



SUNPOWER TECHNOLOGY CORP.
 16F.-1, No.150, Jian 1st Rd., Zhonghe Dist., New Taipei City 235, Taiwan (R.O.C.).
 TEL: 886-2-8226-3100 FAX: 886-2-8226-3111
 http://www.sunpower.com.tw
 E-mail: sunpower@sunpower.com.tw

SPS-150P-xx Series

150W, Single Output

Active P.F.C Function



198 x 99 x 50 mm
 7.8 x 3.9 x 1.97 inch



Features:

- * Universal AC input with active PFC circuit, P.F.>0.95
- * Power ON with LED indicator
- * Built in EMI filter, low ripple noise
- * Over voltage · over load & short circuit protection
- * Over temperature protection (Optional)
- * Output voltage $\pm 10\%$ adjustment
- * Output voltage remote sense
- * Remote control ON/OFF
- * 100% full load burn-in test
- * UL, cUL, TUV, CB, CE approved
- * 3 years warranty

Specification:

INPUT	Voltage	85V ~ 264VAC universal full range or 120V ~ 375VDC.								
	Frequency	47 ---- 63 Hz								
	Current	<2.2A @100V AC input, full load condition								
	Inrush Current	<35A@115V , <70A@230V AC input. Cold start at 25°C ambient								
	Leakage Current	<1.5mA@264V AC input								
	Power Factor	PF > 0.95								
OUTPUT	MODEL No.	SPS-150P-3.3	SPS-150P-05	SPS-150P-7.5	SPS-150P-12	SPS-150P-15	SPS-150P-24	SPS-150P-27	SPS-150P-30	SPS-150P-48
	Voltage	3.3V	5V	7.5V	12V	15V	24V	27V	30V	48V
	Min Load	0A	0A	0A	0A	0A	0A	0A	0A	0A
	Max Load	30A	30A	20A	12.5A	10A	6.3A	5.6A	5.0A	3.2A
	Output Tolerance ②	$\pm 3\%$	$\pm 2\%$	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$
	Ripple Noise MAX. ③	70mV	70mV	80mV	120mV	120mV	200mV	200mV	200mV	200mV
	Efficiency (TYP.)	72%	77%	82%	84%	84%	85%	85%	85%	86%
Output MAX.	100W	150W	150W	150W	150W	151W	151W	150W	154W	
PROTECTION	Over Voltage	3.8V~4.6V	5.8V~7.0V	8.6V~10.5V	13.8V~16.8V	17.3V~21.0V	27.6V~33.6V	31.1V~37.8V	34.5V~42.0V	55.2V~67.2V
		Shutdown and latch off, recover after re-start up.								
	OverLoad & ShortCircuit	When power supply over 105%~ 150% max load or short circuit acted, power supply will be constant current limiting and recover automatically after the fault is removed.								
	Over Temperature	Optional, Over 95°C \pm 5°C Shutdown, recovers automatically after fault condition has been removed.								
ELEC. CHAR.	Rise time	<20mS								
	Hold up time	>20mS@230V, full load condition								
	Setup time	<3.0S@100 ~ 240V AC								
	Remote sensing	(RS+, RS-).								
	Remote Control	RC+/RC-: 0~0.7V= Power On; 3~10V= Power Off. Sink Current: 3~10 mA								
ENVIRONMENT	Temperature ④	Operating: -20 ~ +70°C ; Storage: -40 ~ +85°C De-rating: 40 ~ 70°C: 2.5%/°C (3.3V,5V,7.5V) ; 45 ~ 70°C: 2.5%/°C (12V,15V,24V,27V,30V,48V)								
	Humidity	Operating: 20% ~ 90% RH (non condensing) ; Storage: 10% ~ 95% RH (non condensing)								
SAFETY	Withstand voltage	I/P-O/P:3KVAC, I/P-PE:1.5KVAC, O/P-PE:0.5KVAC, 1minute								
	Isolation resistance	I/P-O/P, I/P-PE, O/P-PE >100M Ω /500VDC at 25°C / 70% RH								
	Safety standard	UL 60950-1 2 nd , CSA C22.2 No. 60950-1- 07 2 nd , TUV EN 60950-1:2006+A11+A1+A12, IEC 60950-1:2005+A1, approved								
EMC	EMI	EN 55022 CLASS B, FCC CFR 47 PART 15 CLASS B, CNS 13438 CLASS B. Compliance to EN61000-3-2 CLASS D, EN61000-3-3								
	EMS	EN 55024 : EN 61000-4-2,3,4,5,6,8,11								
OTHERS	Cooling	Natural cooling								
	M.T.B.F.	229.1 K hours								
	Dimension	198 x 99 x 50 mm (L*W*H)								
	Packing	N.W.:0.84 Kg / 1pc; 18 pcs / 1.38 CUFT / 1 CTN								

NOTE

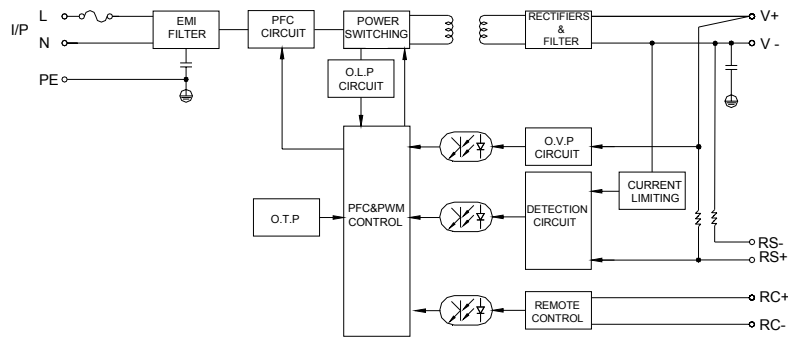
- ① All measurements which not mentioned are based on 230VAC input, **output Max** at ambient 25°C / 70%RH
- ② Output tolerance included set up voltage, line regulation and load regulation.
- ③ Ripple & noise are measured at 100~254VAC input with 10~50°C condition and 20MHz of bandwidth by using a 10" ~ 15" twisted pair-wire terminated with a 0.1uF & a 47uF parallel capacitor.
- ④ The operating temperature shall follow the de-rating curve in spec
The output load may be requested for decreasing as de-rating curve in spec when low input voltage is under 100VAC.
- ⑤ The power supply is considered a component of end-equipment. The end-equipment must be re-confirmed whether comply with EMC directives.



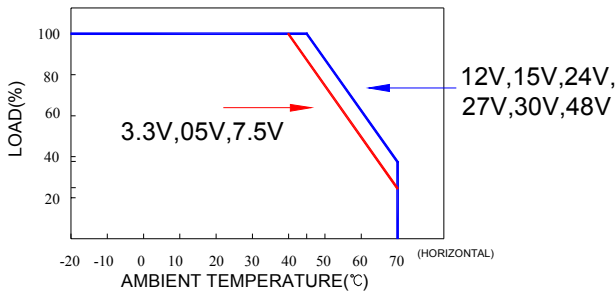
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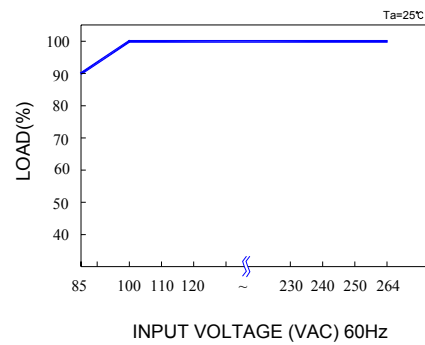
Block Diagram : PS6



De-rating Curve :

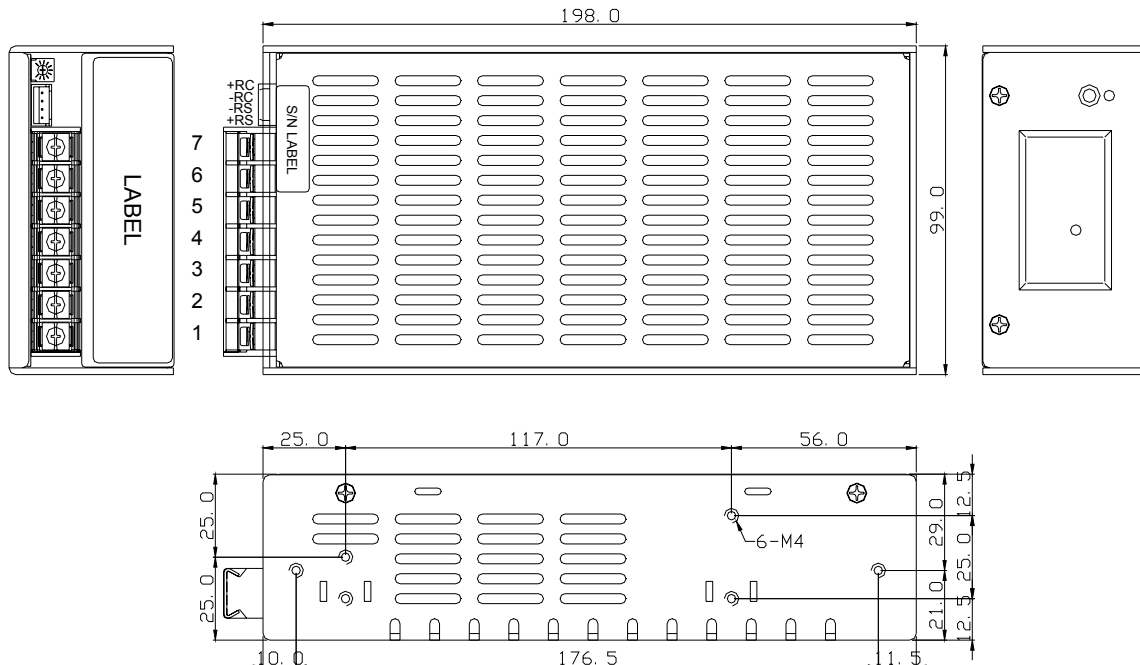


Output De-rating Vs Input Voltage :



Dimension:

(Unit: mm)



NOTES:

TERMINAL BLOCK: 7P, PITCH 9.5mm WITH PC COVER.

MODEL No.	1	2	3	4	5	6	7
SPS-150P-xx	L	N	PE	-V	-V	+V	+V

SPS-150P-xx Series

Remote sense & Remote control ON/OFF:

- ❶ Remote control ON/OFF becomes available by applying voltage in CON2
- ❷ Table A shows the specification of remote control ON/OFF function
- ❸ Fig 1 shows the example to connect remote control ON/OFF function

Table A : Specification of remote control ON/OFF

Connection Method		Fig 1	Between RC+ and RC-
SW Logic	Power ON	SW Open	0~0.7V
	Power OFF	SW Close	3~10V

Fig 1 Examples of connecting remote control ON/OFF

