



RoHS

Key features

- Low ripple and noise
- Output overload protection ,short circuit protection
- High efficiency, high density, fine quality and low price
- Industrial design
- Lower power, RoHS
- 100% test and work
- 3 years product warranty

SM100 series --- a metal mesh switching power supply offered by Zhongyiguang. The output power of this series module power supply is 100W, with low leakage current,which is only 1mA, the size of (159*99*38mm) and isolated pressure up to 3kv,etc. The product is safe and reliable, which has a good EMC. EMC and safety specifications meet the IEC/EN61000-4, CISPR22/EN55022, UL60950/EN60950/EN60601 and other related standards. This series of products are widely used in industrial, office and civil industries, such as applied to a relatively harsh environment electromagnetic compatibility must refer to the application circuit.

Electrical specifications

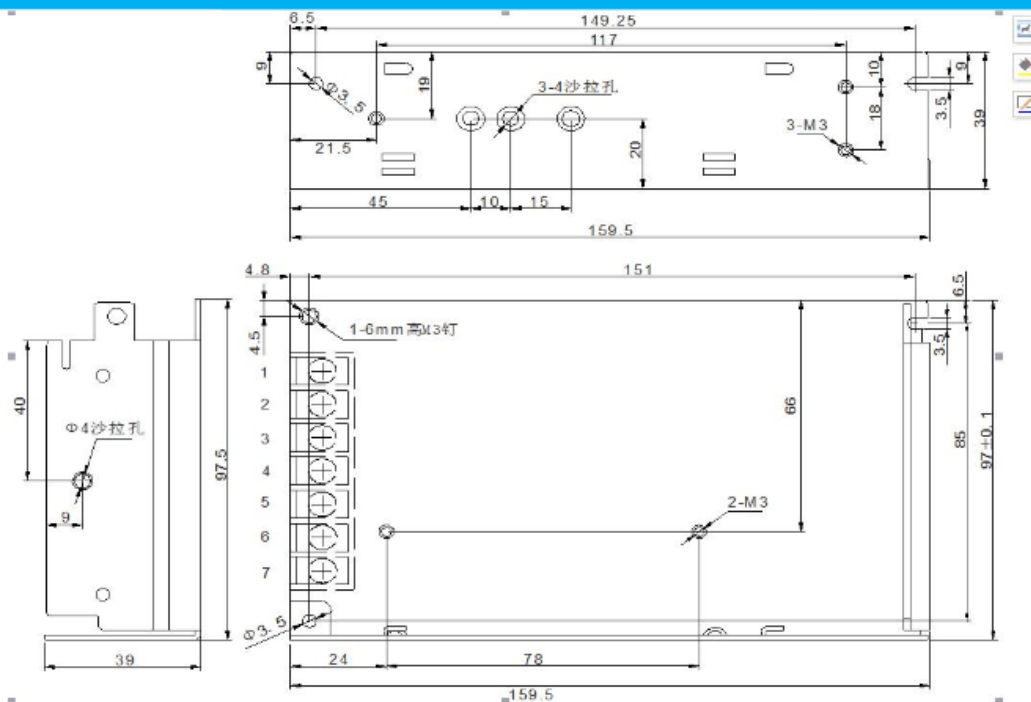
Model	Input voltage	Input current	Output Power(W)	Output voltage(V)	Output current(A)	Ripple(mv)	Efficiency (%)
SM100-S05	85-264VAC	1.9A/115VAC 0.96A/230VAC	100	5	16	100	75
SM100-S12	85-264VAC		100	12	8.3	100	82
SM100-S24	85-264VAC		100	24	4.2	100	85
SM100-S36	85-264VAC		100	36	2.77	100	85
SM100-S48	85-264VAC		100	48	2.1	100	85

General features

Output	Output voltage accuracy	±2.0%
	Source effect	±1.0%
	Load effect	±1.0%
	Starting time (TYP)	10ms/230VAC 30ms/115VAC @100%load
	Output hold time (TYP)	40ms/230VAC 15ms/115VAC @100% load
Input	Input voltage range	85-264VAC
	Input frequency range	47 ~ 63Hz
	Input current (TYP)	1.9A/115VAC 0.96A/230VAC
	Inrush current(TYP)	Cold boot 60 A / 230 VAC
	Leakage current (TYP)	< 1mA at 230VAC/50Hz
Protection	Over-current, over-temperature and short circuit protection, automatic recovery after troubleshooting	
Work	Operating Temperature	-40 ~ +70 °C (According to the output load derating)
	Humidity	85% .RH max
	Storage Temperature	-40 ~ +85, 10 ~ 95% RH

Environment	Temperature coefficient	0.03%/ (0~ 50°C)
	Vibration coefficient	10~500Hz,2G10min./1cycle, 60min.each along X,Y,Z axes
Safety and EMC (Note:3)	Safety Standard	Conform to UL1012,EN60950,UL60950
	I/O-Isolation voltage	I/P-O/P:3.0KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC
	Isolation resistance	I/P-O/P,I/P-FG,O/P-FG:>100M Ohms/500VDC 25°C 70% RH
	EMI / RFI conducted	Conform to EN55011, EN55022 (CISPR22)
	ESD	IEC/EN 61000-4-2 level 4 8kV/15kV (Note: See the application circuit for details)
	RF	IEC/EN 61000-4-3 (Note: See the application circuit for details)
	EFT	IEC/EN 61000-4-4 level 4 4kV (Note: See the application circuit for details)
	SURGE	IEC/EN 61000-4-5 level 4 2kV
Others	MTBF	200K hrs min. MIL-HDBK-217F(25)
	Dimension	159*99*38mm (L*W*H)
Notes	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 300mm twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor	
	3. The power supply is considered a component which will be installed into a final equipment.The final equipment must be re-confirmed that it still meets EMC directives	
	4. Output constant current product model with C, such as SPM 30-S12-EA-C, represents output 12V, constant current output.	

Dimension



Terminal	Definition	
1	AC(L)	AC input
2	AC(N)	AC input
3	FG	Ground connection
4,5	-Vo	Negative output
6,7	+Vo	Positive output

Block diagram