- 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

Models and Ratings Chart

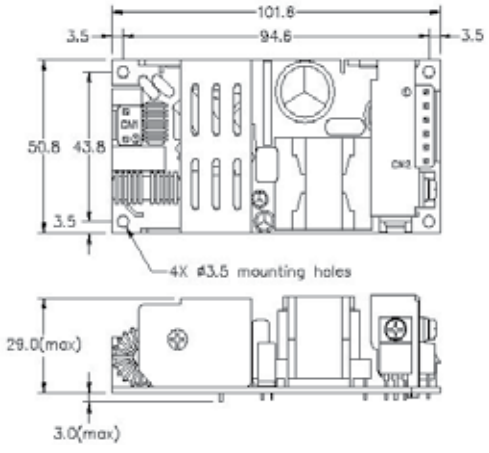
Model No.	Output Voltage	Minimum Load	Maximum Load with Convection Cooling	Maximum Load with 12CFM or Fan Option	Output Watts	O/P Regulation	Ripple & Noise (Vp-p)
PPWA150B-12	+12V	0A	8.33A	12.5A	150W	3%	150mV
PPWA150B-13	+15V	0A	6.67A	10A	150W	3%	150mV
PPWA150B-13-2	+19V	0A	5.26A	7.89A	150W	3%	190mV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

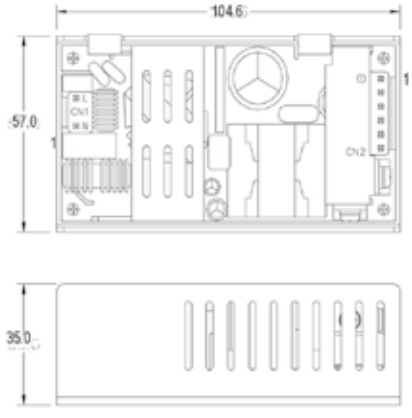
1. At 25°C including initial tolerance, line voltage, load currents and output voltages adjusted to factory settings.
2. Peak-to-peak with 20MHz bandwidth with a tantalum 10uF in parallel with a 0.1uF ceramic capacitor.
3. For U-Channel version, add suffix “B” to part number. Example PPWA150B-12B.

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