

DESCRIPTION

This series of AC/DC switching power supplies are for 90 watts of continuous output power. They are enclosed in a 94V-0 rated polycarbonate (PC) case with an IEC320/C8 or IEC320/C6 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, not for life-supporting equipment.

FEATURES

- High efficiency
- Class II version suitable for BF applications
- Operation up to 5000 m
- Low safety ground leakage current
- Wide input range 90 to 264 VAC
- 100% burn-in
- Overvoltage protection
- Short-circuit protection
- Overpower protection
- Compliant with DOE Efficiency level VI requirement
 - * No load power consumption less than 0.21 W
 - * Average active efficiency greater than 88%
- Compliant with RoHS requirements

INPUT SPECIFICATIONS

Input voltage:	90-264 VAC
Input frequency:	47-63 Hz
Input current:	1.5 A (rms) for 115 VAC 0.6 A (rms) for 230 VAC
Earth leakage current:	220 uA max. @ 264 VAC, 63 Hz
Touch current	100 uA max. @ 264 VAC, 63 Hz

OUTPUT SPECIFICATIONS

Output voltage /current:	See rating chart.
Maximum output power:	See rating chart.
Ripple and noise:	150 mV _{P-P} maximum on 12 V, 1% peak to peak maximum on other voltage outputs (18 V, 19 V and 24 V)
Overvoltage protection:	Provided and set at 112-140% of its nominal output voltage
Overcurrent protection:	Protected to short circuit conditions
Temperature coefficient:	±0.04% /°C maximum
Transient response:	Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500 us after a 25% step load change

ENVIRONMENTAL SPECIFICATIONS

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

PMP92 SERIES



SAFETY STANDARD APPROVALS



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



TÜV EN 60601-1

GENERAL SPECIFICATIONS

Switching frequency:	75-150 KHz
Power factor:	0.98 typical
Efficiency:	88% min.
Hold-up time:	10 ms minimum at 115 VAC
Line regulation:	±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 1500 VAC from input to ground
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 A and D
EN61000-3-3:	Line flicker
EN61000-4-2:	ESD, ±8 KV air and ±6 KV contact
EN61000-4-3:	Radiated immunity, 3 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, 3 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, and >95% reduction for 10 ms

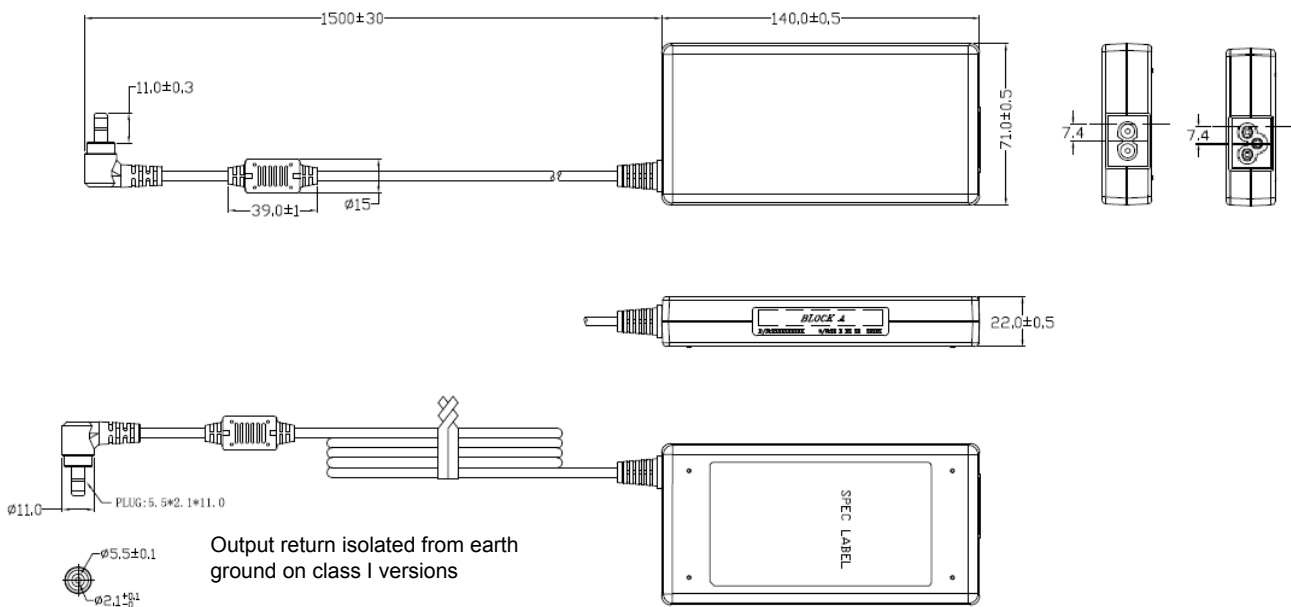
OUTPUT VOLTAGE/CURRENT RATING CHART

Model ⁽¹⁾		Output						Average Active Efficiency (typical) @ 115 / 230 Vac
Class-I	Class-II	V1	Min. Current	Max. Current	Tol.	Ripple & Noise ⁽²⁾	Max. Power	
PMP92S-12	PMP92SF-12	12.0 V	0 A	7.50 A	±5%	150 mV	90 W	88 / 89%
PMP92S-13-1	PMP92SF-13-1	18.0 V	0 A	5.00 A	±5%	180 mV	90 W	88 / 89%
PMP92S-13-2	PMP92SF-13-2	19.0 V	0 A	4.74 A	±5%	190 mV	90 W	88 / 89%
PMP92S-14	PMP92SF-14	24.0 V	0 A	3.75 A	±5%	240 mV	90 W	88 / 89%

NOTES:

- Class-I models are equipped with IEC320/C6 inlet, and Class-II models with IEC320/C8 inlet
- Ripple and noise is maximum peak to peak voltage value measured at output within 20 MHz bandwidth, at rated line voltage and 100% load 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: 350 grams (0.772 lbs.) approx.

OUTPUT POWER DERATING CURVE

