

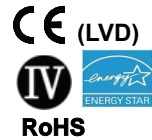


96-120 WATT MEDICAL SWITCHING POWER SUPPLIES

DESCRIPTION

The PMP120 series of AC/DC switching power supplies are for 96 to 120 watts of continuous output power. They are enclosed in a 94V-1 rated case with an IEC 320/C14 or C18 inlet to mate with interchangeable cord for world-wide use. All models meet CISPR 11 and FCC class B emission limits, and are designed for medical applications, not for life support equipment.

PMP120 SERIES



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 power consumption less than 0.5W
 - * Average active efficiency $\geq 85\%$
- Compliant with RoHS requirements

New!!



INPUT SPECIFICATIONS

Input voltage : 90 to 264VAC
 Input frequency : 47 to 63Hz
 Input current : 1.60A (rms) for 115VAC
 0.80A (rms) for 230VAC
 Earth leakage current : 90uA max. @ 115VAC, 60Hz
 150uA max. @ 230VAC, 50Hz

OUTPUT SPECIFICATIONS

Output voltage/current : See rating chart
 Total output power : 120 watts maximum
 Ripple and noise : 2% peak to peak maximum
 Overvoltage protection : Provided on output #1 only; 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 $^{\circ}\text{C}$ to +60 $^{\circ}\text{C}$
 Storage temperature : -40 $^{\circ}\text{C}$ to +85 $^{\circ}\text{C}$
 Relative humidity : 5% to 95% non-condensing
 Derating : Derate from 100% at +40 $^{\circ}\text{C}$ linearly to 50% at +60 $^{\circ}\text{C}$

Safety Standard Approvals :



UL 60601-1, CSA C22.2 NO. 601.1
File NO. E178020



TÜV EN60601-1
Certificate No. TA 50082184 class I
Certificate No. TA 50082185 class II



GENERAL SPECIFICATIONS

Switching frequency : 50KHz ~ 110KHz
 Power factor : 0.98 typical at 115VAC
 Efficiency : 85% min.
 Hold-up time : 15 msec minimum at 115VAC
 Line regulation : $\pm 0.5\%$ maximum at full load
 Inrush current : 60 amps @ 115VAC or 120 amps @ 230VAC, at 25 $^{\circ}\text{C}$ 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 $^{\circ}\text{C}$ ambient , calculated per MIL-HDBK-217F
 EMC Performance (EN60601-1-2: 2001)
 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 A and 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

UNIVERSAL INPUT

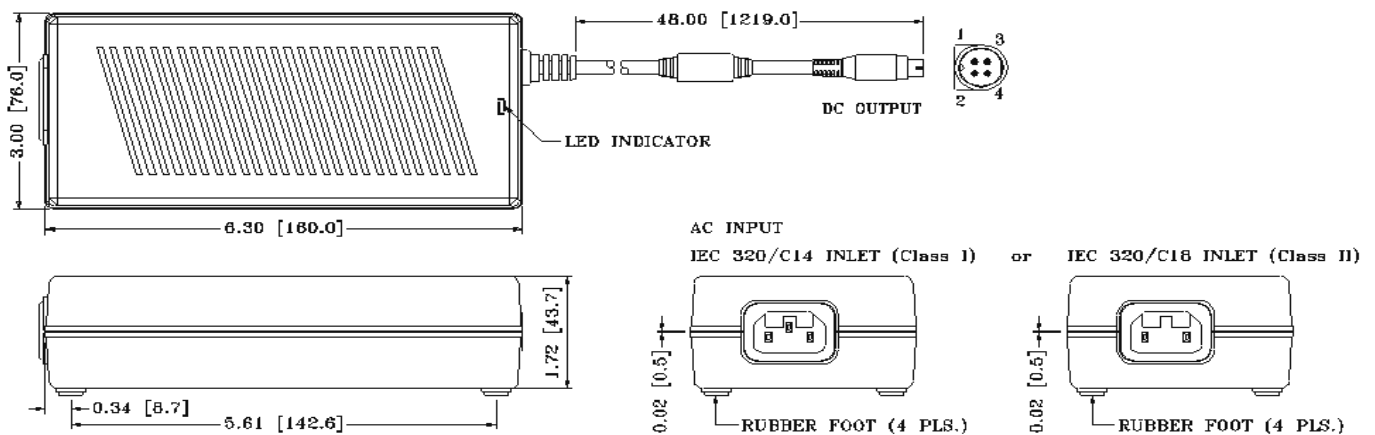
PMP120 SERIES

OUTPUT VOLTAGE/CURRENT RATING CHART

MODEL	Vnom.	Output			Tol.	Maximum Output Power
		Imin.	Imax.			
PMP120-12	12V	0A	8.0A		5%	96W
PMP120-13	15V	0A	7.0A		5%	105W
PMP120-13-1	18V	0A	6.67A		5%	120W
PMP120-13-2	19V	0A	6.32A		5%	120W
PMP120-13-3	20V	0A	6.0A		5%	120W
PMP120-14	24V	0A	5.0A		5%	120W
PMP120-16	30V	0A	4.0A		5%	120W
PMP120-17	36V	0A	3.34A		5%	120W
PMP120-18	48V	0A	2.5A		5%	120W

- NOTES:
1. Ripple and noise: Peak-to-peak with 20MHz bandwidth and 10uF tantalum capacitor in parallel with a 0.1uF ceramic capacitor at rated line voltage and load ranges.
 2. To order a model with IEC320/C18 inlet, add suffix "F" to the PMP120, e.g. PMP120F-12.

MECHANICAL SPECIFICATIONS



NOTES:

1. Dimensions shown in inch [mm]
2. Tolerance 0.02 [0.5] maximum
3. Weight: 780 grams approx.
4. See [pages 6-27 to 6-28](#) for optional output connector. Add the suffix assigned for a selected connector to a wanted model number, e.g. PMP120-14-B1, for ordering.
5. PMP120-12 and PMP120-13 output connectors are without lock.

PIN CHART

MODEL	PIN	1	2	3	4
PMP120-12	PMP120-13 PMP120-13-1 PMP120-13-2 PMP120-14 PMP120-17 PMP120-18	Return	Output +V	Return	Output +V
PMP120-13					
PMP120-13-1					
PMP120-13-2					
PMP120-14					
PMP120-16					
PMP120-17					
PMP120-18					