



AL27/56SW

150W Single Output with PFC Function

### Features

- Universal AC input / Full range
- Built-in active PFC function
- High efficiency up to 90%
- Cooling by free air convection
- Built-in remote ON-OFF control
- Protections: Short circuit / Overload / Over voltage / Over temperature
- LED indicator for power on

### Applications

- Factory control or automation apparatus
- Test and measurement instrument
- Laser related machine
- Burn-in facility
- RF application

## **Description**

RSP-150 is a 150W single output enclosed type AC/DC power supply. This series operates for 85~264VAC input voltage and offers the models with the DC output mostly demanded from the industry. Each model is cooled by free air convection, working for the temperature up to 70°C.

## Model Encoding / Order Information

### RSP - 150 - 12



Output voltage (3.3V/5V/7.5V/12V/13.5V/15V/24V/27V/48V) Output wattage

Series name

## SPECIFICATION

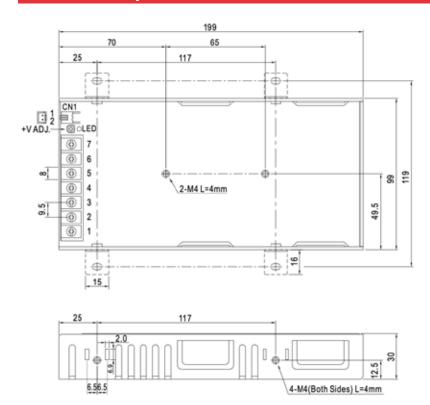
OUTPUT	DC VOLTAGE	27V
	RATED CURRENT	5.6A
	CURRENT RANGE	0 ~ 5.6A
	RATED POWER	151.2W
	RIPPLE & NOISE (max.) Note.2	150mVp-p
	VOLTAGE ADJ. RANGE	25.7 ~ 29.7V
	VOLTAGE TOLERANCE Note.3	±1.0%
	LINE REGULATION	±0.5%
	LOAD REGULATION	±0.5%
	SETUP, RISE TIME	600ms, 30ms at full load
	HOLD UP TIME (Typ.)	16ms at full load
INPUT	VOLTAGE RANGE Note.5	85 ~ 264VAC 120 ~ 370VDC
	FREQUENCY RANGE	47 ~ 63Hz
	POWER FACTOR (Typ.)	PF>0.93/230VAC PF>0.98/115VAC at full load
	EFFICIENCY (Typ.)	81.5% 87% 88.5% 89% 87.5% 88.5% 89% 89.5% 90%



	AC CURRENT (Typ.)	1.6A/115VAC 0.8A/230VAC	
	INRUSH CURRENT (Typ.)	COLD START 45A/230VAC	
	LEAKAGE CURRENT	<2mA / 240VAC	
PROTECTION	OVERLOAD	105 ~ 135% rated output power	
		Protection type : Constant current limiting, recovers automatically after fault condition is removed	
	OVER VOLTAGE	3.63 ~ 4.46V 5.5 ~ 6.75V 8.25 ~ 10.13V 13.2 ~ 16.2V 14.85 ~ 18.2V 16.5 ~ 20.25V 26.4 ~ 32.4V 29.7 ~ 36.45V 52.8 ~ 64.8V	
		Protection type : Shut down o/p voltage, re-power on to recover	
	OVER TEMPERATURE	Protection type : Shut down o/p voltage, recovers automatically after temperature goes down	
FUNCTION	REMOTE CONTROL	CN1: < 0~0.8VDC POWER ON , 4~10VDC POWER OFF	
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	±0.05%/°C (0 ~ 50°C)	
	VIBRATION	10 ~ 500Hz, 2G 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 & EMC (Note 4)	SAFETY STANDARDS	UL62368-1, TUV BS EN/EN62368-1, BS EN/EN61558-1, BS EN/EN61558-2-16, EAC TP TC 004, CCC GB4943.1, BSMI CNS14336-1, AS/NZS 62368.1, IS13252(Part1)/IEC60950-1 (except for 7.5V, 13.5V, 48V)approved	
	WITHSTAND VOLTAGE	I/P-O/P:4KVAC 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°C/ 70% RH	
	EMC EMISSION	Compliance to BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2,-3, EAC TP TC 020, GB9254 Class B, GB17625.1,CNS13438 Class B	
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55035, light industry level, EAC TP TC 020	
OTHERS	MTBF	2253.9K hrs min.Telcordia SR-332 (Bellcore) ; 290.7K hrs min.MIL-HDBK-217F (25°C)	
	DIMENSION	199*99*30mm (L*W*H)	
	PACKING	0.6Kg; 24pcs/15.4Kg/0.89CUFT	
NOTE	<ol> <li>All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 uf &amp; 47 uf parallel capacitor.</li> <li>Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that         <ul> <li>it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to EMI testing of component power supplies.</li> <li>(as available on http://www.meanwell.com)</li> <li>Derating may be needed under low input voltages. Please check the derating curve for more details.</li> <li>Strongly recommended that external output capacitance should not exceed 5000uF. (Only for: RSP-150-3.3/-5/-7.5/-12)</li> <li>The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher</li></ul></li></ol>		

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## **Mechanical Specification**



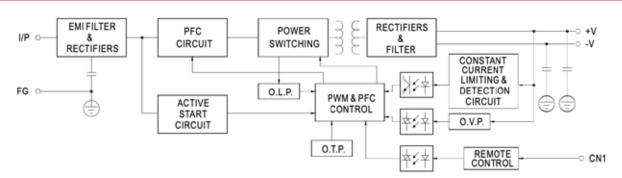
#### Terminal Pin No. Assignment

<i>i</i>			
Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4,5	DC OUTPUT -V
2	AC/N	6,7	DC OUTPUT +V
3	FG ±		

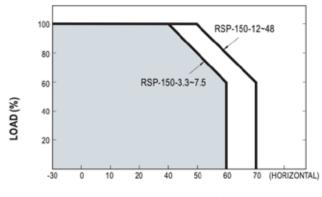
#### Remote ON/OFF(CN1):JST B-XH or equivalent(optional)

Pin No.	Assignment	Mating Housing	Terminal
1	RC+	JST XHP	JST SXH-001T
2	RC-	orequivalent	orequivalent

## **Block Diagram**



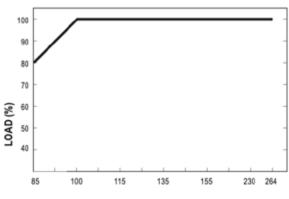
# **Derating Curve**



AMBIENT TEMPERATURE (°C)

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# **Output Derating VS Input Voltage**



INPUT VOLTAGE (VAC) 60Hz

