

PM-20 Series

20W Output Switching Power Supply



Case No: 8019KX
94 x 56 x 22.7mm

Features

- Universal AC input/Full range
- Protections: Short circuit / Overload / Over voltage
- Low leakage current <300µA
- Cooling by free air convection
- Medical safety approved (2 x MOPP between primary to secondary)
- Ultra miniature size, light weight
- No load power consumption <0.75W
- 100% full load burn-in test
- Fixed switching frequency at 90KHz
- High reliability
- Suitable for BF application with appropriate system consideration
- 3 years warranty



Specification

INPUT	Voltage	85 ~ 264VAC	120 ~ 370VDC			
	Frequency	47 ~ 440 Hz				
	Efficiency	71%	75%	81%	83%	84%
	AC Current	0.6A /115VAC	0.4A/230VAC			
	Inrush Current (Typ.)	Cold Start 30A/115VAC 65A/230VAC				
	Leakage Current	Earth leakage current <300µA/264VAC, touch current <100µA/264VAC				
OUTPUT	MODEL No.	PM-20-3.3	PM-20-5	PM-20-12	PM-20-15	PM-20-24
	Voltage	3.3V	5V	12V	15V	24V
	Current Range	0 ~ 4.5A	0 ~ 4.4A	0 ~ 1.8A	0 ~ 1.4A	0 ~ 0.92A
	Rated Current	4.5A	4.4A	1.8A	1.4A	0.92A
	Rated Power	14.85W	22W	21.6W	21W	22.08W
	Ripple Noise MAX.	80mVp-p	80mVp-p	150mVp-p	150mVp-p	240mVp-p
	Voltage Tolerance	±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	50ms/230VAC	15ms/115VAC at full load			
PROTECTION	Overload	Above 105% rated output power Protection Type: Hiccup mode, recovers automatically after fault condition is removed				
	Over Voltage	3.8 ~ 4.46V	5.75 ~ 6.75V	13.8 ~ 16.2%	17.25 ~ 20.25V	27.6 ~ 32.4V
ENVIRONMENT	Working Temperature	-20 ~ +60°C (Refer to derating curve)				
	Working Humidity	20 ~ 90% RH non-condensing				
	Storage temp., Humidity	-40 ~ +85°C, 10~95% RH				
	Temp. Co-efficient	±0.03%/°C (0~50°C)				
	Vibration	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes				
SAFETY & EMC	Safety Standards	ANSI/AAMI ES60601-1, TUV EN60601-1, IEC60601-1 approved				
	Isolation Level	Primary-Secondary 2xMOPP, Primary-Earth: 1xMOPP, Secondary-Earth: 1xMOPP				
	Withstand Voltage	I/P-O/P:4KVAC	I/P-FG:2KVAC	O/P-FG:1.5KVAC		
	Isolation Resistance	I/P-OP, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70%RH				
	EMC Emission	Compliance to EN55011 (CISPR11), EN55022 (CISPR22) Class B, EN61000-3-2,-3				
	EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN60601-1-2, EN61204-3, Medical level, criteria A				
OTHERS	M.T.B.F.	487.8K hrs min. MIL-HDBK-217F (25°C)				
	Packaging	0.18Kg; 90pcs/17.2Kg/0.97CUFT				

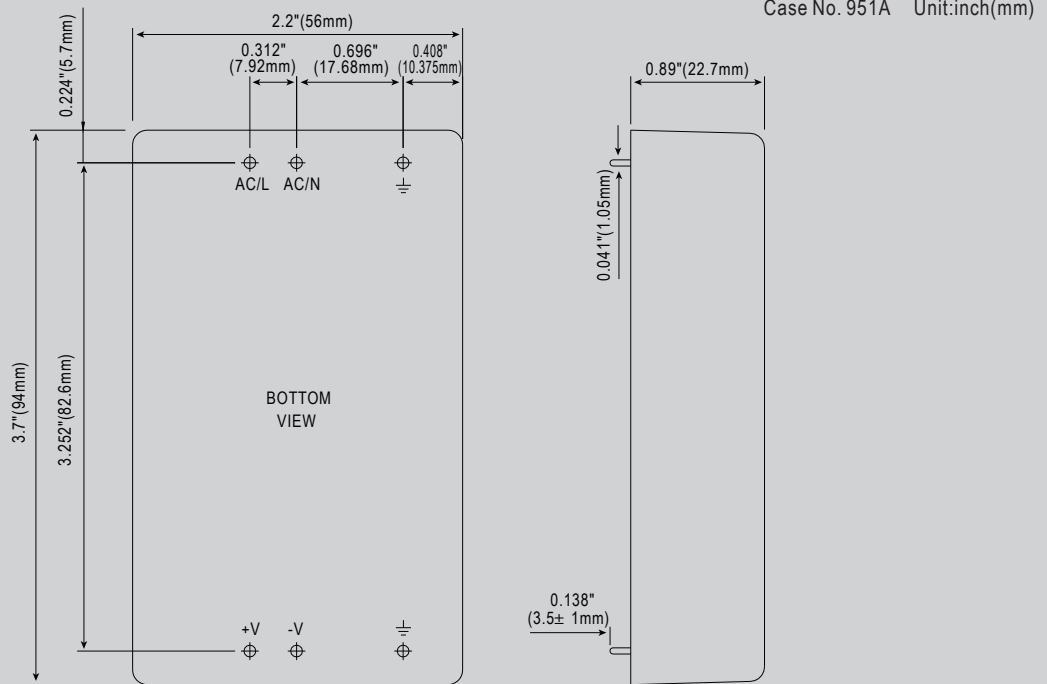
1. All parameters not specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1µf & 47µf parallel capacitor.
3. Tolerance: Includes set up tolerance, line regulation and load regulation.
4. The power supply is considered as a component that will be installed into final equipment. All the EMC tests are being executed by mounting the unit on 360mm² 360mm metal plate with 1mm thickness. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to 'EMI testing of component power supplies.'
6. Touch current was measured from primary input to DC output.

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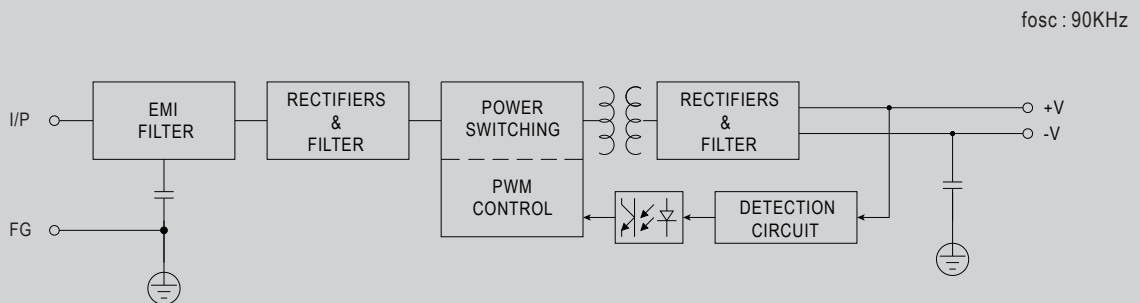
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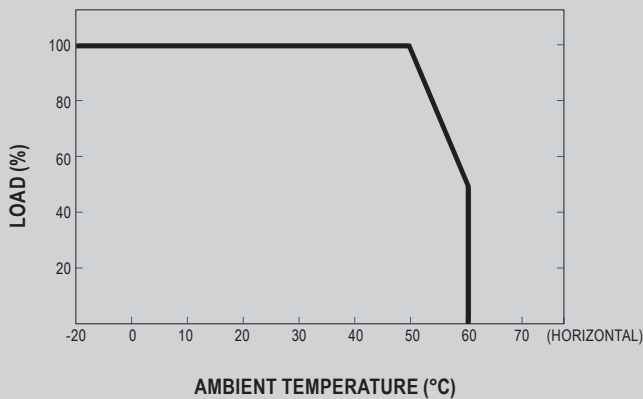
Mechanical Specification



Block Diagram



Derating Curve



Output Derating VS Input Voltage

