



## Key features

- Universal input: 85-264VAC 50/60Hz
- Low ripple (15mV) and noise
- Output overload protection ,short circuit protection
- High efficiency, high density, fine quality and low price
- Lower power, RoHS , no-load loss < 0.5W
- Industrial product design
- 100% test and work
- 3 years product warranty

SF10 series --- a super switching power supply offered by Zhongyiguang. The output power is 10W, with extremely low no-load loss (< 0.1W), low leakage current, which is only 1mA, small size (64\*40\*20mm) and isolation voltage up to 3kv, etc. The product is safe and reliable, which has a good EMC. EMC and Safety specifications meet many related standards, such as IEC/EN61000-4, CISPR22/EN55022, UL60950/ EN60950/ EN60601. This series of products are widely used in smart home, high-end decorative lighting, medical, industrial, office and civil industries. If applied to a relatively harsh environment electromagnetic compatibility, it must be referenced the application circuit.

## Electrical specifications

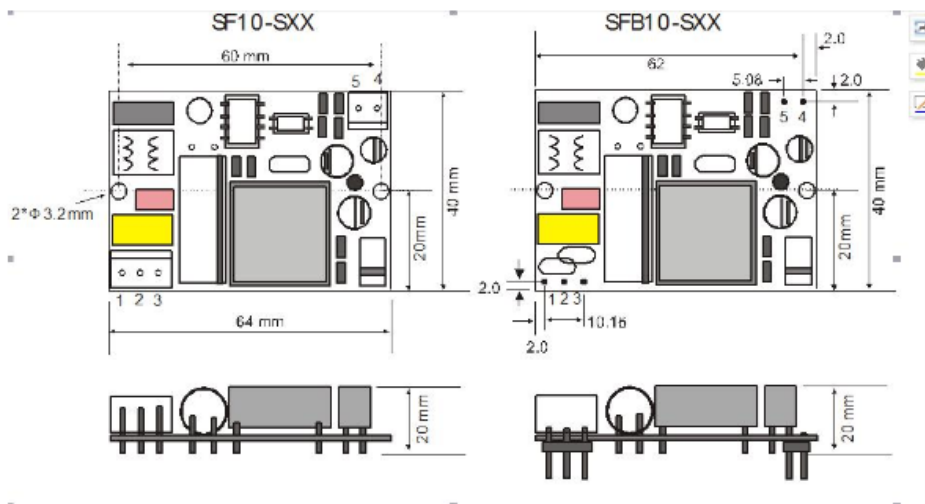
Model	Input voltage	Output Power(W)	Output voltage(V)	Output current(A)	Ripple(mv)	Efficiency (%)
SF10-S03	85-264Vac	6.6	3.3	2	50	74
SF10-S05	85-264Vac	10	5.0	2	50	75
SF10-S09	85-264Vac	10.8	9.0	1.1	50	76
SF10-S12	85-264Vac	10.8	12	0.9	50	78
SF10-S15	85-264Vac	10.5	15	0.7	50	82
SF10-S24	85-264Vac	10.8	24	0.45	50	83

## General features

Output	Output voltage accuracy	±2.0%	
	Source effect	±1.0%	
	Load effect	±1.0%	
	Starting time (TYP)	20ms/230VAC	50ms/115VAC at full load
	Output hold time(TYP)	40ms/230VAC	15ms/115VAC at full load
Input	Input voltage range	85 ~ 264VAC	70 ~ 370VDC
	Input frequency range	47 ~ 440Hz	
	Input current (TYP)	230mA / 115VAC	120m A / 230VAC
	Inrush current (TYP)	Cold boot 20 A / 115 VAC	40 A / 230 VAC
	Recommended values for External Fuses	10Ω/2W	
	Leakage current (TYP)	< 1mA at 230VAC/50Hz	

Protection	Over-current, over-voltage and short circuit protection, automatic recovery after troubleshooting	
Work environment	Operating Temperature	-40 ~ +70 °C (According to the output load derating.)
	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: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	EN55011, EN55022 (CISPR22) CLASS B (Note: See the application circuit for details)
	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)
Others	MTBF	200K hrs min. MIL-HDBK-217F(25)
	Dimension	64*40*20mm (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 definition	
1	AC(N)
2	AC(L)
3	GND
4	-V
5	+V
Pin pitch	SF10-SXX = 3.96mm SFB10-SX X=5.08