

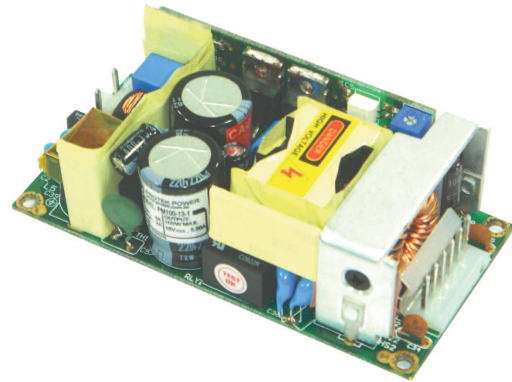
# PM100 Series

37-64 WATTS - AC/DC SINGLE OUTPUT

MEDICAL

## FEATURES

- Medical and ITE approvals
- Compact size
- High power density 10 W/cubic inch
- 100 W output with convection cooling up to +50°C
- Low earth leakage current
- EN55011 /55022 class B emissions
- RoHS compliant



## SPECIFICATIONS

INPUT	
Voltage range	90-132 /180-264 VAC (Universal mains supply operation)
Frequency	47-63 Hz
Inrush current	40 A @ 115 VAC or 80 A @ 230 VAC, at 25°C cold start
Input current	1.9 A (rms) for 100-120 VAC 1.1 A (rms) for 200-240 VAC
Earth leakage current	150 µA max. @ 264 VAC, 63 Hz
Isolation	Input – Output: 4000VAC Input – Case:1500VAC Output – Case: 500VAC
OUTPUT	
Output voltage	See table
Output current	See table
Ripple and noise	150 mV peak to peak on 5.0 V model, 1% peak to peak on other models
Line regulation	±0.2% maximum at full load
Load regulation	See table
Transient response	Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500 us after a 25% step load change
Overvoltage protection	Provided on output; set at 110-140% of its nominal output voltage
Overcurrent protection	All outputs protected to short circuit conditions
Temperature coefficient	All outputs ±0.04% /°C maximum
Hold-up time	12 ms minimum at 110 VAC

OPERATING	
MTBF	270,000 hours at full load at 25°C ambient temperature, calculated per MIL-HDBK-217F
Efficiency	88-90% @ 230 VAC full load
Switching frequency	100 KHz (typical)
ENVIRONMENT	
Operating temperature:	-10°C to +70°C
Storage temperature:	-40°C to +85°C
Relative humidity:	5% to 95% non-condensing
Derating:	Derate from 100% to +50°C linearly to 50% at +70°C
STANDARDS AND APPROVALS	
Safety	UL 60601-1, CSA C22.2 No. 601.1, TÜV EN 60601-1, UL 60950-1, CSA C22.2 No. 60950-1, TÜV EN 60950-1
C-Tick	AS/NZS CISPR11 Group1, Class A
EMC standards	IEC60601-1-2, EN55011 / EN55022 and FCC, VCCI: Class B conducted . class B radiated
Immunity standards	EN61000-3-2, EN61000-3-3, EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11
MECHANICAL	
Dimensions	101x50.8x32mm
Weight	190g

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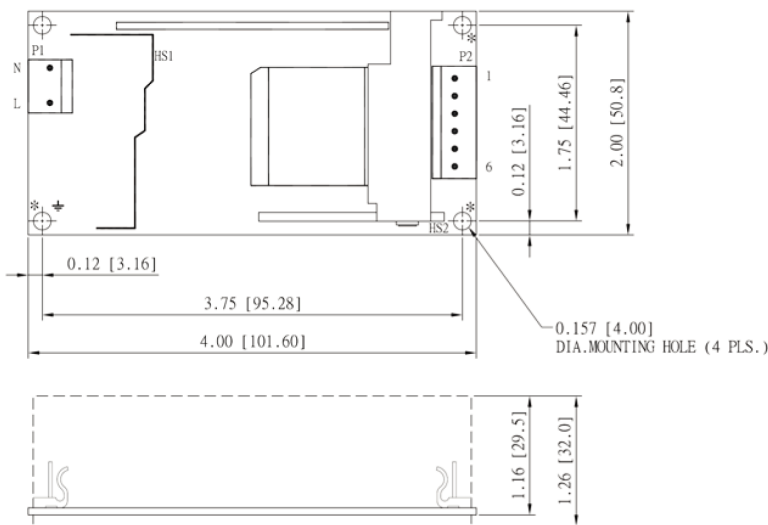
## SELECTION TABLE

MODEL(1)	V1	MIN. CURRENT	OUTPUT			RIPPLE & NOISE (2)	AVERAGE ACTIVE EFFICIENCY (TYPICAL) @ 115 / 230 VAC
			MAX. CURRENT	TOL.			
PM100-10A	5 V	0 A	20.00 A	±2%	150 mV	100 W	85/88%
PM100-12A	12 V	0 A	8.34 A	±2%	120 mV	100 W	86/89%
PM100-13A	15 V	0 A	6.70 A	±2%	150 mV	100 W	86/89%
PM100-13-1A	18 V	0 A	5.56 A	±2%	180 mV	100 W	86/89%
PM100-14A	24 V	0 A	4.20 A	±2%	240 mV	100 W	87/90%
PM100-15A	28 V	0 A	3.58 A	±2%	280 mV	100 W	87/90%
PM100-17A	36 V	0 A	2.78 A	±2%	360 mV	100 W	87/89%
PM100-18A	48 V	0 A	2.10 A	±2%	480 mV	100 W	87/89%

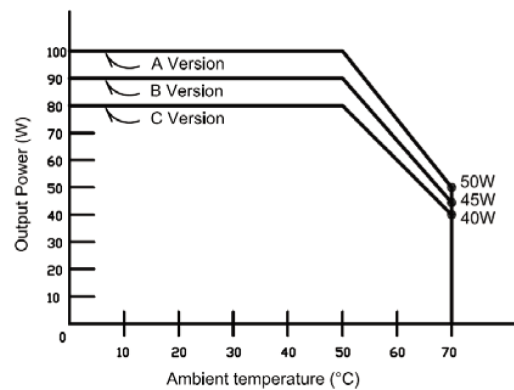
## NOTES:

1. Safety approvals are for PCB form only. To order models with metallic L-bracket or box, change suffix "A" to "B" for L-bracket form, to "C" for enclosed form (see Outline Drawing of Cased Internal Switchers), e.g. PM100-14C.
2. 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: Molex header 09-65-2068 or equivalent, mating with Molex housing 09-50-1061 or equivalent.
5. To ensure compliance with level B emissions, connect the three "\*" marked mounting holes with metallic standoffs to chassis.
6. Weight: 190 grams (0.44 lbs.) approx.

## PIN CHART

MODEL	PIN	1	2	3	4	5	6
PM100-10A	PM100-13-1A	PM100-17A					
PM100-12A	PM100-14A	PM100-18A	V1 Return	V1 Return	V1 Return	+V1	+V1
PM100-13A	PM100-15A						