

MEAN WELL RD-50 Series Dual Output Switching Power Supply



MEAN WELL RD-50 Series Dual Output Switching Power Supply Owner's Manual

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FAQ

- **Q:** What should I do if the LED indicator does not light up?
 - **A:** Check the input power source and connections to ensure proper contact.
- **Q:** Can I use this power supply for outdoor applications?
 - **A:** It is recommended to use the power supply in indoor environments to prevent exposure to harsh weather conditions.
- **Q:** How can I test the output voltage of each channel?
 - **A:** Use a multimeter set to the DC voltage range to measure the output voltage of each channel.

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

GTIN CODE

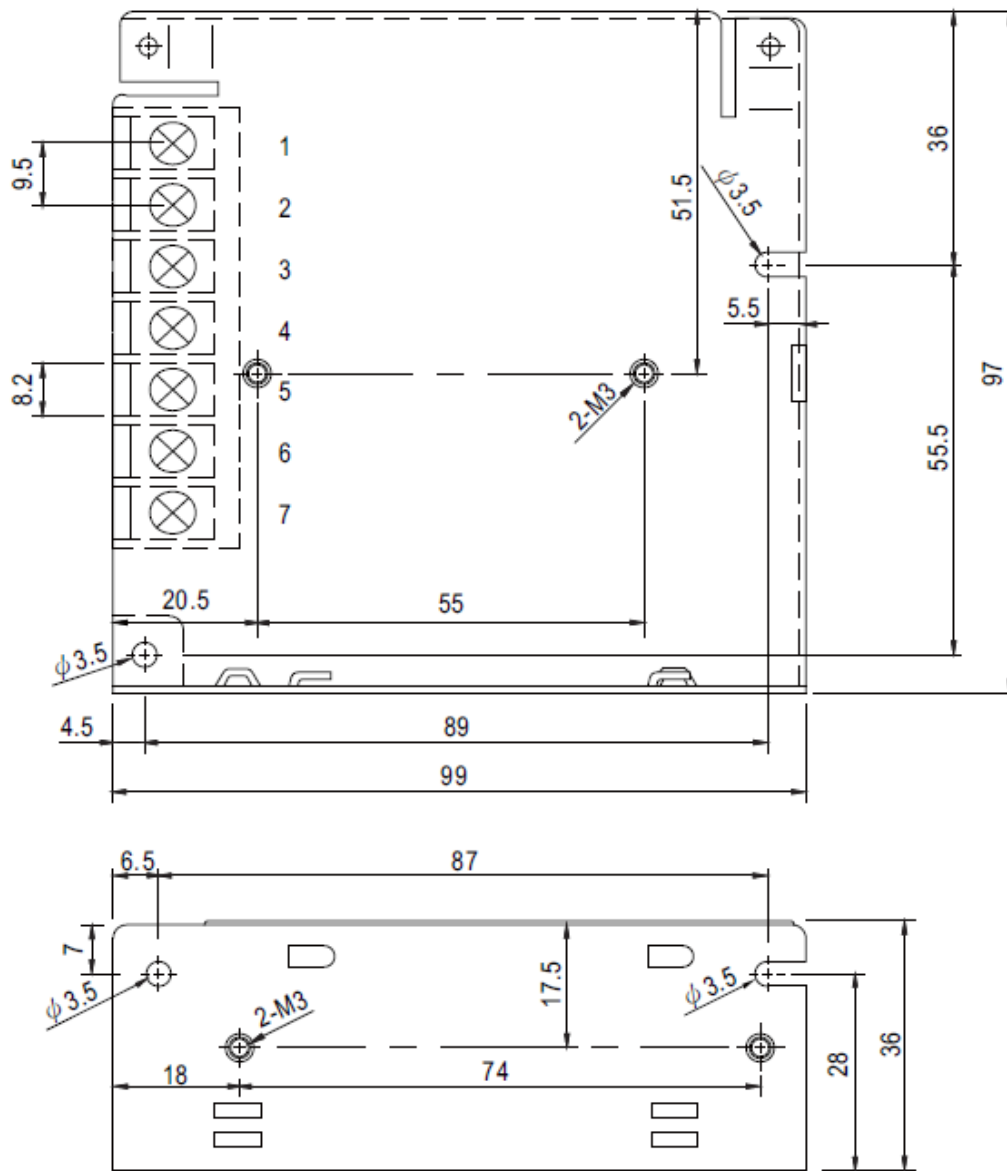
SPECIFICATION

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 Not e.3	0 ~ 6A	0 ~ 3A	0 ~ 6A	0 ~ 2A
	RATED POWER	54W		53.6W	
	RIPPLE & NOISE (max.) Note.2	80mVp-p	120mVp-p	80mVp-p	150mVp-p
	VOLTAGE ADJ. RANGE	CH1: 4.75 ~ 5.5V		CH1: 4.75 ~ 5.5V	
	VOLTAGE TOLERANCE Note.3	±2.0%	±7.0%	±2.0%	±8%
	LINE REGULATION Note.4	±0.5%	±1.5%	±0.5%	±1.5%
	LOAD REGULATION Note.5	±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			
		110 ~ 150% rated output power			

PROTECTION	OVERLOAD	Protection type : Hiccup mode, recovers automatically after fault condition is removed
		CH1: 5.75 ~ 6.75V
	OVER VOLTAGE	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, BIS IS 13252(Part 1):2010/IEC 60950-1:2005, 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/EN55035, BS EN/EN61000-6-2 (BS EN/EN50082-2), heavy industry level, EAC TP TC 020
OTHERS	MTBF	2981.9K hrs min. Telcordia SR-332 (Bellcore) ; 594.2K hrs 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"> 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, when multi-channel output, it is recommended that CH1 load > 10%. 4. Line regulation is measured from low line to high line at rated load. 5. Load regulation is measured from 0% to 100% rated load. 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 https://www.meanwell.com//Upload/PDF/EMI_statement_en.pdf) 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). <p>※ Product Liability Disclaimer For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx</p>
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Mechanical Specification

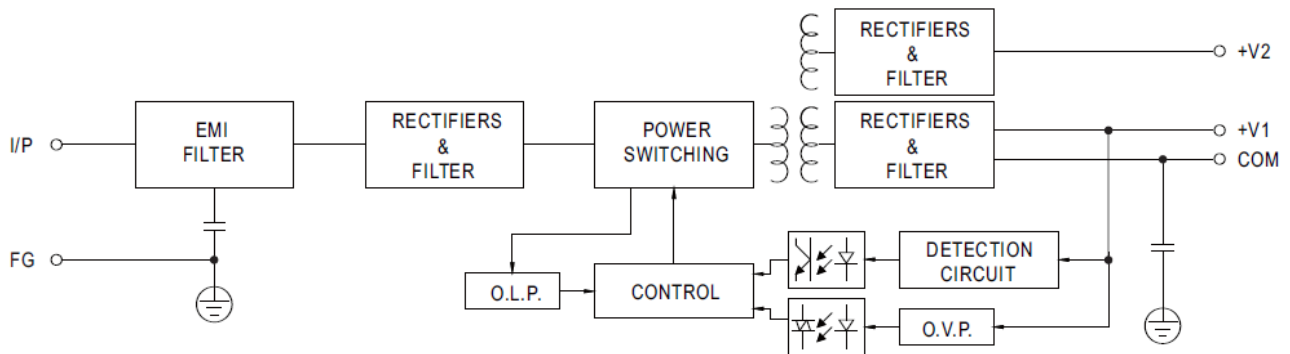


Terminal Pin No. Assignment

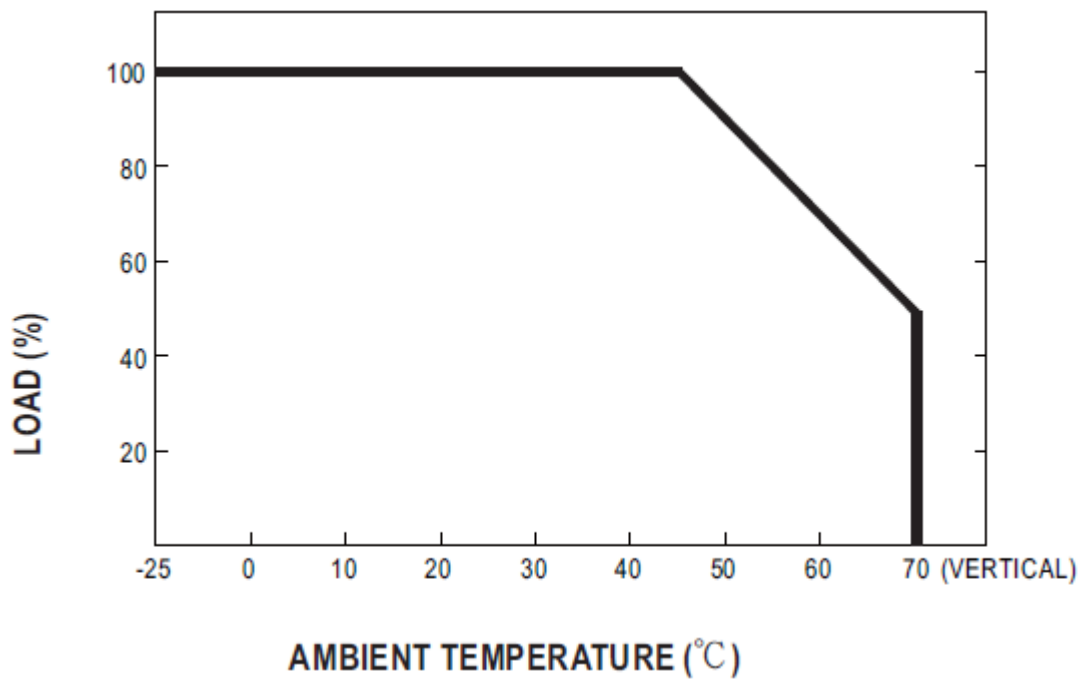
Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4,6	DC OUTPUT COM
2	AC/N	5	DC OUTPUT +V2
3	FG	7	DC OUTPUT +V1

Block Diagram

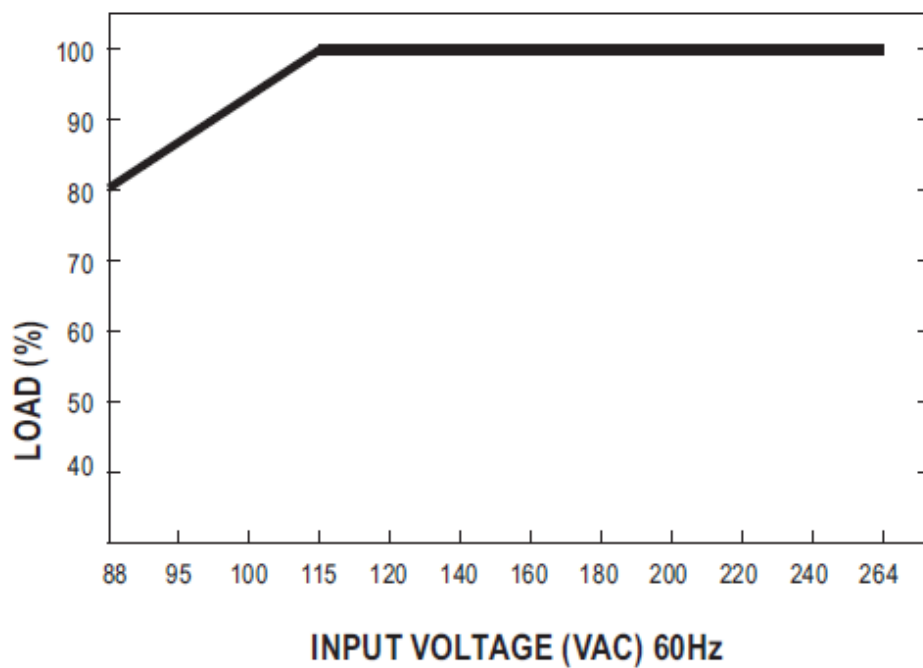
fosc : 60KHz



Derating Curve



Output Derating VS Input Voltage





Documents / Resources

	<p>MEAN WELL RD-50 Series Dual Output Switching Power Supply [pdf] Owner's Manual RD-50 Series Dual Output Switching Power Supply, RD-50 Series, Dual Output Switching Power Supply, Output Switching Power Supply, Switching Power Supply, Power Supply, Supply</p>
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References

- [TÜV Rheinland - Home](#) | [US](#) | [TÜV Rheinland](#)
- [User Manual](#)

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