65 WATT MEDICAL POWER SUPPLIES

DESCRIPTION

The PMP65 series of AC/DC switching power supplies are for 65 watts of continuous output power. They are enclosed in a 94V-0 rated polycarbonate case with an IEC320/C6 or IEC320/C8 inlet to mate with interchangeable cord for world-wide use. All models meet EN55011 class B emission limits, and are designed for medical applications.

PMP65 SERIES

CE

RoHS

V

FEATURES

- High efficiency
- Low safety ground leakage current
- Wide input range 90 to 265 VAC
- 100% burn-in
- Overvoltage protection
- Over temperature protection
- Short-circuit protection
- Compliant with CEC and Energy Star Efficiency level V requirements
  * No load power consumption less than 0.5 W
  * Average active efficiency greater than 87%
- Compliant with RoHS requirements

SAFETY STANDARD APPROVALS

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

EN 60601-1
IEC 60601-1
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TÜV EN 60601-1

INPUT SPECIFICATIONS

Input voltage:	90-264 VAC
Input frequency:	47-63 Hz
Input current:	2.0 A (rms) for 115 VAC 1.0 A (rms) for 230 VAC
Earth leakage current:	300 μA max. @ 264 VAC, 63 Hz
Touch current:	100 μA 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
Over voltage protection:	Provided and set at 112-140% of its nominal output voltage, automatic recovery
Short circuit protection:	Automatic recovery
Over temperature protection:	Latching by recycle input to reset
Temperature coefficient:	±0.04% /℃ 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℃ to +60℃
Storage temperature:	-20℃ to +85℃
Relative humidity:	5% to 95% non-condensing
Temperature derating:	Derate from 100% at +40℃ linearly to 50% at +60℃

GENERAL SPECIFICATIONS

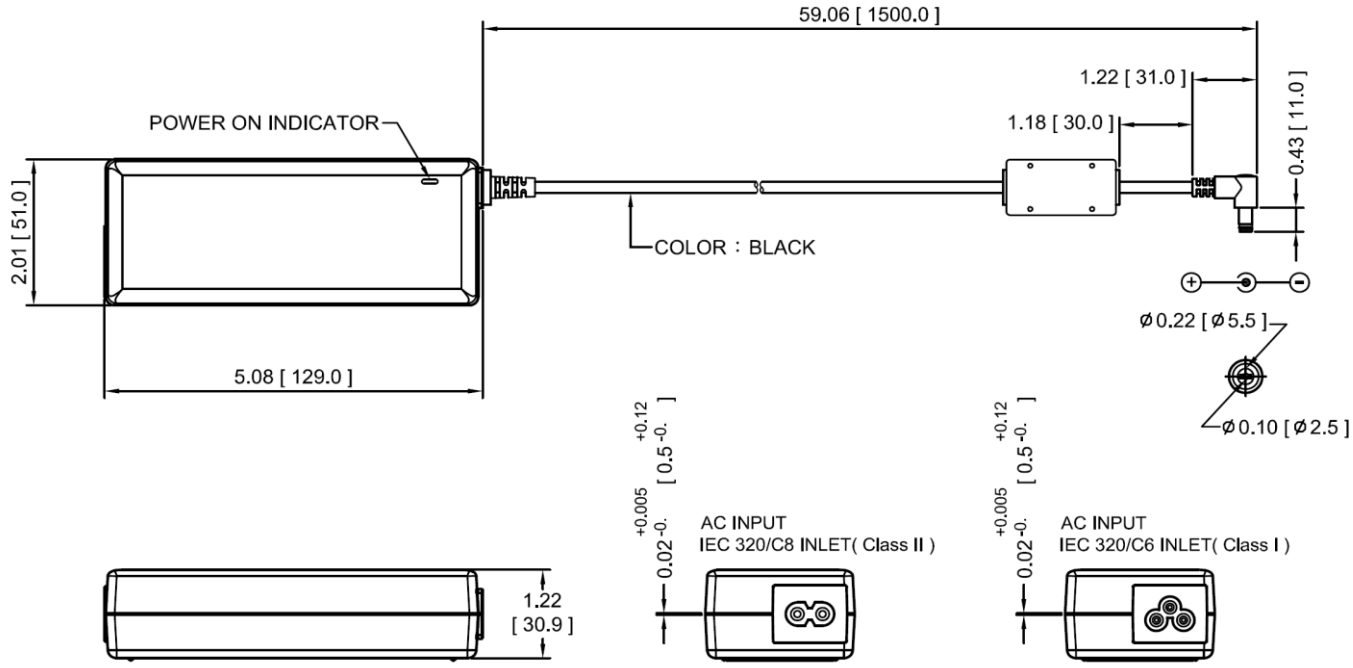
Switching frequency:	75-100 KHz
Efficiency:	87% min.
Hold-up time:	10 ms minimum at 110 VAC
Line regulation:	±0.5% maximum at full load
Inrush current:	40 A @ 115 VAC or 80 A @ 230 VAC, at 25℃ cold start
Withstand voltage:	4000 VAC from input to output (2MOPP), 1500 VAC from input to ground (1MOPP), For Class II models, 4000 VAC from input to output
MTBF:	150,000 hours at full load at 25℃ ambient , calculated per MIL-HDBK-217F
EMC Performance (EN60601-1-2)	
EN55011:	Class B conducted, class B radiated
EN61000-3-2:	Harmonic distortion, class A
EN61000-3-3:	Line flicker
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, 30 A/m
EN61000-4-11:	Voltage dip immunity, 30% reduction for 500 ms, 100% 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	
PMP65S-12	PMP65SF-12	12.0 V	0 A	5.42 A	±5%	120 mV	65 W	87 /88%
PMP65S-13	PMP65SF-13	15.0 V	0 A	4.34 A	±5%	150 mV	65 W	89 /89%
PMP65S-13-1	PMP65SF-13-1	18.0 V	0 A	3.62 A	±5%	180 mV	65 W	87 /88%
PMP65S-13-2	PMP65SF-13-2	19.0 V	0 A	3.43 A	±5%	190 mV	65 W	88 /89%
PMP65S-13-3	PMP65SF-13-3	20.0 V	0 A	3.25 A	±5%	200 mV	65 W	88 /89%
PMP65S-14	PMP65SF-14	24.0 V	0 A	2.71 A	±5%	240 mV	65 W	88 /90%

NOTES:
1. Class-I models are equipped with IEC 320/C6 inlet, and Class-II models with IEC 320/C8 inlet
2. 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 47 µF tantalum capacitor in parallel with a 0.1 µF ceramic capacitor across the output.

MECHANICAL SPECIFICATIONS



NOTES:
1. Dimensions shown in inches [mm]
2. Tolerance 0.02 [0.5] maximum
3. Weight: 340 grams (0.749 lbs.) approx.

OUTPUT POWER DERATING CURVE