100W Single Output Switching Power Supply

LRS-100-9

■ 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
- Operating altitude up to 5000 meters (Note.7)
- Withstand 5G vibration test
- LED indicator for power on
- Over voltage category III
- 100% full load burn-in test
- High operating temperature up to 70℃
- High efficiency, long life and high reliability
- 3 years warranty

■ Applications

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

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SPECIFICATION

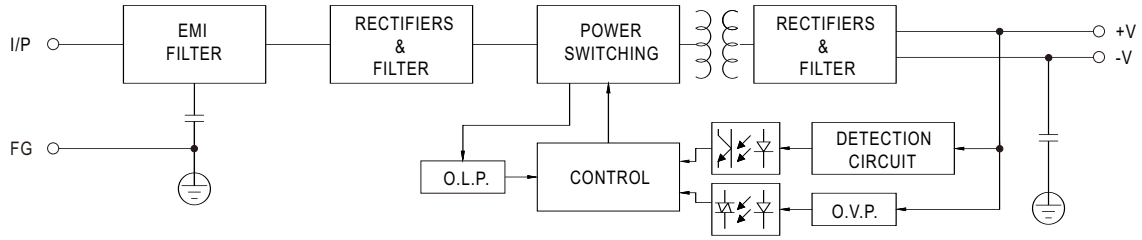
MODEL		LRS-100-9
OUTPUT	DC VOLTAGE	9V
	RATED CURRENT	11A
	CURRENT RANGE	0 ~ 11A
	RATED POWER	99W
	RIPPLE & NOISE (max.) Note.2	120mVp-p
	VOLTAGE ADJ. RANGE	8.1 ~ 9.9V
	VOLTAGE TOLERANCE Note.3	±1.0%
	LINE REGULATION Note.4	±0.5%
	LOAD REGULATION Note.5	±0.5%
	SETUP, RISE TIME	500ms, 30ms/230VAC 500ms,30ms/115VAC 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.)	85%
	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 ~ 170% rated output power
		Protection type : Hiccup mode, recovers automatically after fault condition is removed
	OVER VOLTAGE	10 ~ 15V
		Protection type : Shut down o/p voltage, re-power on to recover
ENVIRONMENT	WORKING TEMP.	-30 ~ +70℃ (Refer to "Derating Curve")
	WORKING HUMIDITY	20 ~ 90% RH non-condensing
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH non-condensing
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃)
	VIBRATION	10 ~ 500Hz, 5G 10min./1cycle, 60min. each along X, Y, Z axes
	OVER VOLTAGE CATEGORY	III; Compliance to EN61558, EN50178, EN60664-1, EN62477-1; altitude up to 2000 meters
SAFETY & EMC (Note 8)	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℃/ 70% RH
	EMC EMISSION	Refer to EN55032 (CISPR32) Class B, EN55014, EN61000-3-2,-3, GB/T 9254, BSMI CNS13438, EAC TP TC 020
	EMC IMMUNITY	Refer to EN61000-4-2,3,4,5,6,8,11, EN61000-6-2 (EN50082-2), heavy industry level, criteria A, EAC TP TC 020
OTHERS	MTBF	720.6K hrs min. MIL-HDBK-217F (25℃)
	DIMENSION	129*97*30mm (L*W*H)
	PACKING	0.34Kg ; 40pcs/14.6Kg/0.92CUFT

NOTE

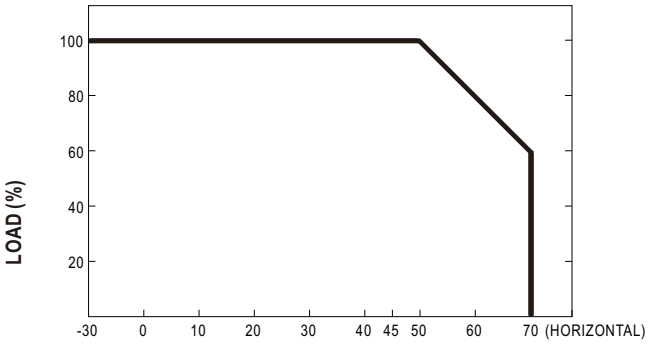
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
3. Tolerance : includes set up tolerance, line regulation and load regulation.
4. Line regulation is measured from low line to high line at 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 increase of the set up time.
7. The ambient temperature derating of 5℃/1000m is needed for operating altitude greater than 2000m(6500ft).
8. 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 http://www.meanwell.com)

■ Block Diagram

fosc : 65KHz

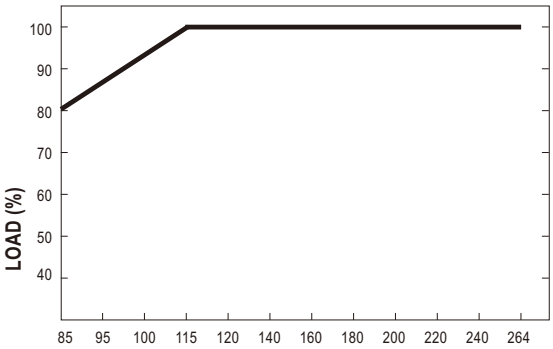


■ Derating Curve



AMBIENT TEMPERATURE (℃)

■ Static Characteristics



INPUT VOLTAGE (VAC) 60Hz

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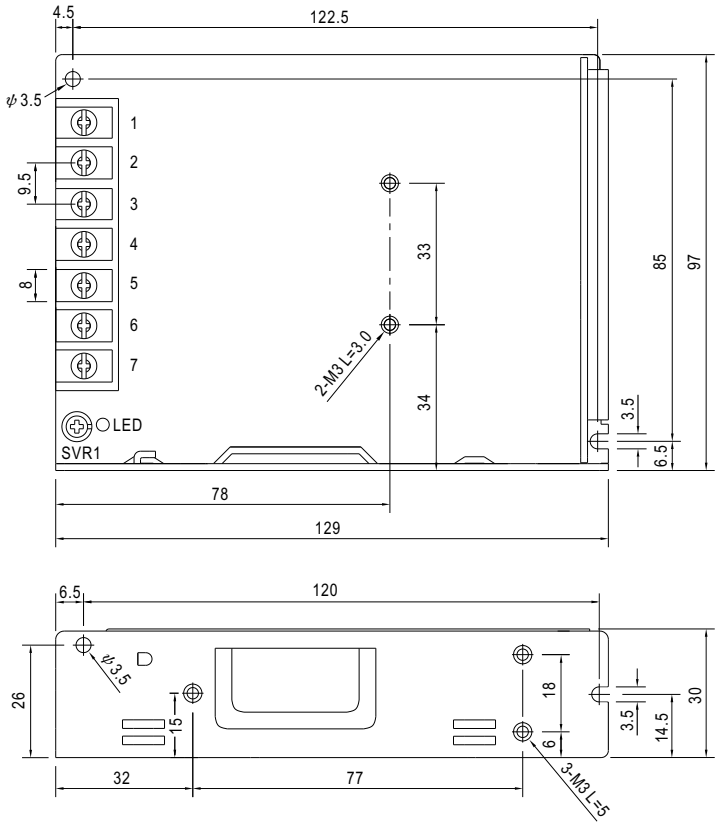
■ Mechanical Specification

Case No.238A Unit:mm



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 ⏚		

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