



150 Watt 48 Volt, Single Output Power Supply with 1U Profile & Active PFC

UNIT CODE	DESCRIPTION
PS-RSP 150-48	150 Watt, 48 Volt, Single Output Power Supply with Active PFC Function

SPECIFICATIONS		
Input	Output	Agency Approvals
Universal 88 ~ 264VAC	48VDC @ 0 ~ 3.2A	

Features at a Glance:

- Priced Economically
- Universal AC input - Full Range 88~264VAC
- Reasonably Efficient (90%)
- Active PFC function (PF>0.95)
- 30mm low profile 1U design
- Remote ON/OFF control
- Constant Current limiting Circuit
- Protections: Short circuit / Overload / Over voltage / Over temperature
- LED indicator for Power ON
- Cooling by fan-less, natural (free air) convection
- Certificates: UL60950-1, UL62368-1, TUV EN60950-1, EN61558-1, EN61558-2-16, CCC GB4943, CB IEC60950-1, IEC62368-1
- MBTF: 290.7K hours min. *MIL-HDBK-217F (25°C)*
- Case: 215A
- Weight: 1.32 lbs. (0.6 Kgs)
- Dimensions: 7.83"L x 3.89"W x 1.18"H
199L X 99W X 30H mm
- RoHS Compliant
- 3 year warranty



PS-RSP-150 is an economical, general-purpose, 150 Watt, 1U low profile, enclosed type, switching power supply with universal AC input and an active PFC function.

Other functions include remote ON/OFF control, a constant current limiting circuit, short circuit, overload, over voltage, and over temperature protections. Comply with the ITE power supply requirements per UL, CUL, TUV, CCC, CB, and CE regulations and also have earned certificates for TUV EN61558-1 and EN61558-2-16, which allow for use in the European household appliance market.

Applications include control and automation systems, mechanical and electrical equipment, household appliances, instruments, or any system/s that require an economical but reasonably efficient 150 Watt supply with a 1U low profile.

[Release & Application Notes](#)

Pricing:	1 +	\$ 69.75
	10 +	57.50
	25 +	49.40

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 toll-free 1-866-665-5434 (603) 888-2467 sales@electracool.com



■ **Features :**

- * Universal AC input / Full range
- * Built-in active PFC function
- * Protections: Short circuit / Overload / Over voltage / Over temperature
- * Cooling by free air convection
- * Built-in constant current limiting circuit
- * 1U low profile 30mm
- * Remote ON-OFF control
- * LED indicator for power on
- * Over voltage category III
- * 100% full load burn-in test
- * 3 years warranty



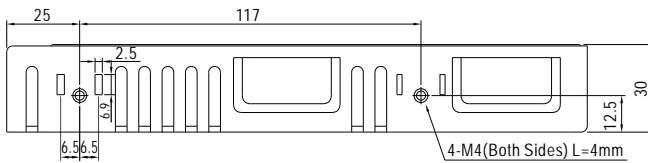
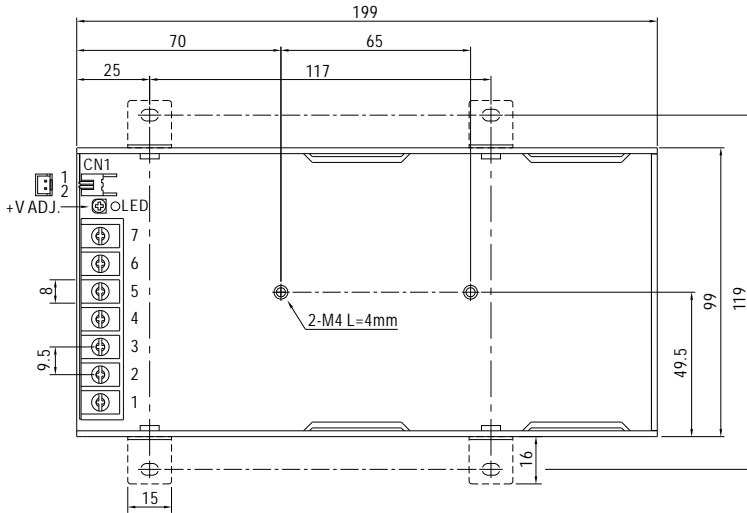
SPECIFICATION

MODEL		RSP-150-3.3	RSP-150-5	RSP-150-7.5	RSP-150-12	RSP-150-13.5	RSP-150-15	RSP-150-24	RSP-150-27	RSP-150-48	
OUTPUT	DC VOLTAGE	3.3V	5V	7.5V	12V	13.5V	15V	24V	27V	48V	
	RATED CURRENT	30A	30A	20A	12.5A	11.2A	10A	6.3A	5.6A	3.2A	
	CURRENT RANGE	0 ~ 30A	0 ~ 30A	0 ~ 20A	0 ~ 12.5A	0 ~ 11.2A	0 ~ 10A	0 ~ 6.3A	0 ~ 5.6A	0 ~ 3.2A	
	RATED POWER	99W	150W	150W	150W	151.2W	150W	151.2W	151.2W	153.6W	
	RIPPLE & NOISE (max.) Note.2	100mVp-p	100mVp-p	100mVp-p	100mVp-p	100mVp-p	100mVp-p	150mVp-p	150mVp-p	250mVp-p	
	VOLTAGE ADJ. RANGE	3.14 ~ 3.63V	4.75 ~ 5.5V	7.13 ~ 8.25V	11.4 ~ 13.2V	12.8 ~ 14.9V	14.3 ~ 16.5V	22.8 ~ 26.4V	25.7 ~ 29.7V	45.6 ~ 52.8V	
	VOLTAGE TOLERANCE Note.3	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%	±1.0%	±1.0%	±1.0%	
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	
	LOAD REGULATION	±1.0%	±1.0%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±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%	90%	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	UL60950-1, UL62368-1, TUV EN60950-1, EN61558-1, EN61558-2-16, CCC GB4943 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 EN55032 (CISPR32) Class B, EN61000-3-2,-3, GB9254 class B									
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A									
OTHERS	MTBF	290.7K hrs min.		MIL-HDBK-217F (25°C)							
	DIMENSION	199*99*30mm (L*W*H)									
	PACKING	0.6Kg; 24pcs/15.4Kg/0.92CUFT									
NOTE	<ol style="list-style-type: none"> All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. Tolerance : includes set up tolerance, line regulation and load regulation. The power supply is considered 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, please refer to "EMI testing of component power supplies." Derating may be needed under low input voltages. Please check the derating curve for more details. Strongly recommended that external output capacitance should not exceed 5000uF. (Only for: RSP-150-3.3/-5/-7.5/-12) (as available on http://www.meanwell.com) 										



■ Mechanical Specification

Case No. 215A Unit:mm



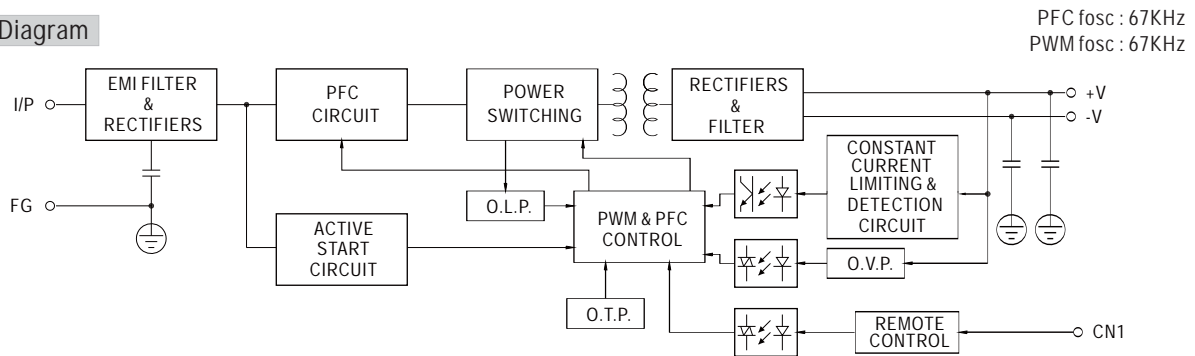
Terminal Pin No. Assignment

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

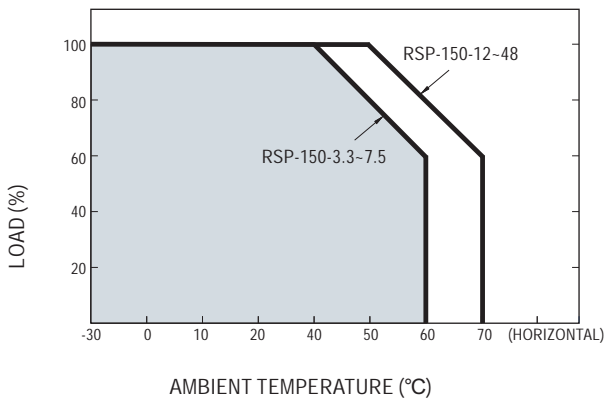
Remote ON/OFF(CN1):JST B-XH or equivalent(optional)

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

■ Block Diagram



■ Derating Curve



■ Output Derating VS Input Voltage

