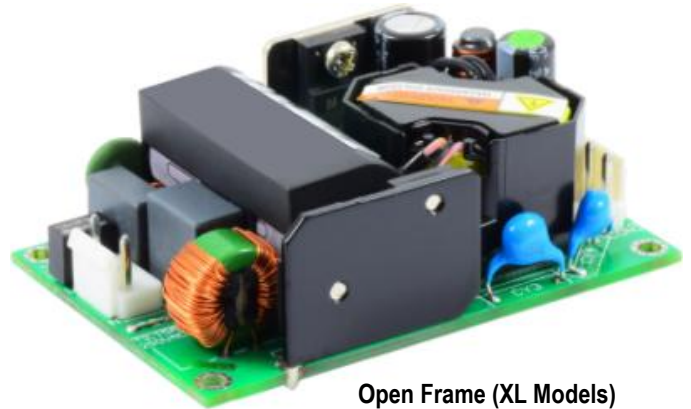


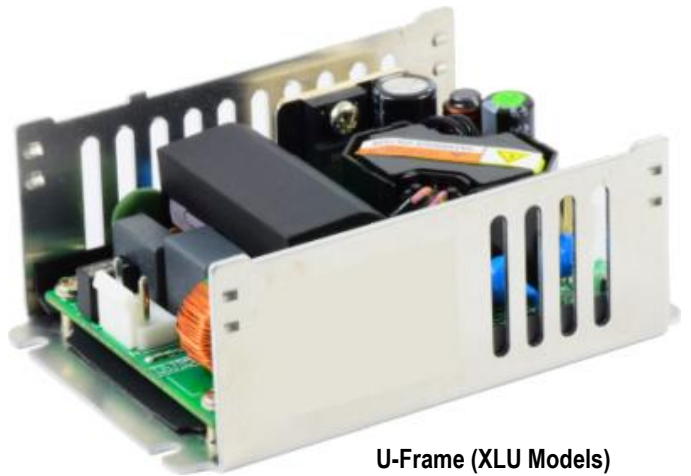
- Low standby power consumption ≤ 0.11 Watt
- Wide input voltage range 85 to 264VAC, 47 to 63HZ
- Also supports DC-DC (input 120 to 370VDC)
- Convection cooled
- Built-in EMI filter
- Output voltage adjustable
- Open frame dimensions 2.00" x 3.00" x 1.00"
- 3000VAC input to output reinforced insulation
- Protection type Class I or Class II
- Low leakage current $\leq 75\mu\text{A}$
- Operating altitude 5000M
- 3 year warranty



Open Frame (XL Models)

Packaging Choices

The XL40 is not only one of the smallest 40 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 40W output power is delivered with convection cooling only – no need for a fan!



U-Frame (XLU Models)

Applications

The excellent operating characteristics of the XL40 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.



Enclosed (XLE Models)

Connector Options

Choose from JST, Molex or Terminal Block connectors:



SMX POWER 3005 Avenida Simi, Simi Valley, CA 93063
TEL: (805) 582-2804 FAX: (805) 582-2308 <http://www.smxpower.com>



MODEL	PART NUMBER	OUTPUT	VOLTAGE	REGULATION (%) (4)	MAXIMUM CURRENT (A)	RIPPLE & NOISE (P-P)
XL40-05 XLU40-05 XLE40-05 XL40-05B XLU40-05B XLE40-05B	400570-14-3 400569-14-3 400568-14-3 400570-01-1 400569-01-1 400568-01-1	V _{OUT}	5	±0.7	8	75 mV
XL40-7P5 XLU40-7P5 XLE40-7P5 XL40-7P5B XLU40-7P5B XLE40-7P5B	400570-18-5 400569-18-5 400568-18-5 400570-05-2 400569-05-2 400568-05-2	V _{OUT}	7.5	±0.5	5.34	75 mV
XL40-09 XLU40-09 XLE40-09 XL40-09B XLU40-09B XLE40-09B	400570-19-3 400569-19-3 400568-19-3 400570-06-0 400569-06-0 400568-06-0	V _{OUT}	9	±0.5	4.45	75 mV
XL40-12 XLU40-12 XLE40-12 XL40-12B XLU40-12B XLE40-12B	400570-15-1 400569-15-1 400568-15-1 400570-02-9 400569-02-9 400568-02-9	V _{OUT}	12	±0.5	3.34	75 mV
XL40-15 XLU40-15 XLE40-15 XL40-15B XLU40-15B XLE40-15B	400570-20-1 400569-20-1 400568-20-1 400570-07-8 400569-07-8 400568-07-8	V _{OUT}	15	±0.5	2.67	75 mV
XL40-18 XLU40-18 XLE40-18 XL40-18B XLU40-18B XLE40-18B	400570-16-9 400569-16-9 400568-16-9 400570-03-7 400569-03-7 400568-03-7	V _{OUT}	18	±0.5	2.23	75 mV
XL40-24 XLU40-24 XLE40-24 XL40-24B XLU40-24B XLE40-24B	400570-21-9 400569-21-9 400568-21-9 400570-08-6 400569-08-6 400568-08-6	V _{OUT}	24	±0.5	1.67	75 mV
XL40-28 XLU40-28 XLE40-28 XL40-28B XLU40-28B XLE40-28B	400570-22-7 400569-22-7 400568-22-7 400570-09-4 400569-09-4 400568-09-4	V _{OUT}	28	±0.5	1.43	75 mV

Continued on next page...

INPUT SPECIFICATIONS	
Nominal Input Voltage:	85 – 264 VAC 120 – 370 VDC
Input Frequency Range:	47 – 63 Hz
Input Current:	1.0 A @ 100 VAC 0.5 A @ 240 VAC
Input Protection:	15 A / 250 VAC fuse
Safety Isolation:	3000 VAC in to out 2500 VAC in to ground
Inrush Current:	60 A @ 230 VAC, 25°C
Leakage Current:	75 µA @ 264 VAC
OUTPUT SPECIFICATIONS	
Total Output:	40 W
Output Voltages:	5 V to 53 V
Voltage adjustability	±10%
Voltage Tolerance (2)	±1.0%
Line Regulation (3)	±0.2% (2)
Setup / Rise Time (5)	1 sec / 20ms, at full load
Hold-up Time:	Minimum 25 ms at 115 VAC, full load
Efficiency:	Up to 93%
Minimum Load:	No load
Over / Under Shoot:	Max 1% at turn-on
PROTECTION	
Overvoltage Protection:	Latch mode at 125 - 140% of V _{OUT}
Overload Protection:	Hiccup mode at 145% 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 +85°C
Storage Temperature:	- 40 to +85°C
Operating altitude:	5000 m
Convection Cooling:	40W
Relative Humidity:	5% to 95% (non-cond.)
MTBF (full load at 25°C):	3,010,000 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.

SMX POWER 3005 Avenida Simi, Simi Valley, CA 93063
TEL: (805) 582-2804 FAX: (805) 582-2308 <http://www.smxpower.com>



MODEL	PART NUMBER	OUTPUT	VOLTAGE	REGULATION (%) (4)	MAXIMUM CURRENT (A)	RIPPLE & NOISE (P-P)
XL40-36 XLU40-36 XLE40-36 XL40-36B XLU40-36B XLE40-36B	400570-24-2 400569-24-2 400568-24-2 400570-11-0 400569-11-0 400568-11-0	V _{OUT}	36	±0.5	1.12	75 mV
XL40-48 XLU40-48 XLE40-48 XL40-48B XLU40-48B XLE40-48B	400570-25-0 400569-25-0 400568-25-0 400570-12-8 400569-12-8 400568-12-8	V _{OUT}	48	±0.5	0.84	150 mV
XL40-53 XLU40-53 XLE40-53 XL40-53B XLU40-53B XLE40-53B	400570-26-8 400569-26-8 400568-26-8 400570-13-6 400569-13-6 400568-13-6	V _{OUT}	53	±0.5	0.77	150 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

International

IEC 60950-1

EMC:

FCC part 15, subpart B

(Radiative, Class A)

(Conductive, Class B)

EN55011

EN 55032

(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.

Every effort has been made to keep the information contained in this document current and accurate as of the date of publication or revision. However, no guarantee is given or implied that the document is error-free or that it is accurate with regard to any specification. N2Power reserves the right to change specifications without notice. Qualstar and the Qualstar logo are registered trademarks of Qualstar Corporation. N2Power and the N2Power logo are trademarks of Qualstar Corporation. All other trademarks are the property of their respective owners.

SMX POWER 3005 Avenida Simi, Simi Valley, CA 93063
TEL: (805) 582-2804 FAX: (805) 582-2308 <http://www.smxpower.com>



MECHANICAL DRAWINGS

Connector Pin Assignments

CON1 – Input Connector	
Pin 1	Line
Pin 3	Neutral

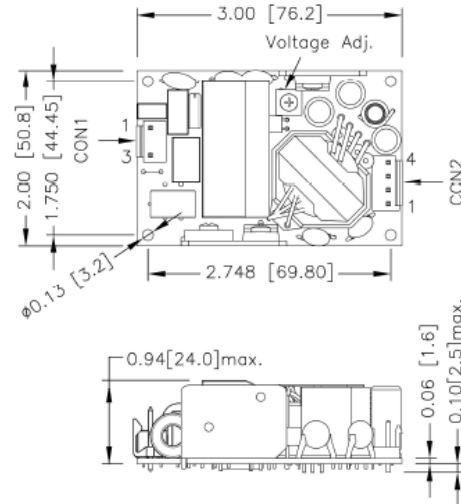
CON2 – Output Connector	
Pin 1, 2	-V _{out}
Pin 3, 4	+V _{out}

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

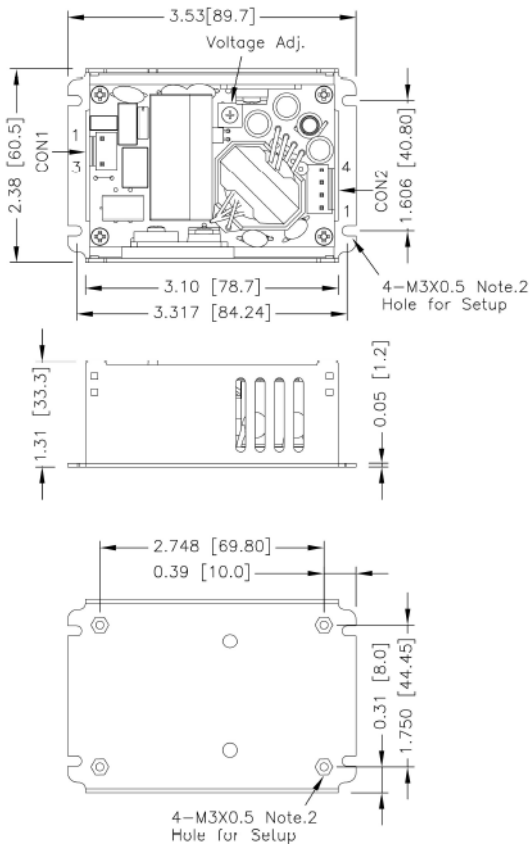
Notes

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 5Kgf.cm/0.49N.m

Open Frame type

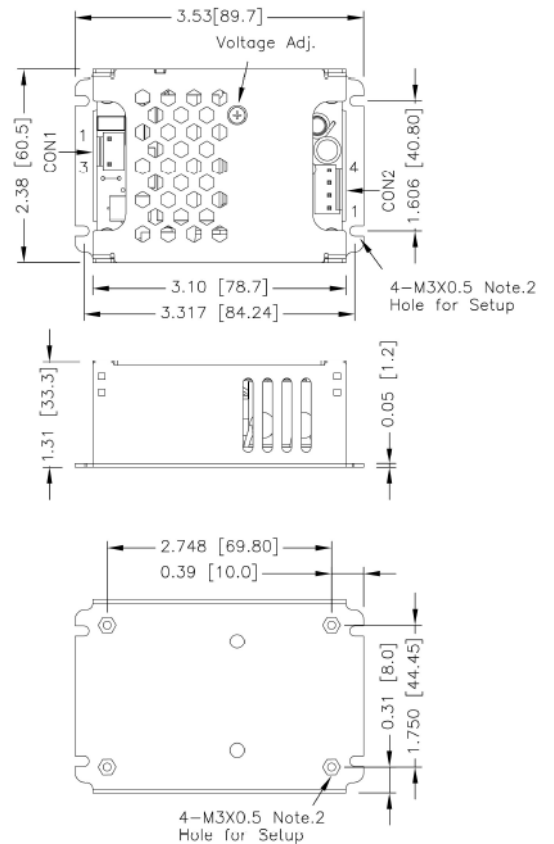


U-Frame type



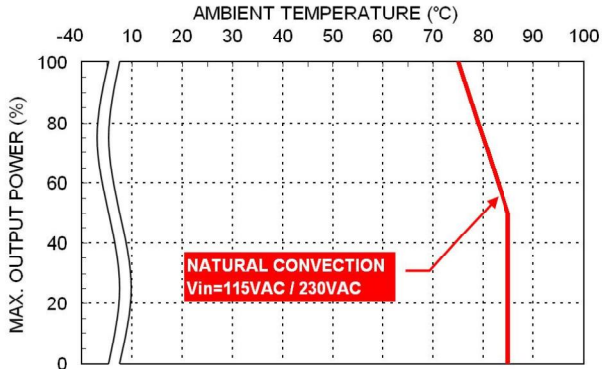
BOTTOM VIEW

Enclosed type

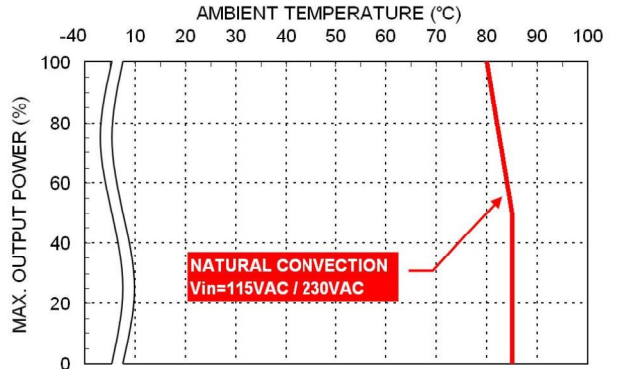


BOTTOM VIEW

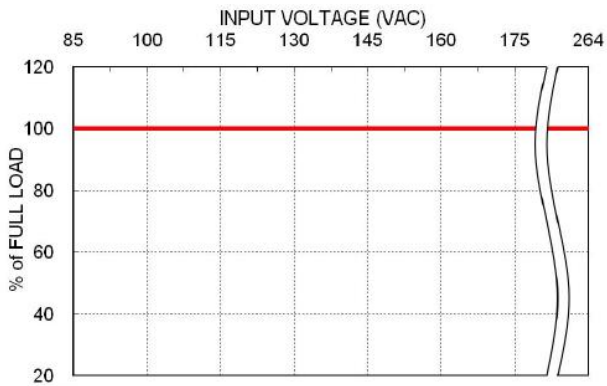
OPERATING CHARACTERISTICS



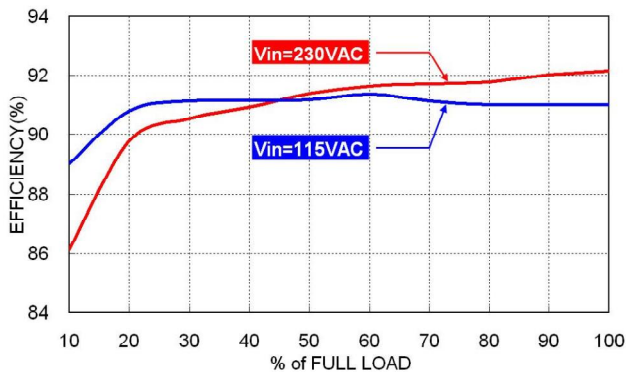
Derating Curve vs. Ambient Temperature
5V / 7.5V / 9V / 28V 'B' Models



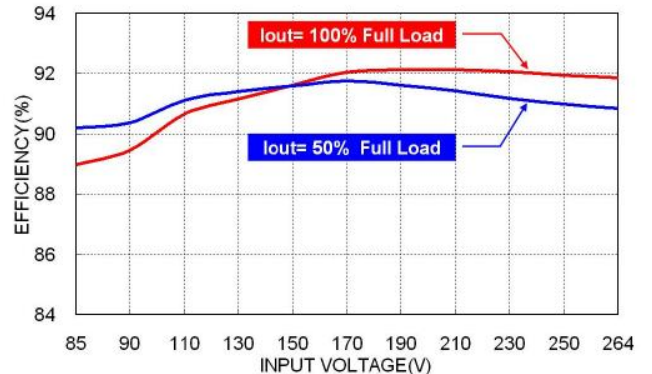
Derating Curve vs. Ambient Temperature
12V / 15V / 24V / 36V / 48V / 53V 'B' Models



Derating Curve vs. Input Voltage



Efficiency vs. Output Load
24V 'B' Model



Efficiency vs. Input Voltage
24V 'B' Model

SMX POWER 3005 Avenida Simi, Simi Valley, CA 93063
TEL: (805) 582-2804 FAX: (805) 582-2308 <http://www.smxpower.com>

