

## Features

- Wide voltage input range: 100VAC~240VAC
- With over-current protection, short-circuit protection and other safety applications
- Working temperature range: -25°C~85°C
- Outline dimensions: PCB: (45.2 × 30.2 × 24)mm  
DIN rail mounting: (85.6 × 58.6 × 50)mm

## PRODUCT SELECTION TABLE

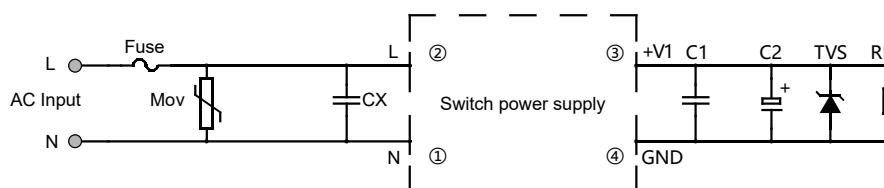
Type	Output Power	Nominal output voltage and current (VO/IO)	Efficiency (230VAC,%/Typ.)	Max. capacitive load (μF)
HFGP4 /10S12-YAW	10W	12V/830mA	75	2000
HFGP4 /10S12-RAW				
HFGP4 /10S24-YAW		24V/410mA	75	470
HFGP4 /10S24-RAW				

## CHARACTERISTIC

Input	Input voltage range	100VAC~240VAC
	Input frequency range	47Hz~63Hz
	Input current	0.23A MAX (@110VAC)
		0.15A MAX (@220VAC)
	Standby power	0.3W MAX
	Hot plug	Not support
Output	Rated output voltage	12VDC,24VDC
	Rated output load	12VDC/830mA;24VDC/410mA
	Output Voltage Accuracy	±5%
	Voltage stability (full load)	±5%
	Load stability (10% to 100% load)	±5%
	Efficiency	≥75%
	Overcurrent Protection	≥120% In, self recovery
	Short circuit protection	Hiiccup mode, self recovery
	Dielectric strength(Between input and output)	≥2500VAC, 3mA, 1min
Common features	Ambient temperature	-25°C~85°C
	Ambient humidity	10%RH~90%RH
	Storage temperature	-40°C~105°C
	Storage humidity	10%RH~90%RH



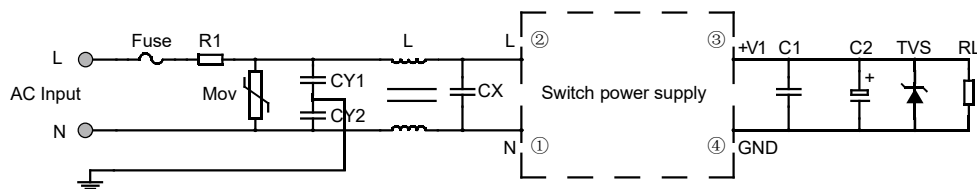
## TYPICAL APPLICATION CIRCUIT DIAGRAM



Type	FUSE	MOV	CX	C1	C2	TVS
HFGP4 /10S12-YAW	1A/250V, Slow fuse	14D561K	0.47 $\mu$ F/305VAC	1 $\mu$ F	1000 $\mu$ F	SMBJ7.0A
HFGP4 /10S24-YAW						

Note: This recommended application circuit diagram is the application circuit diagram of the printed board (except for the rail type, the rail type design has been designed according to this application circuit diagram and can be directly applied), in which the MOV varistor and CX safety capacitor are used to suppress surge and lightning strikes on the input side. C1 is a ceramic capacitor to remove high frequency noise. C2 is a high-frequency low-resistance electrolytic capacitor with a withstand voltage greater than 2 times the rated output voltage, used for energy storage filtering. It is recommended to use TVS tube for anti-post surge lightning strike.

## EMC SOLUTIONS—RECOMMEENDED CIRCUIT

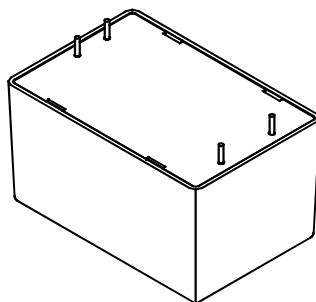
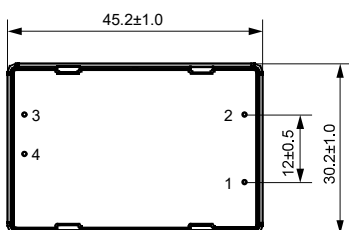
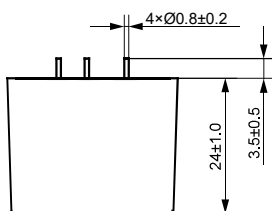
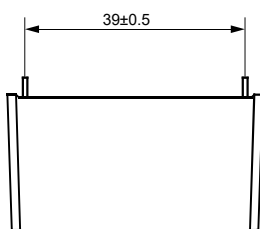


Component model	Recommended value
Fuse	1A/250V, Slow fuse
R1	33 $\Omega$ /3W
MOV	14D561K
CY1	2.2nF/400V
CY2	2.2nF/400V
L	Common Mode Inductance10 mH
CX	0.1 $\mu$ F/305VAC

Note: In order to obtain better EMC performance, it is recommended to design the circuit as above.

## OUTLINE DIMENSIONS,INSTALLATION HOLE POSITION

### PCB type

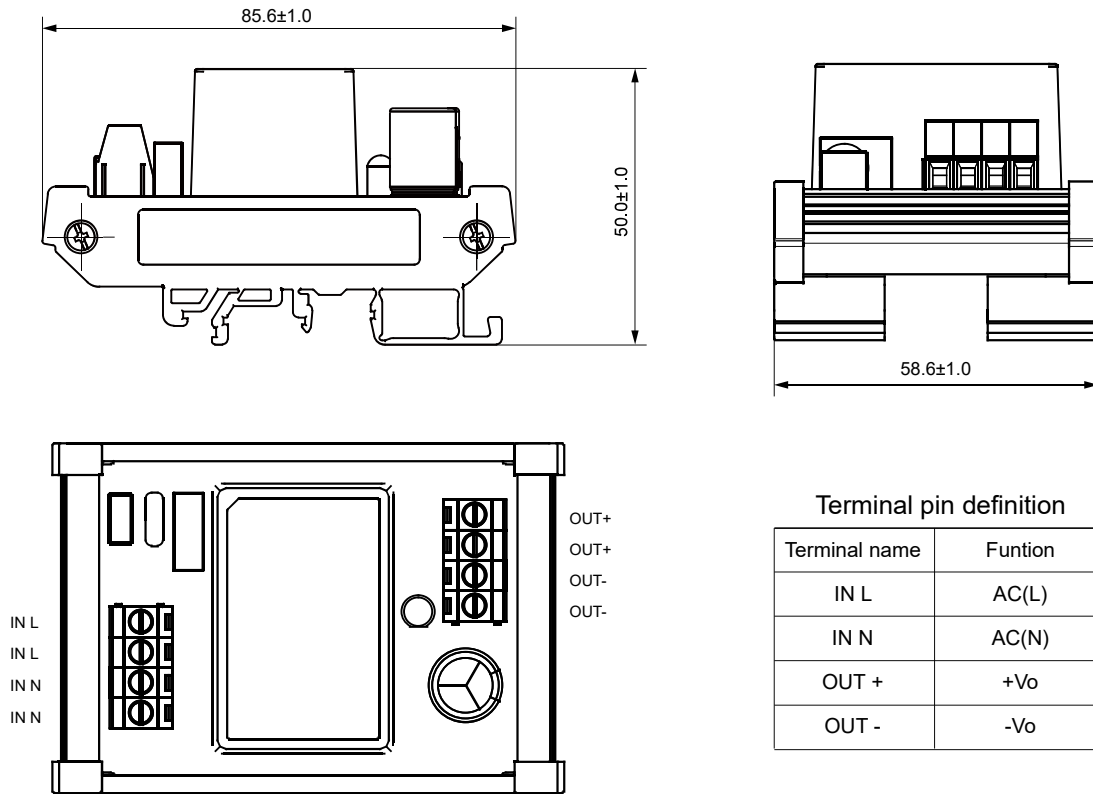


### Terminal pin definition

Terminal No.	Pin	Terminal name
1	AC Input	
2		
3	DC Output	+V1
4		GND

## OUTLINE DIMENSIONS,INSTALLATIONS HOLE

Rail type

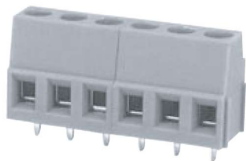


## ORDERING INFORMATION

Type	HFGP4/	10	S	12	-Y	AW	(XXX)
Output power	10: 10W						
Output channel	S: Single output						
Output voltage	12: 12VDC      24: 24VDC						
Installation	Y: PCB type      R: Rail type						
Input voltage	AW: 100 VAC~240 VAC						
Special code	Nil: Standard      XXX: Customer special requirement						

Notes: Special requirements of customers will be expressed as special code after being evaluated by Hongfa.

Annex 1: Wiring terminal parameter table(HFLS1A-508/MAXX)



Features

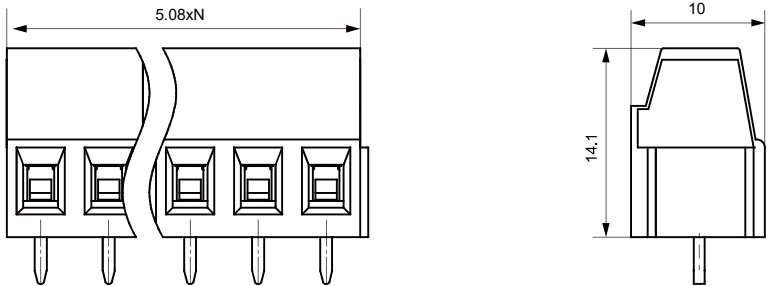
- PCB terminal block, lifting screw connector with pressing frame
- Use screwdriver for disassembly and assembly,with the torque of 0.4N·m

TECHNICAL SPECIFICATION

Rated load	10A 300V(UL Standard)/17.5A 250V(IEC Standard)
Poles	2~24
Pitch	5.08mm
Conductor Cross Section	0.2~2.5mm²(Soild wire/0.25~1.5mm²(Strand wier)
Rated Dielectric Strenth	2200VAC/min
Rated Withstand Pulse Voltage	4kV
Ambient temperature	-40℃~105℃
striping Length	7mm
Tihgtening Torque	0.4N·m
Insulation Material Type/Insulation Material Group	PA/I

OUTLINE DIMENSIONS

Unit: mm



Remark:

- 1) Some outline demensions of the product have no dimensional tolerance noted:outline dimension≤1mm; tolerance should be ±0.2mm; outline dimension>1mm and <5mm, tolerance should be ±0.4mm;
- 2) In the layout of PCB mounting holes,if no dimensional tolerance is noted,it shall be calculated as ±0.1mm.

Disclaimer:

The specification is for reference only. See to "Terminology and Guidelines" for more information. Specifications subject to change without notice. We could not evaluate all the performance and all the parameters for every possible application. Thus the user should be in a right position to choose the suitable product for their own application. If there is any query, please contact Hongfa for the technical service. However, it is the user's responsibility to determine which product should be used only.