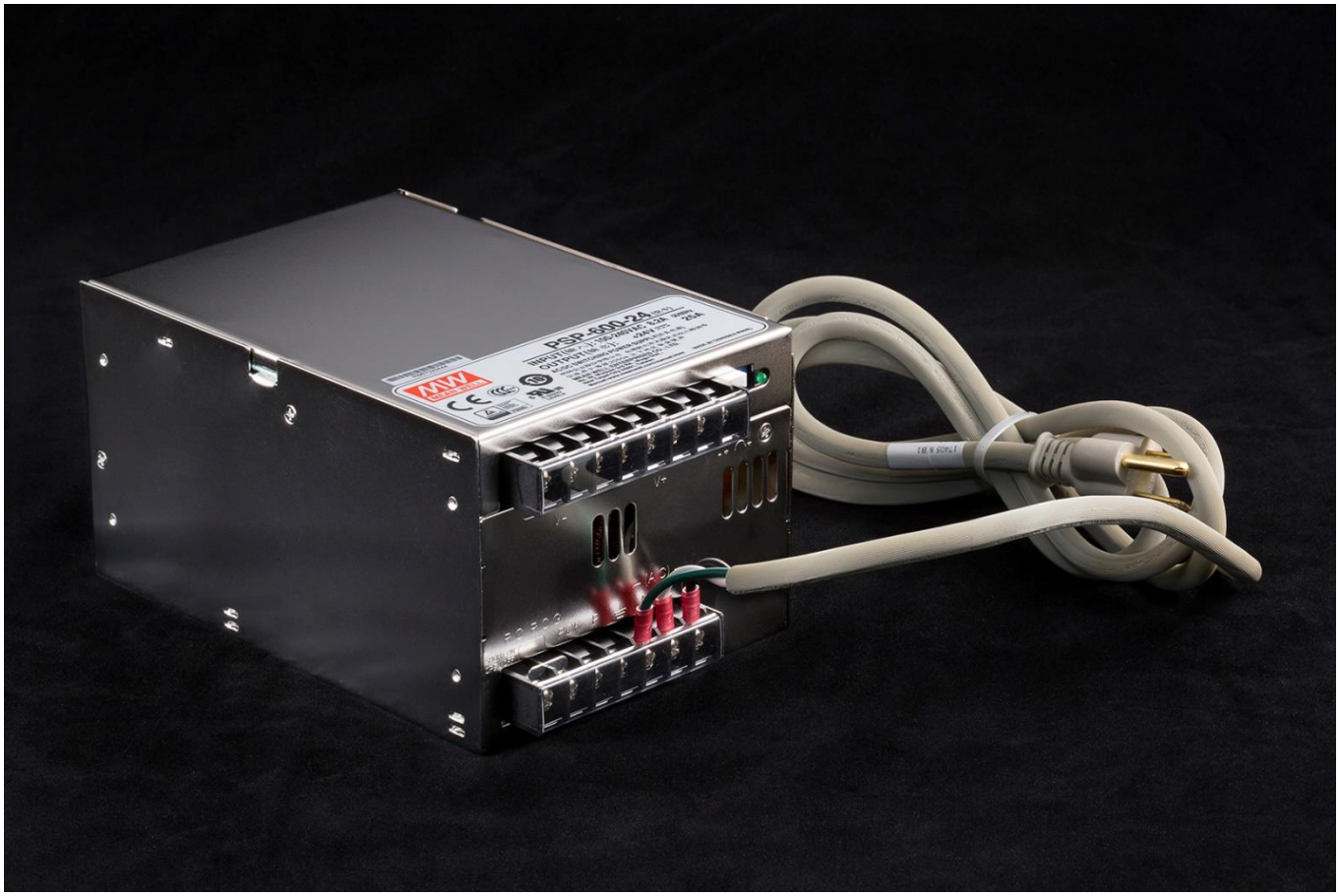
PS-24-25 Power Supply



The PS-24-25 Power Supply consists of a 24 VDC power supply with PFC and parallel function and one North American standard power cord.

- **Input Voltage: 88~264 VAC; 47~63 Hz**
- **Output Voltage: 24 VDC**
- **Maximum Output Current: 25 A**
- **Dimensions: 185 x 120 x 93 mm**
- **Power cords for the UK, EU, and Italy can be purchased separately.**
- **When ordered in conjunction with TE Technology coolers and temperature controllers the interconnection cables are included free of charge.**
- **See additional pages for base power supply specifications.**

TE TECHNOLOGY, INC.®

Expert Engineering, Precision Manufacturing:
Quality Thermal Solutions Delivered

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NOTE: All specifications are subject to change without notice. © 2020 TE Technology, Inc.

600W with PFC and Parallel Function

PSP-600 series

■ Features :

- Universal AC input I Full range
- Built-in active PFC function
- Protections: Short circuit I Overload I Over voltage I 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)

Parallel (except for 5V,12V,13.5V)

SPECIFICATION

MODEL		PSP-600-24
OUTPUT	DC VOLTAGE	24V
	RATED CURRENT	25A
	CURRENT RANGE	0 ~ 25A
	RATED POWER	600W
	RIPPLE & NOISE (max.) Note.2	240mVp-p
	VOLTAGE ADJ. RANGE	20 ~ 26.4V
	VOLTAGE TOLERANCE Note.3	±1.0%
	LINE REGULATION	±0.5%
	LOAD REGULATION	±0.5%
	SETUP, RISE TIME	1500ms, 50ms at full load
	HOLD UP TIME (Typ.)	20ms at full load
INPUT	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.)	86%
	AC CURRENT (Typ.)	6.8A/115VAC 3.4A/230VAC
	INRUSH CURRENT (Typ.)	20A/115VAC 40A/230VAC
	LEAKAGE CURRENT	<1.3mA/240VAC
PROTECTION	OVERLOAD	105 ~ 135% rated output power
		Protection type : Constant current limiting, recovers automatically after fault condition is removed
	OVER VOLTAGE	27.6 ~ 32.4V
		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℃ (Refer to "Derating Curve")
	WORKING HUMIDITY	20 ~ 90% RH non-condensing
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH non-condensing
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃)
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL60950-1, TUV EN60950-1, CCC GB4943.1 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℃/ 70% RH
	EMC EMISSION	Compliance to EN55032 (CISPR32) Class B, EN61000-3-2,-3, GB9245, GB17625.1
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, light industry level, criteria A
OTHERS	MTBF	116.4K hrs min. MIL-HDBK-217F (25℃)
	DIMENSION	170*120*93mm (L*W*H)
	PACKING	1.9Kg; 8pcs/15.5Kg/1.06CUFT
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ 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:IIwww.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℃/1000m is needed for operating altitude greater than 2000m (6500ft).	

■ Mechanical Specification

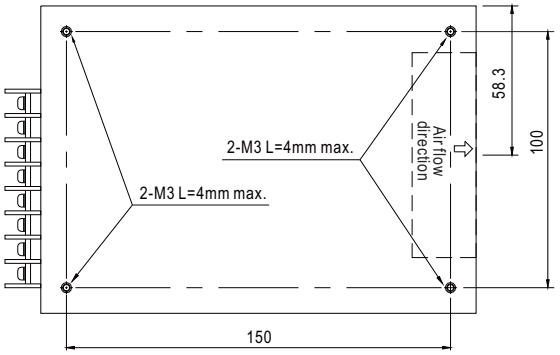
Case No.910A Unit:mm

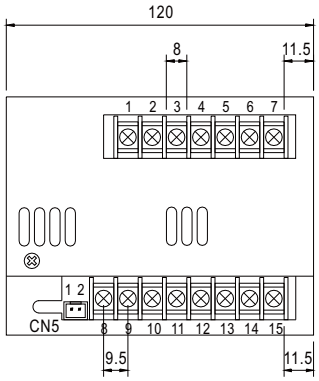
RS Connector(CN5) : JST B-XH or equivalent

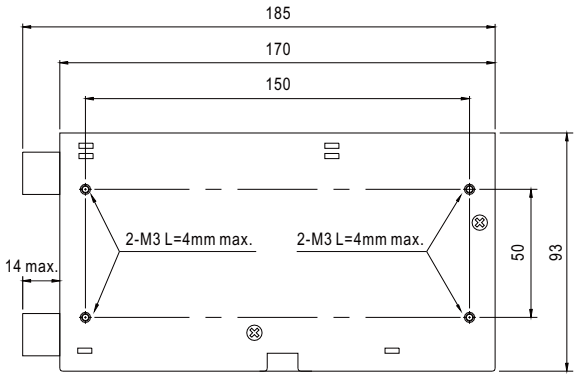
Pin No.	Assignment	Mating Housing	Terminal
1	RS+	JST XHP or equivalent	JST SXH-001T or equivalent
2	RS-		

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

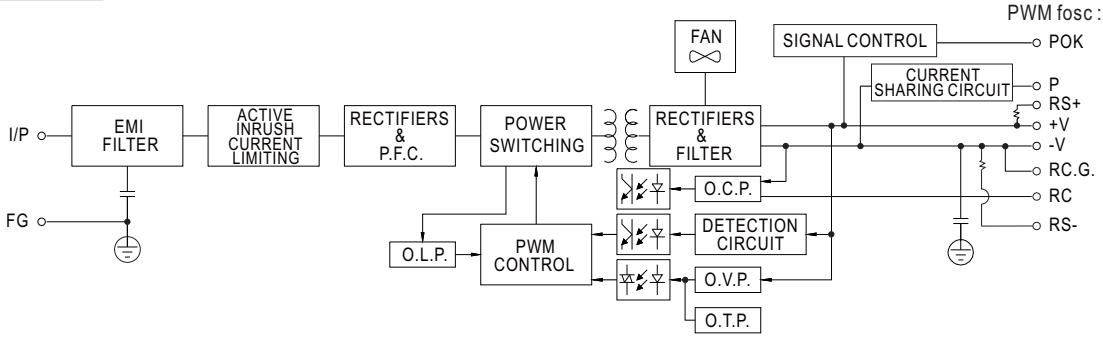




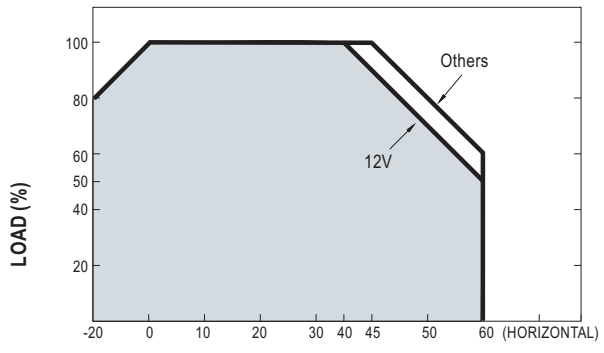


■ Block Diagram

PFC fosc : 88KHz
PWM fosc : 100KHz

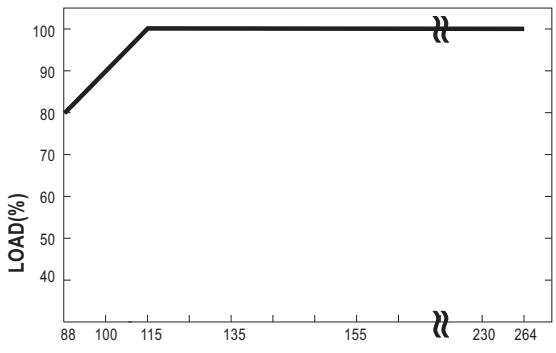


■ Derating Curve



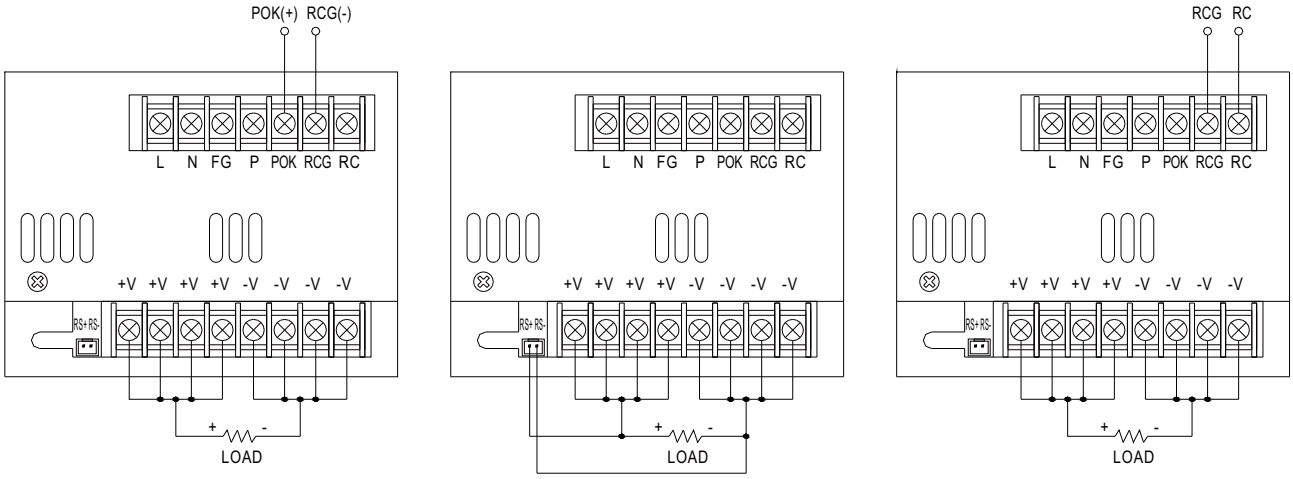
AMBIENT TEMPERATURE (℃)

■ Output Derating VS Input Voltage



INPUT VOLTAGE (V) 60Hz

■ 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)
=(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)