LRS-200-24

200W Single Output Switching Power Supply

User's Manual

R33100 RoHS | IS 13252 (Note 11) | DEKRA EN61558-1 EN61558-2-16 | CQC | Note 10 | TP TC004 | CB IEC62368-1 IEC61558-1 IEC61558-2-16 | c UL us UL62368-1 | CE UKCA (Note.9) | KC (for LRS-200-24/24 only)

ECO | Automate | Industrial | Security | Network | Telecom

■ Features

- AC input range selectable by switch
- Withstand 300VAC surge input for 5 second
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- 1U low profile
- Withstand 5G vibration test
- LED indicator for power on
- No load power consumption<0.75W
- 100% full load burn-in test
- High operating temperature up to 70℃
- Operating altitude up to 5000 meters (Note.8)
- 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

■ GTIN CODE

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

■ Description

LRS-200-24 is a 200W single-output enclosed type power supply with 30mm of low profile design. Adopting the input of 115VAC or 230VAC (select by switch).

In addition to the high efficiency up to 90%, the design of metallic mesh case enhances the heat dissipation of LRS-200-24 that the whole series operates from -25℃ through 70℃ under air convection without a fan. Delivering an extremely low no load power consumption (less than 0.75W), it allows the end system to easily meet the worldwide energy requirement. LRS-200-24 has the complete protection functions and 5G anti- vibration capability; it is complied with the international safety regulations such as IEC/UL 62368-1.

LRS-200-24 serves as a high price-to-performance power supply solution for various industrial applications.

■ Model Encoding

LRS - 200 - 24

- 24 → Output voltage
- 200 → Output power
- LRS → Series name

MEAN WELL

200W Single Output Switching Power Supply

LRS-200-24

SPECIFICATION

MODEL		LRS-200-24
OUTPUT	DC VOLTAGE	24V
	RATED CURRENT	8.8A
	CURRENT RANGE	0 ~ 8.8A
	RATED POWER	211.2W
	RIPPLE & NOISE (max.) Note.2	150mVp-p
	VOLTAGE ADJ. RANGE	21.6 ~ 28.8V
	VOLTAGE TOLERANCE Note.3	±1.0%
	LINE REGULATION Note.4	±0.5%
	LOAD REGULATION Note.5	±0.5%
	SETUP, RISE TIME	1300ms, 50ms/230VAC 1300ms,50ms/115VAC at full load
	HOLD UP TIME (Typ.)	16ms/230VAC 12ms/115VAC at full load
INPUT	VOLTAGE RANGE	90 ~ 132VAC / 180 ~ 264VAC by switch 240 ~ 370VDC (switch on 230VAC)
	FREQUENCY RANGE	47 ~ 63Hz
	EFFICIENCY (Typ.)	89.5%
	AC CURRENT (Typ.)	4A/115VAC 2.2A/230VAC
	INRUSH CURRENT (Typ.)	COLD STAR 60A/115VAC 60A/230VAC
	LEAKAGE CURRENT	<2mA / 240VAC
PROTECTION	OVER LOAD	110 ~ 140% rated output power 3.3~36V Hiccup mode, recovers automatically after fault condition is removed. 48V Shut down and latch off o/p voltage, re-power on to recover.
	OVER VOLTAGE	28.8 ~ 33.6V 3.3~36V Hiccup mode, recovers automatically after fault condition is removed. 48V Shut down and latch off o/p voltage, re-power on to recover.
	OVER TEMPERATURE	3.3~36V Hiccup mode, recovers automatically after fault condition is removed. 48V Shut down and latch off o/p voltage, re-power on to recover.
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, 60min. each along X, Y, Z axes
	OVER VOLTAGE CATEGORY	III: According to EN61558, EN50178, EN60664-1, EN62477-1; altitude up to 2000 meters
SAFETY	SAFETY STANDARDS	IEC/UL 62368-1, BSMI CNS15598-1,EAC TP TC 004, KC K60950-1(for LRS-200-12/24 only),GB 4943.1, BIS IS13252(Part1):2010/IEC 60950-1: 2005(NOTE 11) ,BS EN/EN61558-1, BS EN61558-2-16 Designed by AS/NZS 61558.1/2.16, AS/NZS 62368.1,BS EN/EN62368-1
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC 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 BSMI CNS15936, EAC TP TC 020,KC KN32,KN35(for LRS-200-12/24 only)
	EMC IMMUNITY	Compliance to BS EN/EN55035, EAC TP TC 020,KC KN32,KN35(for LRS-200-12/24 only)
OTHERS	MTBF	2346.6K hrs min. Telcordia SR-332 (Bellcore) ; 279.4Khrs min. MIL-HDBK-217F (25℃)
	DIMENSION	215*115*30mm (L*W*H)
	PACKING	0.66Kg; 15pcs/10.9Kg/0.67CUFT

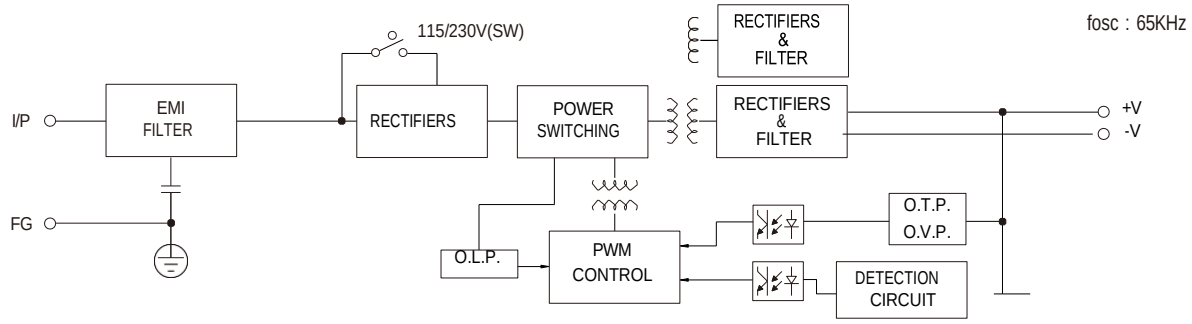
NOTE

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 150% peak load capability is built in for up to 1 second for 12~48V.LRS-200 will enter hiccup mode if the peak load is delivered for over 1 second and will recover once it resumes to the rated current level(115VAC/230VAC).
8. The ambient temperature derating of 5℃/1000m is needed for operating altitude greater than 2000m(6500ft).
9. This power supply does not meet the harmonic current requirements outlined by BS EN/EN61000-3-2. Please do not use this power supply under the following conditions:
   a) the end-devices is used within the European Union, and
   b) the end-devices is connected to public mains supply with 220Vac or greater rated nominal voltage, and
   c) the power supply is:
      - installed in end-devices with average or continuous input power greater than 75W, or
      - belong to part of a lighting system

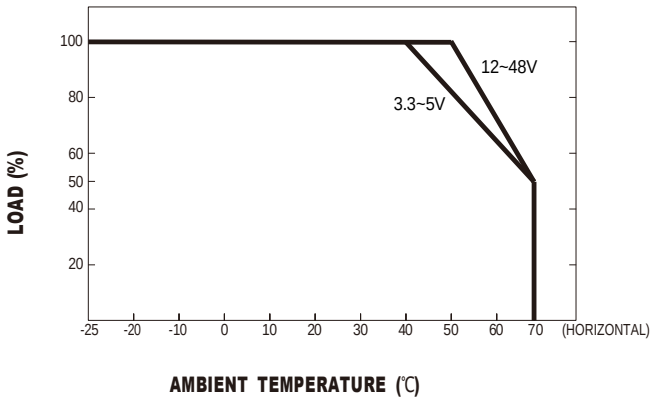
   Exception:
   Power supplies used within the following end-devices do not need to fulfill BS EN/EN61000-3-2
   a) professional equipment with a total rated input power greater than 1000W;
   b) symmetrically controlled heating elements with a rated power less than or equal to 200W
10. RCM is on voluntary basis and meets relevant IEC or AS/NZS standards complying with AS/NZS 4417.1.
11. Some model may not have the BIS logo, please contact your MEAN WELL sales for more information.

※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx

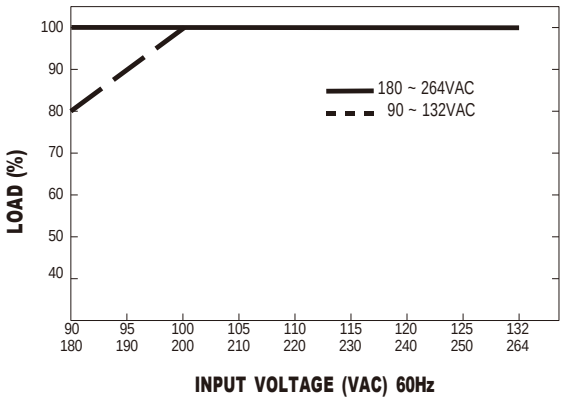
■ Block Diagram



■ Derating Curve

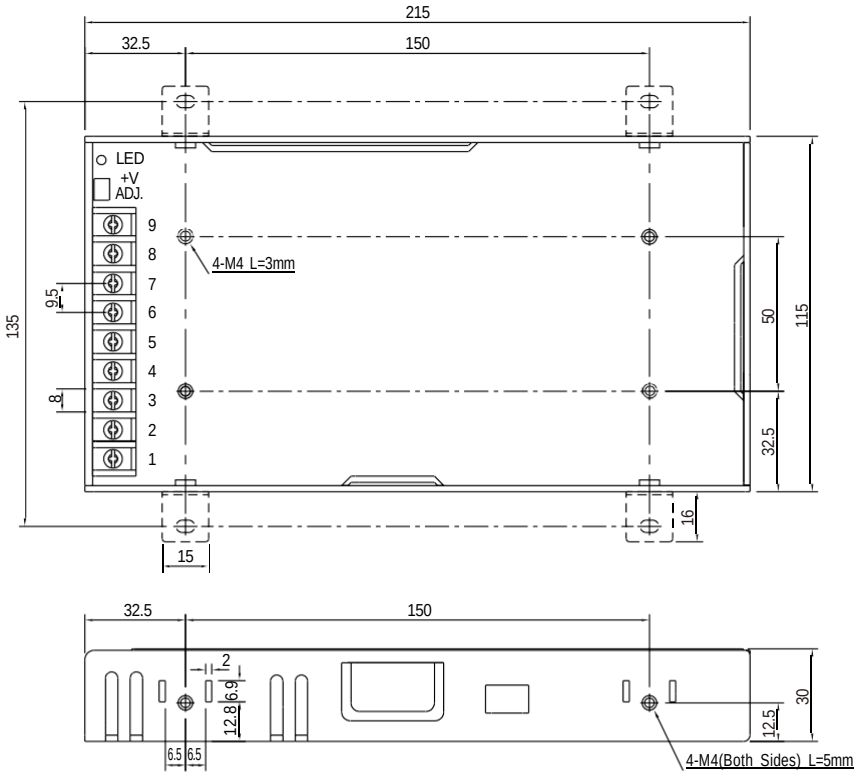


■ Static Characteristics



Mechanical Specification

Case No. 207 Unit:mm



Terminal Pin No. Assignment :

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4~6	DC OUTPUT -V
2	AC/N	7~9	DC OUTPUT +V
3	FG ⏚		

Installation Manual

Get more info to : https://www.led-card.com/manufacturer/meanwell/