N2POWER XR125 RE AC-DC SERIES
ULTRA SMALL, HIGH-EFFICIENCY POWER SUPPLIES

POWER SUPPLY DESIGN LEADER

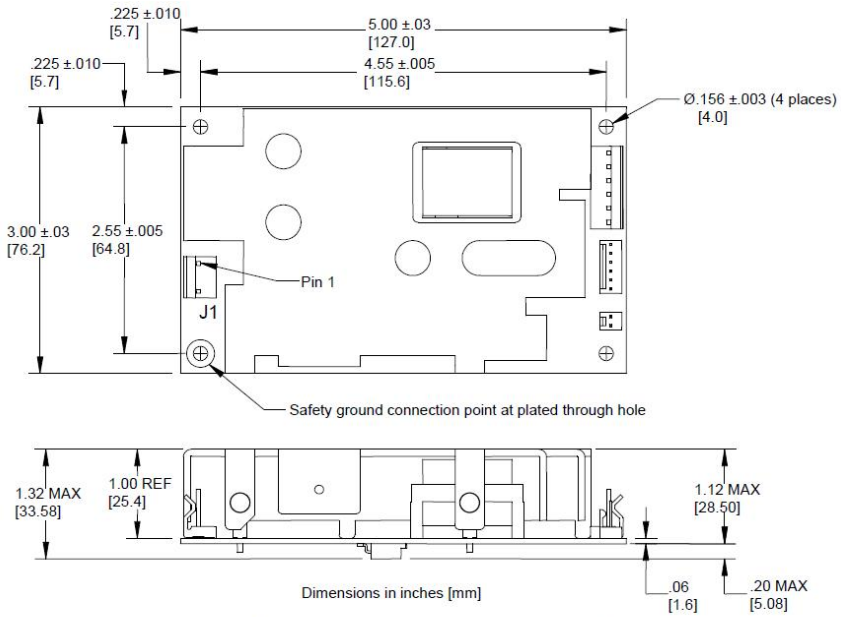
N2Power continues to lead the power density race with its new small, high efficiency XR125 RE Series AC-DC power supplies. Our state of the art technology yields a very small footprint, reduces wasted power, and offers the highest power density in the market in the 125 watt range. This unique design means reduced energy costs, a greater return on your investment, higher reliability and longer product life.

HIGHLIGHTS

- 125W AC-DC
- Up to 91% Efficiency
- High Power Density: 6.7 W / cu in.
- Universal AC input
- Active PFC (90-264 VAC)
- Built in OR-ing Diode/MOSFET for N+1 (Optional)
- Single Wire Current Sharing (Most Models)
- 3" X 5" Small Footprint
- <1U High: 1.32"
- 5Vsb @ 1amp & Remote Enable on All Models
- No Load Operation
- RoHS Compliant

Typical Mechanical Drawing:

Inches (millimeters), connectors and pinouts may vary with model.
Refer to XR125 Product Specification for complete information.



Note: Recommended standoff size is .375" high and all mounting hardware should be less than .28" in diameter. A standoff less than .375" high is acceptable when a thin insulator, 0.4mm thick (polyester, fish paper or equivalent UL rated 94V-2 minimum) is placed between the XR125 and the mounting chassis (refer to applicable UL standard for clearance requirements).

PFC READY, SAVE ENERGY

All XR125 RE products incorporate active PFC technology with universal input to provide superior efficiency in each supply. Comparisons of power loading show that our supplies can reduce consumption up to 50%.

UNMATCHED POWER DENSITY

With an overall height of 1.32" and a 3" x 5" footprint, the XR125 RE Series boasts a power density of 6.7 watts per cubic inch. It is ideally suited for OEMs using industry standard 1U chassis.

HIGH EFFICIENCY IN A SMALL PACKAGE

The XR125 RE Series provides up to 91% efficiency in an AC-DC power supply. Our unique design reduces energy consumption and generates less wasted heat. It requires little forced air cooling, decreases AC loads, increases reliability and economy of operation.

Contact us regarding custom and modified standard supplies for unique applications.

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MODEL	PART NUMBER	OUTPUT	VOLTAGE	REGULATION (%)	MAXIMUM CURRENT (A)	RIPPLE & NOISE (P-P)
XR125-03 RE XR125-03 CS RE	400168-03-5 400168-04-3	V1	3.3	±3	32.0	30 mV
		V2	12	±5	1.0	120 mV
		V3	5sb	±5	1.0	50 mV
XR125-05 RE XR125-05 CS RE	400165-03-1 400165-04-9	V1	5	±3	25.0	50 mV
		V2	12	±5	1.0	120 mV
		V3	5sb	±5	1.0	50 mV
XR125-07 CS RE	400166-02-1	V1	7	±3	17.9	70 mV
		V2	12	±5	1.0	120 mV
		V3	5sb	±5	1.0	50 mV
XR125-08 CS RE	400167-02-9	V1	8	±3	15.6	80 mV
		V2	12	±5	1.0	120 mV
		V3	5sb	±5	1.0	50 mV
XR125-12 RE XR125-12 CS RE	400155-03-2 400155-04-0	V1	12	±3	10.5	120 mV
		V2	12	±5	1.0	120 mV
		V3	5sb	±5	1.0	50 mV
XR125-15 RE XR125-15 CS RE	400156-03-0 400156-04-8	V1	15	±3	8.3	150 mV
		V2	12	±5	1.0	120 mV
		V3	5sb	±5	1.0	50 mV
XR125-19 CS RE	400157-02-0	V1	19	±3	6.6	190 mV
		V2	12	±5	1.0	120 mV
		V3	5sb	±5	1.0	50 mV
XR125-24 RE XR125-24 CS RE	400158-03-6 400158-04-4	V1	24	±3	5.2	240 mV
		V2	12	±5	1.0	120 mV
		V3	5sb	±5	1.0	50 mV
XR125-28 RE XR125-28 CS RE	400159-03-6 400159-04-2	V1	28	±3	4.5	280 mV
		V2	12	±5	1.0	120 mV
		V3	5sb	±5	1.0	50 mV
XR125-30 RE XR125-30 CS RE	400160-03-2 400160-04-0	V1	30	±3	4.2	300 mV
		V2	12	±5	1.0	120 mV
		V3	5sb	±5	1.0	50 mV
XR125-48 RE XR125-48 CS RE	400161-03-0 400161-04-8	V1	48	±3	2.6	480 mV
		V2	12	±5	1.0	120 mV
		V3	5sb	±5	1.0	50 mV
XR125-51 CS RE	400162-02-0	V1	51	±3	2.5	510 mV
		V2	12	±5	1.0	120 mV
		V3	5sb	±5	1.0	50 mV
XR125-54 RE XR125-54 CS RE	400163-03-6 400163-04-4	V1	54	±3	2.3	540 mV
		V2	12	±5	1.0	120 mV
		V3	5sb	±5	1.0	50 mV
XR125-56 RE XR125-56 CS RE	400164-03-4 400164-04-2	V1	56	±3	2.2	560 mV
		V2	12	±5	1.0	120 mV
		V3	5sb	±5	1.0	50 mV

CS = Current Sharing, implemented by an OR-ing diode/MOSFET on V1 output.
RE = Remote Enable, turns V1 / V2 outputs on/off.
sb = standby voltage

INPUT SPECIFICATIONS	
Nominal Input Voltage:	100 – 240 VAC
Maximum AC Input:	90 – 264 VAC
Input Frequency Range:	47 – 63 Hz
Input Current:	1.8 A @ 100 VAC
Input Protection:	3.15 A fuse
Safety Isolation:	3000 VAC input to output 1500 VAC input to ground
Inrush Current:	33 A @ 115 VAC
Leakage Current:	< 1.0 mA
Power Factor Correction:	Active PFC circuitry, meets or exceeds EN61000-3-2
OUTPUT SPECIFICATIONS	
Total Power:	125W
Hold-up Time:	Minimum 28 mS at all input voltages
Efficiency:	Up to 91% †
Minimum Load:	No load †
Over / Under Shoot:	Maximum 10% at turn-on
5V STBY (ATX Models)	5V / 1A
PROTECTION	
Overvoltage Protection:	On all main outputs
Overpower Protection:	Protected / Auto-recovery
Short Circuit Protection:	All outputs protected against short circuit
Thermal Shutdown:	Protected against over-temperature conditions
OPERATING SPECIFICATIONS	
Operating Temperature:	-25°C to +50°C
Temperature Derating:	2.5% / degree C to 70°C
Storage Temperature:	-40°C to +85°C
Forced Air Cooling:	10/15 CFM † Δ
Convection Cooling:	See Product Specification
MTBF:	> 600,000 hours @ 25°C *
SIGNALS	
Remote Sense:	On main output † Δ
Current Sharing (Optional):	Active current sharing with OR-ing diode or MOSFETs † Δ
Power Good:	Provided
PS_OK:	Output †
LED (PG):	All models †
Remote Enable	All models †

† See Product Specification Δ Some Models
* See MTBF Report for additional temperature values

Compliance (See Product Spec for additional information):

	USA / Canada	Europe	International
Safety:	UL 60950-1:2007 (2nd Edition) / C22.2 No. 60950-1-07 UL 62368-1 (Second Edition) Safety of Information Technology Equipment	2006/95/EC - "Low Voltage (Safety) Directive" Demko: EN 60950-1:2006 (2nd Edition) +A1:2010 +A11:2009 +A12:2011 +A2:2013 EN 62368-1:2014 / A11:2017	IEC 60950-1:2005 (2nd Edition)+ Am1:2009 + Am2:2013 IEC 62368-1:2014 Safety of Information Technology Equipment
EMC:	FCC part 15, subpart B	2004/108/EC "Electromagnetic Compatibility (EMC) Directive" EN 61204-3 Class B	IEC 61204-3 Class B

For complete specifications on all models, please visit our website at: www.n2power.com

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