

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 polycarbonate case with an IEC320/C14 inlet to mate with interchangeable cord for world-wide use. All models meet EN55011 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 μ A max. @ 264 VAC, 63 Hz |
| Touch current: | 100 μ A max. @ 264 VAC, 63 Hz |

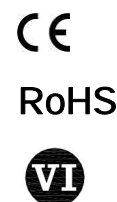
OUTPUT SPECIFICATIONS

| | |
|------------------------------|--|
| Output voltage /current: | See rating chart. |
| Maximum output power: | See rating chart. |
| Ripple and noise: | 1% peak to peak maximum at full load |
| Over voltage protection: | Latching by recycle input to reset |
| Short circuit protection: | Automatic recovery |
| Over temperature protection: | Latching by recycle input to reset |
| 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 μ 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 | |
| EN55011: | Class B conducted, class B radiated |
| EN61000-3-2: | Harmonic distortion, class D |
| EN61000-3-3: | Line flicker |
| EN60601-1-2 | |
| EN61000-4-2: | ESD, ± 15 KV air and ± 8 KV contact |
| EN61000-4-3: | Radiated immunity, 9-28 V/m |
| EN61000-4-4: | Fast transient/burst, ± 2 KV |
| EN61000-4-5: | Surge, ± 1 KV diff., ± 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 |

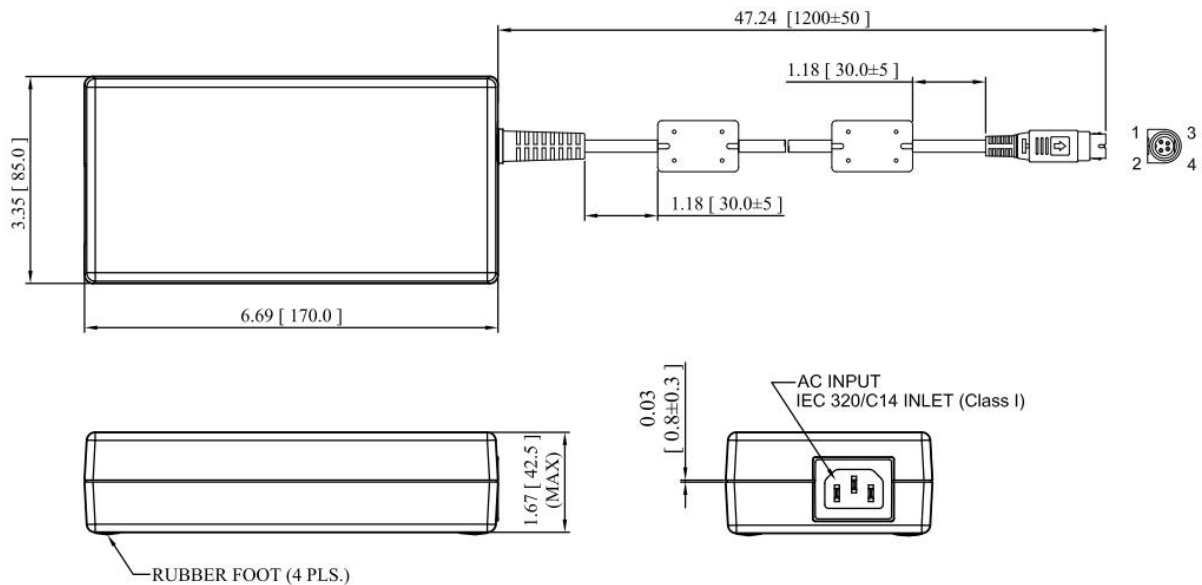
OUTPUT VOLTAGE/CURRENT RATING CHART

| Model | Output | | | | | | Average Active Efficiency (typical) @ 100 / 240 Vac |
|--------------|--------|--------------|--------------|------|-------------------------------|------------|---|
| | V1 | Min. Current | Max. Current | Tol. | Ripple & Noise ⁽¹⁾ | 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

