



FEATURES

- Low safety ground leakage current
- Optional output connectors
- 100% burn-in
- Wide input range 90 to 264VAC
- Overvoltage protection
- Overcurrent protection
- Compliant with CEC and Energy Star efficiency Level IV requirements
- No load consumption less than 0.5W
- Average active efficiency $\geq 85\%$
- Compliant with RoHS requirements



INPUT SPECIFICATIONS

Input voltage : 90 to 264VAC
Input frequency : 47 to 63Hz
Input current : 2.0A (rms) for 115VAC
 1.0A (rms) for 230VAC
Earth leakage current : 90uA max. @ 115VAC, 60Hz
 150uA max. @230VAC, 60Hz

OUTPUT SPECIFICATIONS

Output voltage/current : See rating chart (Page 2)
Total output power : See rating chart (Page 2)
Ripple and noise : 2% peak to peak maximum
Overvoltage protection : Set at 112 - 140% of its nominal output voltage
Overcurrent protection : All outputs protected to short circuit conditions
Temperature coefficient : All outputs $\pm 0.04\%/^{\circ}\text{C}$ maximum
Transient response : Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500us after a 25% step load change

ENVIRONMENTAL SPECIFICATIONS

Operating temperature : 0°C to +60°C
Storage temperature : -40°C to +85°C
Relative humidity : 5% to 95% non-condensing
Derating : Derate from 100% power at +40°C linearly to 50% power at +60°C

SAFETY SPECIFICATIONS

UL/cUL 60601-1. TUV EN60601-1
 CE Mark(LVD)
 CB Report

Note: Designed for medical applications, not life support equipment.

GENERAL SPECIFICATIONS

Switching frequency : 30KHz ~ 110KHz
Power factor : 0.98 typical at 115VAC
Efficiency : 85% minimum
Hold-up time : 15 msec minimum at 110VAC
Line regulation : $\pm 0.5\%$ maximum at full load
Inrush current : 60A @ 115VAC or 120A @ 230VAC, at 25°C cold start
Withstand voltage : 4000VAC from input to output
 1500VAC from input to ground
 500VAC from output to ground
MTBF : 150,000 hours minimum at full load
 At 25°C ambient , calculated per MIL-HDBK-217F

EMI SPECIFICATIONS

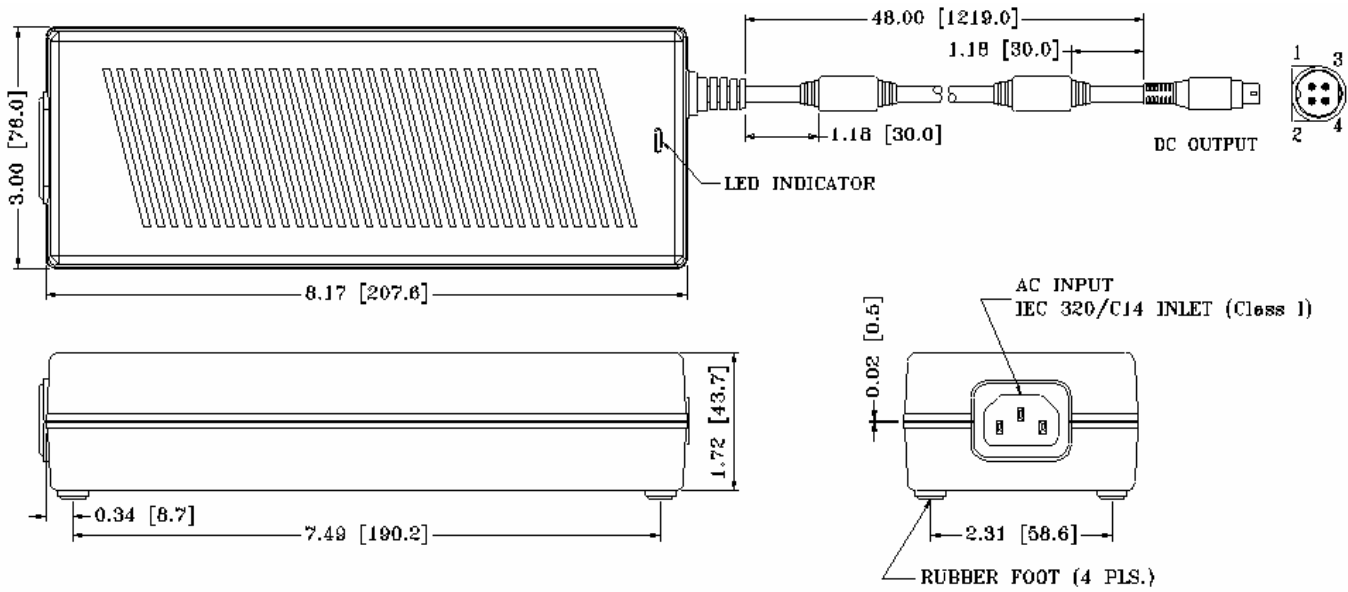
EN55011: Class B conducted, Class B radiated
FCC: Class B conducted, Class B radiated
VCCI: Class B conducted, Class B radiated
EN61000-3-2: Harmonic distortion , Class D
EN61000-3-3: Line flicker
EN61000-4-2: ESD, $\pm 8\text{KV}$ air and $\pm 6\text{KV}$ contact
EN61000-4-3: Radiated immunity, 3V/m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



OUTPUT VOLTAGE/CURRENT RATING CHART

MODEL	Vnom.	Imin.	Imax.	Tol.	Max. Output Power
PMP150-12	12.0V	0A	11.0A	5%	132W
PMP150-13	15.0V	0A	9.0A	5%	135W
PMP150-13-2	19.0V	0A	7.90A	5%	150W
PMP150-14	24.0V	0A	6.25A	5%	150W
PMP150-15	27.0V	0A	5.56A	5%	150W
PMP150-18	48.0V	0A	3.13A	5%	150W

MECHANICAL SPECIFICATIONS



NOTES:

1. Dimensions shown in inches [mm]
2. Tolerance 0.02 [0.5] maximum
3. Weight: approximately 960 grams.
4. Standard output connector is a 4-pin DIN. Please contact Protek Power North America for other connector options.
5. PMP150-12, -13, -13-2 output connectors are without lock. PMP150-14, -15, -18 output connectors are with lock.
6. 94V-1 rated case.

PIN CHART

MODEL NUMBER		PIN 1	PIN 2	PIN 3	PIN 4
PMP150-12	PMP150-13	Return	Output +V	Return	Output +V
PMP150-13-2	PMP150-14				
PMP150-15	PMP150-18				