

45 WATT MEDICAL POWER SUPPLIES

DESCRIPTION

The PMP55 series of AC/DC multiple output switching power supplies are for 45 watts of continuous output power. They are enclosed in a 94V-1 rated polyphenylene-oxide case with an IEC320/C14 inlet to mate with interchangeable cord for world-wide use. An on /off switch can be added at request. All models meet EN55011 and FCC class B emission limits, and are designed for medical applications not for life-supporting equipment.

FEATURES

- 5 standard desktop models
- Dual or triple outputs
- Optional output connectors
- Optional on /off switch
- 100% burn-in
- Wide input range 85-264 VAC
- Input surge current protection
- Overvoltage protection
- Overcurrent protection
- Compliant with RoHS requirements

INPUT SPECIFICATIONS

Input voltage: 85-264 VAC
Input frequency: 47-63 Hz
Input current: 1.50 A (rms) for 115 VAC
0.90 A (rms) for 230 VAC
Earth leakage current: 300 μ A max. @ 264 VAC, 63 Hz
(Touch current)

OUTPUT SPECIFICATIONS

Output voltage /current: See rating chart.
Maximum output power: See rating chart.
Ripple and noise: 1% peak to peak maximum
Overvoltage protection: Provided on output #1 only; set at 112-132% of its nominal output voltage
Overcurrent protection: All outputs protected to short circuit conditions
Temperature coefficient: All outputs $\pm 0.04\%$ / $^{\circ}$ 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 $^{\circ}$ C to +70 $^{\circ}$ C
Storage temperature: -40 $^{\circ}$ C to +85 $^{\circ}$ C
Relative humidity: 5% to 95% non-condensing
Derating: Derate from 100% at +50 $^{\circ}$ C linearly to 50% at +70 $^{\circ}$ C

PMP55 SERIES



CE (LVD)

RoHS

SAFETY STANDARD APPROVALS



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



TÜV EN 60601-1

GENERAL SPECIFICATIONS

Switching frequency: 40 KHz ± 5 KHz
Efficiency: 65% minimum
Hold-up time: 10 ms minimum at 110 VAC
Line regulation: $\pm 0.5\%$ maximum at full load
Inrush current: 15 A @ 115 VAC or 30 A @ 230 VAC, at 25 $^{\circ}$ C cold start
Withstand voltage: 4000 VAC from input to output, 1500 VAC from input to ground, 500 VAC from output to ground
MTBF: 450,000 hours at full load at 25 $^{\circ}$ C ambient, calculated per MIL-HDBK-217F
EMC Performance (IEC60601-1-2)
EN55011 / EN55022: Class B conducted, class B radiated
EN61000-3-2: Harmonic distortion, class A
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

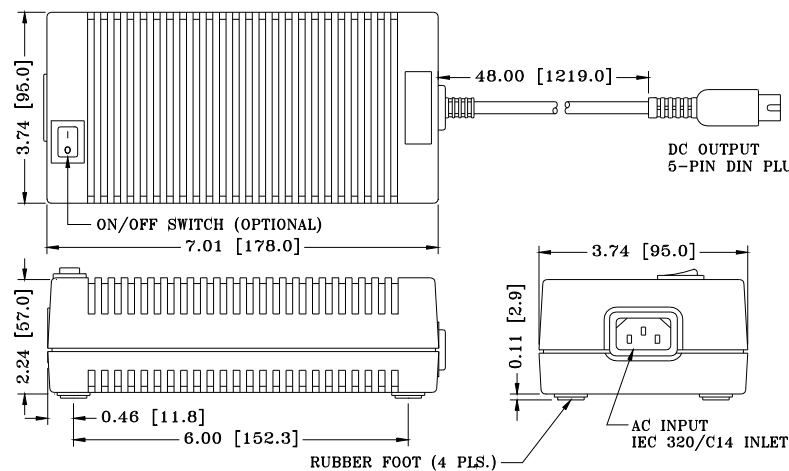
OUTPUT VOLTAGE/CURRENT RATING CHART

Model	Output #1				Output #2				Output #3				Max. Output Power
	V1	Min. Current	Max. Current	Tol.	V2	Min. Current	Max. Current	Tol.	V3	Min. Current	Max. Current	Tol.	
PMP55-23	+5 V	1.0 A	5.0 A	±5%	+12 V	0.5 A	3.0 A	±5%	(N/A)				45 W
PMP55-24	+5 V	1.0 A	5.0 A	±5%	+15 V	0.4 A	2.5 A	±5%	(N/A)				45 W
PMP55-25	+5 V	1.0 A	5.0 A	±5%	+24 V	0.3 A	2.0 A	±5%	(N/A)				45 W
PMP55-31	+5 V	1.0 A	5.0 A	±5%	+12 V	0.5 A	3.0 A	±5%	-12 V	0.1 A	0.5 A	±10%	45 W
PMP55-32	+5 V	1.0 A	5.0 A	±5%	+15 V	0.4 A	2.5 A	±5%	-15 V	0.1 A	0.5 A	±10%	45 W

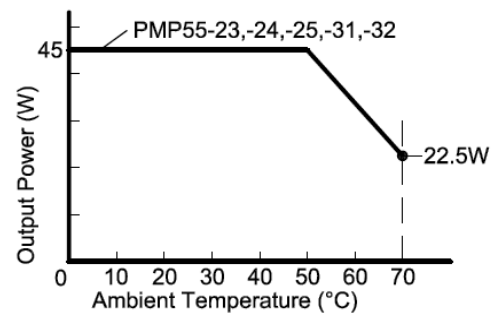
NOTES:

- The output voltages of a model may go outside of the stated tolerance when an output load current is out of stated limits.
- 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



OUTPUT POWER DERATING CURVE



NOTES:

- Dimensions shown in inches [mm]
- Tolerance 0.02 [0.5] maximum
- Weight : 700 grams (1.54 lbs.) approx.
- Output connector is 5 pin DIN plug, mating with Switchcraft P/N 57GB5F receptacle or equivalent.
- Refer to Section titled "OPTIONAL OUTPUT CONNECTORS". Add the suffix assigned for a selected connector to a wanted model number, e.g. PMP55-31-K2, for ordering
- To order a model with an on/off switch, add suffix "S" to the model number, e.g. PMP55-31-K2-S

PIN CHART

MODEL \ PIN	1	2	3	4	5
PMP55-23 PMP55-24 PMP55-25	Common Return	Common Return	V1	Common Return	V2
PMP55-31 PMP55-32	Common Return	Common Return	V1	V3	V2