

## DESCRIPTION

The PM66 series of compact, open PCB constructed, AC-DC switching power supplies are capable of delivering 45-65 watts of continuous output power. They operate at 90-264 VAC input voltage without the need of voltage selection. They are ideally suited for use in medical equipment not for life-supporting equipment. All models meet the safety requirements of UL, CSA and IEC.

## FEATURES

- Recognized or certified by UL, CSA and TÜV
- 3x5 inches footprint
- 100% burn-in
- Wide input range 90-264 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:	0.70 A (rms) for 115 VAC 0.40 A (rms) for 230 VAC
Earth leakage current:	150 $\mu$ A 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
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 $\mu$ 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

## PM66 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:	42 $\pm$ 5 KHz
Efficiency:	75% minimum on single output model with $V_o \geq 12V$ , 68% minimum on the others
Hold-up time:	10 ms minimum at 110 VAC
Line regulation:	$\pm 0.5\%$ maximum at full load
Inrush current:	17 A @ 115 VAC or 40 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:	400,000 hours at full load at 25 $^{\circ}$ C ambient, calculated per MIL-HDBK-217F
EMC Performance (EN60601-1-2)	
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, $\pm 8$ KV air and $\pm 6$ KV contact
EN61000-4-3:	Radiated immunity, 3 V/m @ 80-2500 MHz
EN61000-4-4:	Fast transient/burst, $\pm 2$ KV
EN61000-4-5:	Surge, $\pm 1$ KV diff., $\pm 2$ 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

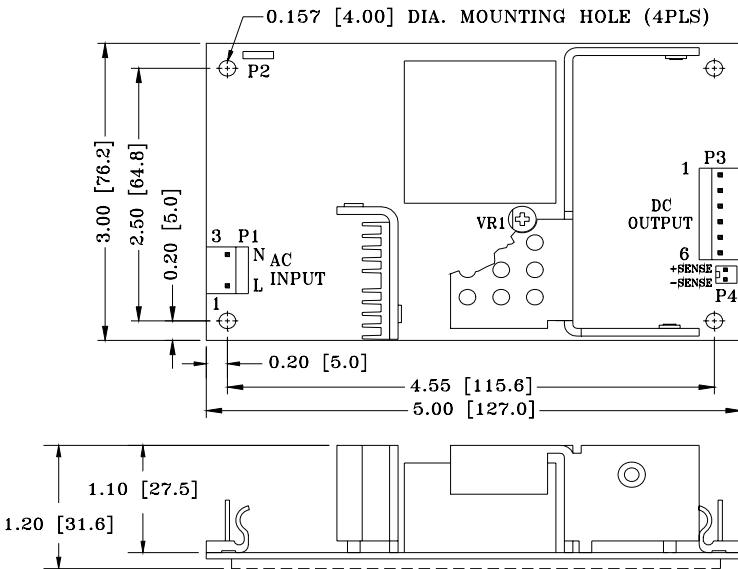
## OUTPUT VOLTAGE/CURRENT RATING CHART

Model	Output						Efficiency (typical) @ Max. Output Power 115 / 230 Vac
	V1	Min. Current	Max. Current	Tol.	Ripple & Noise <sup>(1)</sup>	Max. Output Power	
PM66-10A	5.1 V	0 A	10.0 A	±3%	51 mV	51 W	71 / 71 %
PM66-12A	12 V	0 A	5.5 A	±2%	120 mV	65 W	79 / 80 %
PM66-13A	15 V	0 A	4.4 A	±2%	150 mV	65 W	79 / 81 %
PM66-13-1A	18 V	0 A	3.7 A	±2%	180 mV	65 W	80 / 81 %
PM66-14A	24 V	0 A	2.8 A	±2%	240 mV	65 W	80 / 81 %
PM66-15A	28 V	0 A	2.4 A	±2%	280 mV	65 W	81 / 80 %

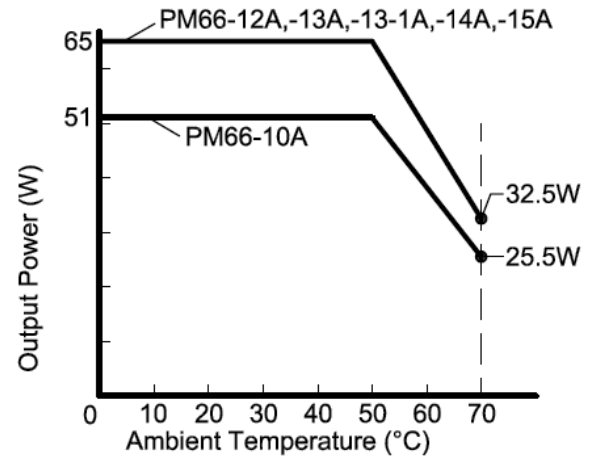
**NOTES:**

1. 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:**

1. Dimensions shown in inches [mm]
2. Tolerance 0.02 [0.5] maximum
3. Connector P1: Molex header 09-65-2038 or equivalent, mating with Molex housing 09-50-1031 or equivalent.
4. Connector P2 is 0.25 [6.35] × 0.032 [0.8] for earth grounding.
5. Connector P3: Molex 09-65-2068 or equivalent, mating with Molex 09-50-1061 or equivalent.
6. Connector P4: Molex header 22-04-1021 or equivalent for ±sense connections, mating with Molex housing 22-01-1023 or equivalent.
7. Weight: 330 grams (0.726 lbs.) approx.

## PIN CHART

MODEL	CONN PIN	P1			P2	P3						P4	
		1	2	3	1	1	2	3	4	5	6	1	2
PM66-10A	PM66-13-1A	AC Live	Void	AC Neutral	AC Ground	+V1			V1 Return			+Sense	-Sense
PM66-12A	PM66-14A												
PM66-13A	PM66-15A												