



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

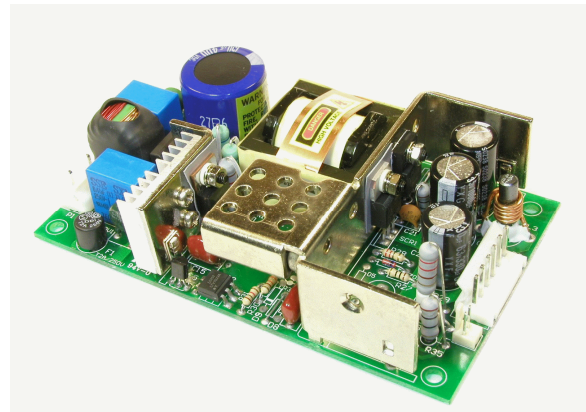
OUTPUT SPECIFICATIONS

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
 Overcurrent protection : The output protected to short circuit conditions
 Temperature coefficient : All outputs $\pm 0.04\%$ / $^{\circ}\text{C}$ 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 $^{\circ}\text{C}$ to +70 $^{\circ}\text{C}$
 Storage temperature : -40 $^{\circ}\text{C}$ to +85 $^{\circ}\text{C}$
 Relative humidity : 5% to 95% non-condensing
 Derating : Derate from 100% at +50 $^{\circ}\text{C}$ linearly to 50% at +70 $^{\circ}\text{C}$

PM66 SERIES



Safety Standard Approvals :



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



TÜV EN60601-1

GENERAL SPECIFICATIONS

Switching frequency : 42KHz $\pm 5\text{KHz}$
 Efficiency : 75% minimum on models with $V_o \geq 12\text{V}$, 66% minimum on the others
 Hold-up time : 10 msec minimum at 110VAC
 Line regulation : $\pm 0.5\%$ maximum at full load
 Inrush current : 17 amps @ 115VAC or 40 amps @ 230VAC, at 25 $^{\circ}\text{C}$ cold start
 Withstand voltage : 4000VAC from input to output
 1500VAC from input to ground
 500VAC from output to ground
 MTBF : 400,000 hours minimum at full load at 25 $^{\circ}\text{C}$ 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
 VCCI: Class B conducted, Class B radiated
 EN61000-3-2: Harmonic distortion, Class A
 EN61000-3-3: Line flicker
 EN61000-4-2: ESD, $\pm 8\text{KV}$ air and $\pm 6\text{KV}$ contact
 EN61000-4-3: Radiated immunity, 3V/m for 80~2500MHz
 EN61000-4-4: Fast transient/burst, $\pm 2\text{KV}$
 EN61000-4-5: Surge, $\pm 1\text{KV}$ diff., $\pm 2\text{KV}$ com.
 EN61000-4-6: Conducted immunity, 3Vrms
 EN61000-4-8: Magnetic field immunity, 3A/m
 EN61000-4-11: Voltage dips, 30% reduction for 500ms, 60% reduction for 100ms and >95% reduction for 10ms

UNIVERSAL INPUT

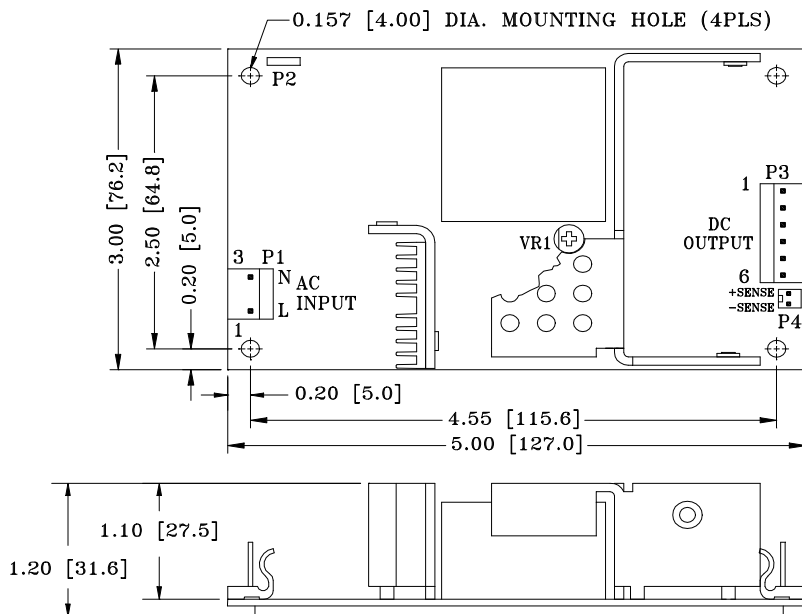
PM66 MEDICAL SERIES

OUTPUT VOLTAGE/ CURRENT RATING CHART

MODEL	Output #1				Output #2				Output #3				Maximum Output Power
	Vnom.	Imin.	Imax.	Tol.	Vnom.	Imin.	Imax.	Tol.	Vnom.	Imin.	Imax.	Tol.	
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
3. Input connector mates with Molex housing 09-50-3031 and Molex 2878 series crimp terminal.
4. Output connector mates with Molex housing 09-50-3061 and Molex 2878 series crimp terminal.
5. P4 is for \pm 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

MODEL	CONN PIN	P1		P2	P3						P4	
		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	OUTPUT #1	RETURN	RETURN	RETURN	+SENSE	-SENSE