AC/DC Power

Medical

PPWAM360 Series 360W Power Supply

- IEC 60601-1-2 4th Edition Compliant
- High Power Density: 360W in 4” x 6” Footprint
- UL/EN60601-1 3rd Edition and UL/EN60950-1 2nd Edition Medical and ITE Approvals
- <100uA @ 264VAC Earth Leakage Current
- 2 x MOPP Primary to Secondary
- Meets BF (body Floating) Rated Output Requirements
- Short Circuit, Overload and Overvoltage Protection

Electrical Specifications

Input

Input Voltage	90-264VAC
Input Frequency	47-63 Hz
Input Current (RMS)	5A max. @ 115VAC, 2.5A max. @ 230VAC
Inrush Current	<40A peak @ 115VAC, <80A peak @ 230VAC, cold start, 25ºC
No Load Power Consumption	<0.5W
Earth Leakage Current	<200uA @264Vac

Output

Total Output	360W max. See derating chart for details
Output Voltage	See models and ratings table
Hold Up Time	10mS typical at 75% and 115VAC nominal line
Efficiency	88% average minimum,115VAC/230VAC
Minimum Load	No minimum load
Output Touch Current	<100uA @264Vac

Protection

Overvoltage	105-140% of nominal output voltage. Latching type, cycle AC to reset
Overload	105%-150% of maximum output rating Auto recovery
Short Circuit	Auto recovery

Environmental & Operating

Operating Temperature	0ºC to +70ºC (refer to derating curve for details)
Storage Temperature	-20ºC to +85ºC
Humidity	0% to 90% non-condensing
Operating altitude	<3000m for medical use, <5000m for ITE use
MTBF:	>250K hours per Bellcore TR-332 at full load and 25ºC ambient

Compliance

Safety Approvals

USA	ANSI/AAMI ES60601-1
Canada	cUL ES60601-1
Europe	TUV EN60601-1 3rd edition CB Report
Isolation:	4000VAC input to output, 2 x MOPP 1500 VAC input to ground,1 x MOPP 1500 VAC output to ground,1 x MOPP
EMC (IEC 60601-1-2:2014):	FCC Class B Radiated & Conducted CISPR11 Class B Radiated & Conducted EN55011 Class B Radiated & Conducted
Harmonic Currents	IEC 61000-3-2
Voltage Flicker	IEC 61000-3-3
Electrostatic Discharge	IEC 61000-4-2: ±15kV Air, ±8kV contact
Radiated Immunity	IEC 61000-4-3: 10V/m
EFT/Burst	IEC 61000-4-4: ±2kV
Surge Immunity	IEC 61000-4-5: 1kV diff, 2kV com
Conducted Immunity	IEC 61000-4-6: 10Vrms
Magnetic Field	IEC 61000-4-8: 30A/m
Dips / Interruptions	IEC 61000-4-11: Voltage dip immunity, 30% reduction for 500ms, 100% reduction for 10ms

General

Dimensions	6”(152.4mm)L x 4”(101.6mm)W x 1.18”(30.0mm)”H
Weight	1.06lbs (0.48kg)

Your Partners in Power……..

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Tel: (978)567-9600 | Fax: (978)567-9601
Website: www.powerpartners-inc.com

Specifications subject to change.

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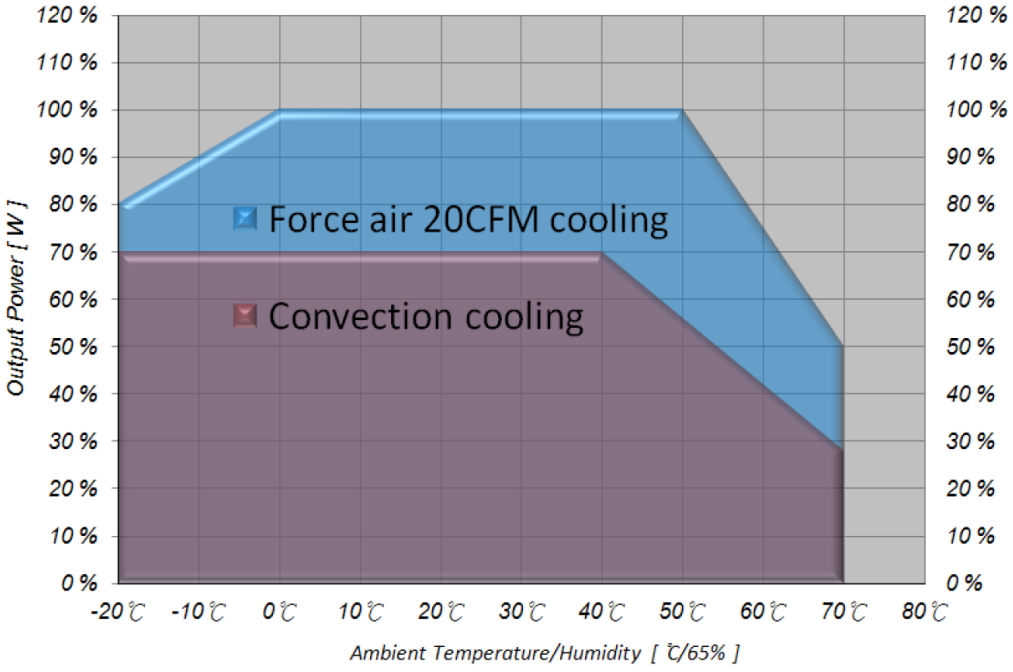
PPWAM360 Series 360W Power Supply

Models and Ratings

Model[1]	Output Voltage	Max. Load at Convection[4]	Max. Load with 20CFM Air[4]	Output regulation[2]	Ripple & Noise (mV P-P)[3]	Standby Power (V2)	Fan output (V3)
PPWAM360-12A	12V	20.84A	30.00A	+/-3%	120mV	5V/0.5A	12V/0.3A
PPWAM360-14A	24V	10.42A	15.00A	+/-3%	240mV	5V/0.5A	12V/0.3A
PPWAM360-15A	28V	8.93A	12.86A	+/-3%	280mV	5V/0.5A	12V/0.3A
PPWAM360-18A	48V	5.21A	7.50A	+/-3%	300mV	5V/0.5A	12V/0.3A
PPWAM360-18-1A	54V	4.63A	6.67A	+/-3%	300mV	5V/0.5A	12V/0.3A

Notes:
1. Output Connector option: terminal block is standard. For Molex header type, part number is PPWAM360-XX-H.
2. Output regulation is the total percentage of deviation from nominal output voltage under all operating ranges.
3. Measured at 20MHz bandwidth with a 100uF electrolytic capacitor and 0.1uF ceramic capacitor in parallel at the output connector.
4. Total output power is rated for 250W at convection and 360W with 20 CFM forced air. Refer to drawings for proper fan placement.

Derating Curve



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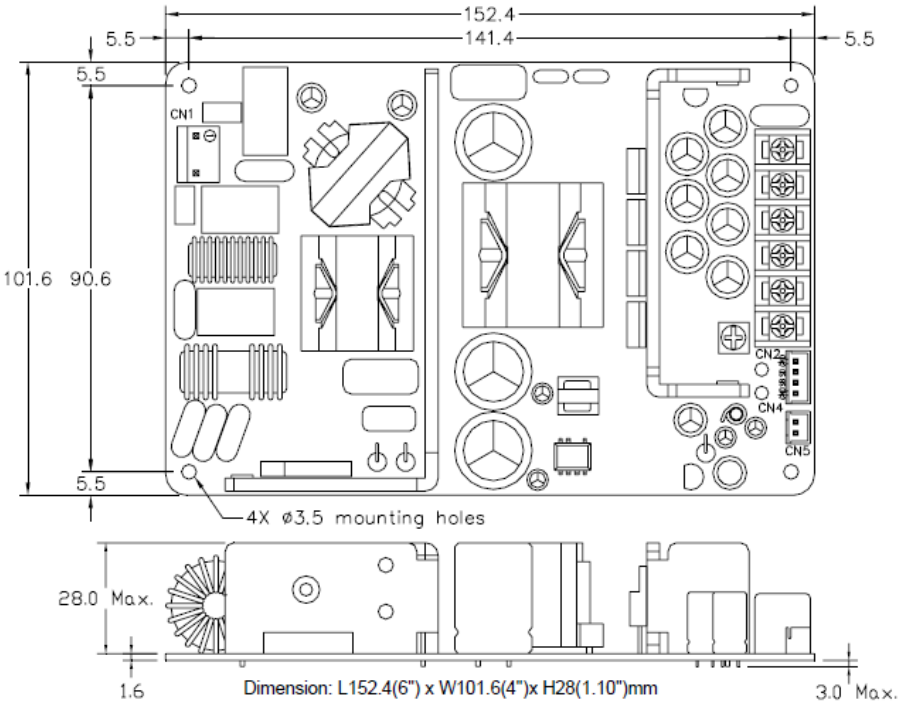
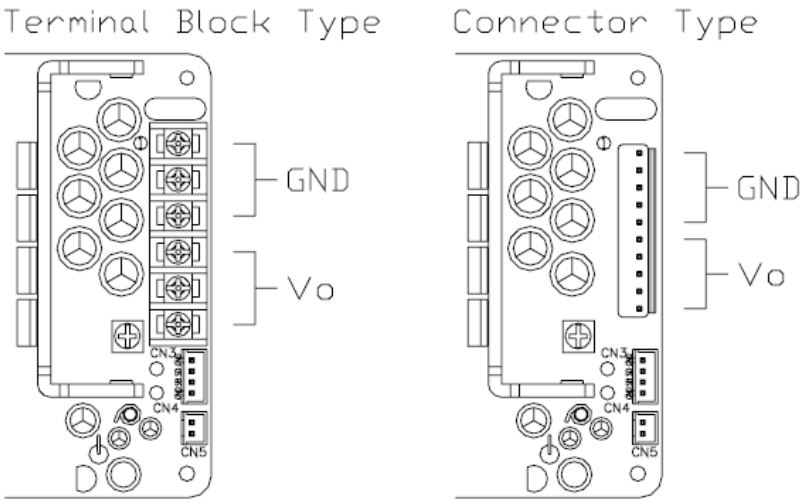
PPWAM360 Series
360W Power Supply

Mechanical Outline



11.1 Main Output optional Type (CN2)



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PPWAM360 Series
360W Power Supply

Pin Assignments

CN1: Input Connector

JST B3P-VH-B (3.96mm pitch) or equivalent.
Mates with JST VHR-3N or equivalent

Pin#	Signal
1	AC Line
2	AC Neutral

CN4: Remote On/Off and Standby

JST B4B-XH-A (2.5mm pitch) or equivalent.
Mates with JST XHP-4 or equivalent

Pin#	Signal
1	GND
2	+5VSB
3	Remote on/off
4	GND

Remote on/off: Logic level high (5V) or floating to enable output. Logic level low to disable output.

CN2: Main Output Connector

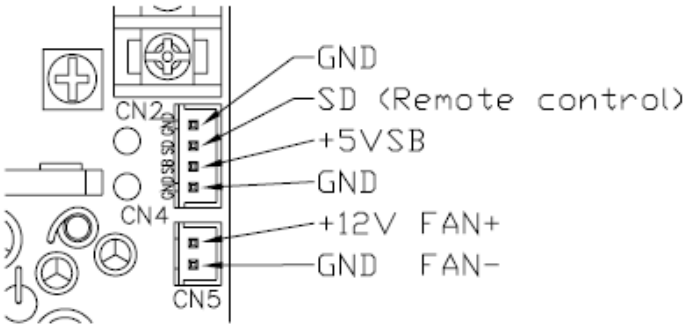
Terminal Block Type (standard)

Pin#	Signal
1	GND
2	GND
3	GND
4	+Vout
5	+Vout
6	+Vout

CN5: Fan Output Connector

JST B2B-XH-A (2.5mm pitch) or equivalent.
Mates with JST XHP-2 or equivalent

Pin#	Signal
1	+12V Fan
2	Fan Return



Connector Type (Option –H)

JST B10P-VH-B (3.96mm pitch) or equivalent.
Mates with JST VHR-10N or equivalent

Pin#	Signal
1	GND
2	GND
3	GND
4	GND
5	GND
6	+Vout
7	+Vout
8	+Vout
9	+Vout
10	+Vout

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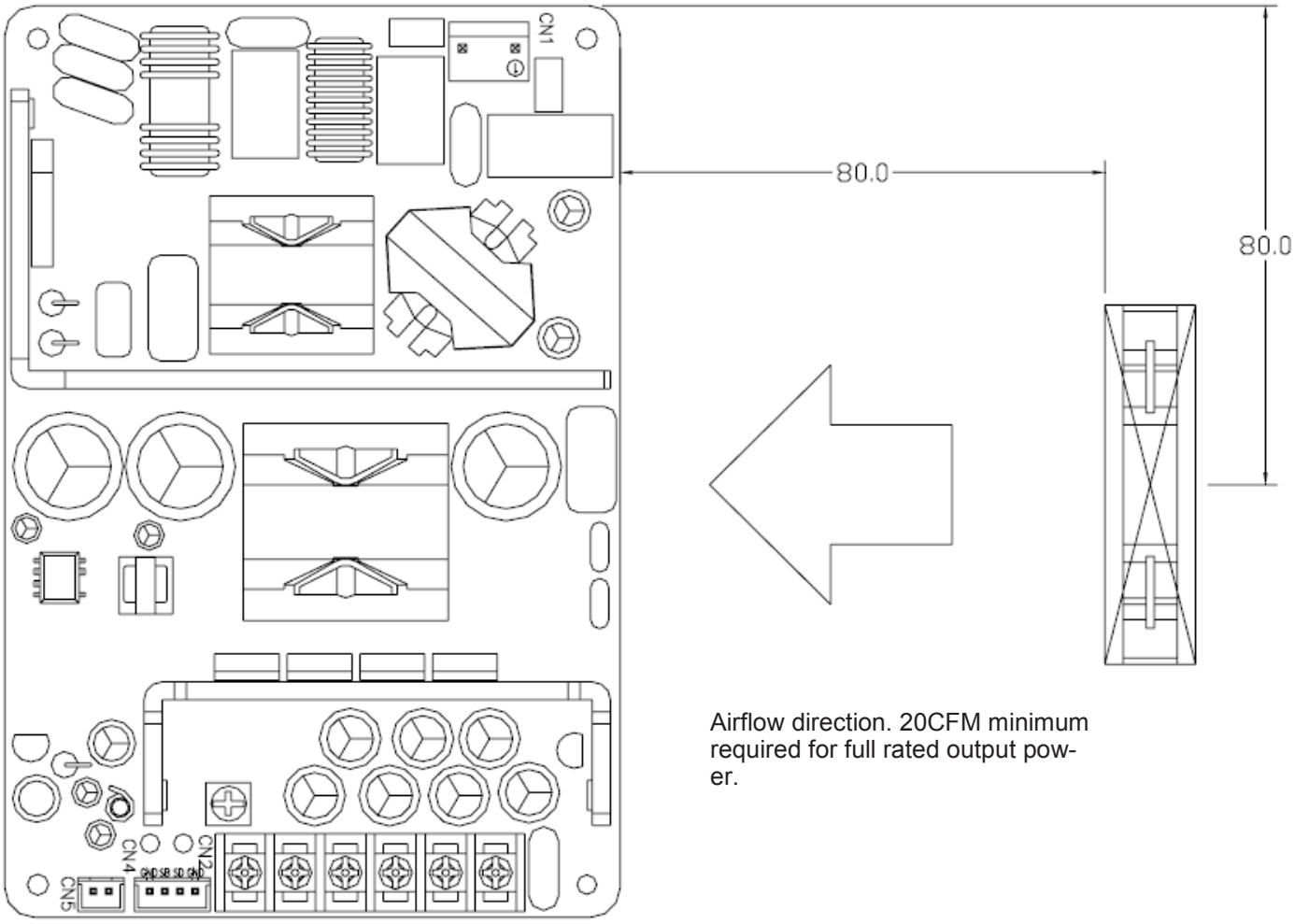
360W Power Supply

Recommended Fan Orientation



Airflow direction. 20CFM minimum required for full rated output power.

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