



**Features:**

- Universal AC input range
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Withstand 300VAC surge input for 5 second
- No load power consumption<0.5W
- Cooling by free air convection
- 100% full load burn-in test
- LED indicator for power on
- Operating altitude up to 5000m
- High reliability
- 3 years warranty
- Compliance to IEC/EN/UL 61558-1、CE、CCC、UL、CB
- Comply with RoHS

**Specification**

MODEL		SM150-5	SM150-7.5	SM150-12	SM150-15	SM150-24	SM150-27	SM150-36	SM150-48
INPUT	VOLTAGE RANGE	85~264Vac 120~370Vdc (refer to 'static characteristic')							
	FREQUENCY RANGE	47~63Hz							
	EFFICIENCY(Typ.)	85%	86%	87%	88%	89%	89%	90%	90%
	AC CURRENT(Typ.)	3A/115Vac 1.7A/230Vac							
	INRUSH CURRENT(Typ.)	30A/115Vac 60A/230Vac (cold start) (Lower inrush current was optional)							
	LEAKAGE CURRENT	<0.75mA/240Vac							
OUTPUT	DC VOLTAGE	5V	7.5V	12V	15V	24V	27V	36V	48V
	RATED CURRENT	22A	16A	12.5A	10A	6.5A	5.6A	4.4A	3.3A
	CURRENT RANGE	0-22A	0-16A	0-12.5A	0-10A	0~6.5A	0~5.6A	0~4.4A	0~3.3A
	RATED POWER	110W	120W	150W	150W	156W	151.2W	158.4W	158.4W
	RIPPLE&NOISE(max.)	100mVp-p	150mVp-p	150mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p
	VOLTAGE ADJ. RANGE	4.5~5.5V	6.75 ~ 8.25V	10.2~13.8V	13.5~18V	21.6~28.8V	24.5~30V	32.4~39.6V	43.2~52.8V
	VOLTAGE TOLERANCE	±1%	±1%	±1%	±1%	±1%	±1%	±1%	±1%
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±1%	±1%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	SETUP, RISE TIME	500ms,30ms/230Vac 500ms,30ms/115Vac							
	HOLD UP TIME(Typ.)	16ms/230Vac 10ms/115Vac							
PROTECTION	OVERLOAD	105%~150% rated output power Protection type: Hiccup mode ,recovers automatically after fault condition is removed.							
	OVER VOLTAGE	5.75~6.75V	10.4~12.5V	14.2~17V	18.2~22.5V	28.8~33.6V	31~35V	40~46.5V	55.2~64.8V
	OVER TEMPERATURE	Protection type: Shutdown, recovers automatically when the temperature go down							
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, 5G 10min./1 cycle, each along X、Y、Z axes							

Safety and electromagnetic compatibility	Safety standards	Refer to UL/EN62368-1, GB4943.1, EN60335-1,EN61558-1/-2-16			
	Withstand voltage and isolation resistance	I/P-O/P: 4.2KVac; 100MΩ / 500Vdc / 25°C / 70%RH I/P-FG: 2.1KVac; 100MΩ / 500Vdc / 25°C / 70%RH O/P-FG: 1.25KVac; 100MΩ / 500Vdc / 25°C / 70%RH			
	Electromagnetic compatibility emission	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(≤80% Load)
	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 4, 2KV/L-N, 4KV/L/N -FG criteria A	
Conducted susceptibility		BS EN/EN61000-4-6		Level 3, criteria A	
OTHERS	MTBF	≥ 600Khrs MIL-HDBK-217F(25°C)			
	DIMENSION	159*97*30mm(L*W*H)			
	PACKING	0.4Kg; 30pcs/ 13Kg/ 0.91CUFT			
NOTE	<p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF &amp; 47uF parallel capacitor.</p> <p>3. Tolerance: includes set up tolerance, line regulation and load regulation.</p> <p>4. Line regulation is measured from low line to high line at rated load.</p> <p>5. Load regulation is measured from 0% to 100% rated load</p> <p>6. 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.</p> <p>7. The ambient temperature derating of 5°C/100m is needed for operating altitude great than 2000m(6500ft).</p> <p>8. 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.</p>				

### Mechanical specification

**Top View**

159.0, 152.8, 78.0, 4.5, 24.0, 8.0, 9.5, 1, 2, 3, 4, 5, 6, 7, LED, SVR1, 2-M3 L=3, 32.0, 3.5, 85.2, 97.0, 6.3

**Front View**

150.0, 2.5, 21.8, 117.2, 29.5, 26.2, 15.1, 3.5, 18.0, 3.5, 14.5, 6.0, 3-M3 L=5

Customer plate, SMPS Cover, L

**NOTE:**  
Unit: mm  
SVR1: Output adjustable resistor  
Torque: M3.5, 0.8N·m Max  
TOL: ±1.00

Position No.	Screw Size	L max	Torque max
1-3	M3	5mm	0.4N·m
4-5		3mm	

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

### Block diagram

