



- 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<sup>3</sup>

### Electrical Specifications

#### Input

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

#### Output

<b>Output Voltage/Current:</b>	See rating chart
<b>Maximum Output Power:</b>	See rating chart
<b>Ripple and Noise</b>	See rating chart
<b>Overvoltage Protection:</b>	Set at 105-140% of its nominal output voltage
<b>Overcurrent Protection:</b>	All outputs protected to short circuit conditions. Auto recovery.
<b>Temperature Coefficient:</b>	All outputs ±0.04% /°C maximum
<b>Transient Response:</b>	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

<b>Operating Temperature:</b>	0°C to +70°C
<b>Low Temperature Startup:</b>	-25°C. Some operating parameters may be exceeded for the initial 20 minutes of warm-up
<b>Storage Temperature:</b>	-25°C to +85°C
<b>Relative Humidity:</b>	5% to 95% non-condensing
<b>Derating:</b>	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

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

#### Safety & EMC

<b>Safety Approvals</b>	
<b>USA</b>	UL60950-1
<b>Canada</b>	CSA C22.2 No. 60950-1
<b>Europe</b>	Nemko EN60950-1 CB IEC 60950-1
<b>EN55022:</b>	Class B conducted
<b>FCC:</b>	Class B conducted
<b>EN61000-3-2:</b>	Harmonic distortion, class D
<b>EN61000-3-3:</b>	Line flicker
<b>EN61000-4-2:</b>	ESD, ±8 KV air and ±4 KV contact
<b>EN61000-4-3:</b>	Radiated immunity, 3 V/m
<b>EN610004-4:</b>	Fast transient/burst ±1 KV
<b>EN61000-4-5:</b>	Surge, ±1 KV diff., ±2 KV com
<b>EN61000-4-6:</b>	Conducted immunity, 3 Vrms
<b>EN61000-4-8:</b>	Magnetic field immunity, 1 A/m
<b>EN61000-4-11:</b>	Voltage dip immunity, 30% reduction for 500 ms and >95% reduction for 10 ms

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### Models and Ratings Chart

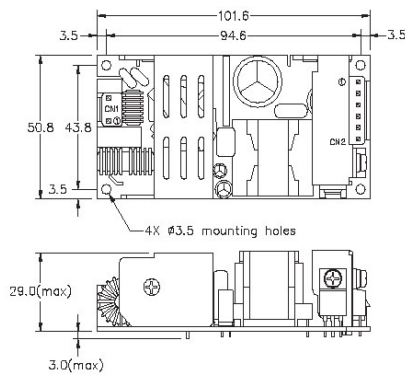
Model No.	Output Voltage	Minimum Load	Maximum Load with Convection Cooling	Maximum Load with 12CFM or Fan Option	Output Watts	O/P Regulation	Ripple & Noise (Vp-p)
PPWA150B-12	+12V	0A	8.33A	12.5A	150W	3%	150mV
PPWA150B-13	+15V	0A	6.67A	10A	150W	3%	150mV
PPWA150B-13-2	+19V	0A	5.26A	7.89A	150W	3%	190mV
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:

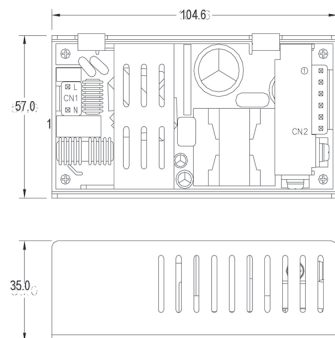
- At 25°C including initial tolerance, line voltage, load currents and output voltages adjusted to factory settings.
- Peak-to-peak with 20MHz bandwidth with a tantalum 10uF in parallel with a 0.1uF ceramic capacitor.
- For U-Channel version, add suffix "B" to part number. Example PPWA150B-12B.

### Mechanical Outline

#### Open Frame



#### U-Channel

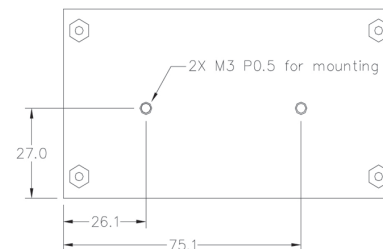


### MATING CONNECTORS

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



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