



40-55 WATT MEDICAL SWITCHING POWER SUPPLIES

DESCRIPTION

The PMP55 series of AC/DC switching power supplies are for 40 to 55 watts of continuous output power. They are enclosed in a 94V-1 rated polyphenylene-oxide case with an IEC 320 inlet to mate with interchangeable cord for world-wide use. An on/off switch can be added at request. All models meet CISPR 11 and FCC class B emission limits, and are designed for medical applications not for patient contact.

FEATURES

- 15 standard desktop models
- Single, dual or triple outputs
- Optional output connectors
- Optional on/off switch
- 100% burn-in
- Wide input range 85 to 264VAC
- Input surge current protection
- Overvoltage protection
- Overcurrent protection

INPUT SPECIFICATIONS

Input voltage <input type="checkbox"/>	85 to 264 VAC
Input frequency <input type="checkbox"/>	47 to 63 Hz
Input current <input type="checkbox"/>	1.50A (rms) for 115 VAC 0.90A (rms) for 230VAC
Leakage current <input type="checkbox"/>	90uA max. @ 115VAC, 60Hz 150uA max. @ 230VAC, 50Hz

OUTPUT SPECIFICATIONS

Output voltage/current <input type="checkbox"/>	See rating chart
Total output power <input type="checkbox"/>	55 watts maximum
Ripple and noise <input type="checkbox"/>	1 <input type="checkbox"/> peak to peak maximum
Overvoltage protection <input type="checkbox"/>	Provided on output #1 only; set at 112-132 <input type="checkbox"/> of its nominal output voltage
Overcurrent protection <input type="checkbox"/>	All outputs protected to short circuit conditions
Temperature coefficient <input type="checkbox"/>	All outputs ± 0.04 <input type="checkbox"/> / <input type="checkbox"/> maximum
Transient response <input type="checkbox"/>	Maximum excursion of 4 <input type="checkbox"/> or better on all models, recovering to 1 <input type="checkbox"/> of final value within 500us after a 25 <input type="checkbox"/> step load change

ENVIRONMENTAL SPECIFICATIONS

Operating temperature <input type="checkbox"/>	0 <input type="checkbox"/> to +70 <input type="checkbox"/>
Storage temperature <input type="checkbox"/>	-40 <input type="checkbox"/> to +85 <input type="checkbox"/>
Relative humidity <input type="checkbox"/>	5 <input type="checkbox"/> to 95 <input type="checkbox"/> non-condensing
Derating <input type="checkbox"/>	Derate from 100 <input type="checkbox"/> at +50 <input type="checkbox"/> linearly to 50 <input type="checkbox"/> at +70 <input type="checkbox"/>

PMP55 SERIES



Safety Standard Approvals



UL 2601-1, CSA C22.2 NO. 601.1
File NO. E178020



TÜV EN60601-1
Certificate No. T9954943

GENERAL SPECIFICATIONS

Switching frequency <input type="checkbox"/>	40KHz \pm 5KHz
Efficiency <input type="checkbox"/>	70 <input type="checkbox"/> minimum on single output models with V_o <input type="checkbox"/> 10V, 65% minimum on the others
Hold-up time <input type="checkbox"/>	10 msec minimum at 110VAC
Line regulation <input type="checkbox"/>	± 0.5 <input type="checkbox"/> maximum at full load
Inrush current <input type="checkbox"/>	15 amps @ 115VAC, or 30 amps @ 230VAC, at 25 <input type="checkbox"/> cold start
Withstand voltage <input type="checkbox"/>	4000VAC from input to output 1500VAC from input to ground 500VAC from output to ground
MTBF <input type="checkbox"/>	450,000 hours minimum at full load at 25 <input type="checkbox"/> 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
EN61000-3-3:	Line flicker
EN61000-4-2:	ESD, \pm 8KV air and \pm 6KV contact
EN61000-4-3:	Radiated immunity, 3V/m for 80-2500MHz
EN61000-4-4:	Fast transient/burst, \pm 2KV
EN61000-4-5:	Surge, \pm 1KV diff., \pm 2KV com.
EN61000-4-6:	Conducted immunity, 3Vrms
EN61000-4-8:	Magnetic field immunity, 3A/m
EN61000-4-11:	Voltage dips, 30 <input type="checkbox"/> reduction for 500ms, 60% reduction for 100ms and $>$ 95 <input type="checkbox"/> reduction for 10ms

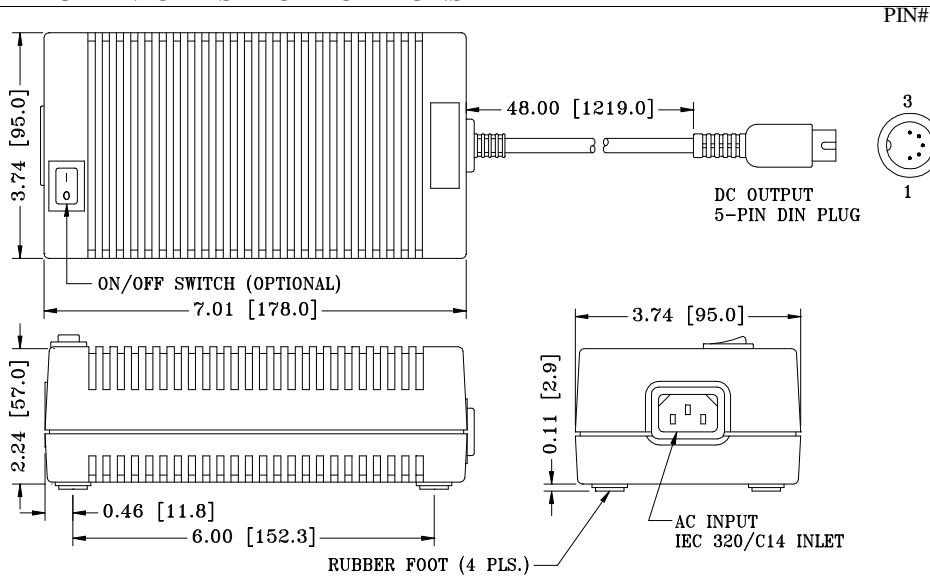
UNIVERSAL INPUT PMP55 MEDICAL SERIES

OUTPUT VOLTAGE/CURRENT RATING CHART

(1)(2) Model	Output #1				Output #2				Output #3				Maximum Output Power
	Vnom.	Imin.	Imax.	Tol.	Vnom.	Imin.	Imax.	Tol.	Vnom.	Imin.	Imax.	Tol.	
PMP55-10	5-6V	0A	8.0A	5%	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	40W
PMP55-10-1	6-8V	0A	7.5A	5%	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	45W
PMP55-11	9-11V	0A	5.0A	5%	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	50W
PMP55-12	11-13V	0A	4.6A	5%	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	55W
PMP55-13	13-17V	0A	3.7A	3%	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	55W
PMP55-13-1	17-21V	0A	3.1A	3%	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	55W
PMP55-14	21-27V	0A	2.3A	3%	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	55W
PMP55-16	27-33V	0A	1.9A	3%	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	55W
PMP55-17	33-39V	0A	1.6A	3%	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	55W
PMP55-18	48V	0A	1.2A	3%	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	55W
PMP55-23	+5V	1A	5.0A	5%	+12V	0.5A	3.0A	5%	(N/A)	(N/A)	(N/A)	(N/A)	45W
PMP55-24	+5V	1A	5.0A	5%	+15V	0.4A	2.5A	5%	(N/A)	(N/A)	(N/A)	(N/A)	45W
PMP55-25	+5V	1A	5.0A	5%	+24V	0.3A	2.0A	5%	(N/A)	(N/A)	(N/A)	(N/A)	45W
PMP55-31	+5V	1A	5.0A	5%	+12V	0.5A	3.0A	5%	-12V	0.1A	0.5A	10%	45W
PMP55-32	+5V	1A	5.0A	5%	+15V	0.4A	2.5A	5%	-15V	0.1A	0.5A	10%	45W

- Notes: (1) The output voltage of a single output model, except PMP55-18, can be adjusted by user in the stated range, or set by factory to a wanted value in the range at the request of a user when ordering.
 (2) The output voltages of a multiple output model may go outside of the stated tolerance when an output load current is out of stated limits. All models may be operated at no-load without damage.

MECHANICAL SPECIFICATIONS



NOTES:

1. Dimensions show in inch [mm]
2. Tolerance 0.02 [0.5] maximum
3. Weight: 700 grams approx.
4. See pages 6-9 to 6-18 for optional output connectors. Add the suffix assigned for a selected connector to a wanted model number, e.g. PMP55-10-B2, for ordering.
5. To order a model with on/off switch, add suffix "S" to the model number, e.g. PMP55-10-B2-S.

PIN CHART

MODEL \ PIN	1	2	3	4	5
PMP55-10 PMP55-10-1 PMP55-11 PMP55-12	RETURN	RETURN	OUTPUT #1	RETURN	OUTPUT #1
PMP55-13 PMP55-13-1 PMP55-14 PMP55-16	RETURN	RETURN	OUTPUT #1	RETURN	OUTPUT #1
PMP55-17 PMP55-18	RETURN	RETURN	OUTPUT #1	RETURN	OUTPUT #1
PMP55-23 PMP55-24 PMP55-25	COMMON RETURN	COMMON RETURN	OUTPUT #1	COMMON RETURN	OUTPUT #2
PMP55-31 PMP55-32	COMMON RETURN	COMMON RETURN	OUTPUT #1	OUTPUT #3	OUTPUT #2