

PM-10 Series

10W Single Output Medical Grade Switching Power Supply



Case:
70x 50 x 22.7mm

Features

- Universal AC input/ Full range
- Protections: Short circuit / Over Load / Over voltage
- Ultra Miniature Size, light weight
- Cooling by free air convection
- Isolation Class II
- Medical safety approved (2x MOPP between primary to secondary)
- No load power consumption <0.5W
- 100% full load burn-in test
- Fixed switching frequency at 67KHz
- High Reliability
- Suitable for BF application with appropriate system consideration
- 3 years warranty



Specification

INPUT	Voltage Range	85 ~ 264VAC 120 ~ 370VDC				
	Frequency Range	47 ~ 440Hz				
	AC Current	0.25A/115VAC 0.15A/230VAC				
	Inrush Current (Typ.)	Cold Start 25A/115VAC 45A/230VAC				
	Leakage Current	Touch Current <80µ A/264VAC				
OUTPUT	MODEL No.	PM-10-3.3	PM-10-5	PM-10-12	PM-10-15	PM-10-24
	DC Voltage	3.3V	5V	12V	15V	24V
	Rated Current	2.5A	2A	0.85A	0.67A	0.42A
	Current Range	0 ~ 2.5A	0 ~ 2A	0 ~ 0.85A	0 ~ 0.67A	0 ~ 0.42A
	Rated Power	8.25W	10W	10.2W	10.05W	10.08W
	R&N	150mVp-p	150mVp-p	150mVp-p	150mVp-p	240mVp-p
	Efficiency	66%	74%	78%	79%	79%
	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	±1.0%	±1.0%	±1.0%	±1.0%	±0.5%
	Setup Rise Time	1800ms, 20ms/230VAC 1800ms, 20ms/115VAC at full load				
	Hold Up Time	100ms/230VAC 24ms/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 ~ 4.95V	5.75 ~ 6.75V	13.8 ~ 16.2V	17.5 ~ 20.25V	27.6 ~ 32.4V
ENVIRONMENT	Working Temperature	-20 ~ +70°C (Please refer to 'Derating Curve' section)				
	Working Humidity	20 ~ 90% RH non-condensing				
	Storage Temperature	-40 ~ +85°C, 10 ~ 95% RH non-condensing				
	Temp Coefficient	±0.03%/°C (0 ~ 50°C)				
	Vibration	Component: 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes				
SAFETY & EMC	Safety Standards	ANSI/AAMI ES60601-1, TUV EN60601-1, IEC60601-1, EAC TP TC 004 approved				
	Isolation Level	Primary-Secondary: 2 x MOPP				
	Withstand Voltage	I/P-O/P:4KVdc				
	Isolation Resistance	I/P-O/P:100M Ohms / 500VDC / 25°C/ 70% RH				
	EMC Emission	Compliance to EN55011(CISPR11), EN55032 (CISPR32) Class B, EN61000-3-2,-3, EAC TP TC 020				
OTHERS	EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN60601-1-2, EN61204-3, medical level, criteria A, EAC TP TC 020				
	M.T.B.F.	723.2Khrs min. MIL-HDBK-217F (25°C)				
	Packing	0.105Kg; 120pcs/13.6Kg/0.97CUFT				

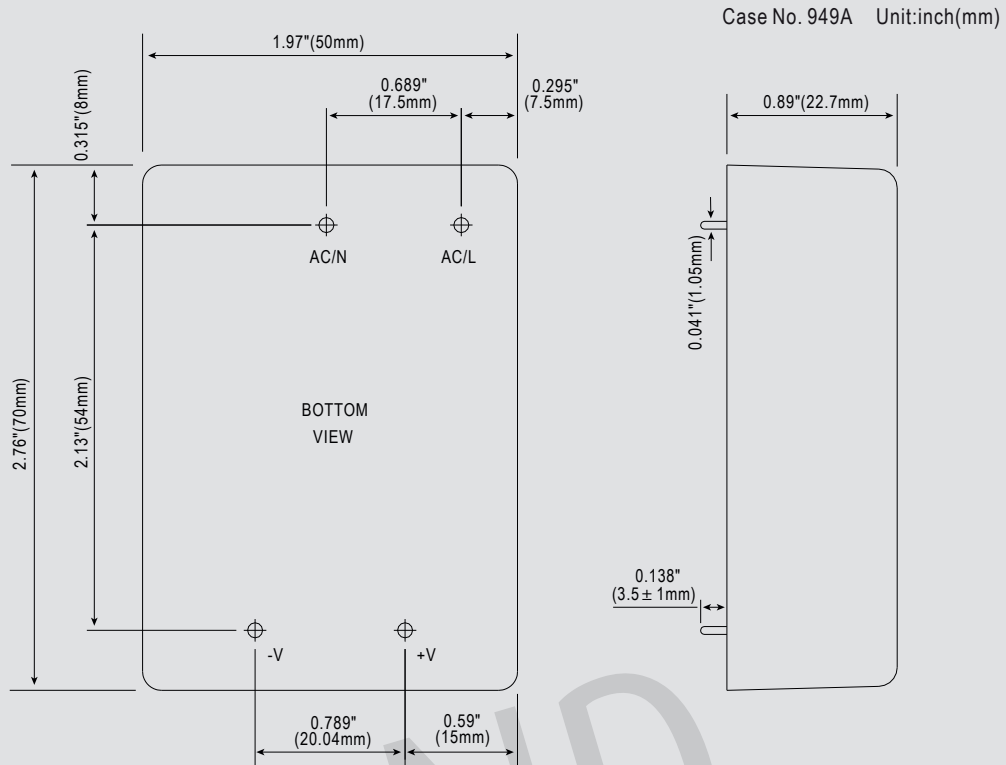
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple and Noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with 0.1µf & 47µf parallel capacitor.
3. Tolerance: includes setup of tolerance, line regulation and load regulation.
4. The power supply is considered as a component which will be installed into final equipment. For guidance on how to perform these EMC tests, please refer to 'EMI testing of component power supplies.'
5. Touch current was measured from primary input to DC output.
6. The ambient temperature of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude of higher than 2000m (6500ft).

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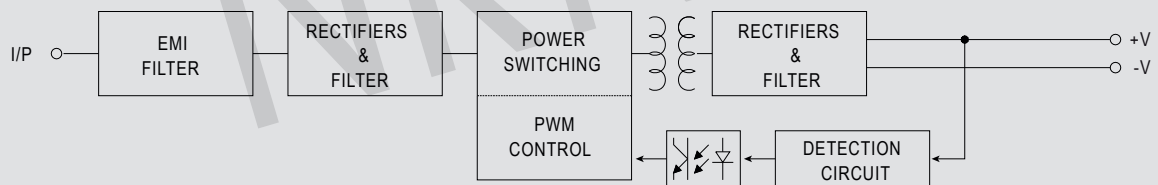
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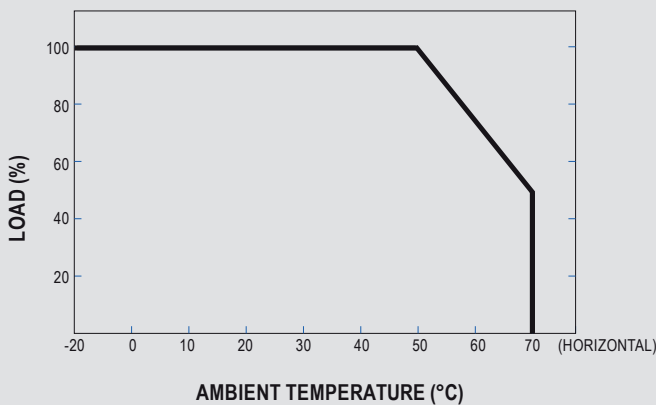
Mechanical Diagram



Block Diagram



Derating Curve



Output Derating vs Input Voltage

