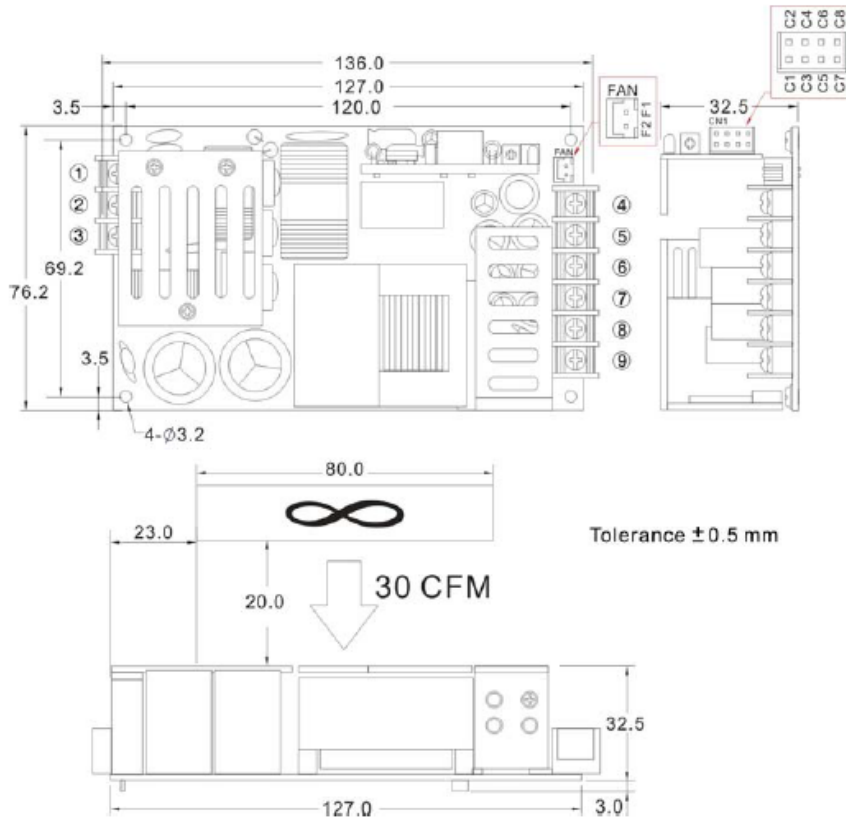


De-rating curve



Mechanical Drawings

Unit: mm



PIN#	Single
1	FG
2	AC IN (N)
3	AC IN (L)
4-6	+DC OUT
7-9	-DC OUT

Connector Pin (FAN)	
PIN#	Single
F1	+12V
F2	GND

Connector Pin (CN1)	
PIN#	Single
C1	-5VSB
C2	+5VSB
C3	GND
C4	DC OK
C5	-RC
C6	+RC
C7	-S
C8	+S

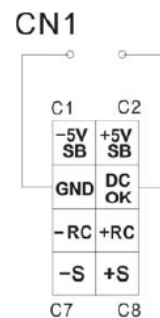
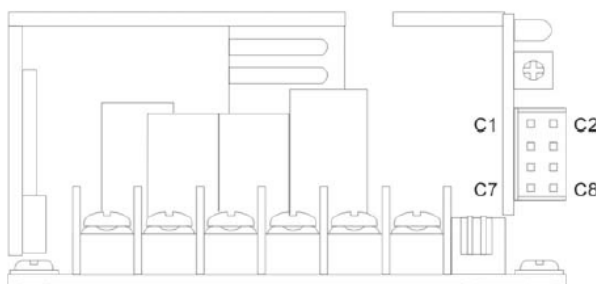
Connector CN1 - pin description.

Pin No	Function	Description
C1	-5VSB	This pin connects to the negative terminal (-V). Return for DC-OK and -RC signal output.
C2	+5VSB	Stand by voltage output ground 3.7~6V. The maximum load current is 0.6A.
C3	GND	This pin connects to the negative terminal (-V). Return for DC-OK and -RC signal output.
C4	DC OK	DC-OK Signal is a DC output.
C5	-RC	This pin connects to the negative terminal (-V). Return for DC-OK and -RC signal output.
C6	+RC	Turns the output on and off by electrical. Short: Power OFF, Open: Power ON.
C7	-S	Negative sensing. The -S signal should be connected to the negative terminal of the load. The -S and +S leads should be twisted in pair to minimize noise pick-up effect. The maximum line drop compensation is 0.3V.
C8	+S	Positive sensing. The +S signal should be connected to the negative terminal of the load. The +S and -S leads should be twisted in pair to minimize noise pick-up effect. The maximum line drop compensation is 0.3V.

Control signals, configurations and application.

1. DC-OK Signal

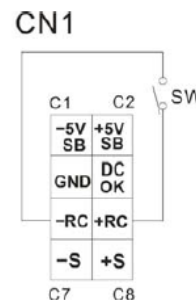
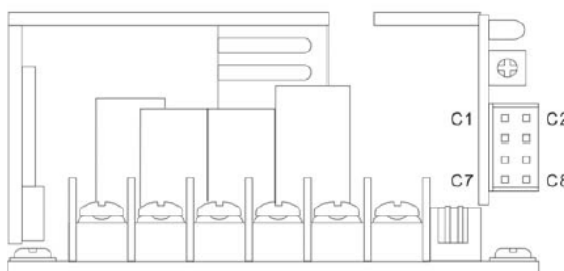
Between DC-OK and GND	Output Status
3.7~6V	ON
0~1V	OFF



2. Remote Control

It can be turned ON/OFF by using the "Remote Control" function.

Between +RC and -RC	Output Status
SW ON (Short)	OFF
SW OFF (Open)	ON



N2Power part number:

Model (Description)	Part number
XL500-12 (12V 500W)	400525-01-0
XL500-24 (24V 500W)	400525-02-8
XL500-48 (48V 500W)	400525-03-6

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