

# PM-15 Series

15W Single Output Medical Grade Switching Power Supply



Case:  
75x 53 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	<b>Voltage Range</b>	85 ~ 264VAC 120 ~ 370VDC				
	<b>Frequency Range</b>	47 ~ 440Hz				
	<b>AC Current</b>	0.35A/115VAC 0.2A/230VAC				
	<b>Inrush Current (Typ.)</b>	Cold Start 30A/115VAC 50A/230VAC				
	<b>Leakage Current</b>	Touch Current <80µ A/264VAC				
OUTPUT	<b>MODEL No.</b>	<b>PM-15-3.3</b>	<b>PM-15-5</b>	<b>PM-15-12</b>	<b>PM-15-15</b>	<b>PM-15-24</b>
	<b>DC Voltage</b>	3.3V	5V	12V	15V	24V
	<b>Rated Current</b>	3.5A	3A	1.25A	1A	0.63A
	<b>Current Range</b>	0 ~ 3.5A	0 ~ 3A	0 ~ 1.25A	0 ~ 1A	0 ~ 0.63A
	<b>Rated Power</b>	11.55W	15W	15W	15W	15.12W
	<b>R&amp;N</b>	80mVp-p	80mVp-p	150mVp-p	150mVp-p	240mVp-p
	<b>Efficiency</b>	73%	76%	78%	79%	81%
	<b>Voltage Tolerance</b>	±3.0%	±2.0%	±2.0%	±2.0%	±2.0%
	<b>Line Regulation</b>	±1.0%	±1.0%	±0.5%	±0.5%	±0.5%
	<b>Load Regulation</b>	±1.0%	±1.0%	±1.0%	±1.0%	±0.5%
	<b>Setup Rise Time</b>	1000ms, 20ms/230VAC 1000ms, 20ms/115VAC at full load				
	<b>Hold Up Time</b>	100ms/230VAC 24ms/115VAC at full load				
	PROTECTION	<b>Overload</b>	Above 105% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed			
<b>Over Voltage</b>		3.8 ~ 4.95V	5.75 ~ 6.75V	13.8 ~ 16.2V	17.5 ~ 20.25V	27.6 ~ 32.4V
ENVIRONMENT	<b>Working Temperature</b>	-20 ~ +70°C (Please refer to 'Derating Curve' section)				
	<b>Working Humidity</b>	20 ~ 90% RH non-condensing				
	<b>Storage Temperature</b>	-40 ~ +85°C, 10 ~ 95% RH non-condensing				
	<b>Temp Coefficient</b>	±0.03%/°C (0 ~ 50°C)				
	<b>Vibration</b>	Component: 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes				
SAFETY & EMC	<b>Safety Standards</b>	ANSI/AAMI ES60601-1, TUV EN60601-1, IEC60601-1, UL60950-1, EAC TP TC 004 approved				
	<b>Isolation Level</b>	Primary-Secondary: 2 x MOPP				
	<b>Withstand Voltage</b>	I/P-O/P: 4KVdc				
	<b>Isolation Resistance</b>	I/P-O/P: 100M Ohms / 500VDC / 25°C/ 70% RH				
	<b>EMC Emission</b>	Compliance to EN55011(CISPR11), EN55032 (CISPR32) Class B, EN61000-3-2, -3, EAC TP TC 020				
OTHERS	<b>EMC Immunity</b>	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				
	<b>M.T.B.F.</b>	499.7Khrs min. MIL-HDBK-217F (25°C)				
	<b>Packing</b>	0.14Kg, 120pcs/17.8Kg/0.97CUFT				

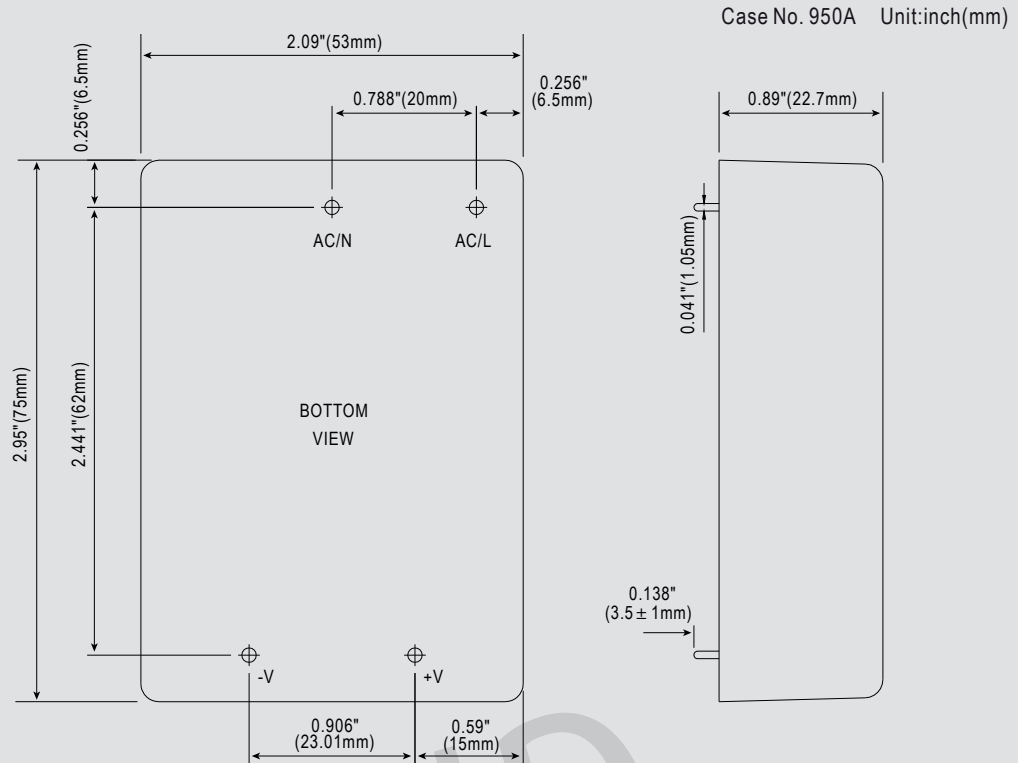
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple and Noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with 0.1µf & 47µf parallel capacitor.
3. Tolerance: includes setup of tolerance, line 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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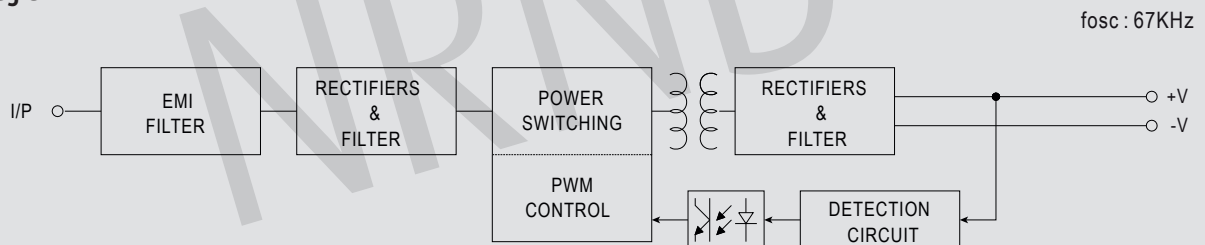
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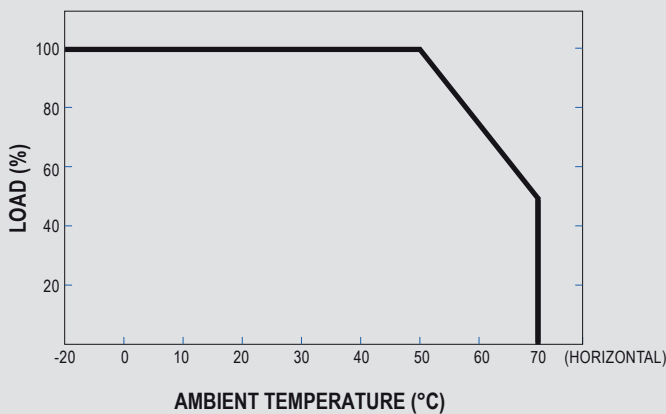
## Mechanical Diagram



## Block Diagram



## Derating Curve



## Output Derating vs Input Voltage

