

SP-480 Series

480W Single Output Enclosed Power Supply with PFC Function



Case No: 8012CP
278 x 127 x 43mm

Features

- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- Protections: Short circuit / Overload / Over Voltage / Over Temperature
- Forced air cooling by built-in DC fan
- High power density 5.18w/in³
- Low profile: 43mm thickness
- Built-in remote ON/OFF control
- Built-in remote sense function
- Active AC surge current limiting
- 3 years warranty



Specification

INPUT	Voltage	85V ~ 264VAC		120 ~ 370VDC			
	Frequency	47 ~ 63 Hz					
	Power Factor	PF>0.95/230VAC		PF>0.98/115VAC at full load			
	Efficiency	73%	79%	85%	85%	87%	89%
	AC Current	6.5A/115VAC		3.5A/230VAC			
	Inrush Current (Typ.)	20A/115VAC		40A/230VAC			
	Leakage Current	<2mA@240VAC					
OUTPUT	MODEL No.	SP-480-3.3	SP-480-5	SP-480-12	SP-480-15	SP-480-24	SP-480-48
	Voltage	5V	5V	12V	15V	24V	48V
	Rated Current	120A	85A	40A	32A	20A	10A
	Current Range	0 ~ 120A	0 ~ 85A	0 ~ 43A	0 ~ 35A	0 ~ 22A	0 ~ 11A
	Rated Power	600W	425W	480W	480W	480W	480W
	Ripple Noise MAX.	120mVp-p	80mVp-p	120mVp-p	150mVp-p	150mVp-p	240mVp-p
	Voltage Adj. Range	2.9~3.6V	4.5 ~ 5.5V	10.8~13.2V	13.5~18V	22~27.6V	41~56V
	Voltage Tolerance	± 2.0%	± 2.0%	± 1.5%	± 1.5%	± 1.0%	± 1.0%
	Line Regulation	± 0.5%	± 0.5%	± 0.3%	± 0.3%	± 0.2%	± 0.2%
	Load Regulation	± 1.0%	± 1.0%	± 0.5%	± 0.5%	± 0.5%	± 0.5%
	Setup Rise Time	1000ms, 80ms/230VAC		2500, 80ms/115VAC at full load			
Holdup Time (Typ.)	18ms/230VAC		18ms/115VAC at full load				
PROTECTION	Overload	87~103A	87~103A	45.15~58.05A	36.75~47.25A	23.1~29.7A	11.55~14.85A
	Over Voltage	3.8~4.45V	5.75~6.75V	13.8~16.2V	18~21V	28.8~33.6V	57.6~67.2V
	Over temperature	80°C (TSW1) detect on heatsink of power transistor 90°C (TSW2) detect on heatsink of power diode Protection type: Shut down o/p voltage, recovers automatically after temperature goes down					
FUNCTION	Remote Control	RC+/RC-: 0~0.8=power ON; 4~10V = Power OFF					
ENVIRONMENT	Working Temp.	-20 ~ +65°C (Refer to "Derating Curve")					
	Working Humidity	20 ~ 90% RH non-condensing					
	Storage Temp., Humidity	-40 ~ +85°C, 10~95% RH					
	Temp. Co-efficient	±0.03% / °C (0~50°C)					
	Vibration	10~500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes					
SAFETY & EMC	Safety Standards	UL60950-1, TUV EN60950-1 approved					
	Withstand Voltage	I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:Short					
	Isolation Resistance	I/P-O/P, I/P-FG:100M Ohms / 500VDC / 25°C/70% RH					
	EMC Emission	Compliance to EN55022 (CISPR22) Class B, EN61000-3-2,-3					
	EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11, EN61000-6-2 (EN50082-2), light industry level, criteria A					
OTHERS	M.T.B.F.	120.5K hrs min. MIL-HDBK-217F (25°C)					
	Packaging	1.7Kg; 6pcs/11.3Kg/0.67CUFT					

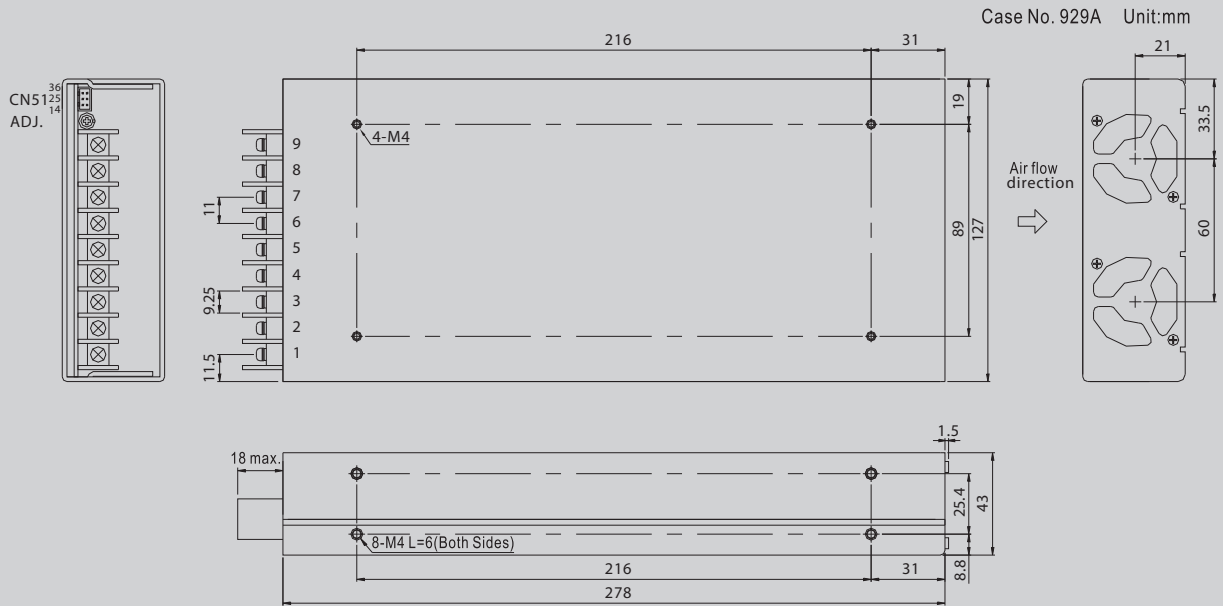
1. All parameters not specially mentioned are based on 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.
3. Tolerance: Includes set up tolerance, line regulation and load regulation
4. 33% Duty cycle maximum within every 30 minutes. Average output power should not exceed the rated power.
5. The power supply is considered a component which will be installed into 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."
6. Derating may be needed under low input voltages. Please check the derating curve for more details.

SP-480 Series

480W Single Output Enclosed Power Supply with PFC Function



Mechanical Specification



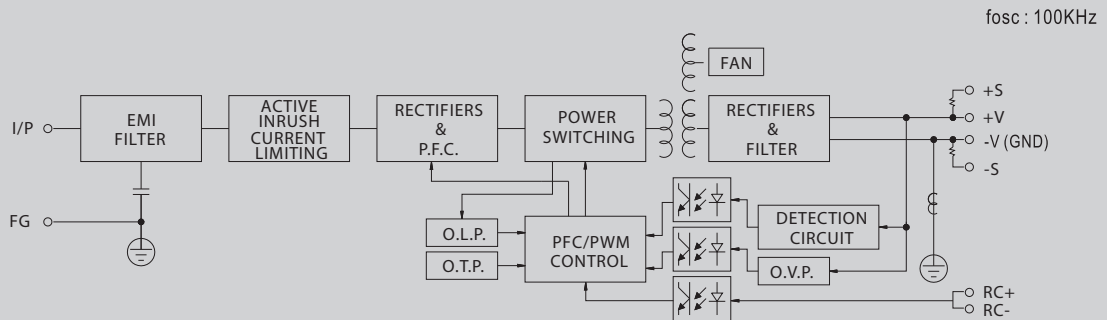
Terminal Pin No. Assignment :

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4~6	-V
2	AC/N	7~9	+V
3	FG $\frac{\perp}{\perp}$		

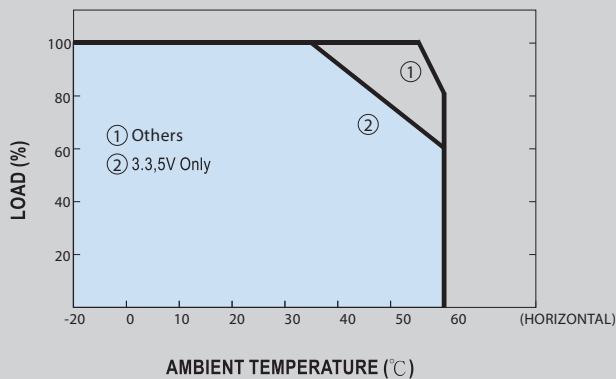
Connector Pin No. Assignment (CN51) : HRS DF11-6DP-2DS or equivalent

Pin No.	Assignment	Pin No.	Assignment	Mating Housing	Terminal
1	GND	4	N.C.	HRS DF11-6DS or equivalent	HRS DF11-**SC or equivalent
2	RC-	5	RC+		
3	-S	6	+S		

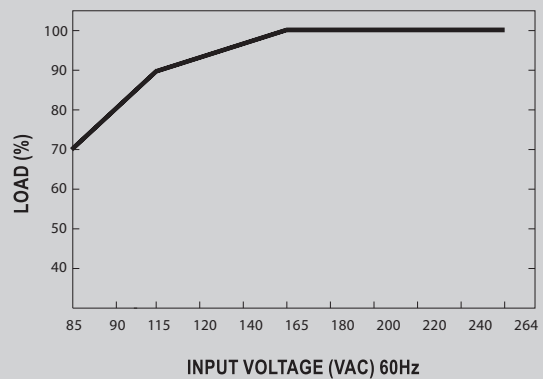
Block Diagram



De-Rating Curve



Static Characteristics



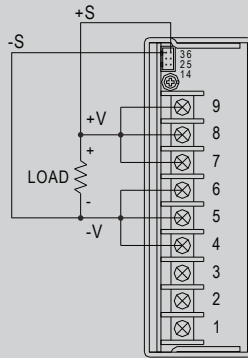
SP-480 Series

480W Single Output Enclosed Power Supply with PFC Function



Mechanical Specification

Remote Sensing



Remote Control

Power on : V is 0 ~ 0.8V
Power off : V is 4 ~ 10V

