



- Universal AC input
- Protections: Short circuit/Over load/Over voltage/Over temperature
- Built-in active PFC function, PF >0.95
- Forced air cooling by built-in DC Fan
- High power density 5.18w/cubic inch
- Low profile: 43mm thickness
- Built in remote ON-OFF control
- Built-in remote sense function
- Active AC surge current limiting



Model Number	Output Volts	Output Amps	OVP	Min Load	DC Volt Adjust	OCP	Efficiency
SINGLE OUTPUT							
SP480-3.3	3.3 Volts(DC)	85 Amps	3.8 ~ 4.45Volt(DC)	0~85Amps	2.9~3.6Volt(DC)	87~103Amps	73%
SP480-5	5 Volts(DC)	85 Amps	5.75 ~ 6.75Volt(DC)	0~85Amps	4.5~5.5Volt(DC)	87~103Amps	79%
SP480-12	12 Volts(DC)	40 Amps	13.8 ~ 16.2Volt(DC)	0~43Amps	10~13.2Volt(DC)	45.15~58.05Amps	85%
SP480-15	15 Volts(DC)	32 Amps	18 ~ 21Volt(DC)	0~35Amps	13.5~18Volt(DC)	36.75~47.25Amps	85%
SP480-24	24 Volts(DC)	20 Amps	28.8 ~ 33.6Volt(DC)	0~22Amps	22~27.6Volt(DC)	23.1~29.7Amps	87%
SP480-48	48 Volts(DC)	10 Amps	57.6 ~ 67.2Volt(DC)	0~11Amps	41~56Volt(DC)	11.55~14.85Amps	89%

480W Single Output with PFC Function

SP480 series

INPUT SPECIFICATIONS

Input Voltage Range (Note 5)	90 ~ 264VAC 120~370 Volts(DC)
Frequency Range	47-63 Hz
Inrush Current, typ: (cold start)	20Amps/115VAC; 40Amps 230VAC
Input Current	6.5Amps @ 115VAC 3.5 Amps @ 230VAC
Leakage current	< 2mAmps / 240VAC
Min Load	See Selection Chart
Power Factor @ FL	PF > 0.95 / 230VAC > 0.98 / 115VAC

OUTPUT SPECIFICATIONS

Voltage and Current (Note3)	See Selection Chart
Line Regulation	±0.5%: 3.3;5Volts(DC) ±0.3%: 12;15Volts(DC) ±0.2%: 24;48Volts(DC)
Load Regulation	±1.0%: 3;5Volts(DC) ±0.5%: 12~48Volts(DC)
Voltage Tolerance (Note 2)	±2.0%: 3.3;5Volts(DC) ±1.5%: 12;15Volts(DC) ±1.0%: 24;48Volts(DC)
Ripple/Noise (Note 1)	80mVpk-pk: 3.3;5Volts(DC) 120mVpk-pk: 12Volts(DC) 150mVpk-pk: 15;24Volts(DC) 240mVpk-pk: 48Volts(DC)
Hold Up Time @ FL	18mS /230VAC 18mS /115VAC
Setup, Rise Time @ FL	1000mS, 80mS /230VAC 2500mS, 80mS /115VAC
Over Voltage Protection	See Selection Chart Shut down o/p volt, re power
Over Current Protection	See Selection Chart Constant current limiting, auto recover
Over Temperature (Note 3)	80°C TSW1: detect on heatsink of power transistor 90°C TSW2: detect on heatsink of power diode Shut down o/p voltage, auto recover
DC Volt Adjust	See Selection Chart
Peak Load: 10min (Note 4)	10% max

GENERAL SPECIFICATIONS

Safety	UL60950-1, TUV EN60950-1 Approved
Insulation Resistance	≥ 100MΩ / 500Volts(DC)
EMI	Compliance to EN55022B (CISPR22B)
Harmonic Current	Compliance to EN61000-3-2,-3
Remote Control	RC+/RC-: 4~10Volts(DC) Power off 0 ~ 0.8Volts(DC) Power on
Efficiency	See Selection Chart
Isolation	3000VAC Input - Output 1500VAC Input - Ground Short Output - Ground
EMS	Compliance to EN61000-4-2,3,4,5,6,8,11 ENV50204, EN61000-6-2(EN50082-2) light Industry Level, Criteria A

ENVIRONMENTAL SPECIFICATIONS

Oper. Temperature	-20°C to +60°C (See Derate Curve)
Storage Temperature	-40°C to +85°C, 10~95% RH
Relative Humidity	20~90% RH non cond
Temperature Coefficient	±0.03% / °C (0-50°C)
MTBF	120.5KHrs min, MIL-HDBK-217F(25°C)
Vibration	10~500Hz, 2G10min./1cycle, period for 60min. each along X, Y, Z axes

PHYSICAL SPECIFICATIONS

Size	278x127 x 43mm (10.94"x5"x1.69")
Weight	59.97 oz (1700g)

NOTE

1. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
2. Tolerance : includes set up tolerance, line regulation and load regulation.
3. TSW1: Detect on heatsink of power transistor.
TSW2: Detect on heatsink of output diode.
4. 33% Duty cycle maximum within every 30 minute. Average output power should not exceed the rated POWER.
5. Derating may be needed under low input voltages. Please check the derating curve for more details.

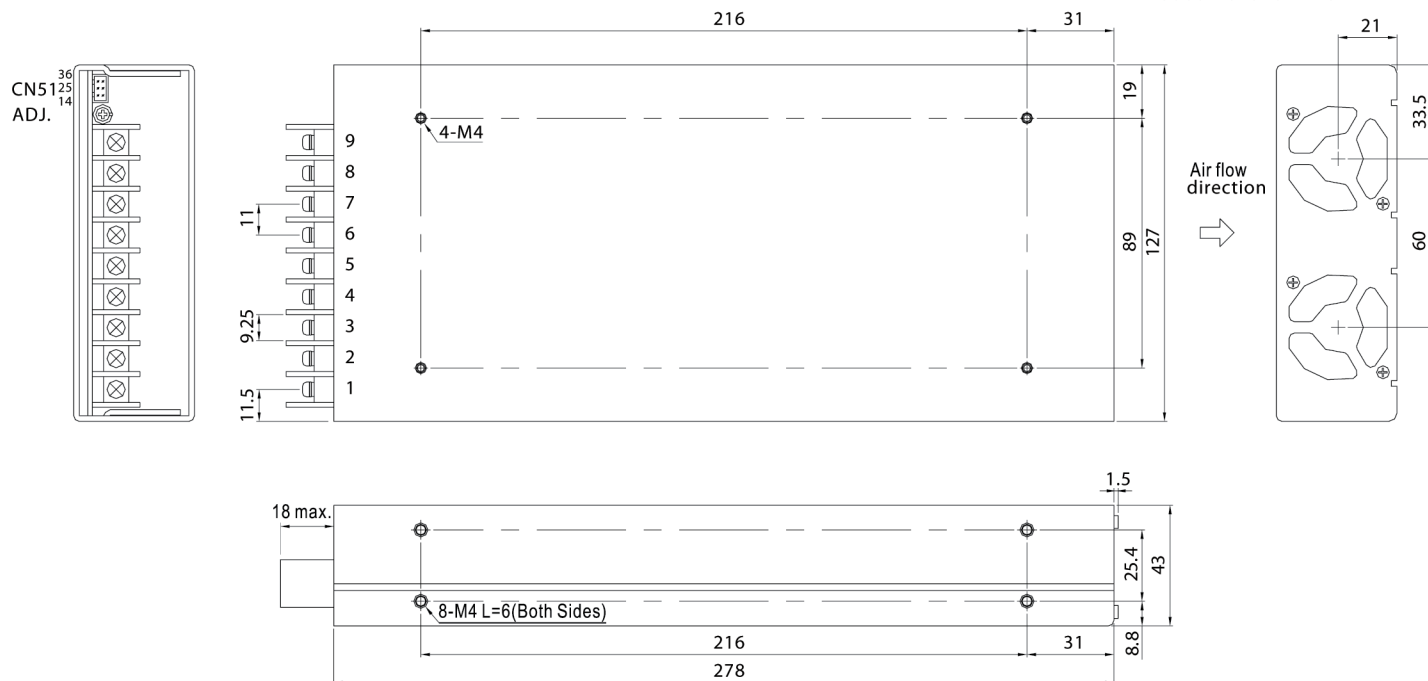
All specifications are typical at nominal input, full load, and 25°C unless otherwise noted

480W Single Output with PFC Function

SP480 series

Mechanical Specification

Case No. 929A Unit:mm



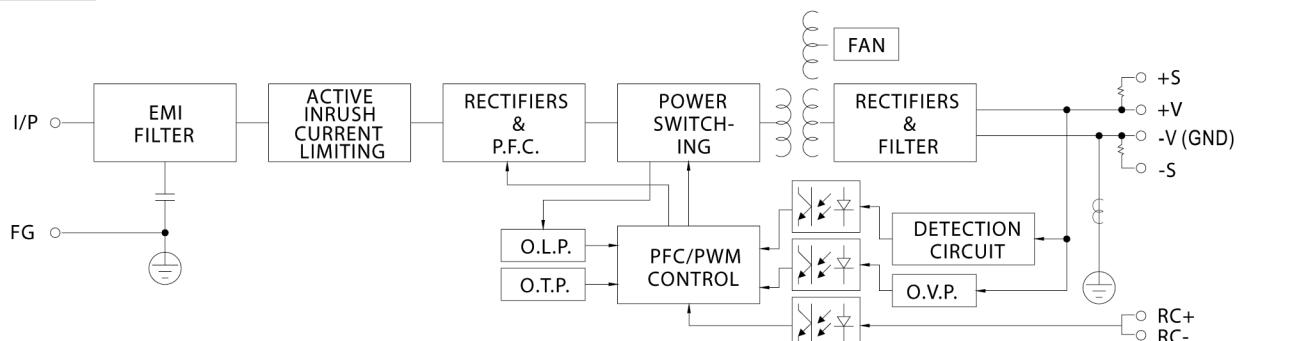
Terminal Pin No. Assignment :

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4~6	-V
2	AC/N	7~9	+V
3	FG		

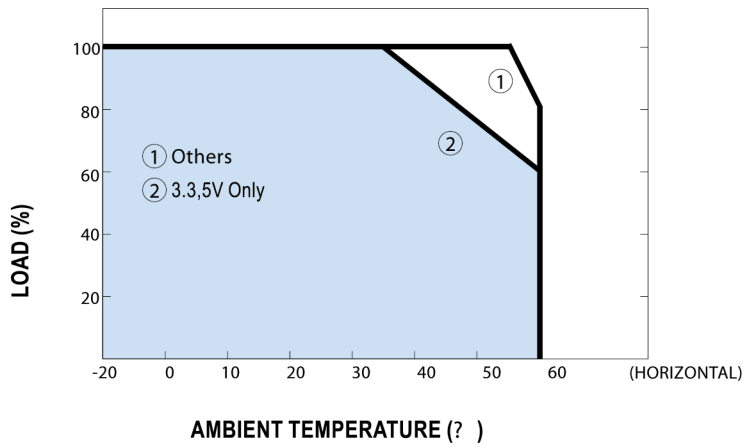
Connector Pin No. Assignment (CN51) : HRS DF11-6DP-2DS or equivalent

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



■ Derating Curve



■ Static Characteristics

