AC/DC Power

Openframe

PPWA150B Series 150W Power Supply

- Compact Size 2” x 4” x 1.02”
- Wide-range Input 90-264 VAC
- Level B Emissions
- RoHS Compliant
- U Channel and Open Frame Options
- Built-in Active PFC
- High Power Density 18.75W/in^3

Electrical Specifications

Input

Input Voltage	90-264VAC
Input Frequency	47-63 Hz
Input Current	2.0A (rms) for 115VAC 1.0A (rms) for 230VAC
Earth Leakage Current	440 µA max. @ 264 VAC, 60 Hz
Inrush Current	90A peak @ 264VAC, cold start at 25ºC

Output

Output Voltage/Current:	See rating chart
Maximum Output Power:	See rating chart
Ripple and Noise	See rating chart
Overvoltage Protection:	Set at 105-140% of its nominal output voltage
Overcurrent Protection:	All outputs protected to short circuit conditions. Auto recovery.
Temperature Coefficient:	All outputs ±0.04% /°C maximum
Transient Response:	Maximum excursion of 5% or better on all models, recovering to 1% of final value within 500 us after a 50% step load change.

Environmental

OperatingTemperature:	0°C to +70°C
Low Temperature Startup:	-25°C. Some operating parameters may be exceeded for the intial 20 minutes of warm-up
Storage Temperature:	-25°C to +85°C
Relative Humidity:	5% to 95% non-condensing
Derating:	Derate linearly from 150W at 50°C to 75W at 70°C with 12 CFM airflow. Derate linearly from 100W at 40°C to 50W at 60°C with convection cooling.

General

Switching Frequency:	65 KHz
Efficiency:	85% typical
Hold-up Time:	16 ms minimum at 115 VAC
Line Regulation:	±0.5% maximum at full load
Inrush Current:	90A @ 230 VAC, at 25°C cold start
Withstand Voltage:	3000 VAC from input to output 1500 VAC from input to ground 500 VAC from output to ground
MTBF	100,000 hours at full load at 25ºC ambient calculated per MIL-HDBK-217F

Safety & EMC

Safety Approvals	
USA	UL60950-1
Canada	CSA C22.2 No. 60950-1
Europe	Nemko EN60950-1 CB IEC 60950-1
EN55022:	Class B conducted
FCC:	Class B conducted
EN61000-3-2:	Harmonic distortion, class D
EN61000-3-3:	Line flicker
EN61000-4-2:	ESD, ±8 KV air and ±4 KV contact
EN61000-4-3:	Radiated immunity, 3 V/m
EN610004-4:	Fast transient/burst ±1 KV
EN61000-4-5:	Surge, ±1 KV diff., ±2 KV com
EN61000-4.6:	Conducted immunity, 3 Vms
EN61000-4-8:	Magnetic field immunity, 1 A/m
EN61000-4-11:	Voltage dip immunity, 30% reduction for 500 ms and >95% reduction for 10 ms

Power Partners, Inc. | 43 Broad Street | Hudson, MA 01749
Tel: (978)567-9600 | Fax: (978)567-9601
Website: www.powerpartners-inc.com

Specifications subject to change.
PPWA150B August 3, 2015

PPWA150B Series
150W Power Supply

Models and Ratings Chart

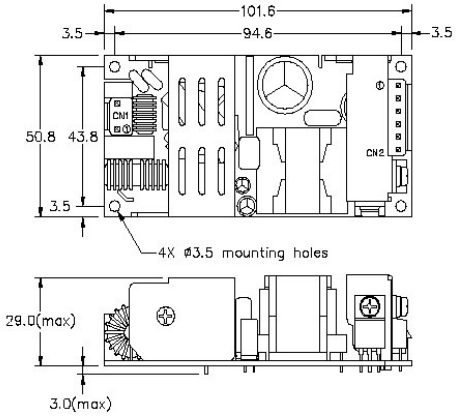
Model No.	Output Voltage	Minimum Load	Maximum Load with Convection Cooling	Maximum Load with 12CFM or Fan Option	Output Watts	O/P Regulation	Ripple & Noise (Vp-p)
PPWA150B-12	+12V	0A	8.33A	12.5A	150W	3%	150mV
PPWA150B-13	+15V	0A	6.67A	10A	150W	3%	150mV
PPWA150B-13-2	+19V	0A	5.26A	7.89A	150W	3%	190mV
PPWA150B-14	+24V	0A	4.16A	6.25A	150W	3%	240mV
PPWA150B-15	+28V	0A	3.57A	5.35A	150W	3%	280mV
PPWA150B-18	+48V	0A	2.08A	3.12A	150W	3%	300mV

Note:

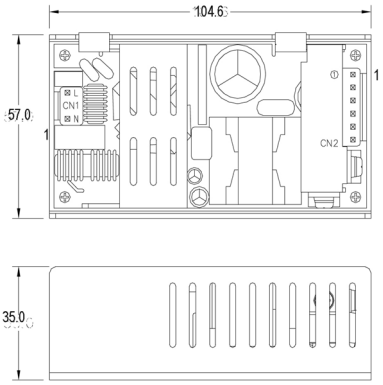
1. At 25°C including initial tolerance, line voltage, load currents and output voltages adjusted to factory settings.
2. Peak-to-peak with 20MHz bandwidth with a tantalum 10uF in parallel with a 0.1uF ceramic capacitor.
3. For U-Channel version, add suffix “B” to part number. Example PPWA150B-12B.

Mechanical Outline

Open Frame



U-Channel

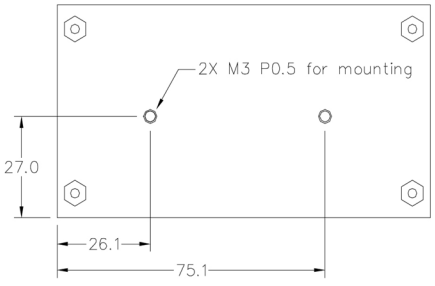


MATING CONNECTORS

CN1 = AC Input JST B3P-VH-B or Equivalent, mates with JST VHR-3N or Equivalent
CN2 = DC Output JST B6P-VH-B or Equivalent, mates with JST VHR-6N or Equivalent

Pin #	Signal
1	AC Neutral
2	AC Line

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



Power Partners, Inc. | 43 Broad Street | Hudson, MA 01749
Tel: (978)567-9600 | Fax: (978)567-9601
Website: www.powerpartners-inc.com