

SM75 series

75W single Output Switching Power Supply





Features:

- Universal AC input / Full range
- Withstand 300VAC surge input for 5 second
- No load power consumption < 0.3W
- Miniature size and 1U Low profile
- High operating temperature up to 70 °C Protections: Short circuit /Over load /Over voltage
- Cooling by free air convection
- Refer to IEC/EN 60335-1(PD3) and IEC/EN61558-1,-2,-16 For household appliances
- Operating altitude up to 5000 meters
- Withstand 5G vibration test
- High efficiency, long life and high reliability
- LED indicator for power on
- Over voltage category III
- 100% full load burn-in test
- 3 years warranty

Specification				ı	T.		ı		
MODEL		SM75-5	SM75-12	SM75-15	SM75-24	SM75-36	SM75-48		
	VOLTAGE RANGE	85~264Vac 120~370Vdc(refer to 'static characteristic')							
	FREQUENCY RANGE	47~63Hz							
INPUT	EFFICIENCY(Typ.)	87%	88%	88.5%	90%	91.5%	91.5%		
INFOT	AC CURRENT(Typ.)	1.6A/115Vac 1A/230Vac							
	INRUSH CURRENT(Typ.)	65A/230Vac (cold start)							
	LEAKAGE CURRENT	<0.75mA/240Vac							
	DC VOLTAGE	5V	12V	15V	24V	36V	48V		
	RATED CURRENT	14A	6A	5A	3.2A	2.1A	1.6A		
	CURRENT RANGE	0~14A	0~6A	0~5A	0~3.2A	0~2.1A	0~1.6A		
	RATED POWER	70W	72W	75W	76.8W	75.6W	76.8W		
	RIPPLE&NOISE(max.)	100mVp-p	120mVp-p	120mVp-p	150mVp-p	200mVp-p	200mVp-p		
OUTPUT	VOLTAGE ADJ.RANGE	4. 5∼5.5V	10.2~13.8V	13.5~18V	21.6~28.8V	32.4~39.6V	43.2~52.8V		
	VOLTAGE TOLERANCE	±2%	±1%	±1%	±1%	±1%	±1%		
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%		
	LOAD REGULATION	±1%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%		
	SETUP, RISE TIME	500ms,30ms/230Vac 500ms,30ms/115Vac at full load							
	HOLD UP TIME(Typ.) 50ms/230Vac 10ms/115Vac at full load								
	OVER LOAD	110%~160% rated output power							
PROTECTION	OVER LOAD	Protection type: Hiccup mode , recovers automatically after fault condition is removed.							
PROTECTION	01/50 1/01/54.05	5.75~6.75V	13.8~16.2V	18.8~21.8V	28.8~33.6V	41.4~48.6V	55.2~64.8V		
	OVER VOLTAGE	Protection type: Shutdown o/p voltage , re-power on to recover							
	WORKING TEMP	-30~+70°C (Refer to 'derating curve')							
	WORKING HUMIDITY	20~90% RH non-condensing							
	STORAGE TEMP,HUMIDITY	-40∼+85°C, 10∼95% RH non-condensing							
ENVIRONIMENT	TEMP. COEFFICIENT	±0.03%/°C (0~50°C)							
	VIBRATION	10∼500Hz, 5G 10min./1 cycle, period for 60 min. each along X、Y、Z axes							
	OVER VOLTAGE CATEGORY	III; Refer to UL61558; EN50178; EN60664-1,EN62477-1;altitude up to 2000 meters							



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	Safety standards	Refer to UL62368-1,TUV EN62368-1,CCC GB4943.1,IEC/EN 60335-1(PD3) and IEC/EN61558-1,-2,-16					
		I/P-O/P: 4KVac; 100MΩ / 500Vdc / 25°C / 70%RH					
	Withstand voltage and isolation resistance	I/P-FG: 2KVac; 100MΩ / 500Vdc / 25°C / 70%RH					
	isolation resistance	O/P-FG: 1.25KVac; 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			
		Voltage flicker	BS EN/EN61000-3-3				
Safety and		BS EN/EN55035					
electromagnetic		Parameter	Standard	Test Level /Note			
compatibility		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			
	Electromagnetic	EFT bursts	BS EN/EN61000-4-4	Level 3, criteria A			
	compatibility immunity	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			
	MTBF	≥585Khrs MIL-HDBK-217F(25°C)					
OTHERS	DIMENSION	104*82*30mm(L*W*H)					
	PACKING	0.23Kg; 60pcs/ 14.8Kg/ 1.03CUFT					
NOTE	 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. 						

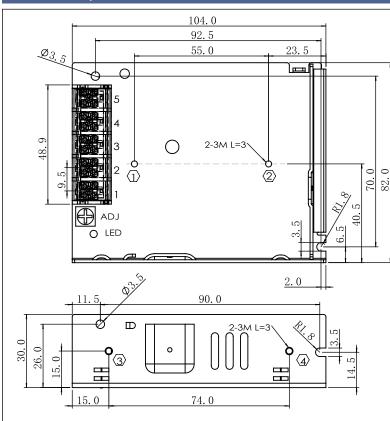


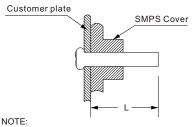
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Mechanical specification





Unit: mm ADJ:Output adjustable resistor Torque:M3.5, 0.8N • m Max

TOL: ±1.00

Position No.	Screw Size	L max	Torque max	
1-2	M3	3mm	0.4N • m	
3-4	CIVI	JIIIII		

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

Block diagram EMI FILTER **RECTIFIERS POWER** +V & RECTIFIER & FILTER **SWITCHING** O -V DETECTION FG CIRCUIT CONTROL O.L.P O.V.P

