

51-65 WATT MEDICAL SWITCHING POWER SUPPLIES

DESCRIPTION

The PM66 series of compact, open PCB constructed, AC-DC switching power supplies are capable of delivering 51 to 65 watts of continuous power. They operate at 90 to 264VAC input voltage without the need of voltage selection. They are ideally suited for use in medical equipment not for life support. All models meet the safety requirements of UL, CSA and IEC.

FEATURES

- · Recognized or certified by UL, CSA and TÜV
- · Small size
- · 100% burn-in
- · Wide input range 90 to 264VAC
- · Input surge current protection
- · Overvoltage protection
- · Overcurrent protection
- · Compliant with RoHS requirements

INPUT SPECIFICATIONS

Input voltage: 90 to 264VAC Input frequency: 47 to 63 Hz

Input current: 1.60A (rms) for 115VAC

1.00A (rms) for 230VAC

Earth leakage current: 90uA max. @ 115VAC, 60Hz

150uA max. @ 230VAC, 50Hz

PM66 SERIES





Safety Standard Approvals:



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



MTRF:

TÜV EN60601-1

GENERAL SPECIFICATIONS

Switching frequency: 42KHz ±5KHz

Efficiency: 75% minimum on models with

Vo≥12V, 66% minimum on the others

Hold-up time : 10 msec minimum at 110VAC Line regulation: ±0.5% maximum at full load Inrush current: 17 amps @ 115VAC or 40 amps @230VAC, at 25°C cold start

4000VAC from input to output

Withstand voltage: 1500VAC from input to ground

> 500VAC from output to ground 400,000 hours minimum at full load

at 25°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 Class B conducted, Class B radiated VCCI:

EN61000-3-2: Harmonic distortion, Class A

EN61000-3-3: Line flicker

EN61000-4-2: ESD, ±8KV air and ±6KV contact EN61000-4-3: Radiated immunity, 3V/m for

80~2500MHz

EN61000-4-4: Fast transient/burst, ±2KV EN61000-4-5: Surge, ±1KV diff., ±2KV com. EN61000-4-6: Conducted immunity, 3Vrms EN61000-4-8: Magnetic field immunity, 3A/m

Voltage dips, 30% reduction for 500ms, EN61000-4-11: 60% reduction for 100ms and >95%

reduction for 10ms

OUTPUT SPECIFICATIONS

Output voltage/current: See rating chart Total output power: 65 watts maximum

Ripple and noise: 1% peak to peak maximum Overvoltage protection: Provided on output; set at

112 - 132% of its nominal

output voltage

The output protected to short Overcurrent protection:

circuit conditions

Temperature coefficient: All outputs ±0.04% /℃

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°C to +70°C Storage temperature: -40°C to +85°C

5% to 95% non-condensing Relative humidity: Derating: Derate from 100% at +50°C

linearly to 50% at +70°C

UNIVERSAL INPUT

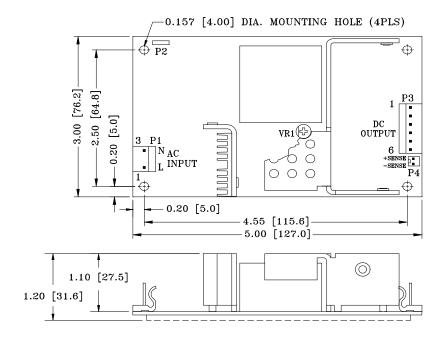
PM66 MEDICAL SERIES

OUTPUT VOLTAGE/ CURRENT RATING CHART

	Output #1				Output #2	Output #3	Maximum Output	
MODEL	Vnom.	<u>lmin.</u>	<u>lmax.</u>	Tol.	<u>Vnom. Imin. Imax. Tol.</u>	Vnom. Imin. Imax. Tol.	<u>Power</u>	
PM66-10A	5.1V	0A	10A	3%	(N/A)	(N/A)	51W	
PM66-12A	12V	0A	5.5A	2%	(N/A)	(N/A)	65W	
PM66-13A	15V	0A	4.4A	2%	(N/A)	(N/A)	65W	
PM66-13-1A	18V	0A	3.7A	2%	(N/A)	(N/A)	65W	
PM66-14A	24V	0A	2.8A	2%	(N/A)	(N/A)	65W	
PM66-15A	28V	0A	2.4A	2%	(N/A)	(N/A)	65W	

NOTE: 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.

MECHANICAL SPECIFICATIONS



NOTES:

- 1. Dimensions shown in inch [mm]
- 2. Tolerance 0.02 [0.5] maximum
- Input connector mates with Molex housing 09-50-3031 and Molex 2878 series crimp terminal.
- Output connector mates with Molex housing 09-50-3061 and Molex 2878 series crimp terminal.
- P4 is for ±sense connections and mates with Molex housing 22-01-1023 and Molex 40445 series crimp terminal.
- 6. Weight: 330 grams (PCB format)
- 7. VR1 is for output voltage adjustment.

PIN CHART

CONN	P1		P2	P3							P4	
MODEL	1	3	1	1	2	3	4	5	6	1	2	
PM66-10A PM66-12A PM66-13A PM66-13-1A PM66-14A PM66-15A	AC LIVE	AC NEUTRAL	AC GROUND		OUTPUT #1	OUTPUT #1	RETURN	RETURN	RETURN	+SENSE	-SENSE	