



20W AC/DC Converter with OVP Function PM Series



Feature:

- Universal AC input / full arnge
- Protection: short circuit / overload / over voltage
- Ultra-Miniature size, light weight
- Isolation class II
- UL60601-1 / IEC60601-1 / TUV EN60601-1 medical safety approved
- No load power consumption < 0.5W
- Fixed switching frequency at 90KHz
- 3-year warranty

Specification:

Product No.	PM-20-3.3	PM-20-5	PM-20-12	PM-20-15	PM-20-24	
Output	DC Voltage	3.3V	5V	12V	15V	24V
	Rated Current	4.5A	4.4A	1.8A	1.4A	0.92A
	Current Range	0-4.5A	0-4.4A	0-1.8A	0-1.4A	0-0.92A
	Rated Power	14.85W	22W	21.6W	21W	22.08W
	Ripple & Noise Max. Note 2	80mVp-p	80mVp-p	150mVp-p	150mVp-p	240mVp-p
	Voltage Tolerance Note 3	±3.0%	±2.0%	±2.0%	±2.0%	±2.0%
	Line Regulation	±1.0%	±1.0%	±0.5%	±0.5%	±0.5%
	Load Regulation	±1.5%	±1.5%	±1.0%	±1.0%	±0.5%
	Setup, Rise Time	500ms, 20ms/230VAC, 500ms, 20ms/115VAC at full load				
	Hold up Time (Typ.)	50ms/230VAC, 16ms/115VAC at full load				
Input	Voltage Range	85-264VAC, 120-370VDC				
	Frequency Range	47-440Hz				
	Efficiency (Typ.)	71%	75%	81%	83%	84%
	AC Current (Typ.)	0.6A/115VAC 0.4A/230VAC				
	Inrush Current (Typ.)	Cold Start 30A/115VAC 65A/230VAC				
	Leakage Current	< 200uA / 240VAC				
Protection	Over Load	Above 105% rated output power Protection type: Hiccup mode, recover automatically				
	Over Voltage	3.8-4.46V	5.75-6.75V	13.8-16.2V	17.25-20.25V	27.6-32.4V
		Protection type: Shut off o/p voltage, clamping by zener diode				
Environment	Working Temp.	-20 - +60°C (refer to output load derating curve)				
	Working Humidity	20 - 90% RH non-condensing				
	Storage Temp. / Humidity	-40 - +85°C, 10 - 95% RH				
	Temp. Coefficient	±0.03% / °C (0 - 50°C)				
	Vibration	10 - 500Hz, 2G 10min./1cycle, period for 60min. each along X,Y,Z axes				

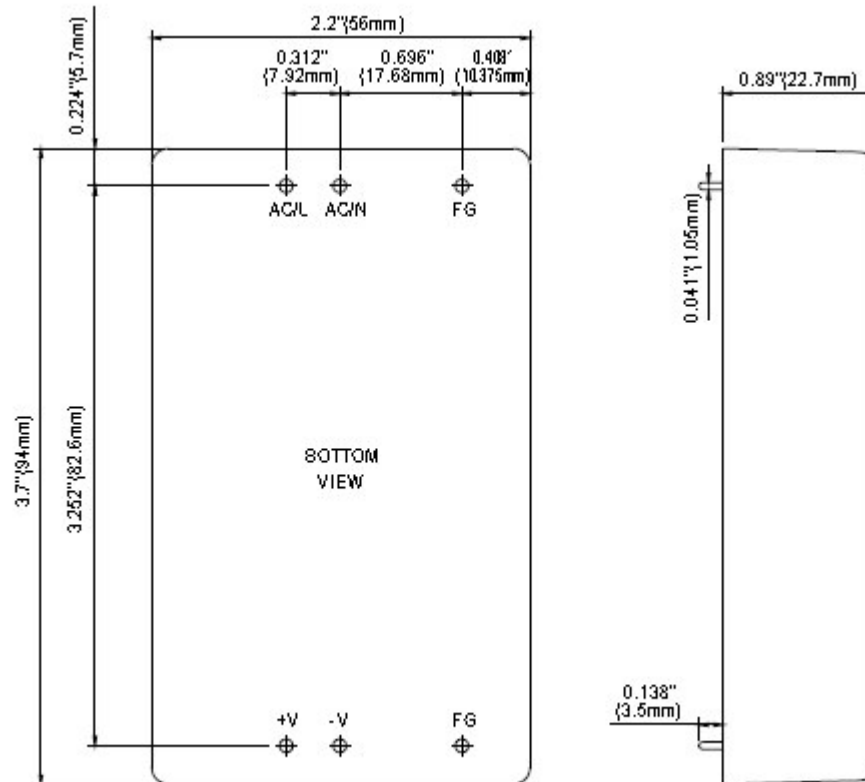


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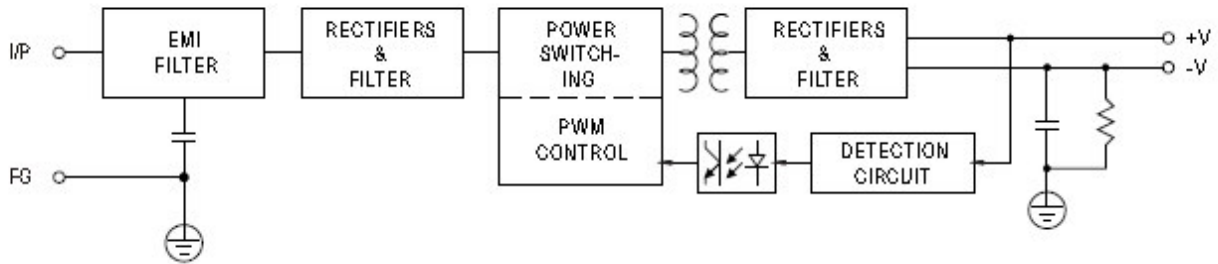


Product No.	PM-20-3.3	PM-20-5	PM-20-12	PM-20-15	PM-20-24
Safety EMC (Note 4)	Safety Standard				
	UL60601-1, TUV EN60601-1 approved				
	Withstand Voltage				
	I/P-O/P: 4KVAC, I/P-FG: 1.5KVAC, O/P-FG: 1.5KVAC				
	Isolation Resistance				
	I/P-O/P, I/P-FG, O/P-FG: 100M Ohms / 500VDC				
Others	EMI Conduction / Radiation				
	Compliance to EM55011(CISPR11), EN55022(CISPR22) Class B				
	Harmonic Current				
Compliance to EN61000-3-2, -3					
Note	EMS Immunity				
	Compliance to EN61000-4-2,3,4,5,6,8,11, ENV50204, EN55024, EN60601-1-2, EN61204-3, medical level, criteria A				
	MTBF				
487.8Khrs min. MIL-HDBK-217F(25°C)					
Others	Dimension				
	94.00(L)*56.00(W)*22.70(H)mm				
Note	Packing				
	0.18Kg, 90pcs/17.2Kg/0.97CUFT				
<p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>2. Ripple & Noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with at 0.1uF & 47uF parallel capacitors.</p> <p>3. Tolerance: includes set up tolerance, line regulation and load regulation.</p> <p>4. The power supply is considered a component which will be installed into final equipment. The final equipment must be re-confirmed that is still meets EMC directives.</p>					

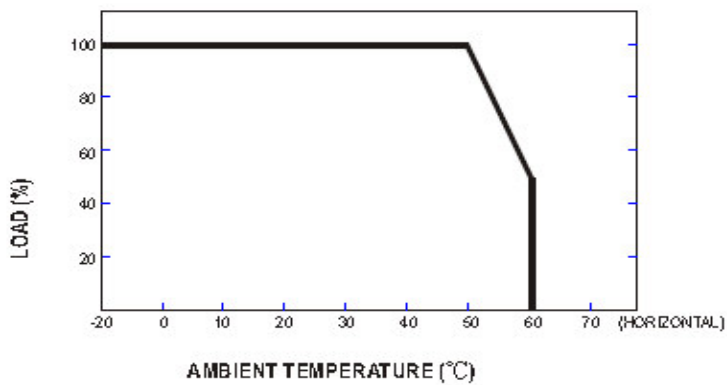
Mechanical: unit: mm



Block Diagram: fosc 90Khz



Derating Curve:



Output Derating vs Input Voltage:

