

MEAN WELL RS-50 Series 50W Single Output Switching Power Supply



MEAN WELL RS-50 Series 50W Single Output Switching Power Supply Owner's Manual

[Home](#) » [MEAN WELL](#) » MEAN WELL RS-50 Series 50W Single Output Switching Power Supply Owner's Manual



Contents

- [1 MEAN WELL RS-50 Series 50W Single Output Switching Power Supply](#)
- [2 Features](#)
- [3 SPECIFICATION](#)
- [4 Mechanical Specification](#)
- [5 Block Diagram](#)
- [6 Derating Curve](#)
- [7 Documents / Resources](#)
 - [7.1 References](#)



MEAN WELL RS-50 Series 50W Single Output Switching Power Supply



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
- No load power consumption<0.5W
- High efficiency, long life and high reliability
- 3 years warranty

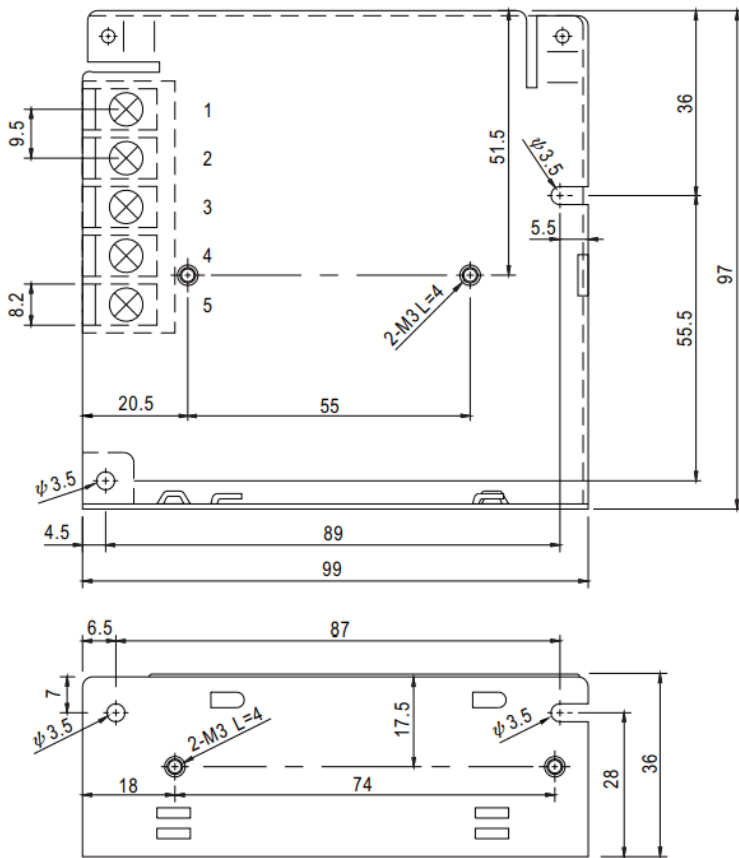
GTIN CODE

MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

SPECIFICATION

MODEL		RS-50-3.3	RS-50-5	RS-50-12	RS-50-15	RS-50-24	RS-50-48
OUTPUT	DC VOLTAGE	3.3V	5V	12V	15V	24V	48V
	RATED CURRENT	10A	10A	4.2A	3.4A	2.2A	1.1A
	CURRENT RANGE	0 ~ 10A	0 ~ 10A	0 ~ 4.2A	0 ~ 3.4A	0 ~ 2.2A	0 ~ 1.1A
	RATED POWER	33W	50W	50.4W	51W	52.8W	52.8W
	RIPPLE & NOISE (max.) <small>Note.2</small>	80mVp-p	80mVp-p	120mVp-p	120mVp-p	120mVp-p	200mVp-p
	VOLTAGE ADJ. RANGE	3V ~ 3.6V	4.75 ~ 5.5V	10.8 ~ 13.2V	13.5 ~ 16.5V	22 ~ 27.2V	42 ~ 54V
	VOLTAGE TOLERANCE <small>Note.3</small>	± 3.0%	± 2.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%
	LINE REGULATION <small>Note.4</small>	± 0.5%	± 0.5%	± 0.5%	± 0.5%	± 0.5%	± 0.5%
	LOAD REGULATION <small>Note.5</small>	± 2.0%	± 1.0%	± 0.5%	± 0.5%	± 0.5%	± 0.5%
	SETUP, RISE TIME	500ms, 30ms/230VAC 1200ms, 30ms/115VAC at full load					
HOLD UP TIME (Typ.)	60ms/230VAC 14ms/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%	83%	84.5%	86%	88%	89%
	AC CURRENT (Typ.)	1.3A/115VAC 0.8A/230VAC					
	INRUSH CURRENT (Typ.)	COLD START 33A/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	3.8 ~ 4.45V	5.75 ~ 6.75V	13.8 ~ 16.2V	17.25 ~ 20.25V	27.6 ~ 32.4V	55.2 ~ 64.8V
		Protection type : Hiccup mode, recovers automatically after fault condition is removed					
ENVIRONMENT	WORKING TEMP.	-25 ~ +70℃ (Refer to "Derating Curve")					
	WORKING HUMIDITY	20 ~ 90% RH non-condensing					
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH					
	TEMP. COEFFICIENT	± 0.03%/℃ (0 ~ 50℃)					
	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 , AS/NZS 62368.1 , EAC TP TC 004, CCC GB4943.1 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℃/ 70% RH					
	EMC EMISSION	Compliance to BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2,-3,GB9254 class B,GB17625.1, 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	2956.7K hrs min. Telcordia SR-332 (Bellcore) ; 575.2K hrs min. MIL-HDBK-217F (25℃)					
	DIMENSION	99*97*36mm (L*W*H)					
	PACKING	0.41Kg; 45pcs/19.5Kg/0.94CUFT					
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 μ F & 47 μ F parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 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℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft). ※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx						

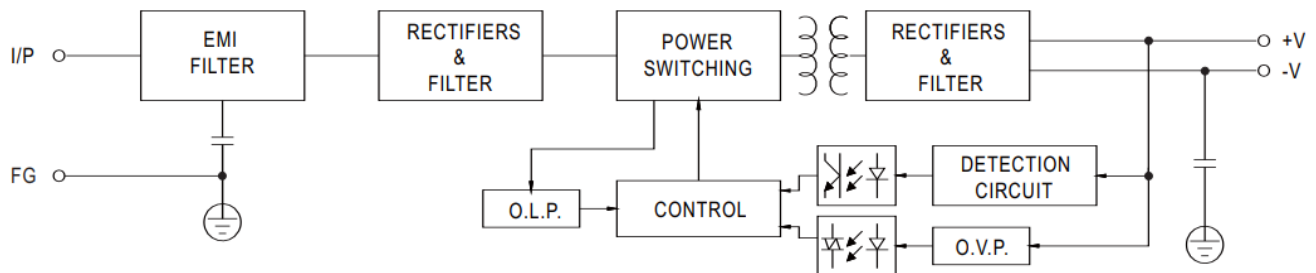
Mechanical Specification



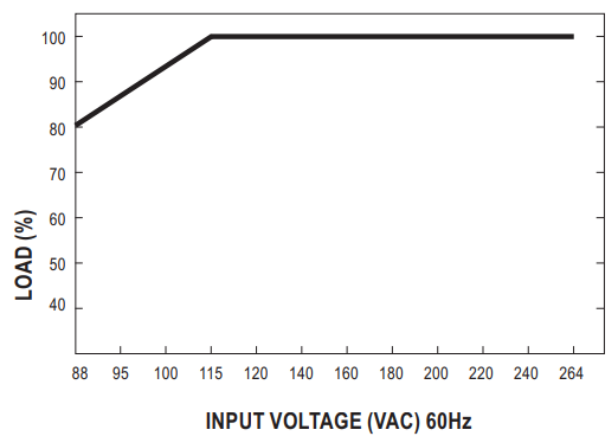
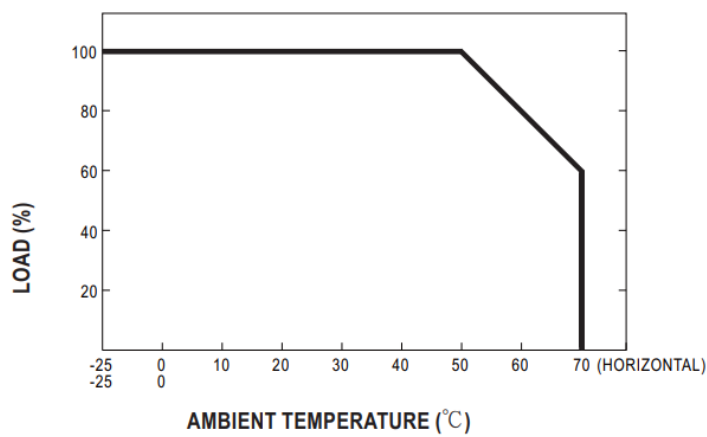
Terminal Pin No. Assignment

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4	DC OUTPUT -V
2	AC/N	5	DC OUTPUT +V
3	FG \perp		


Block Diagram



Derating Curve



Documents / Resources

	<p>MEAN WELL RS-50 Series 50W Single Output Switching Power Supply [pdf] Owner's Manual</p> <p>RS-50 Series 50W Single Output Switching Power Supply, RS-50 Series, 50W Single Output Switching Power Supply, Single Output Switching Power Supply, Output Switching Power Supply, Switching Power Supply, Power Supply, Supply</p>
---	---

References

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

Manuals+, [Privacy Policy](#)

This website is an independent publication and is neither affiliated with nor endorsed by any of the trademark owners. The "Bluetooth®" word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. The "Wi-Fi®" word mark and logos are registered trademarks owned by the Wi-Fi Alliance. Any use of these marks on this website does not imply any affiliation with or endorsement.