

Features:

1. Wide input range (90-305VAC)
2. Size 232*81*31mm
3. Protection type: short circuit/over load/over voltage/ over temperature
4. Operating temperature range: -30°C to +70°C
5. 3000V isolation voltage
6. Active PFC function
7. 100% high temperature burn-in and function test
8. 3 years warranty



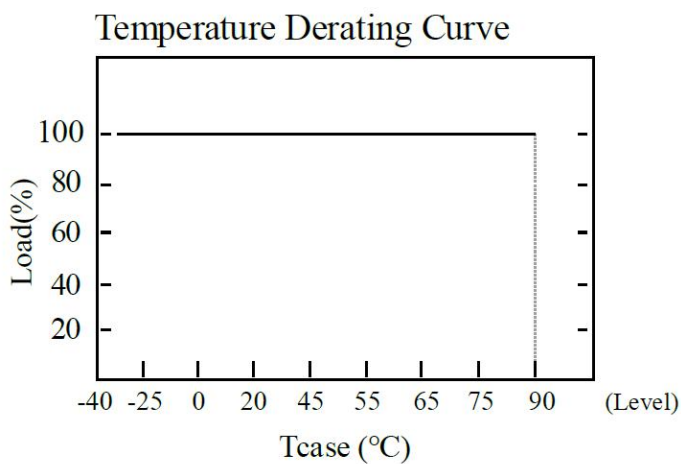
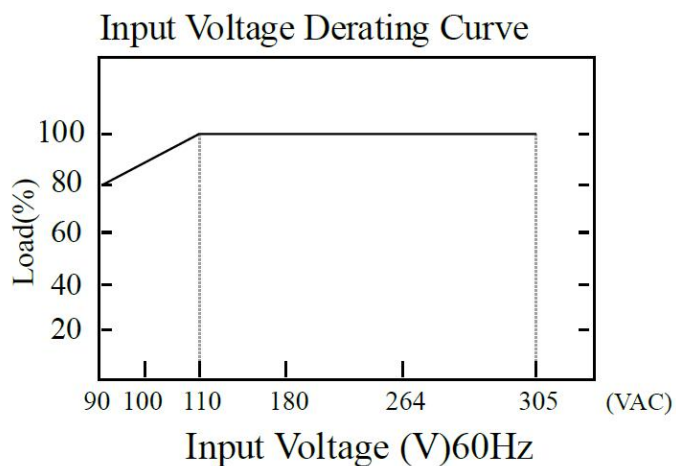
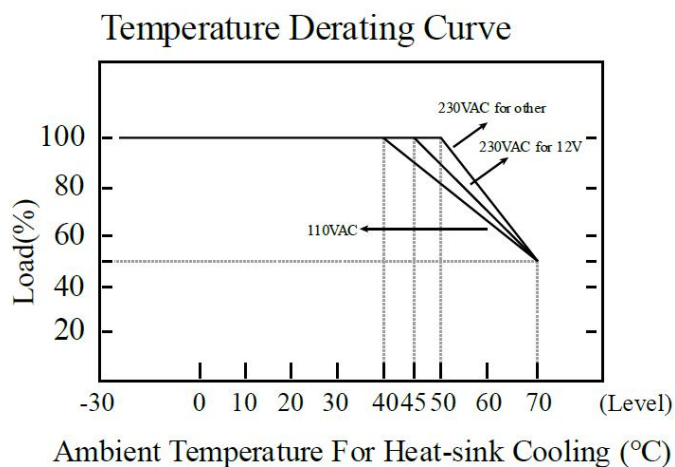
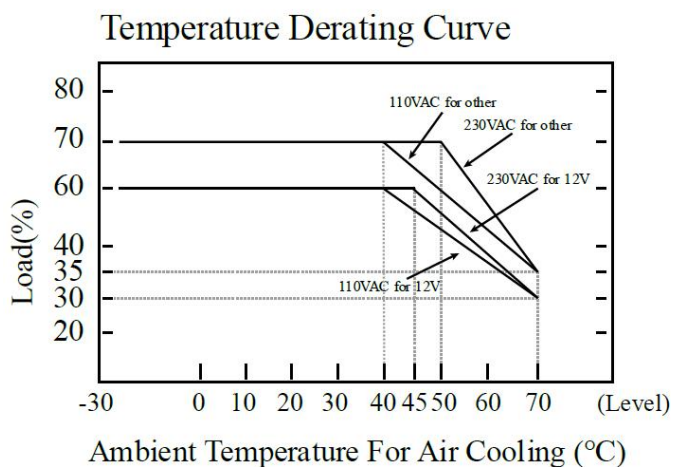
3 years
Warranty

Selection Guide

Model	Input Voltage	Rated Power (W)	Output Voltage (V)	Voltage Adjustable Range (V)	Output Current (A)	Ripple & Noise (mVp-p)	Efficiency (%)
SMP500-S05	90-305VAC	400	5	4.5-5.5	80	200	90
SMP500-S12		500	12	12-14.4	41.7	200	94
SMP500-S24		501	24	22.8-25.2	20.9	240	94.5
SMP500-S36		500	36	34.2-37.8	13.9	360	95
SMP500-S48		501	48	45.6-50.4	10.45	360	95
SMP500-S80		500	80	75-85	6.25	400	95

OUTPUT	Voltage Tolerance	±2.0%						
	Line Regulation	±1.0%						
	Load Regulation	±1.0%						
	Setup, Rise Time (Typ.)	1000ms, 50ms/230VAC 1500ms, 50ms/115VAC at full load						
	Hold Up Time (Typ.)	12ms/230VAC 12ms/115VAC at full load						
INPUT	Voltage Range	90-305VAC						
	Power Factor (Typ.)	PF≥0.95/230VAC PF≥0.98/115VAC at full load						
	Current (Typ.)	10.1A/115VAC 5.3A/230VAC						
	Inrush Current (Typ.)	Cold boot 20A/115VAC 40A/230VAC						
	Leakage Current (Typ.)	<1mA/230VAC/50Hz						
PROTECTION	Over Load	≥110% load, recovers automatically after fault condition is removed						
	Short Circuit	Hiccup mode, recovers automatically after fault condition is removed						
	Over Temperature	Turn off the output voltage, and it can automatically recover after the temperature drops						
	Over Voltage	Output voltage limit						
		Voltage	5VDC	12VDC	24VDC	36VDC	48VDC	80VDC
FUNCTION	DC OK Signal	Contact off: power on/DC normal						
		Contact on: power off/DC fault						
		Contact load (maximum): 30VDC/1A resistive load						
ENVIRONMENT	Working Temp.	-30°C to +70°C (Refer to "Derating curve")						
	Working Humidity	85%RH max						
	Storage Temp., Humidity	-40°C to +85°C						
	Temp. Coefficient	0.03%/ (0-50°C)						
	Vibration	10-500Hz, 2G, 10min./1cycle, 60min.each along X, Y, Z axes						
SAFETY & EMC (NOTE 3.)	Safety Standards	EN62368, UL62368						
	Isolation Voltage	I/P-O/P: 3000VAC I/P-FG(CASE): 1500VAC O/P-FG(CASE): 500VAC						
	Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG: >100M Ohms/500VDC 25°C 70% RH						
	EMC Emission & Immunity	EN55011, EN55032 (CISPR32) CLASS B						
	ESD	IEC/EN 61000-4-2 level 4 Contact ±8kV/Air ±15kV						
	RF	IEC/EN 61000-4-3 level 4						
	EFT	IEC/EN 61000-4-4 level 4 4kV						
	Surge	IEC/EN 61000-4-5 level 4 2kV						
OTHERS	MTBF	662.3K hrs min. MIL-HDBK-217F (25°C)						
	Product Dimension	232*81*31mm (L*W*H)						
	Weight	900g						
	Package	28pcs/carton, G.W. 26KG/carton						
	Carton Size	360*300*250mm						
NOTE	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. The power supply is considered as an independent unit, but the final equipment still need to re-confirm that the whole system complies with the EMC directives.							

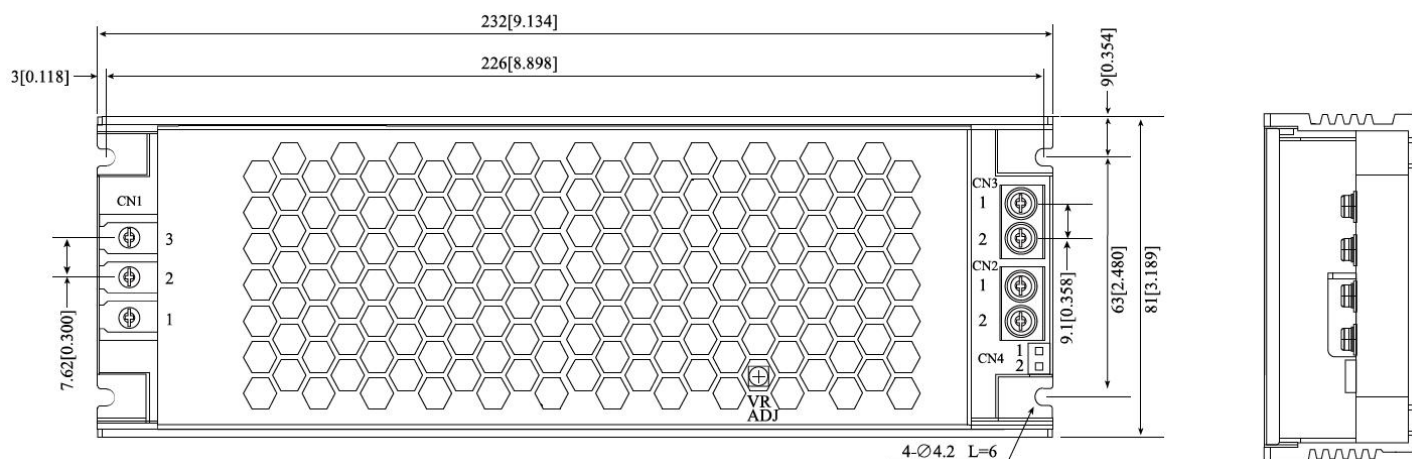
Derating Curve

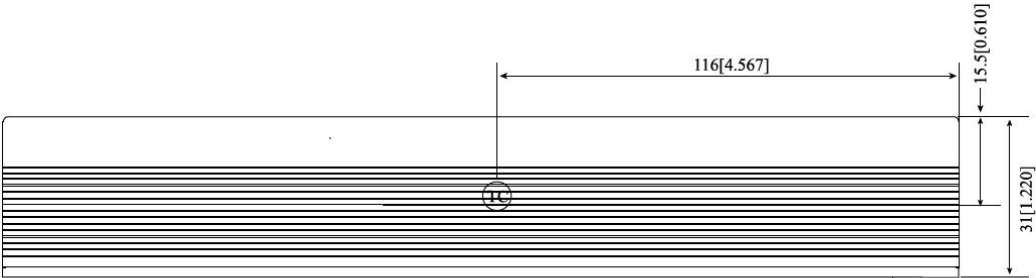


Note:

1. For input voltages of 90-100VAC/120-140VDC, input voltage derating should be performed on the basis of temperature derating.
2. This product is suitable for use in natural air cooling environments. If used in a closed environment, please consult our technical personnel.

Dimensions & Function

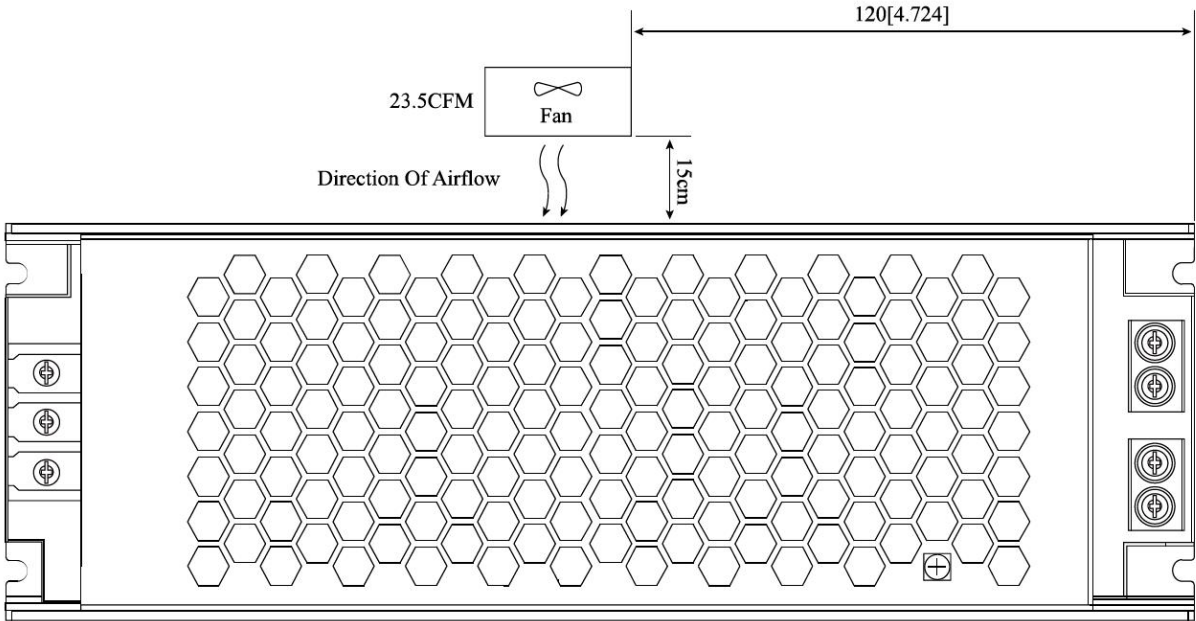
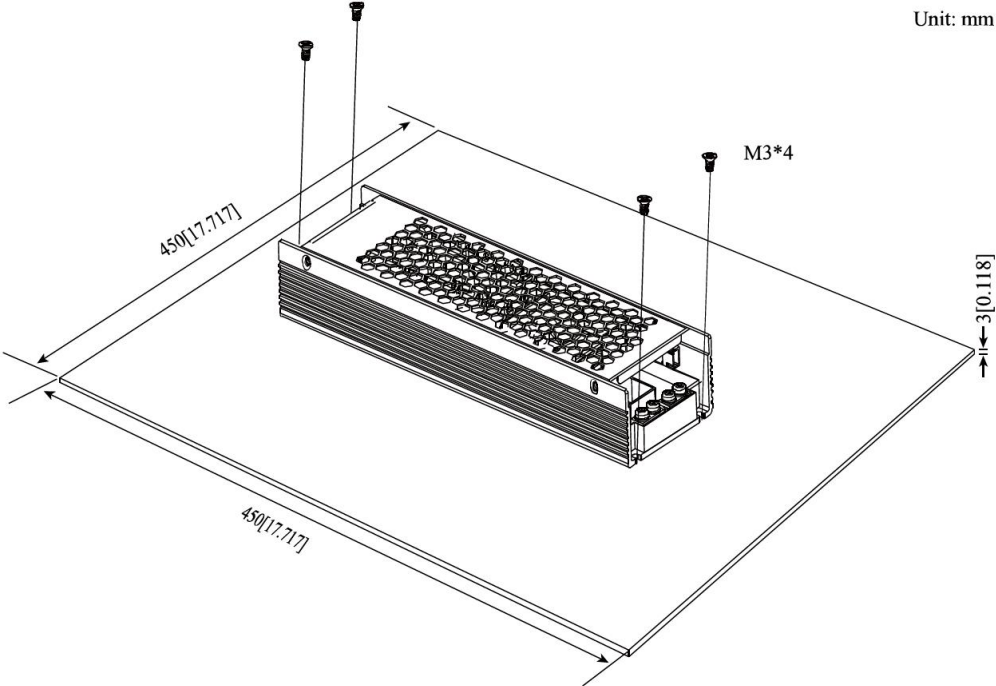




(TC) :Maximum Casing Temperature

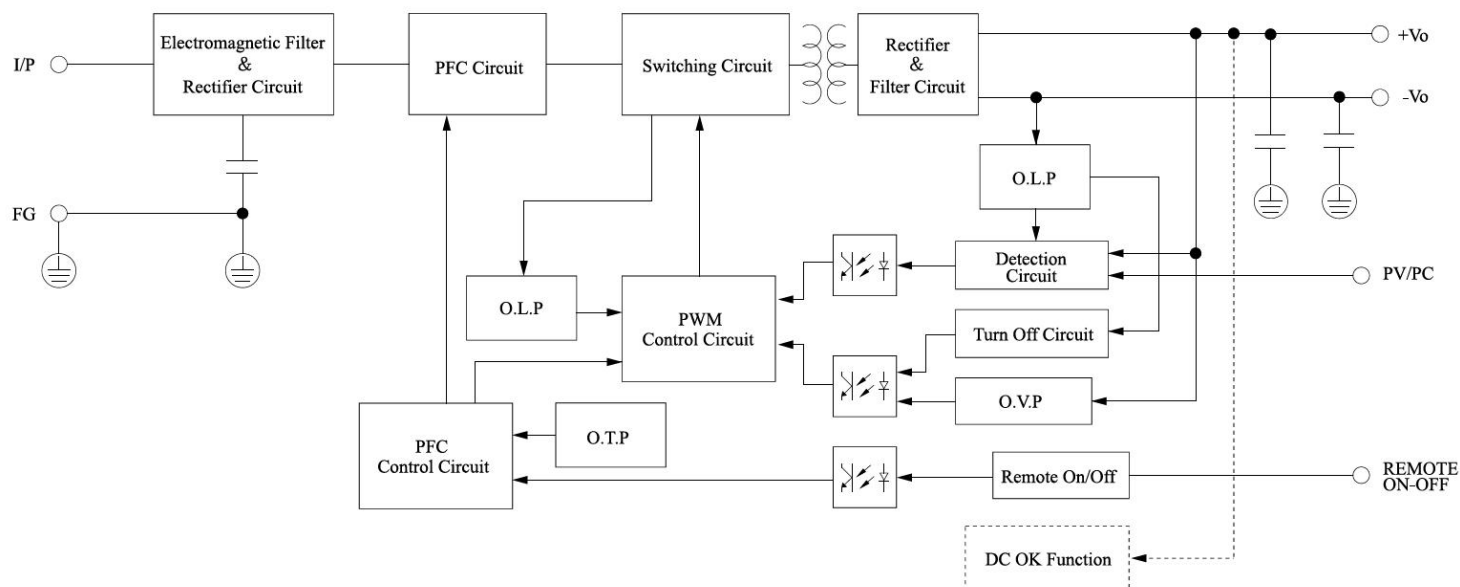
Pin	Function			
	CN1	CN2	CN3	CN4
1	AC(L)	+Vo	-Vo	DC COM1
2	AC(N)	+Vo	-Vo	DC COM2
3	FG	/	/	/

Extra aluminum plate
In order to meet the "Derating Curve", the SMP500 series must install aluminum plates at the bottom. The recommended aluminum plate sizes are as follows. In order to optimize thermal performance, the aluminum plate must have a uniform and smooth surface (or coated with thermal grease), and the SMP500 series must be firmly installed in the center of the aluminum plate.



NOTE: Unit size: mm[inch] Unmarked tolerances: ±0.5mm

Product Schematic



Notes:

1. If the product works under the minimum required load, it cannot guarantee that the performance of the product complies with all the performance indicators in this manual;
2. The maximum capacitive load is tested under the input voltage range and full load condition;
3. Unless otherwise stated, all indexes in this manual are measured at $T_a=25^{\circ}\text{C}$, humidity $<75\%\text{RH}$, nominal input voltage and rated output load;
4. All index testing methods in this manual are based on the enterprise standards of the company;
5. Our company can provide product customization, specific needs can directly contact our technical staff;
6. AMCHARD reserves the right to make changes to the product at any time without notice.

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