

## DESCRIPTION

The PMP150A series of AC/DC switching power supplies are for 150 watts of continuous output power. They are enclosed in a 94 V-0 rated polyphenylene-oxide case with an IEC320/C14 inlet to mate with interchangeable cord for world-wide use. All models meet EN55011 and FCC class B emission limits, and are designed for medical applications.

## FEATURES

- Operation up to 5000 meters
- Low safety ground leakage current
- Wide input range 90 to 264 VAC
- Optional output connectors
- 100% burn-in
- Overvoltage protection
- Over-temperature protection
- Overcurrent protection
- Compliant with CEC and Energy Star Efficiency level VI requirements
  - \* No load power consumption less than 0.21 W
  - \* Average active efficiency  $\geq 88\%$
- Compliant with RoHS requirements

## INPUT SPECIFICATIONS

Input voltage:	90-264 VAC
Input frequency:	47-63 Hz
Input current:	2.0 A (rms) for 100 VAC 0.85 A (rms) for 230 VAC
Earth leakage current:	220 $\mu$ A max. @ 264 VAC, 63 Hz
Touch current:	100 $\mu$ A max. @ 264 VAC, 63 Hz

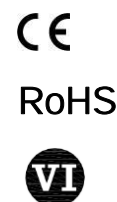
## OUTPUT SPECIFICATIONS

Output voltage /current:	See rating chart.
Maximum output power:	See rating chart.
Ripple and noise:	1% peak to peak maximum at full load
Overvoltage protection:	Latch off
Overcurrent protection:	Protected to short circuit conditions
Temperature coefficient:	$\pm 0.04$ %/°C maximum
Transient response:	Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500 $\mu$ s after a 25% step load change

## ENVIRONMENTAL SPECIFICATIONS

Operating temperature:	0°C to 60°C
Storage temperature:	-20°C to +85°C
Relative humidity:	10% to 90% non-condensing
Temperature derating:	Derate from 100% at +40°C linearly to 50% at +60°C

## PMP150A SERIES



## SAFETY STANDARD APPROVALS



UL ES 60601-1, CSA C22.2 No. 60601-1  
File No. E211696

TÜV EN 60601-1

## GENERAL SPECIFICATIONS

Power factor:	0.98 Typical at 115 VAC
Efficiency:	Average active 88% min.
Hold-up time:	10 ms minimum at 110 VAC
Line regulation:	$\pm 0.5\%$ maximum at full load
Inrush current:	50 A @ 115 VAC or 100 A @ 230 VAC, at 25°C cold start
Withstand voltage:	4000 VAC from input to output (2 MOPP) 1500 VAC from input to ground (1 MOPP)
MTBF:	100,000 hours at full load at 25°C ambient, calculated per MIL-HDBK-217F

## EMC Performance (IEC60601-1-2)

EN55011	Class B conducted, class B radiated
FCC:	Class B conducted, class B radiated
VCCI:	Class B conducted, class B radiated
EN61000-3-2:	Harmonic distortion, class D
EN61000-3-3:	Line flicker
EN61000-4-2:	ESD, $\pm 15$ KV air and $\pm 8$ KV contact
EN61000-4-3:	Radiated immunity, 3 V/m
EN61000-4-4:	Fast transient/burst, $\pm 2$ KV
EN61000-4-5:	Surge, $\pm 1$ KV diff., $\pm 2$ KV com
EN61000-4-6:	Conducted immunity, 10 Vrms
EN61000-4-8:	Magnetic field immunity, 3 A/m
EN61000-4-11:	Voltage dip immunity, 30% reduction for 500 ms, 60% reduction for 100 ms, 95% reduction for 10 ms

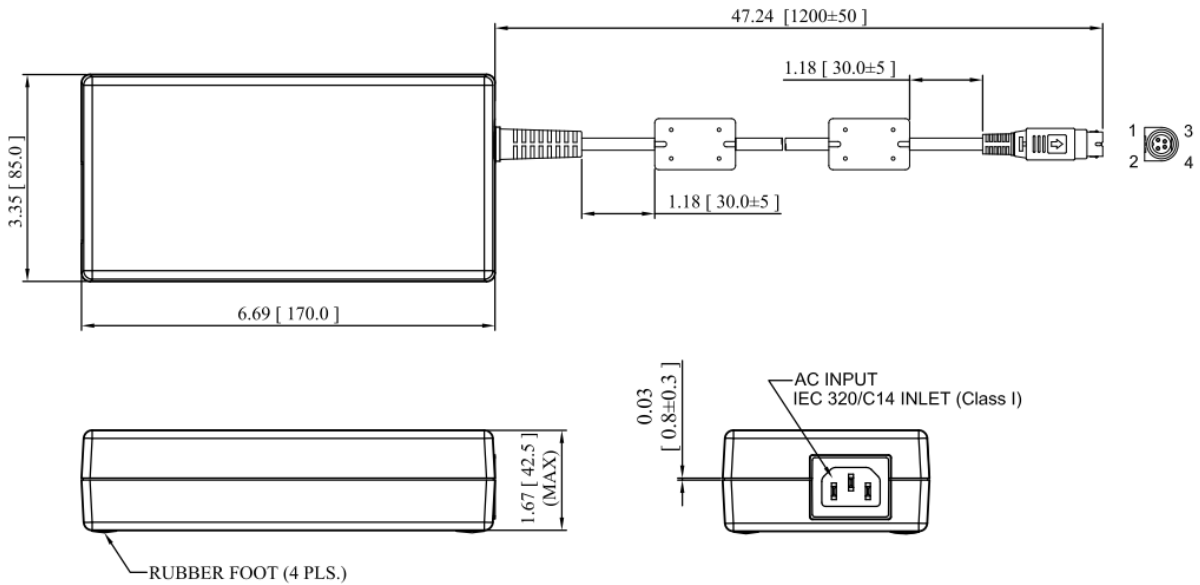
## OUTPUT VOLTAGE/CURRENT RATING CHART

Model	Output						Average Active Efficiency (typical) @ 100 / 240 Vac
	V1	Min. Current	Max. Current	Tol.	Ripple & Noise <sup>(1)</sup>	Max. Power	
PMP150A-12	12.0 V	0 A	12.50 A	±5%	150 mV	150 W	90 /91%
PMP150A-13	15.0 V	0 A	10.00 A	±5%	240 mV	150 W	91 /92%
PMP150A-13-2	19.0 V	0 A	7.90 A	±5%	240 mV	150 W	91 /92%
PMP150A-14	24.0 V	0 A	6.25 A	±5%	240 mV	150 W	92 /93%

**NOTES:**

- Ripple and noise is maximum peak to peak voltage value measured at output within 20 MHz bandwidth, at rated line voltage and output load ranges, and with a 10 µF tantalum capacitor in parallel with a 0.1 µF ceramic capacitor across the output.

## MECHANICAL SPECIFICATIONS



**NOTES:**

- Dimensions shown in inches [mm]
- Tolerance 0.02 [0.5] maximum
- Weight: 860 grams (1.897 lbs.) approx.
- Lock type output connector TAI JI TBS4P-9SET-N or equivalent, mating with TAI JI TBS4P-J-1 or equivalent.

## PIN CHART

PIN NO.	1	2	3	4
Polarity	+V1	+V1	V1 Return	V1 Return

## OUTPUT POWER DERATING CURVE

