



MEAN WELL LRS-100-3-3 100W Single Output Switching Power Supply Instructions

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MEAN WELL LRS-100-3-3 100W Single Output Switching Power Supply



Features

- Universal AC input/ Full range
- Withstand 300VAC surge input for 5 second
- Protections: Short circuit/ Overload/Over voltage
- Cooling by free air convection
- Miniature size and 1U low profile
- Compliance to IEC/BS EN/EN 60335-1(PD3) and
- IEC/BS EN/EN61558-1,2-16 for household appliances
- Operating altitude up to 5000 meters (Note.7)
- Withstand 5G vibration test
- LED indicator for power on
- No load power consumption<0.3W
- Overvoltage category 11
- 100% full load burn-in test
- High operating temperature up to 70°C
- High efficiency, long life, and high reliability
- 3 years warranty

Applications

- Industrial automation machinery
- Industrial control system
- Mechanical and electrical equipment
- Electronic instruments, equipment or apparatus
- Household appliances

Description

In addition to the high efficiency up to 91%, the design of the metallic mesh case enhances the heat dissipation of LRS-100 and the whole series operates from -30°C through 70°C under air convection without a fan. Delivering an extremely low no-load power consumption (less than 0.3W), it allows the end system to easily meet the worldwide energy requirement. LRS-100 has complete protection functions and 5G anti-vibration capability; it complies with international safety regulations such as TUV BS EN/EN2368-1, BS EN/EN60335-1, BS EN/EN61558-1/-2-16, UL62368-1, and GB4943. LRS-100 series serves as a high-price-to-performance power supply solution for various industrial applications.

LRS - 100 - 3.3

Output voltage

Rated wattage

Series name

[illegible]

	LOAD REGULATION Note.5	±2.0%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	SETUP, RISE TIME	500ms, 30ms/230VAC 500ms,30ms/115VAC at full load						
	HOLD UP TIME (Typ.)	55ms/230VAC 10ms/115VAC at full load						
INPUT	VOLTAGE RANGE	85 ~ 264VAC 120 ~ 373VDC (Withstand 300VAC surge for 5sec. Without damage)						
	FREQUENCY RANGE	47 ~ 63Hz						
	EFFICIENCY (Typ.)	84.5%	86%	88%	88.5%	90%	90.5%	91%
	AC CURRENT (Typ.)	1.9A/115VAC 1.2A/230VAC						
	INRUSH CURRENT (Typ.)	COLD START 50A/230VAC						
	LEAKAGE CURRENT	<0.75mA / 240VAC						
PROTECTION	OVER LOAD	110 ~ 150% rated output power						
		Protection type : Hiccup mode, recovers automatically after fault condition is removed						
	OVER VOLTAGE	3.8 ~ 4.4 5V	5.75 ~ 6.75V	13.8 ~ 16.2V	18.75 ~ 21.75V	28.8 ~ 33.6V	41.4 ~ 48.6V	55.2 ~ 64.8V
Protection type : Shut down o/p voltage, re-power on to recover								
	WORKING TEMP.	-30 ~ +70°C (Refer to “Derating Curve”)						
	WORKING HUMIDITY	20 ~ 90% RH non-condensing						
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH non-condensing						

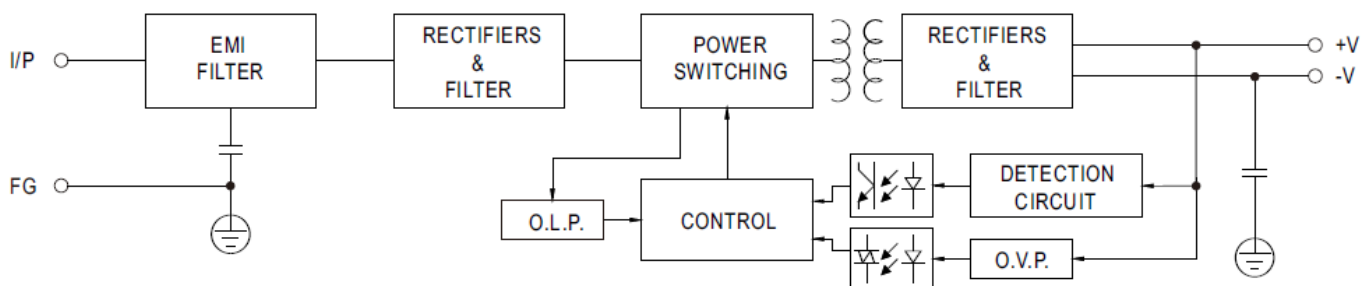
ENVIRONMENT	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)
	VIBRATION	10 ~ 500Hz, 5G 10min./1cycle, 60min. each along X, Y, Z axes
	OVER VOLTAGE CATEGORY	III; Compliance to BS EN/EN61558, BS EN/EN50178, BS EN/EN60664-1, BS EN/EN62477-1; altitude up to 2000 meters
SAFETY & EMC (Note 8)	SAFETY STANDARDS	UL 62368-1, TUV BS EN/EN62368-1, BS EN/EN60335-1, BS EN/EN61558-1/-2-16, CCC GB4943.1, BSMI CNS14336-1, EAC TP TC 004, S/NZS62368.1 (by CB), KC K60950-1 (for LRS-100-12/24 only), BIS IS13252 (Part1): 2010/IEC 60950-1: 2005 approved
	WITHSTAND VOLTAGE	I/P-O/P:4KVAC I/P-FG:2KVAC O/P-FG:1.25KVAC
	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/EN55014, BS EN/EN61000-3-2,-3, GB/T 9254, BSMI CNS13438, EAC TP TC 020, KC KN32, KN35 (for LRS-100-12/24 only)
	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, KC KN32, KN35 (for LRS-100-12/24 only)
OTHERS	MTBF	720.6K hrs min. MIL-HDBK-217F (25°C)
	DIMENSION	129*97*30mm (L*W*H)
	PACKING	0.34Kg ; 40pcs/14.6Kg/0.92CUFT

NOTE

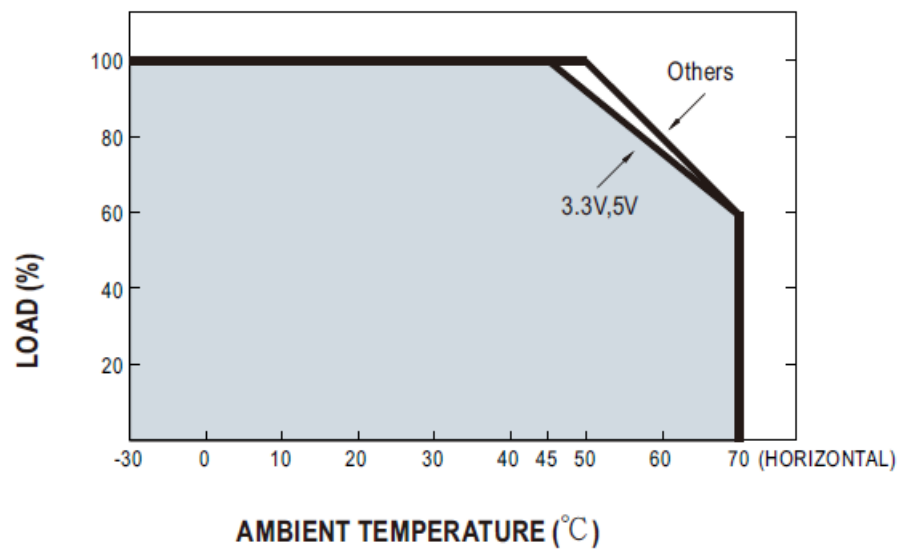
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
3. Tolerance: includes set up tolerance, line regulation and load regulation.
4. Line regulation is measured from low line to high line at the rated load.
5. Load regulation is measured from 0% to 100% rated load.
6. Length of set up time is measured at cold first start. Turning ON/OFF the power supply very quickly may lead to an increase of the set up time.
7. The ambient temperature derating of 5C/1000m is needed for an operating altitude greater than 2000m(6500ft).
8. The power supply is considered a component that will be installed into the 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 <http://www.meanwell.com>.

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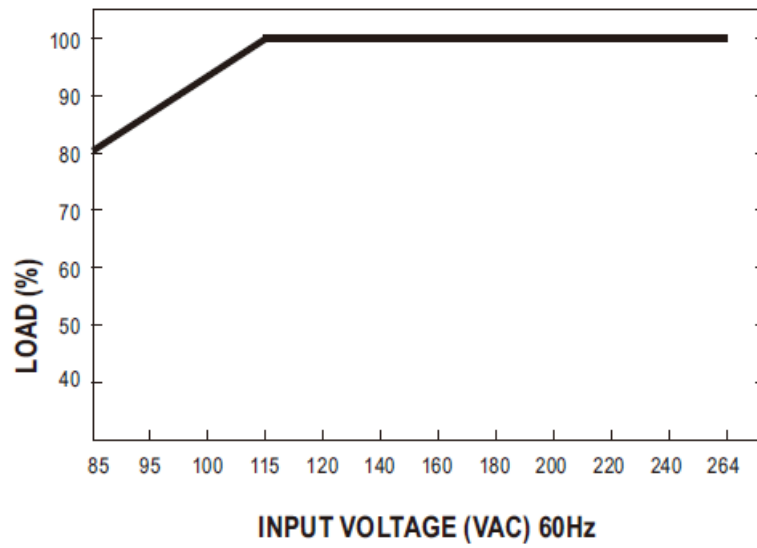
Block Diagram



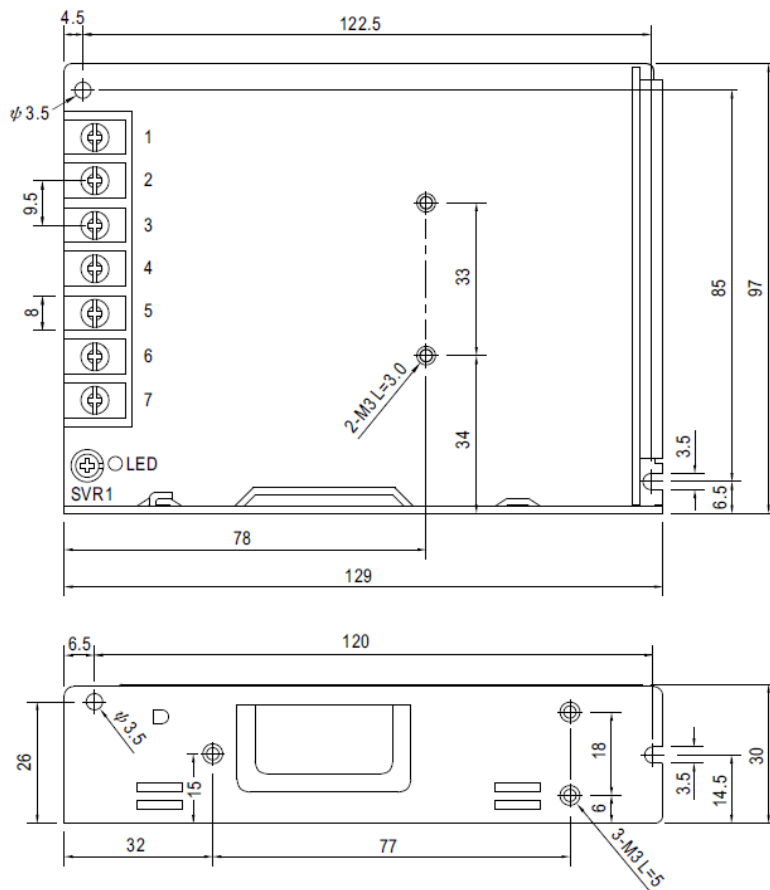
Derating Curve



Static Characteristics



Mechanical Specification




Terminal Pin No. Assignment

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4,5	DC OUTPUT -V
2	AC/N	6,7	DC OUTPUT +V
3	FG \perp		

Installation Manual

Please refer to: <http://www.meanwell.com/manual.html>.

Documents / Resources



[MEAN WELL LRS-100-3-3 100W Single Output Switching Power Supply](#) [pdf] Instructions LRS-100-3-3, 100W Single Output Switching Power Supply, LRS-100-3-3 100W Single Output Switching Power Supply, Single Output Switching Power Supply, Output Switching Power Supply, Switching Power Supply, Power Supply, LRS-100 Series

References

- [TÜV Rheinland - Home | US | TÜV Rheinland](#)
- [Installation Manual-MEAN WELL Switching Power Supply Manufacturer](#)
- [Product Liability Disclaimer-MEAN WELL Switching Power Supply Manufacturer](#)