SM150 -xxP2 series

150W single Output Switching power

Features:

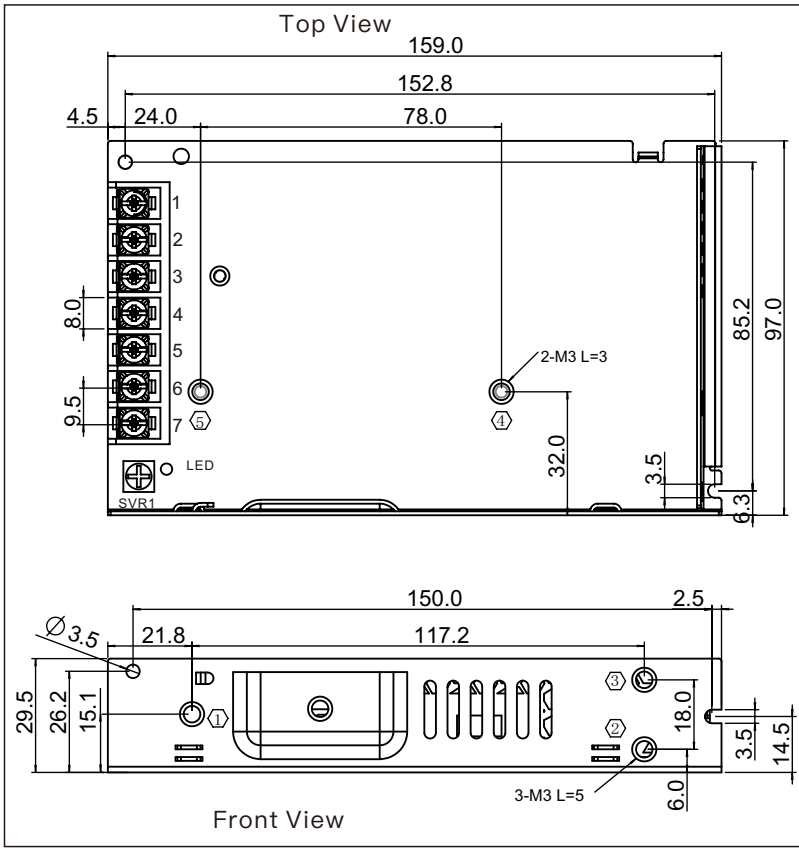
- Universal AC input range
- Protections：Short circuit / Overload / Over voltage / Over temperature
- Withstand 300VAC surge input for 5 second
- No load power consumption<0.5W
- Cooling by free air convection
- 100% full load burn-in test
- LED indicator for power on
- Operating altitude up to 5000m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

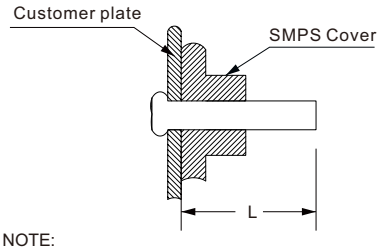
Specification

MODEL		SM150-5P2	SM150-7.5P2	SM150-12P2	SM150-15P2	SM150-24P2	SM150-27P2	SM150-36P2	SM150-48P2
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
	RATEDCURRENT	22A	16A	12.5A	10A	6.5A	5.6A	4.4A	3.3A
	CURRENTRANE	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	OVER LOAD	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
		Protection type：Shutdown, recovers after repower on							
	OVER TEMPERATURE	Protection type：Shutdown, recovers automatically when the temperature go down							
ENVIRONIMENT	WORKING TEMP.,HUMIDITY	-30～+70℃ (Refer to "Derating curve") , 20～90%RH non-condensing							
	STORAGE TEMP.,HUMIDITY	-40～+85℃, 10～95%RH							
	TEMP. COEFFICIENT	±0.03%/℃ (0～50℃)							
	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℃ / 70%RH I/P-FG: 2.1KVac; 100MΩ / 500Vdc / 25℃ / 70%RH O/P-FG: 1.25KVac; 100MΩ / 500Vdc / 25℃ / 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)
		Voltage flicker	BS EN/EN61000-3-3	----
	Electromagnetic compatibility immunity	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
		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	⩾ 600Khrs MIL-HDBK-217F(25℃)		
	DIMENSION	159*97*30mm(L*W*H)		
	PACKING	0.43Kg; 30pcs/ 13.9Kg/ 0.91CUFT		
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ 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. Line regulation is measured from low line to high line at rated load. 5. Load regulation is measured from 0% to 100% rated load 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. 7. The ambient temperature derating of 5℃/1000m is needed for operating altitude great than 2000m(6500ft). 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.			

Mechanical specification





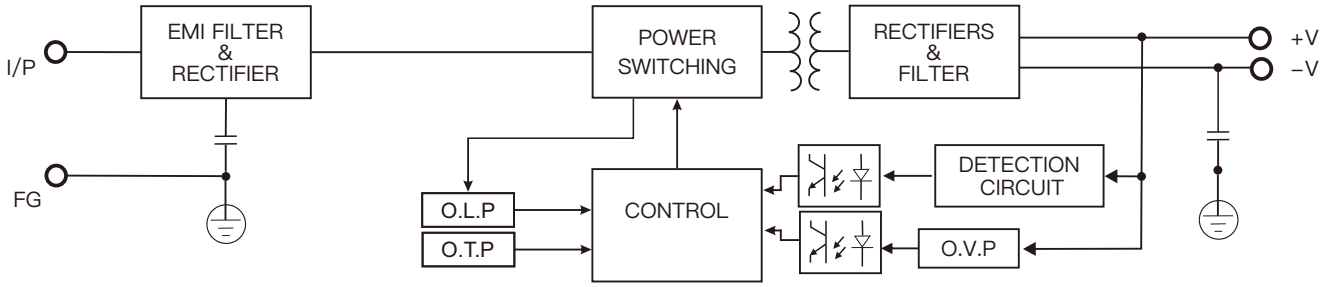
NOTE:
Unit: mm
SVR1:Output adjustable resistor
Torque:M3.5, 0.8N • m Max
TOL: ±1.00

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

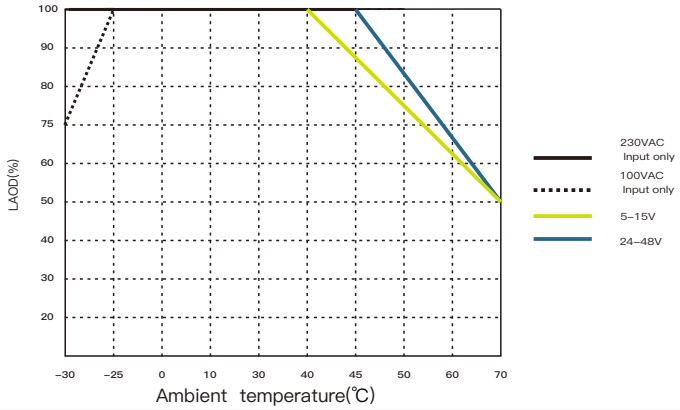
Screw Terminal

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



Derating curve



Static characteristics