



Features:

- Universal AC input 90~264VAC
- Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- 1U low profile 30mm
- 100% full load burn-in test
- LED indicator for power on
- High reliability
- 3 years warranty
- Compliance to IEC/EN/UL 62368-1

Specification

MODEL		SMF-250-5	SMF-250-7.5	SMF-250-12	SMF-250-15	SMF-250-24	SMF-250-36	SMF-250-48	
INPUT	VOLTAGE RANGE	90~264VAC 127~370VDC(refer to 'static characteristic')							
	FREQUENCY RANGE	47~63Hz							
	POWER FACTOR(Typ.)	PF>0.95/230VAC PF>0.98/115VAC at full load							
	EFFICIENCY(Typ.)	87%	89%	89%	89%	90%	90%	90.5%	
	AC CURRENT(Typ.)	3A/115VAC		1.5A/230VAC					
	INRUSH CURRENT(Typ.)	20A/115VAC		40A/230VAC (cold start)					
	LEAKAGE CURRENT	<1mA/240VAC							
OUTPUT	DC VOLTAGE	5V	7.5V	12V	15V	24V	36V	48V	
	RATED CURRENT	40A	26.7A	21A	16.7A	10.5A	7A	5.3A	
	CURRENT RANGE	0~40A	0~26.7A	0~21A	0~16.7A	0~10.5A	0~7A	0~5.3A	
	RATED POWER	200W	200.25W	252W	250.5W	252W	252W	254.4W	
	RIPPLE&NOISE (max.)	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p	200mVp-p	
	VOLTAGE ADJ.RANGE	4.5~5.5V	6~9V	10.2~13.8V	13.5~18V	21.6~28.8V	32.4~39.6V	43.2~52.8V	
	VOLTAGE TOLERANCE	±3%	±2%	±1.5%	±1%	±1%	±1%	±1%	
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	
	LOAD REGULATION	±2%	±1%	±1%	±1%	±0.5%	±0.5%	±0.5%	
	SETUP, RISE TIME	1500ms,50ms/230VAC 3000ms,50ms/115VAC							
	HOLD UP TIME(Typ.)	8ms/230VAC 8ms/115VAC							
PROTECTION	OVER LOAD	110%~140% rated output power Protection type: Constant current limiting>3s, then hiccup, recovers automatically after fault condition is removed							
	OVER VOLTAGE	5.75~6.75V	9.4~10.9V	13.8~16.2V	18.8~21.8V	28.8~33.6V	41.4~48.6V	55.2~64.8V	
	OVER TEMPERATURE	Protection type: Hiccup mode, recovers automatically after fault condition is removed							
ENVIRONMENT	WORKING TEMP.,HUMIDITY	-30~+70°C (Refer to "Derating curve") , 20~90%RH non-condensing							
	STORAGE TEMP.,HUMIDITY	-40~+85°C, 10~95%RH							
	TEMP. COEFFICIENT	±0.03%/°C (0~50°C)							
	VIBRATION	10~500Hz, 2G 10min./1 cycle, each along X、Y、Z axes							

Safety and electromagnetic compatibility	Safety standards	Refer to UL62368-1,TUV EN62368-1,CCC GB4943.1		
	Withstand voltage and isolation resistance	I/P-O/P: 3KVac; 100MΩ / 500Vdc / 25°C / 70%RH		
		I/P-FG: 2KVac; 100MΩ / 500Vdc / 25°C / 70%RH		
		O/P-FG: 0.5KVac; 100MΩ / 500Vdc / 25°C / 70%RH		
	Electromagnetic	Parameter	Standard	Test Level / Note
		Conducted emission	BS EN/EN55032(CISPR32),FCC PART 15 / CISPR22 ,GB9254.1	Class B
		Radiated emission	BS EN/EN55032(CISPR32),FCC PART 15 / CISPR22 ,GB9254.1	Class B
		Harmonic current	BS EN/EN61000-3-2,GB17625.1	Class A
	Electromagnetic compatibility immunity	Voltage flicker	BS EN/EN61000-3-3	----
		BS EN/EN55035		
		Parameter	Standard	Test Level /Note
		ESD	BS EN/EN61000-4-2	Level 4, 8KV air, Level 2, 4KV contact, criteria A
		RF field susceptibility	BS EN/EN61000-4-3	Level 3, criteria A
		EFT bursts	BS EN/EN61000-4-4	Level 3, criteria A
Surge susceptibility		BS EN/EN61000-4-5	Level 3, 1KV/L-N, 2KV/L/N-FG criteria A	
Conducted susceptibility		BS EN/EN61000-4-6	Level 3, criteria A	
Magnetic field immunity		BS EN/EN61000-4-8	Level 4, criteria A	
Voltage dips and interruptions	BS EN/EN61000-4-11	>95% dip 0.5 periods, 30% dip 25 periods , >95% interruptions 250 periods		
OTHERS	MTBF	≥300Khrs MIL-HDBK-217F(25°C)		
	DIMENSION	215*115*30mm(L*W*H)		
	PACKING	0.8Kg; 15pcs/13Kg/0.74CUFT		
NOTE	<ol style="list-style-type: none"> All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor. Tolerance: includes set up tolerance, line regulation and load regulation. Line regulation is measured from low line to high line at rated load. Load regulation is measured from 0% to 100% rated load Length of set up time is measured at cold first start, Turning ON/OFF the power supply very quickly may lead to increase of the set up time. The ambient temperature derating of 5°C/1000m is needed for operating altitude great than 2000m(6500ft). 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. 			

Mechanical specification

Customer plate
SMPS Cover

NOTE:
Unit: mm
ADJ: Output adjustable resistor
Torque: M3.5, 0.8N · m Max
TOL: ±1.00

Position No.	Screw Size	L max	Torque max
⑤ - ⑧	M4	3mm	0.9N · m
① - ④	M4	5mm	0.9N · m

Screw Terminal			
Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4,5,6	DC OUTPUT -
2	AC/N	7,8,9	DC OUTPUT +
3	FG		

Block diagram

