



Dimension: 129*97*30mm

**Applications:**

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

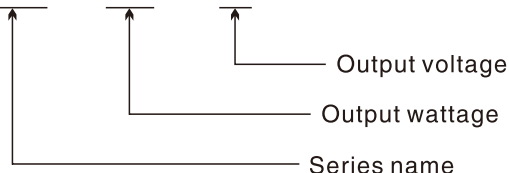
Features:

- Universal AC input/Full range
- Withstand 300VAC surge input for 5 second
- Miniature size and 1U low profile, low weight
- Protections: Short circuit/Overload/Over voltage
- Cooling by free air convection
- No load power consumption < 0.5W
- Operating altitude up to 5000 meters (Note6)
- LED indicator for power on
- 100% full load burn-in test
- High efficiency, long life and high reliability
- 3 years warranty

Description:

LRS-100 series is a 100W single-output enclosed type power supply with 30mm of low profile design. Adopting the full range 85~264 VAC input, the entire series provides an output voltage line of 5V, 12V, 15V, 24V, 36V and 48V.

In addition to the high efficiency up to 91%, the design of metallic mesh case enhances the heat dissipation of LRS-100 that 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 0.5W), it allows the end system to easily meet the worldwide energy requirement, LRS-100 has the complete protection functions and 5G anti-vibration capability; it is complied with the international safety regulations such as TUV EN60950-1, UL 60950-1 and GB 4943, LRS-100 series serve as a high price-to-performance power supply solution for various industrial applications.

Model Encoding**LRS - 100 - 12**

SPECIFICATION

Model		LRS-100-5	LRS-100-12	LRS-100-15	LRS-100-24	LRS-100-36	LRS-100-48	
Output	DC voltage	5V	12V	15V	24V	36V	48V	
	Rated current	18A	8.5A	7A	4.5A	2.8A	2.3A	
	Current range	0~18A	0~8.5A	0~7A	0~4.5A	0~2.8A	0~2.3A	
	Rated power	90W	102W	105W	108W	100.8W	110.4W	
	Ripple&noise	100mVp-p	120mVp-p	120mVp-p	150mVp-p	200mVp-p	200mVp-p	
	DC voltage ADJ. range	± 10%	± 10%	± 10%	± 10%	± 10%	± 10%	
	Voltage tolerance <small>Note.3</small>	± 3%	± 2%	± 1%	± 1%	± 1%	± 1%	
	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%	± 1%	± 0.5%	± 0.5%	± 0.5%	± 0.5%	
Setup, rise, hold up time	800ms, 30ms, 55ms/230VAC (full load)							
Input	Voltage range	90~264VAC, 127~373VDC (Withstand 300VAC surge input for 5 second)						
	Frequency range	47~63Hz						
	AC current	1.9A/115VAC	1.2/230VAC					
	Efficiency	86%	88%	88.5%	90%	90.5%	91%	
	Inrush current	Cold start 50A/230VAC						
	leakage current	< 0.75mA/240VAC						
Protection	Overload	Rated output power 110% ~ 150% Start overload protection						
		Protection type: hiccup mode, auto-recovery after fault condition is removed						
	Over voltage	Rated output voltage 115%~135% Start over voltage protection						
Protection type: cut off the output, auto-recovery after fault condition is removed								
Environment	Working temperature	-30°C ~ +70°C (Please refer to "derating curve")						
	Working humidity	20%~90%RH Non-condensing						
	Storage temp& humidity	-40°C ~ +85°C; 10%~95%RH Non-condensing						
	Withstand vibration	10~500Hz, 3G 10min./1Cycle, Period for 60min, Each axes						
Safety	Withstand voltage	I/P-O/P: 3KVAC 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						
Standards compliance	Safety standards	Compliance to UL60950-1, TUV EN60950-1, GB4943						
	EMC emission	Compliance to EN55022(CISPR22) Class B, GB9254 Class B, EN55014, EN61000-3-2, 3						
	EMC immunity	Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11, EN55024, EN61000-6-1						
Others	Dimension	129*97*30 mm (L*W*H)						
	Weight	0.34kg/40pcs/14.6kg/0.025m³/0.88CUFT						
	MTBF	≥ 705K hrs min. MIL-HDBK-217F(25°C)						

Note: 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 0.1uf & 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.

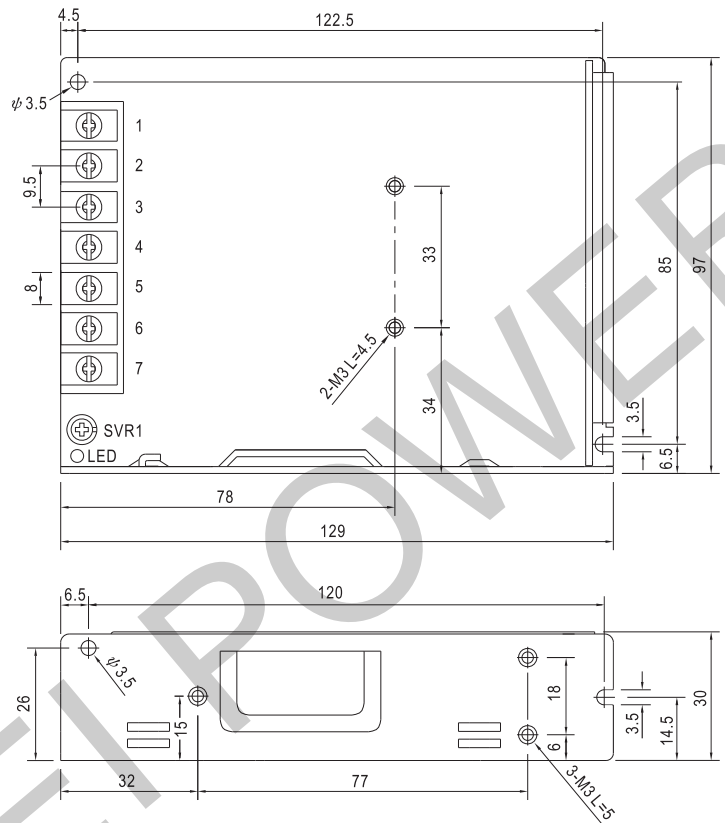
5. Load regulation is measured from 0% to 100% rated load

6. The ambient temperature derating of 5°C/1000 m is needed for operating altitude greater than 2000m(6500ft)

7. The power supply is considered as a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests.

Mechanical specification

Unit:mm

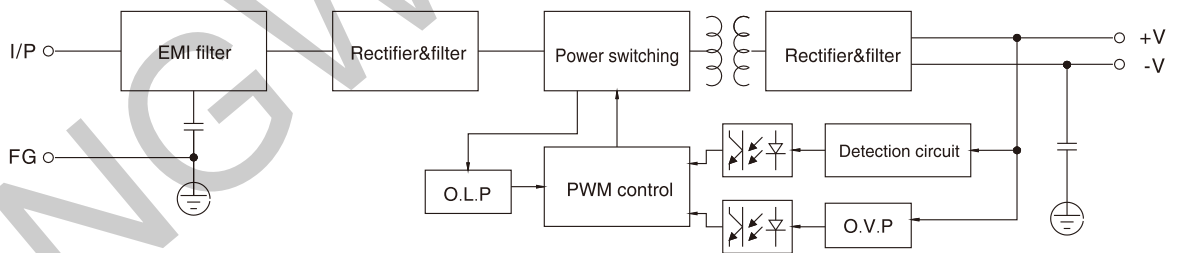


Terminal Pin No.Assignment

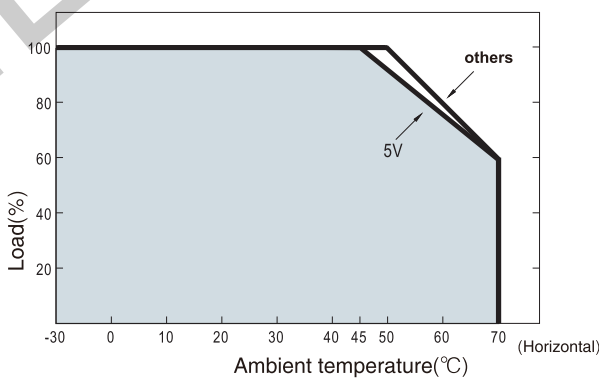
Pin No.	Assignment	Pin No.	Assignment
1	AC/N	4,5	DC OUTPUT -V
2	AC/L	6,7	DC OUTPUT +V
3	FG \perp		

Block diagram

PWM Frequency : 65KHz



Derating curve



Static characteristic

