



600W with PFC and Parallel Function

PSP-600 series



■ 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
- Operating altitude up to 3000 meters (Note.6)
- 3 years warranty

User's Manual



SPECIFICATION

MODEL	PSP-600-5	PSP-600-12	PSP-600-13.5	PSP-600-15	PSP-600-24	PSP-600-27	PSP-600-48											
OUTPUT	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	600.75W	600W	600W	599.4W	600W										
	ripple & noise (max.) Note.2	180mVp-p	240mVp-p	240mVp-p	240mVp-p	240mVp-p	240mVp-p	300mVp-p										
	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	±2.0%	±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%										
	SETUP, RISE TIME	1500ms, 50ms at full load																
INPUT	HOLD UP TIME (Typ.)	20ms at full load																
	VOLTAGE RANGE Note.5	88 ~ 264VAC	124 ~ 370VDC															
	FREQUENCY RANGE	47 ~ 63Hz																
	POWER FACTOR (Typ.)	0.95/230VAC	0.99/115VAC at full load															
	EFFICIENCY(Typ.)	79%	84%	85%	85%	86%	86%	87%										
	AC CURRENT (Typ.)	6.8A/115VAC	3.4A/230VAC															
PROTECTION	INRUSH CURRENT (Typ.)	20A/115VAC	40A/230VAC															
	LEAKAGE CURRENT	<1.3mA/240VAC																
	OVERLOAD	105 ~ 135% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed																
OVER VOLTAGE	OVER VOLTAGE	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										
	OVER TEMPERATURE	Protection type : Shut down o/p voltage, re-power on to recover																
	OVER TEMPERATURE	Shut down o/p voltage, re-power on to recover																
FUNCTION	REMOTE CONTROL	RC+/RC-: Short = power on ; Open = power off																
	POK SIGNAL	PSU turn on: 3.3V ~ 5.6V PSU turn off: 0V ~ 1V																
ENVIRONMENT	WORKING TEMP.	-20 ~ +60°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, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes																
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL62368-1, TUV EN62368-1, CCC GB4943.1, BSMI CNS14336-1, AS/NZS 62368.1, EAC TP TC 004 approved																
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC	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, GB9245, GB17625.1, BSMI CNS13438, EAC TP TC 020																
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, light industry level, criteria A, EAC TP TC 020																
OTHERS	MTBF	116.4K hrs min. MIL-HDBK-217F (25°C)																
	DIMENSION	170*120*93mm (L*W*H)																
	PACKING	1.9Kg; 8pcs/15.5Kg/1.06CUFT																
NOTE	<ol style="list-style-type: none"> 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. 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. All the EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. 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." (as available on http://www.meanwell.com) 5. Derating may be needed under low input voltages. Please check the derating curve for more details. 6. The operating altitude is 2000 meters for CCC, 3000 meters for UL,TUV. The ambient temperature derating of 5°C/1000m is needed for operating altitude greater than 2000m (6500ft). <p>※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx</p>																	

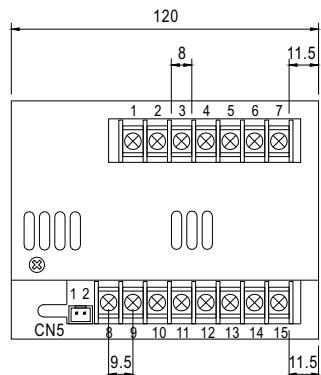
■ Mechanical Specification

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

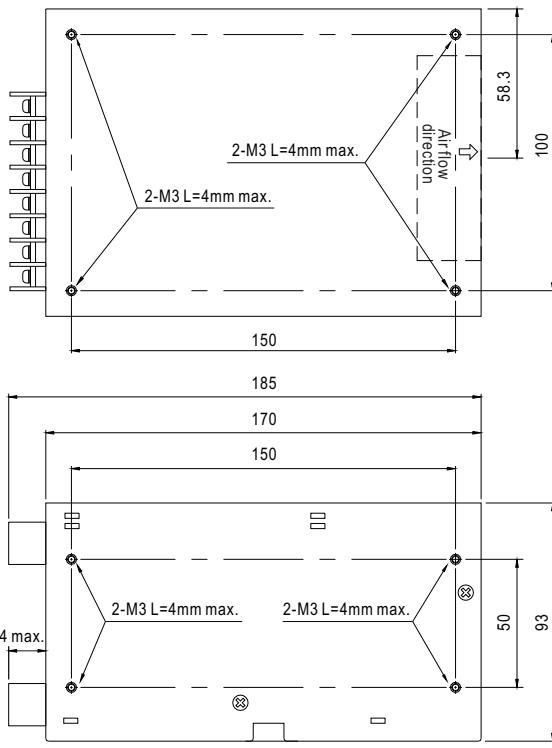
Pin No.	Assignment	Mating Housing	Terminal
1	RS+	JST XHP	JST SXH-001T
2	RS-	or equivalent	or equivalent

Terminal Pin No. Assignment

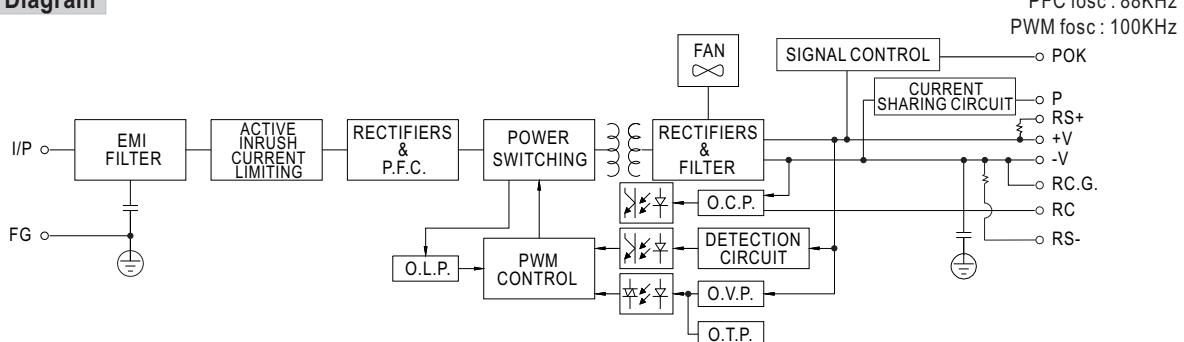
Pin No.	Assignment
1	AC/L
2	AC/N
3	FG \pm
4	P(Current Share)
5	POK
6	R.C.G
7	R.C.
8~11	DC OUTPUT +V
12~15	DC OUTPUT -V



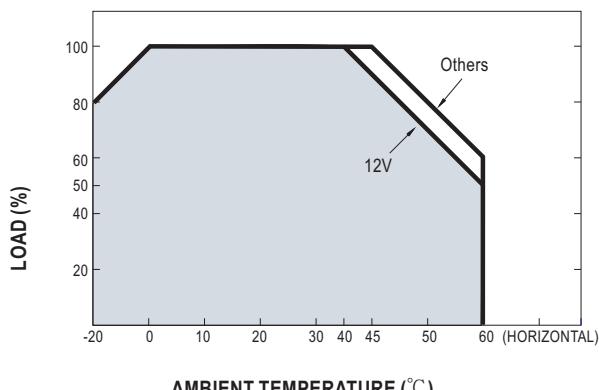
Case No.910A Unit:mm



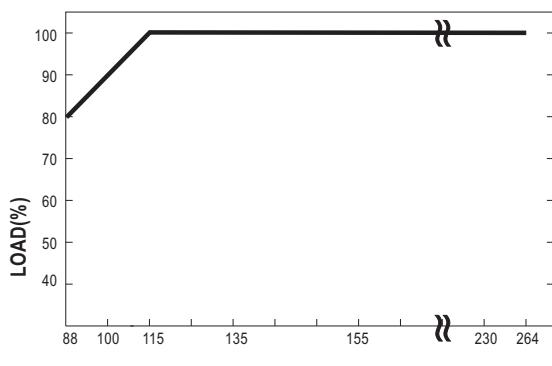
■ Block Diagram



■ Derating Curve



■ Output Derating VS Input Voltage

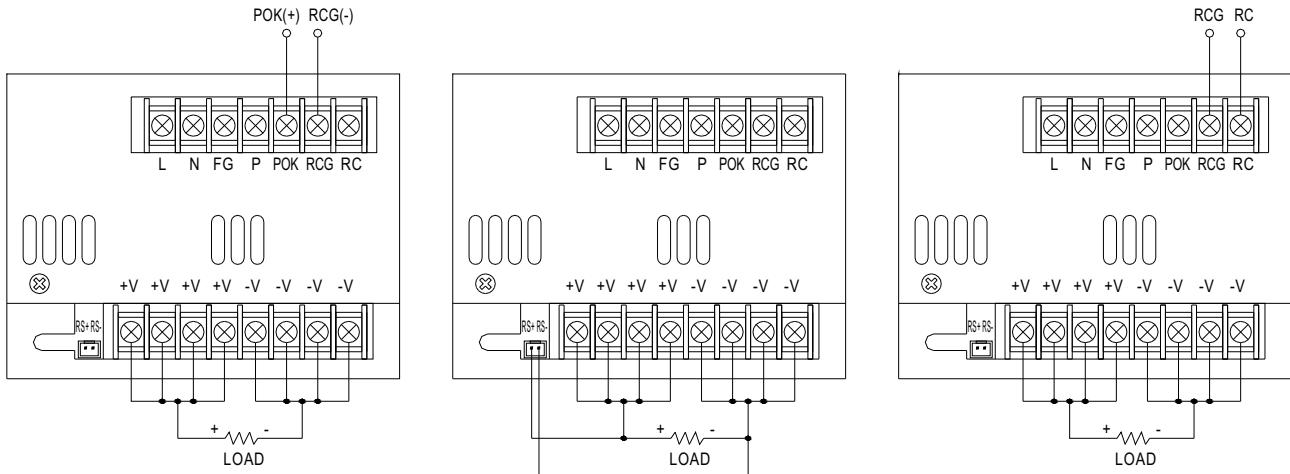




600W with PFC and Parallel Function

PSP-600 series

■ 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 0.2V is required.
- (3) The total output current must not exceed the value determined by the following equation (Output current at parallel operation)

$$=(\text{The rated current per unit}) \times (\text{Number of unit}) \times 0.9.$$
- (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.

$$(\text{Min. load} > 3\% \text{ rated current per unit} \times \text{number of unit})$$

