

PSP-600 series 600W with PFC and Parallel Function



Features:

- Universal AC input / Full range
- Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Forced air cooling by built-in DC fan
- With DC OK Signal output
- Current sharing up to 2400W(3+1)
- Built-in remote ON-OFF control
- Built-in remote sense function
- Fixed switching frequency at PFC:88KHz PWM:100KHz
- 3 years warranty









SPECIFICATION

MODEL		PSP-600-5	PSP-600-12	PSP-600-13.5	PSP-600-15	PSP-600-24	PSP-600-27	PSP-600-48		
	DC VOLTAGE	5V	12V	13.5V	15V	24V	27V	48V		
	RATED CURRENT	80A	50A	44.5A	40A	25A	22.2A	12.5A		
	CURRENT RANGE	0 ~ 80A	0 ~ 50A	0 ~ 44.5A	0 ~ 40A	0 ~ 25A	0 ~ 22.2A	0 ~ 12.5A		
	RATED POWER	400W	600W	600W	600W	600W	600W	600W		
	RIPPLE & NOISE (max.) Note.2		240mVp-p	240mVp-p	240mVp-p	240mVp-p	240mVp-p	300mVp-p		
OUTPUT	VOLTAGE ADJ. RANGE	4.75 ~ 5.5V	10 ~ 13.2V	12 ~ 15V	13.5 ~ 18V	20 ~ 26.4V	24 ~ 30V	41 ~ 56V		
	VOLTAGE TOLERANCE Note.3		±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%		
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%		
	LOAD REGULATION	±1.0%	±0.5%	±0.5%		±0.5%	±0.5%	±0.5%		
				±0.5%	±0.5%	±0.5%	±0.5%	10.5%		
	SETUP, RISE TIME	1500ms, 50ms at full load								
	HOLD UP TIME (Typ.)	20ms at full load								
		88 ~ 264VAC 124 ~ 370VDC								
	FREQUENCY RANGE	47 ~ 63Hz								
	POWER FACTOR (Typ.)	0.95/230VAC 0.99/115VAC at full load								
NPUT	EFFICIENCY(Typ.)	79%	84%	85%	85%	86%	86%	87%		
	AC CURRENT (Typ.)	6.8A/115VAC	3.4A/230VAC							
	INRUSH CURRENT (Typ.)	20A/115VAC 40A/230VAC								
	LEAKAGE CURRENT	<1.3mA/240VAC								
		105 ~ 135% rate	d output power							
	OVERLOAD	Protection type: Constant current limiting, recovers automatically after fault condition is removed								
		5.75 ~ 6.75V	13.8 ~ 16.2V	15.5 ~ 18.2V	18 ~ 21V	27.6 ~ 32.4V	31 ~ 36.5V	57.6 ~ 67.2V		
ROTECTION	OVER VOLTAGE	Protection type :	Shut down o/p volt	tage, re-power on to	recover					
NO I LO II ON		Protection type: Shut down o/p voltage, re-power on to recover +5V: 95°C (TSW1) detect on heatsink of power transistor; 95°C (TSW51) detect on heatsink of power diode								
	OVER TEMPERATURE	+12V ~ +48V: 85°C (TSW1) detect on heatsink of power transistor; 80°C (TSW51) detect on heatsink of power diode								
	OVERTEMPERATURE	Protection type: Shut down o/p voltage, re-power on to recover								
	REMOTE CONTROL	RC+/RC-: Short = power on ; Open = power off								
FUNCTION										
ENVIRONMENT	POK SIGNAL	PSU turn on: 3.3V ~ 5.6V PSU turn off: 0V ~ 1V								
	WORKING TEMP.	-20 ~ +60°C (Refer to output load derating curve)								
	WORKING HUMIDITY	20 ~ 90% RH non-condensing								
	STORAGE TEMP., HUMIDITY	-40~+85°C, 10~95% RH								
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)								
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes								
SAFETY &	SAFETY STANDARDS	UL60950-1, TUV EN60950-1 approved								
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:1.5KVAC 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 Note 4)	EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22) Class B								
11010 4)	HARMONIC CURRENT	Compliance to EN61000-3-2,-3								
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, light industry level, criteria A								
	MTBF	116.4K hrs min.	MIL-HDBK-217	F (25°C)						
THERS	DIMENSION	170*120*93mm (L*W*H)							
	PACKING	1.9Kg; 8pcs/15.5								
IOTE				VAC input, rated lo	oad and 25°C of a	mbient temperatur	re.			
NOTE	 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. 									
	3. Tolerance : includes set up tolerance, line regulation and load regulation.4. 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.									
	Derating may be needed up	nder low input vol	tages. Please che	ck the derating cu	rve for more detai	ls.				



PSP-600 series

PFC fosc: 88KHz PWM fosc: 100KHz

600W with PFC and Parallel Function

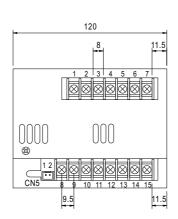
■ Mechanical Specification

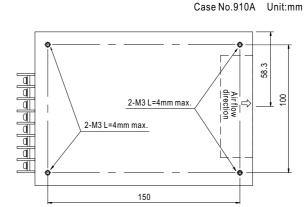
RS Connector(CN5): JST B-XH or equivalent

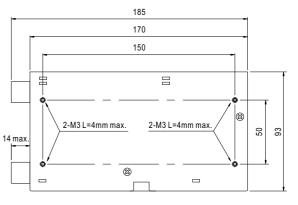
Pin No.	Assignment	Mating Housing	Terminal
1	RS+	JST XHP	JST SXH-001T
2	RS-	or equivalent	or equivalent

Terminal Pin No. Assignment

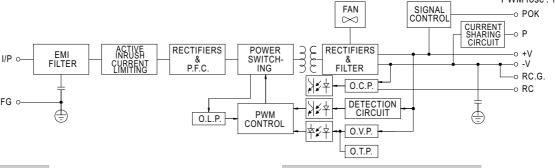
Pin No.	Assignment		
1	AC/L		
2	AC/N		
3	FG ≟		
4	P(Current Share)		
5	POK		
6	R.C. G		
7	R.C.		
8~11	DC OUTPUT +V		
12~15	DC OUTPUT -V		





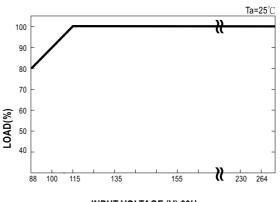


■ Block Diagram



■ Derating Curve

■ Output Derating VS Input Voltage



AMBIENT TEMPERATURE (°C)

INPUT VOLTAGE (V) 60Hz

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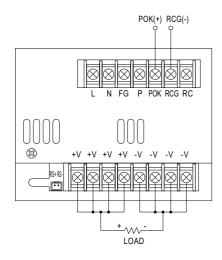
Email: info@stontronics.co.uk

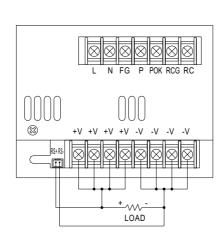
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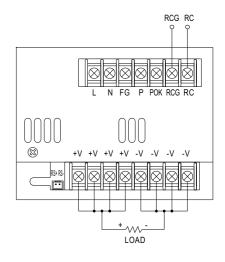


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■ Control Terminal Instruction Manual







POK Signal

POK Signal is the voltage difference between
"RCG" and "POK" pin output POK Signal for TTL level signal
PSU turn on: 3.3V ~ 5.6V
PSU turn off: 0V ~ 1V

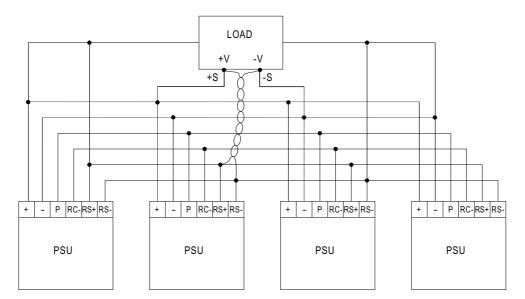
Remote Sensing

Remote Control

Power ON: RCG and RC for short Power OFF: RCG and RC for open

■ Parallel Operation with Remote Sensing

- (1)Parallel operation is available by connecting the units shown as below (+S,-S and P are connected mutually in parallel):
- (2) The voltage difference among each output should be minimized that less than $\pm 2\%$ is required.
- (3)The total output current must not exceed the value determined by the following equation (Output current at parallel operation) =(The rated current per unit) x (Number of unit) x 0.9.
- (4) In parallel operation 4 units is the maximum, please consult the manufacture for other applications.
- (5) When remote sensing is used in parallel operation, the sensing wire must be connected only to the master unit.
- (6) When in parallel operation, the minimum output load should be greater than 3% of total output load. (Min. load > 3% rated current per unit x number of unit)



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