



RoHS

### Key features

- Ultra wide input voltage range: 90-460Vac and support AC/DC input
- Low ripple and noise
- Over load protection ,short circuit protection
- High efficiency,high density,fine quality and low price
- Industrial/military design
- Specially designed matching for electrical power unit
- 100% test and work
- 3 Years product warranty

SM20(30)(50) series --- a metal mesh modular special power supply offered by Zhongyiguang. The output power of this series module power supply is 20 (30) (50) W, with the size of (129\*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 UL1012,EN60950,UL60950 and other related standards. This series of products are widely used in medical, 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 ( V )	Output Power(W)	Output voltage(V)	Output current(A)	MAX capacitive load( μ F)	Ripple(mv)	Efficiency (%)
SM20-3S05	380(90-460)	20	5.0	4	1000	100	74
SM20-3S12	380(90-460)	20	12.1	1.66	470	100	78
SM20-3S24	380(90-460)	20	24.0	0.833	100	100	80
SM30-3S05	380(90-460)	30	5.0	6	1000	100	75
SM30-3S12	380(90-460)	30	12.1	2.5	470	100	78
SM30-3S24	380(90-460)	30	24.0	1.25	100	100	82
SM50-3S05	380(165-460)	40	5.0	8	1000	100	75
SM50-3S12	380(165-460)	50	12.1	4.2	470	100	80
SM50-3S24	380(165-460)	50	24.0	2.1	100	100	83

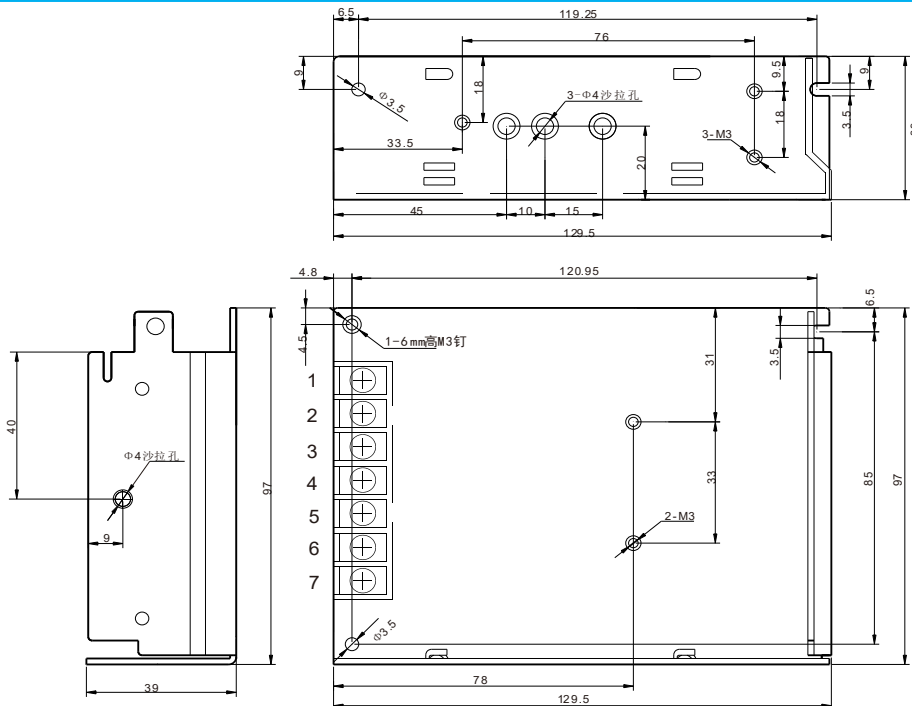
## General features

Output	Output voltage accuracy	±2.0%	
	Source effect	±1.0%	
	Load effect	±1.0%	
	Starting time (TYP)	100ms/230VAC	200ms/115VAC at full load
	Output hold time(TYP)	40ms/230VAC	15ms/115VAC at full load
Input	Input voltage range	90~ 264VAC	80 ~ 370VDC
	Input frequency range	47 ~ 440Hz	
	Input current (TYP)	285m A / 115VAC	175m A / 230VAC
	Inrush current(TYP)	30 A / 230 VAC	



	Leakage current (TYP)	<0.1mA at 265VAC/50Hz
Protection	Over-voltage, over-current and short circuit protection, automatic recovery after troubleshooting	
Work environment	Operating Temperature	-40 ~ +70 °C (According to the output load reduction curve)
	Humidity	85% .RH max
	Storage Temperature	-40 ~ +85, 10 ~ 95% RH
	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:3KVAC 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	EN55011, EN55022 (CISPR22)
	ESD	IEC/EN 61000-4-2 level 4 8kV/15kV
	RF	IEC/EN 61000-4-3
	EFT	IEC/EN 61000-4-4 level 4 4kV
	SURGE	IEC/EN 61000-4-5 level 4 2kV/4kV
	Others	MTBF
Dimension		129*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	

## Dimension



Pin function

Pin	Function
1	AC/L
2	AC/N
3	FG
4, 5	-Vo
6, 7	+Vo



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