

N2Power XLM240 AC-DC Series

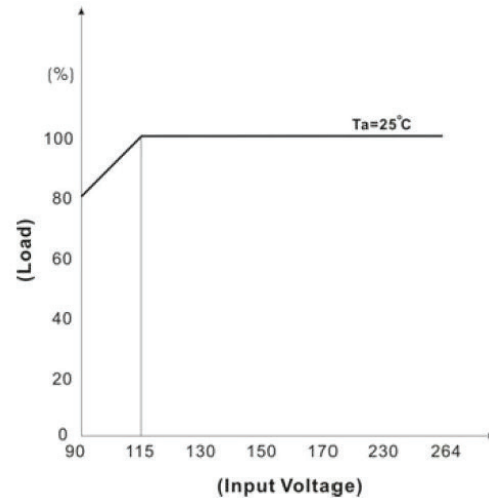
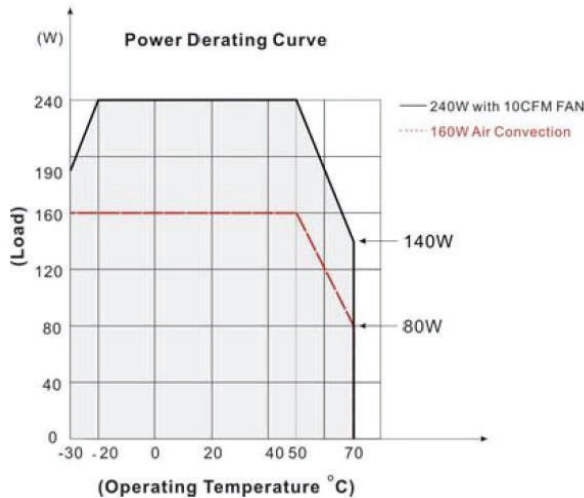
High Efficiency Medical Power Supplies

HIGHLIGHTS

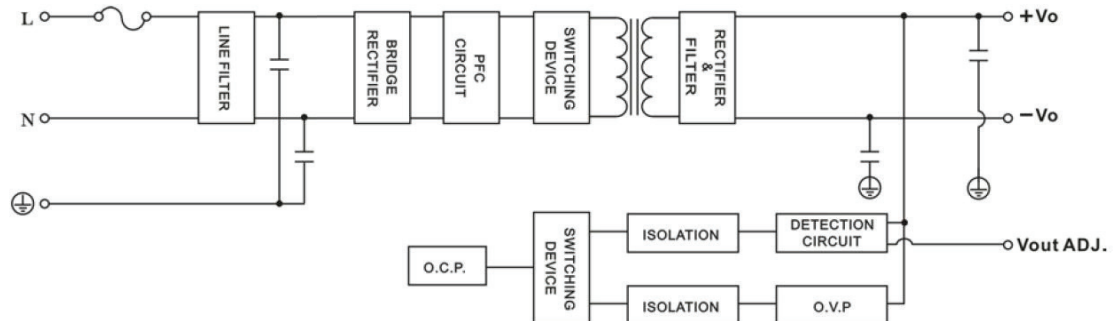
- 240 W AC-DC
- Up to 94% efficiency
- With P.F.C. function > 0.9
- < 0.5 W no load input power
- Built-in 12 V / 0.5 A fan supply
- Open Frame, U-Frame, Enclosed models available
- 4000 VAC input to output 2XMOOPP Insulation
- Suitable for BF application with appropriate system consideration
- UL / IEC / EN 60601 3.1 Edition and UL / IEC / EN 60950 AM2 Safety Approvals
- Complying with the latest EMC standard EN60601-1-2: 2015 (4th edition)
- 160 W power with convection cooling
- 3-year warranty
- EMI for both Class I (with PE) and Class II (without PE) configurations



OPERATING CHARACTERISTICS



BLOCK DIAGRAM



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MODEL	PART NUMBER	OUTPUT	VOLTAGE	REGULATION (%)	MAXIMUM CURRENT (A)	RIPPLE & NOISE (P-P)
XLMO240-12	400207-05-2	V _{OUT}	12	±4	20 ⁽¹⁾ 13.3 ⁽²⁾	120 mV ⁽³⁾
XLMO240-12	400207-08-6	V _{OUT}	12			
XLME240-12	400207-11-0	V _{OUT}	12			
XLMO240-15	400207-14-3	V _{OUT}	15	±4	16 ⁽¹⁾ 10.67 ⁽²⁾	150 mV ⁽³⁾
XLMO240-15	400207-15-1	V _{OUT}	15			
XLME240-15	400207-16-9	V _{OUT}	15			
XLMO240-24	400207-06-0	V _{OUT}	24	±4	10 ⁽¹⁾ 6.66 ⁽²⁾	240 mV ⁽³⁾
XLMO240-24	400207-09-4	V _{OUT}	24			
XLME240-24	400207-12-8	V _{OUT}	24			
XLMO240-48	400207-07-8	V _{OUT}	48	±4	5 ⁽¹⁾ 3.33 ⁽²⁾	480 mV ⁽³⁾
XLMO240-48	400207-10-2	V _{OUT}	48			
XLME240-48	400207-13-6	V _{OUT}	48			

Note: If you can't find your preferred output voltage listed on the table above, please contact a sales representative. We can easily modify standard PSUs to meet client-specific voltage requirements.

All specifications valid at normal input voltage, full load and +25°C after warm-up time, unless otherwise stated.

All specifications valid at normal input voltage, full load and +25°C after warm-up time, unless otherwise stated. XLMO models are Open Frame, XLMU models are U-Frame and XLME models are Enclosed

Compliance *

Safety:

UL / IEC / EN 60601 3.1 Edition & UL / IEC / EN 60950 AM2, IEC/EN/UL 62368-1

EMC:

EN Standard	EN60601-1-2:2015 (4th Edition)
Conducted EMI (6)	EN55011 Class B
Radiated EMI (6)	EN55011 Class I Class B/ Class II Class A
Radio-Frequency Immunity	EN61000-4-3
Fast Transient	EN61000-4-4
Surge	EN61000-4-5
Conducted Immunity	EN61000-4-6
PFMF	EN61000-4-8
Dips	EN61000-4-11
Interruption	EN61000-4-11

Notes

- (1) With 10CFM fan
- (2) Convection cooling
- (3) Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
- (4) Hold-up Time measured at 90% V_{out}.
- (5) Please check the derating curve for more details.
- (6) Please secure the power supply unit to your metal case by using the four screw holes in the corners for either Class I or Class II equipment
- (7) The fan supply is designed to serve as the source of the additive external fan for the cooling of the power supply, enabling the full load delivery and assuring the best life span of the product. Please do not use this fan supply to drive other devices.

This product is not designed for use in critical life support systems, equipment used in hazardous environment, nuclear control systems or other such applications which necessitate specific safety and regulatory standards other than the ones listed in this datasheet.

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INPUT SPECIFICATIONS	
Nominal Input Voltage ⁽⁵⁾	90 – 264 VAC
Input Frequency Range	47 – 63 Hz
Input Current	< 3.0 A max. @ 115 VAC < 1.5 A max. @ 230 VAC
Safety Isolation	4000 VAC input to output 2000 VAC input to ground 1500 VAC output to gnd.
Inrush Current	< 45 A max. @ 115 VAC < 90 A max. @ 230 VAC
Leakage Current	< 0.1mA / 264 VAC (Touch Current)
Power Factor @ 230VAC	> 0.9 at full load
OUTPUT SPECIFICATIONS	
Total Output	240 W ⁽¹⁾ 160 W ⁽²⁾
Output Voltages	12 to 48 V
Voltage Tolerance	±2%
Line Regulation	±1% (115- 264 VAC)
Load Regulation	±1% (0-100%, typical)
Hold-up Time ⁽⁴⁾	Min. 10 ms @115VAC
Efficiency	Up to 94%
Minimum Load	0%
PROTECTION	
Over Voltage Protection:	Auto recovery
Over Power Protection:	Auto recovery, hiccup mode
Over Temperature:	Auto recovery
Short Circuit Protection:	Auto recovery, hiccup mode
ENVIRONMENTAL SPECIFICATIONS	
Operating Temperature:	–30 to +70°C (with derating)
Storage Temperature:	– 30 to +85°C
Relative Humidity:	20% to 90% (non-cond.)
MTBF (full load at 25°C):	> 250,000 hours @ 25°C (MIL-HDBK-217F, Notice 1)
Vibration	10~500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes.

Fan Supply (Open frame and U-frame models) ⁽⁷⁾

Model	Minimum (VDC)	Nominal (VDC)	Maximum (VDC)
XLMO240-12 XLMU240-24 XLME240-48	11.4	12	12.6
XLMO240-15	9.3	10.15	11

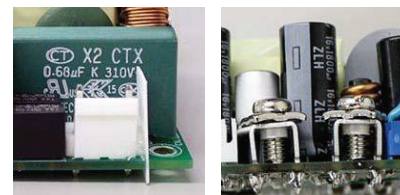
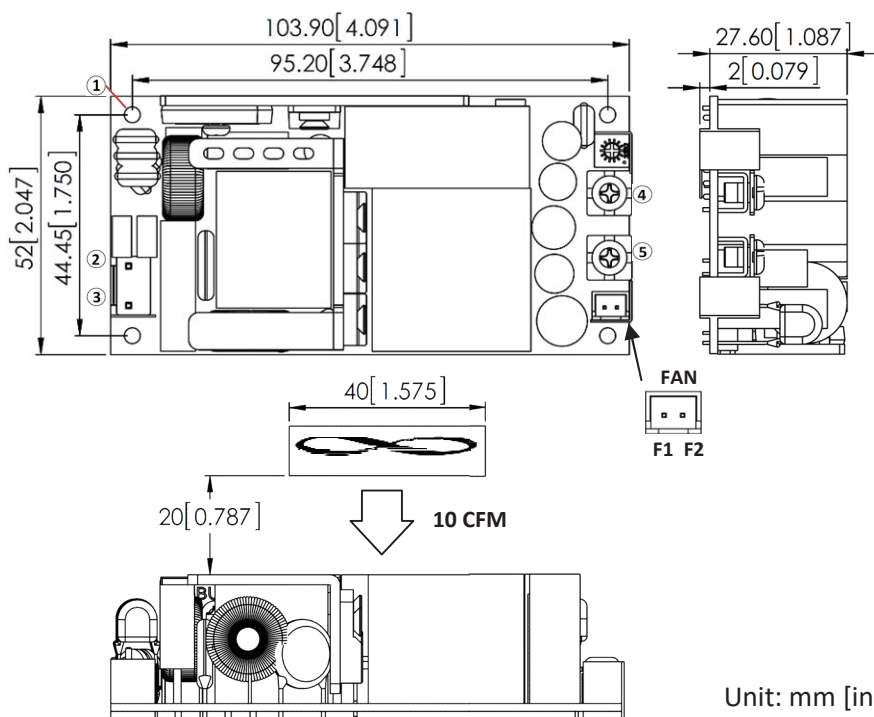
Contact us regarding custom and modified standard supplies for unique applications.
For complete specifications on all models, please visit our website at N2Power.com

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MECHANICAL DRAWINGS – Open Frame Models

Standard

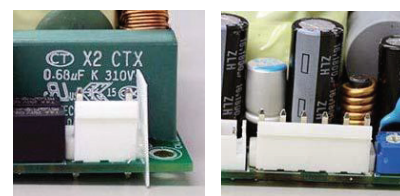
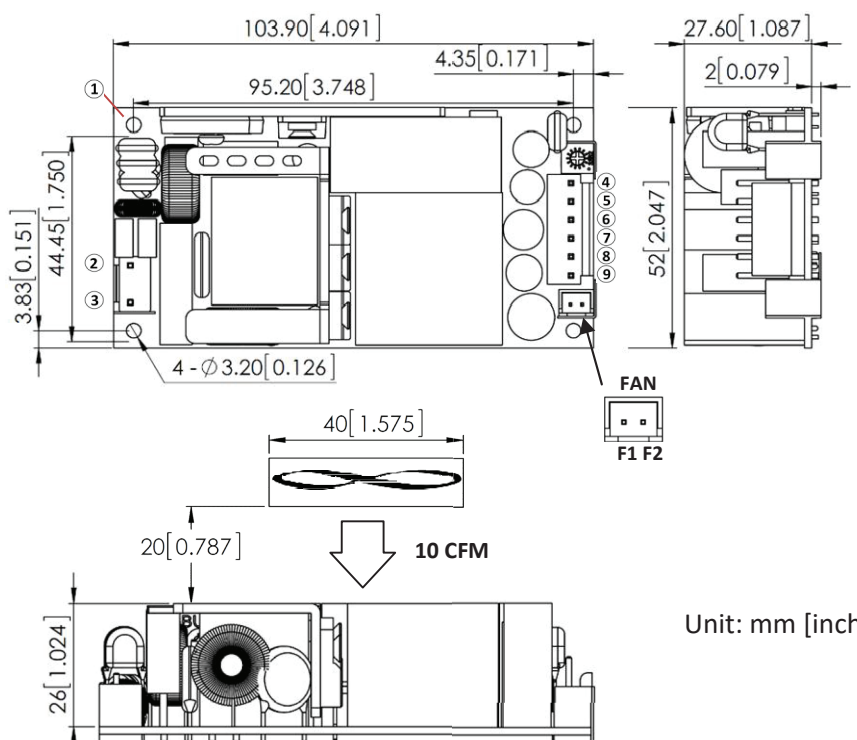


PIN#	Assignment
1	FG
2	AC NEUTRAL
3	AC LINE
4	VOUT (+OUTPUT)
5	RTN (RETURN)

FAN CONNECTOR	
PIN#	Assignment
F1	+12V (fan supply)
F2	RTN (RETURN)

Unit: mm [inch]

Type A



PIN#	Assignment
1	FG
2	AC NEUTRAL
3	AC LINE
4~6	VOUT (+OUTPUT)
7~9	RTN (RETURN)

FAN CONNECTOR	
PIN#	Assignment
F1	+12V (fan supply)
F2	RTN (RETURN)

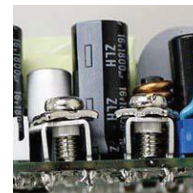
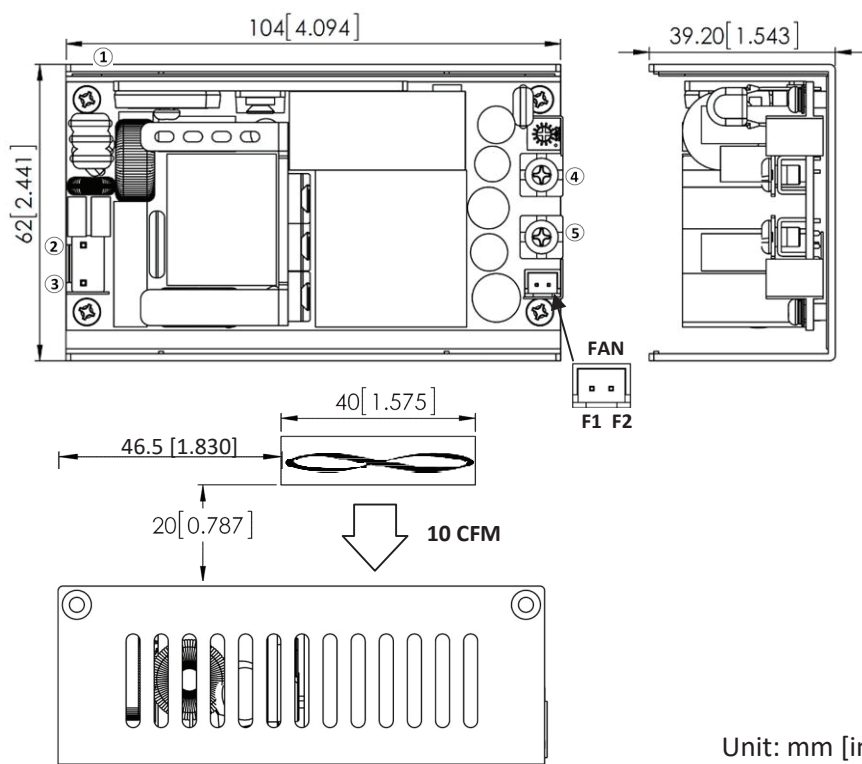
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MECHANICAL DRAWINGS – U-Frame Models

Standard

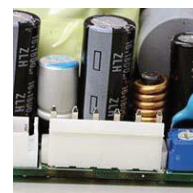
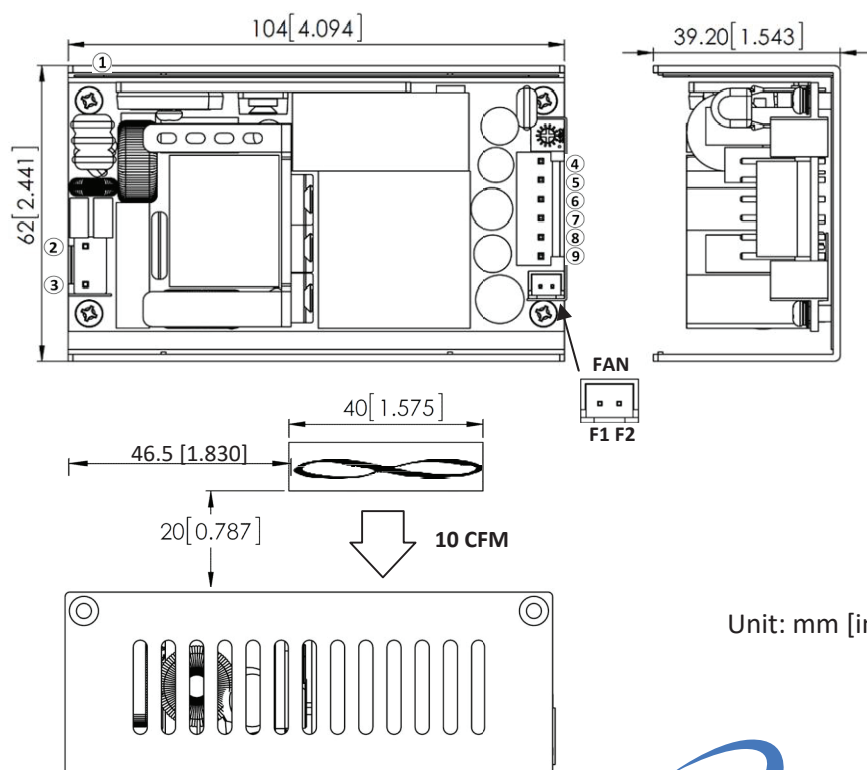


PIN#	Assignment
1	FG
2	AC NEUTRAL
3	AC LINE
4	VOUT (+OUTPUT)
5	RTN (RETURN)

FAN CONNECTOR	
PIN#	Assignment
F1	+12V (fan supply)
F2	RTN (RETURN)

Unit: mm [inch]

Type A



PIN#	Assignment
1	FG
2	AC NEUTRAL
3	AC LINE
4~6	VOUT (+OUTPUT)
7~9	RTN (RETURN)

FAN CONNECTOR	
PIN#	Assignment
F1	+12V (fan supply)
F2	RTN (RETURN)

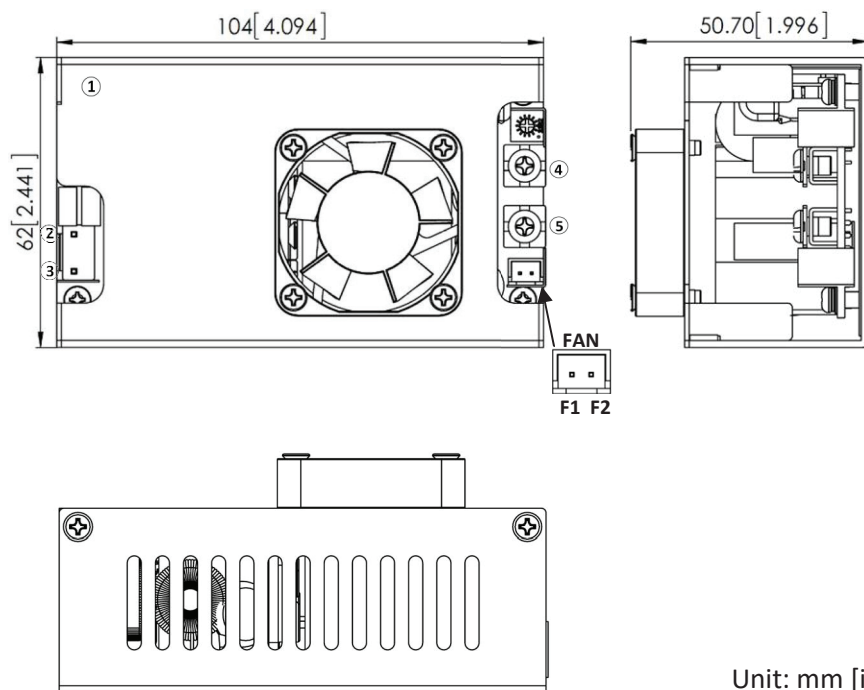
Unit: mm [inch]

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High Efficiency Medical Power Supplies

MECHANICAL DRAWINGS – Enclosed Models

Standard



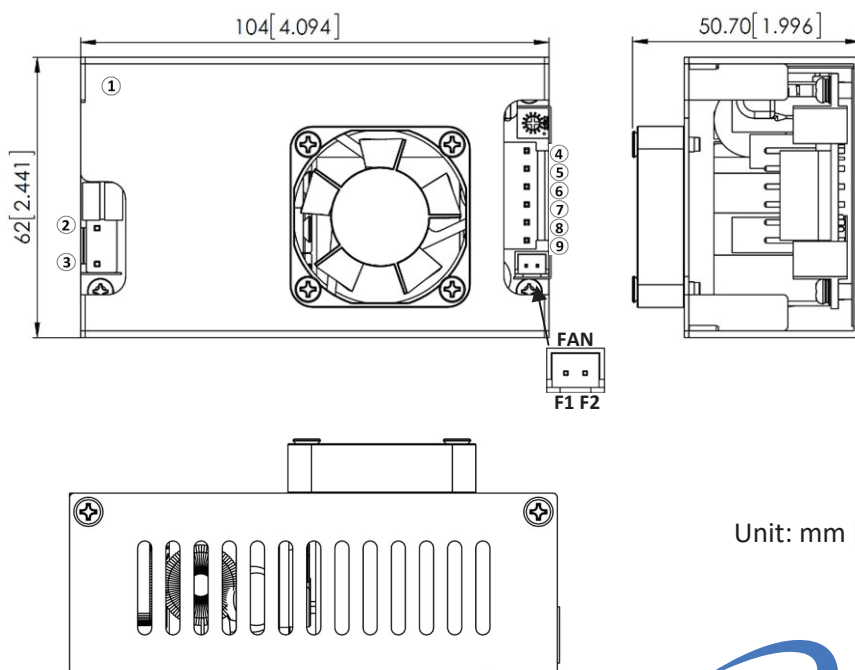
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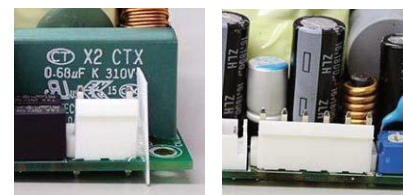
PIN#	Assignment
1	FG
2	AC NEUTRAL
3	AC LINE
4	VOUT (+OUTPUT)
5	RTN (RETURN)

FAN CONNECTOR	
PIN#	Assignment
F1	+12V (fan supply)
F2	RTN (RETURN)

Type A



Unit: mm [inch]



PIN#	Assignment
1	FG
2	AC NEUTRAL
3	AC LINE
4~6	VOUT (+OUTPUT)
7~9	RTN (RETURN)

FAN CONNECTOR	
PIN#	Assignment
F1	+12V (fan supply)
F2	RTN (RETURN)