



# 150W Single Output Switching Power Supply



## ■ Features

- AC input range selectable by switch
- Withstand 300VAC surge input for 5 second
- No load power consumption<0.5W
- Miniature size and 1U low profile
- High operating temperature up to 70°C
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- Compliance to IEC/EN 60335-1(PD3) and IEC/EN61558-1, 2-16 for household appliances
- Operating altitude up to 5000 meters
- Withstand 5G vibration test
- High efficiency, long life and high reliability
- LED indicator for power on
- Over voltage category III
- 100% full load burn-in test
- 3 years warranty

## ■ Applications

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

## ■ Description

LRS-150 series is a 150W single-output enclosed type power supply with 30mm of low profile design. Adopting the input of 115VAC or 230VAC(selectable by switch), the entire series provides an output voltage line of 12V, 15V, 24V, 36V and 48V.

In addition to the high efficiency up to 90%, the design of metallic mesh case enhances the heat dissipation of LRS-150 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-150 has the complete protection functions and 5G anti-vibration capability; it is complied with the international safety regulations such as TUV EN60950-1, EN60335-1, EN61558-1/-2-16, UL60950-1 and GB4943. LRS-150 series serves as a high price-to-performance power supply solution for various industrial applications.





# 150W Single Output Switching Power Supply

## SPECIFICATION

MODEL		LRS-150-12
OUTPUT	DC VOLTAGE	12V
	RATED CURRENT	12.5A
	CURRENT RANGE	0 ~ 12.5A
	RATED POWER	150W
	RIPPLE & NOISE (max.) Note.2	150mVp-p
	VOLTAGE ADJ. RANGE	10.2 ~ 13.8V
	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.)	40ms/230VAC    35ms/115VAC at full load
INPUT	VOLTAGE RANGE	85 ~ 132VAC / 170 ~ 264VAC by switch    240 ~ 370VDC (switch on 230VAC)
	FREQUENCY RANGE	47 ~ 63Hz
	EFFICIENCY (Typ.)	87.5%
	AC CURRENT (Typ.)	3A/115VAC    1.7A/230VAC
	INRUSH CURRENT (Typ.)	COLD STAR 60A/230VAC
	LEAKAGE CURRENT	<0.75mA / 240VAC
PROTECTION	OVER LOAD	110 ~ 140% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed
	OVER VOLTAGE	13.8 ~ 16.2V Protection type : Shut down o/p voltage, re-power on to recover
	OVER TEMPERATURE	Shut down o/p voltage, re-power on to recover
ENVIRONMENT	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
	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 EN61558, EN50178, EN60664-1, EN62477-1; altitude up to 2000 meters
SAFETY & EMC (Note 7)	SAFETY STANDARDS	UL60950-1, TUV EN60950-1, EN60335-1, EN61558-1/-2-16, CCC GB4943.1, BSMI CNS14336-1, EAC TP TC 004, AS/NZS 60950.1 (by CB) 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 EN55032 (CISPR32) Class B, EN55014, EN61000-3-2 Class A(≤75% Load), EN61000-3-3, GB/T 9254, BSMI CNS13438, EAC TP TC 020
	EMC IMMUNITY	Compliance 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	601K hrs min.    MIL-HDBK-217F (25°C)
	DIMENSION	159*97*30mm (L*W*H)
	PACKING	0.48Kg ; 30pcs/15.4Kg/0.75CUFT