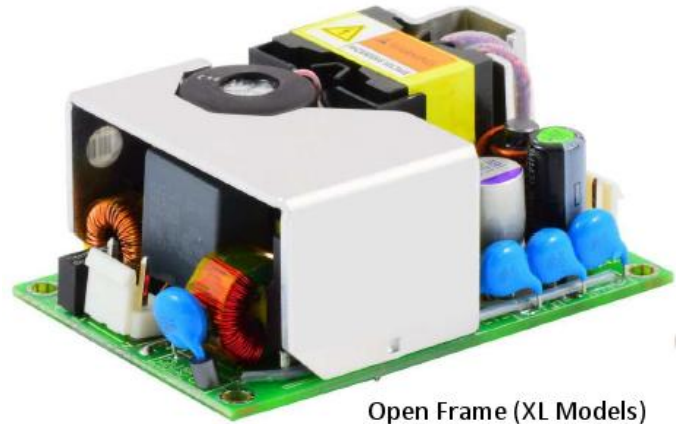


- Low standby power consumption ≤ 0.3 Watt
- Wide input voltage range 85 to 264VAC, 47 to 63HZ
- Also supports DC-DC (input 120 to 370VDC)
- Convection cooled
- Active power factor correction
- Built-in EMI filter
- Output voltage adjustable
- Open frame dimensions 2.00" x 3.00" x 1.16"
- 3000VAC input to output reinforced insulation
- Protection type Class I or Class II
- Low leakage current $\leq 300\mu\text{A}$
- Operating altitude 5000M
- 3 year warranty



Open Frame (XL Models)



U-Frame (XLU Models)



Enclosed (XLE Models)

Packaging Choices

The XL100 is not only one of the smallest 100 Watt power supplies on the market, it is also available in a choice of three different packages to suit diverse application requirements – XL Open Frame models, XLU U-Frame models and XLE Enclosed models. Despite its small size, the full 100W output power is delivered with convection cooling only – no need for a fan!

Applications

The excellent operating characteristics of the XL100 Series plus its wide range of international compliance certifications make it the ideal choice for use in diverse applications that include personal computers, wireless networking, measurement equipment, telecom/datacom, industrial control systems and automation.

Connector Options

Choose from JST, Molex or Terminal Block connectors:



MODEL	PART NUMBER	OUTPUT	VOLTAGE	REGULATION (%)	MAXIMUM CURRENT (A)	RIPPLE & NOISE (P-P)
XL100-12 XLU100-12 XLE100-12 XL100-12B XLU100-12B XLE100-12B	400575-01-5 400576-01-3 400577-01-1 400575-07-2 400576-07-0 400577-07-8	V _{OUT}	12	±0.5	8.34	120 mV
XL100-15 XLU100-15 XLE100-15 XL100-15B XLU100-15B XLE100-15B	400575-02-3 400576-02-1 400577-02-9 400575-08-0 400576-08-8 400577-08-6	V _{OUT}	15	±0.5	6.67	150 mV
XL100-24 XLU100-24 XLE100-24 XL100-24B XLU100-24B XLE100-24B	400575-03-1 400576-03-9 400577-03-7 400575-09-8 400576-09-6 400577-09-4	V _{OUT}	24	±0.5	4.17	160 mV
XL100-28 XLU100-28 XLE100-28 XL100-28B XLU100-28B XLE100-28B	400575-04-9 400576-04-7 400577-04-5 400575-10-6 400576-10-4 400577-10-2	V _{OUT}	28	±0.5	3.58	180 mV
XL100-36 XLU100-36 XLE100-36 XL100-36B XLU100-36B XLE100-36B	400575-05-6 400576-05-4 400577-05-2 400575-11-4 400576-11-2 400577-11-0	V _{OUT}	36	±0.5	2.78	190 mV
XL100-48 XLU100-48 XLE100-48 XL100-48B XLU100-48B XLE100-48B	400575-06-4 400576-06-2 400577-06-0 400575-12-2 400576-12-0 400577-12-8	V _{OUT}	48	±0.5	2.09	340 mV

Model numbers without the suffix 'B' comply with Protection Class I. Those with suffix 'B' comply with Protection Class II.

Compliance *

USA / Canada

Safety:
UL 60950-1 second edition

EMC:

FCC part 15, subpart B
(Radiative, Class A)
(Conductive, Class B)

International

IEC 60950-1

EN55011
EN 55022
(Radiative, Class A)
(Conductive, Class B)

* The power supply is considered a component of the final product in which it is integrated. The final product itself must be tested separately for compliance with all applicable standards.

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INPUT SPECIFICATIONS	
Nominal Input Voltage:	85 – 264 VAC 120 – 370 VDC
Input Frequency Range:	47 – 63 Hz
Input Current:	1.15 A @ 115 VAC 0.55 A @ 230 VAC
Input Protection:	3.15 A fuse
Safety Isolation:	3000 VAC in to out 1500 VAC in to ground
Inrush Current:	100 A @ 230 VAC, 25°C
Leakage Current:	300 µA
Power Factor:	0.95
OUTPUT SPECIFICATIONS	
Total Output:	100 W
Output Voltages:	12 to 48 V
Voltage adjustability	±10%
Voltage Tolerance ⁽²⁾	±1.0%
Line Regulation ⁽³⁾	±0.2% ⁽²⁾
Load Regulation ⁽⁴⁾	±0.5% ⁽²⁾
Setup / Rise Time ⁽⁵⁾	1 sec / 20ms, at full load
Hold-up Time:	Minimum 22 ms at 115 VAC
Efficiency:	Up to 92%
Minimum Load:	No load
Over / Under Shoot:	Max 1% at turn-on
PROTECTION	
Overvoltage Protection:	Latch mode at 115 - 135% of V _{OUT}
Overload Protection:	Hiccup mode at 115 - 150% of I _{OUT} rated
Short Circuit Protection:	Continuous protection, with auto recovery
Isolation Resistance	500 VDC @ 0.1 GΩ
ENVIRONMENTAL SPECIFICATIONS	
Operating Temperature:	-40 to +50°C
Storage Temperature:	-40 to +85°C
Operating altitude:	5000 m
Convection Cooling:	100W
Relative Humidity:	5% to 95% (non-cond.)
MTBF (full load at 25°C):	790,300 hours

Notes

- (1) All specifications valid at normal input voltage, full load and +25°C after warm-up time, unless otherwise stated.
- (2) Tolerance includes setup time tolerance, line regulation and load regulation.
- (3) Line regulation is measured from low line to high line at rated load.
- (4) Load regulation is measured from 0% to 100% rated load.
- (5) Length of setup time is measured at first cold start. Turning ON/OFF the power supply continuously may increase the setup time.

MECHANICAL DRAWINGS

Connector Pin Assignments

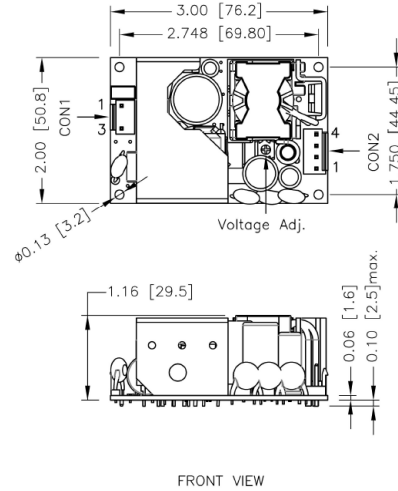
CON1 – Input Connector		CON1 – Output Connector	
Pin 1	Line	Pin 1, 2	-V _{out}
Pin 3	Neutral	Pin 3, 4	+V _{out}

Any one of the four screw holes of the Open Frame chassis can be used as a PE connection point for CLASS I application.

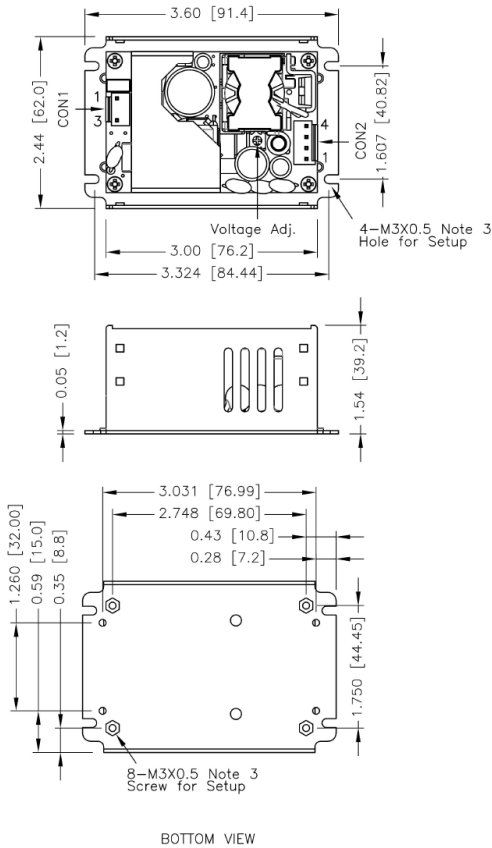
Notes

1. All dimensions are in inches (mm)
2. Tolerance: x.xx±0.02 (x.x±0.5) x.xxx±0.01 (x.xx±0.25)
3. M3x0.5 screw locked torque MAX 5Kg.cm/0.49N.m

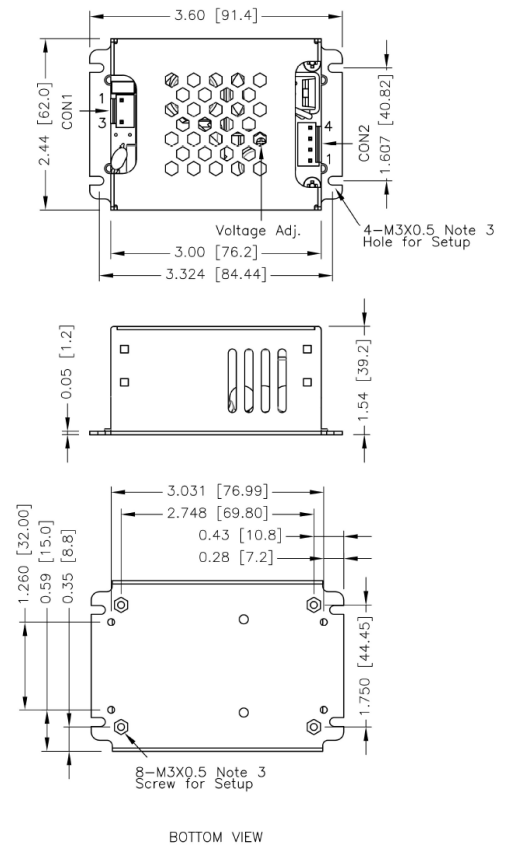
XL Models (Open Frame)



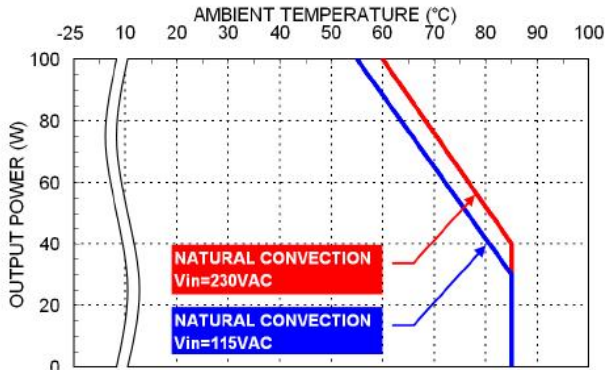
XLU Models (U-Frame)



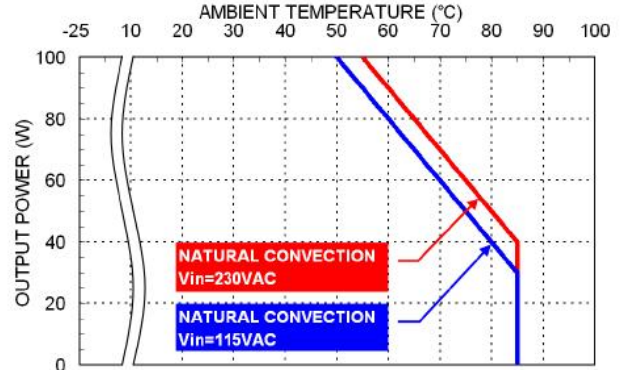
XLE Models (Enclosed)



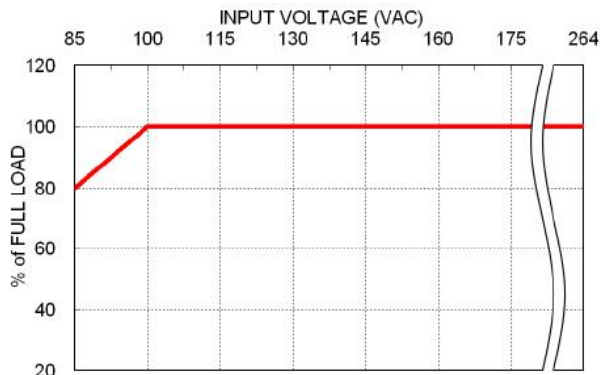
OPERATING CHARACTERISTICS



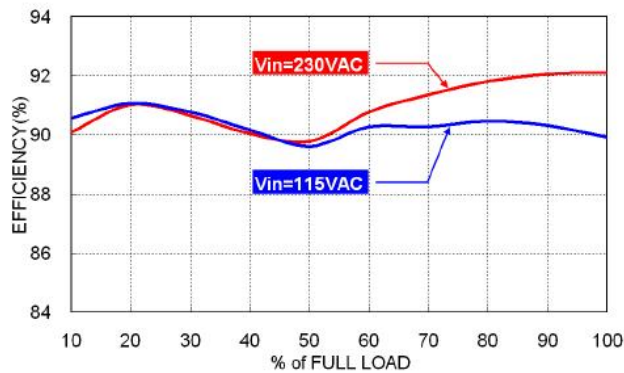
Derating Curve vs. Ambient Temperature
XLE Models (Enclosed)



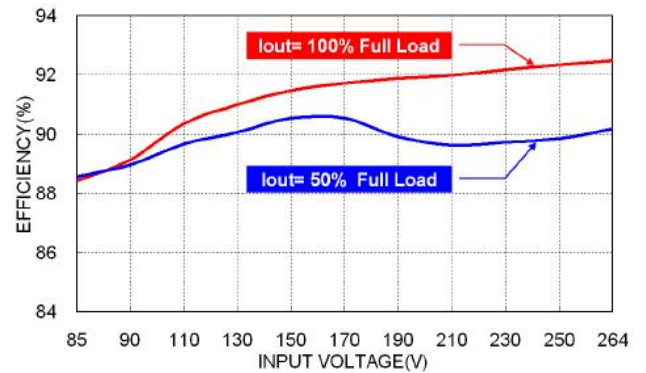
Derating Curve vs. Ambient Temperature
XL and XLU Models (Enclosed & U-Frame)



Derating Curve vs. Input Voltage
All Models



Efficiency vs. Output Load
XL100-24B



Efficiency vs. Input Voltage
XL100-24B