



# 50W Dual Output Switching Power Supply

# RD-50 series



### ■ Features :

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- LED indicator for power on
- 100% full load burn-in test
- All using 105°C long life electrolytic capacitors
- Withstand 300VAC surge input for 5 second
- High operating temperature up to 70°C
- Withstand 5G vibration test
- High efficiency, long life and high reliability
- 3 years warranty

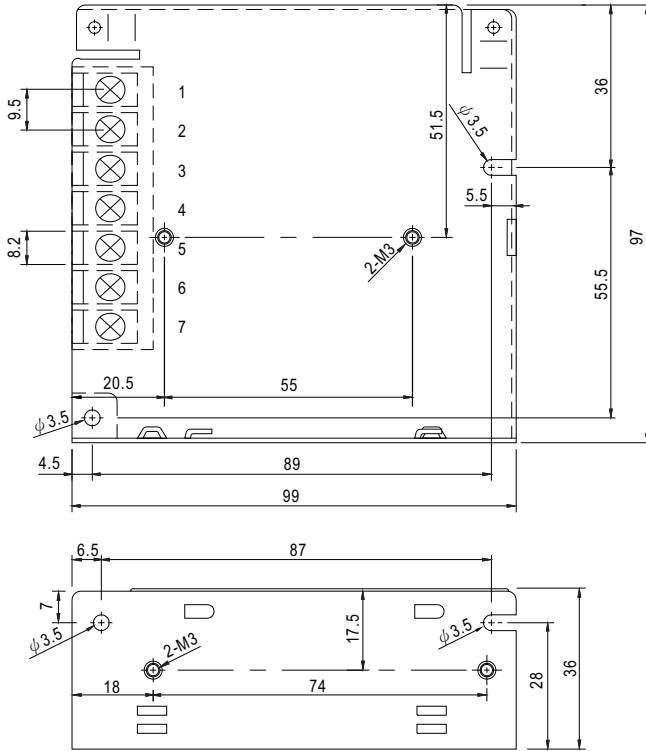


### SPECIFICATION

MODEL	RD-50A		RD-50B			
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH1	CH2	
	DC VOLTAGE	5V	12V	5V	24V	
	RATED CURRENT	6A	2A	4A	1.4A	
	CURRENT RANGE <small>Note.3</small>	0 ~ 6A	0 ~ 3A	0 ~ 6A	0 ~ 2A	
	RATED POWER	54W		53.6W		
	RIPPLE & NOISE (max.) <small>Note.2</small>	80mVp-p		120mVp-p	80mVp-p	150mVp-p
	VOLTAGE ADJ. RANGE	CH1: 4.75 ~ 5.5V		CH1: 4.75 ~ 5.5V		
	VOLTAGE TOLERANCE <small>Note.3</small>	±2.0%	±7.0%	±2.0%	±8%	
	LINE REGULATION <small>Note.4</small>	±0.5%	±1.5%	±0.5%	±1.5%	
	LOAD REGULATION <small>Note.5</small>	±0.5%	±3.0%	±0.5%	±3.0%	
	SETUP, RISE TIME	500ms, 20ms/230VAC		1200ms, 30ms/115VAC at full load		
HOLD UP TIME (Typ.)	60ms/230VAC		10ms/115VAC at full load			
INPUT	VOLTAGE RANGE	88 ~ 264VAC		125 ~ 373VDC (Withstand 300VAC surge for 5sec. Without damage)		
	FREQUENCY RANGE	47 ~ 63Hz				
	EFFICIENCY(Typ.)	78%		79%		
	AC CURRENT (Typ.)	1.3A/115VAC		0.8A/230VAC		
	INRUSH CURRENT (Typ.)	COLD START 48A/230VAC				
	LEAKAGE CURRENT	<2mA / 240VAC				
PROTECTION	OVERLOAD	110 ~ 150% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed				
	OVER VOLTAGE	CH1: 5.75 ~ 6.75V Protection type : Hiccup mode, recovers automatically after fault condition is removed				
ENVIRONMENT	WORKING TEMP.	-25 ~ +70°C (Refer to "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) on +5V output				
	VIBRATION	10 ~ 500Hz, 5G 10min./1cycle, period for 60min. each along X, Y, Z axes				
SAFETY & EMC (Note 6)	SAFETY STANDARDS	UL62368-1, TUV BS EN/EN62368-1, EAC TP TC 004 approved				
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC				
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH				
	EMC EMISSION	Compliance to BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2,-3, EAC TP TC 020				
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN61000-6-2 (BS EN/EN50082-2), heavy industry level, criteria A, EAC TP TC 020				
OTHERS	MTBF	172.6Khrs min. MIL-HDBK-217F (25°C)				
	DIMENSION	99*97*36mm (L*W*H)				
	PACKING	0.41Kg; 45pcs/19.5Kg/0.94CUFT				
NOTE	<ol style="list-style-type: none"> <li>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF &amp; 47uF parallel capacitor.</li> <li>3. Tolerance : includes set up tolerance, line regulation and load regulation, when multi-channel output, it is recommended that CH1 load &gt; 10%.</li> <li>4. Line regulation is measured from low line to high line at rated load.</li> <li>5. Load regulation is measured from 0% to 100% rated load.</li> <li>6. The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of 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." (as available on <a href="http://www.meanwell.com">http://www.meanwell.com</a>)</li> <li>7. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).</li> </ol> <p>※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a></p>					

**Mechanical Specification**

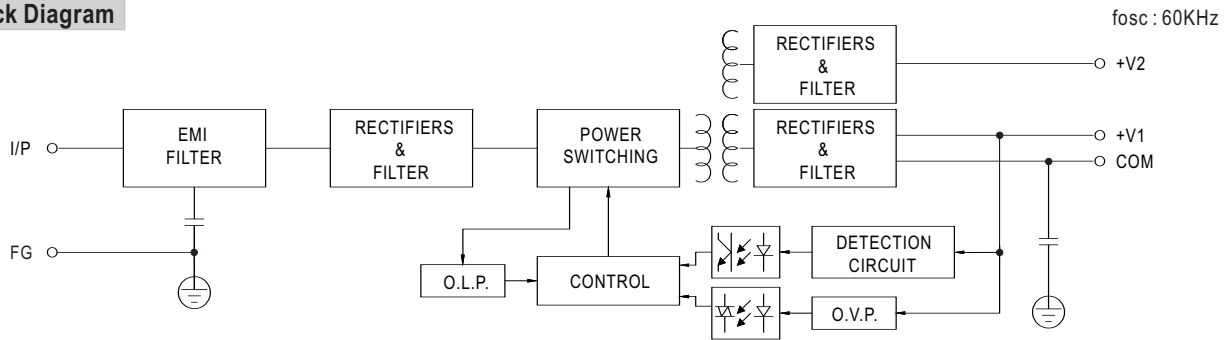
Case No. 905B Unit:mm



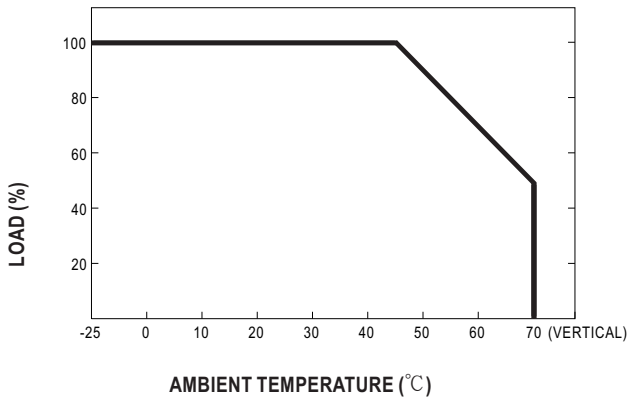
Terminal Pin No. Assignment

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4,6	DC OUTPUT COM
2	AC/N	5	DC OUTPUT +V2
3	FG $\perp$	7	DC OUTPUT +V1

**Block Diagram**



**Derating Curve**



**Output Derating VS Input Voltage**

