

HFLXPR2-F12V-1

POWER CONNECTOR SOCKET



Features

- The socket is made of copper and wound spring structure, which integrates the current carrying capacity of copper and the elastic force of spring, greatly improving the current carrying capacity
- It has the characteristics of reliable connection, soft insertion, low contact resistance and high current carrying density
- Used for charging station, UPS power supply, Electric power supply and their control signals
- Mating With: HFLXPR2-M12RB-1 Power connector plug

RoHS compliant

ELECTRICAL DATA

Rated Voltage	Power Pin:1000VDC, Signal Pin: 60VDC
Rated current	Power Pin:70A, Signal Pin:3A
Voltage Proof	Between 1Pin and 2Pin:2000VAC
	Between 2Pin and 3Pin:3000VAC
	Between 3Pin and 4Pin:2000VAC
	Between 4Pin and Signal Pin:3000VAC
Contact Resistance	Between Signal Pin: 1000VAC
	Power Pin: 0.4mΩ max. Signal Pin: 12mΩ max.
Insulation Resistance	1000MΩ min.

Notes: 1) The data shown above are initial values.

STORAGE REQUIREMENT

Environment temperature	-10℃ to +40℃
Humidity	80% Max
Ambient gas	no acidity, no alkalescence and other corrosive gas
Stockpile period	Doesn't exceed one year from production date

Notes: 1) The data shown above are initial values.

CHARACTERISTICS

Temperature Range	-40℃ ~ 180℃
Salt Mist	72h
Humidity Temperature	25℃ to 40℃, 10 times ³⁾
Temperature life	96 hours at 125℃(±5℃) ³⁾
Thermal Shock	-40℃(30 min), +125℃(30 min), 5 times ³⁾
Mechanical Shock	Acceleration of 50g, half sine wave, lasting 11 ms, ±X, ±Y, ±Z direction 3 times each, the current instantaneous break time is less than 1μs ²⁾
Vibration	Frequency 10Hz~ 55Hz~ 10Hz, displacement amplitude 1.52mm, each vertical direction lasts for 55 min, the current instantaneous break time is less than 1μs
Protection Grade	/
Quality	Approx.44.6g
Marking Mode	Laser etching
Durability	100 Times Min
Termination	Cable crimping

Notes: 1) The data shown above are initial values.

2) Meet the parts without damage, Insulation resistance and withstand voltage meet the requirements of electrical performance parameters.

3) Meet the parts without damage, withstand voltage meet the requirements of electrical performance parameters.

ORDERING INFORMATION

Type	HFLXPR2	-F	12	V	-1
Type of Contact	F: Female				
No.of Contact	12:12 Contacts				
Structural Form	V: Vertical				
Extension No.	1: Extension				



HONGFA RELAY

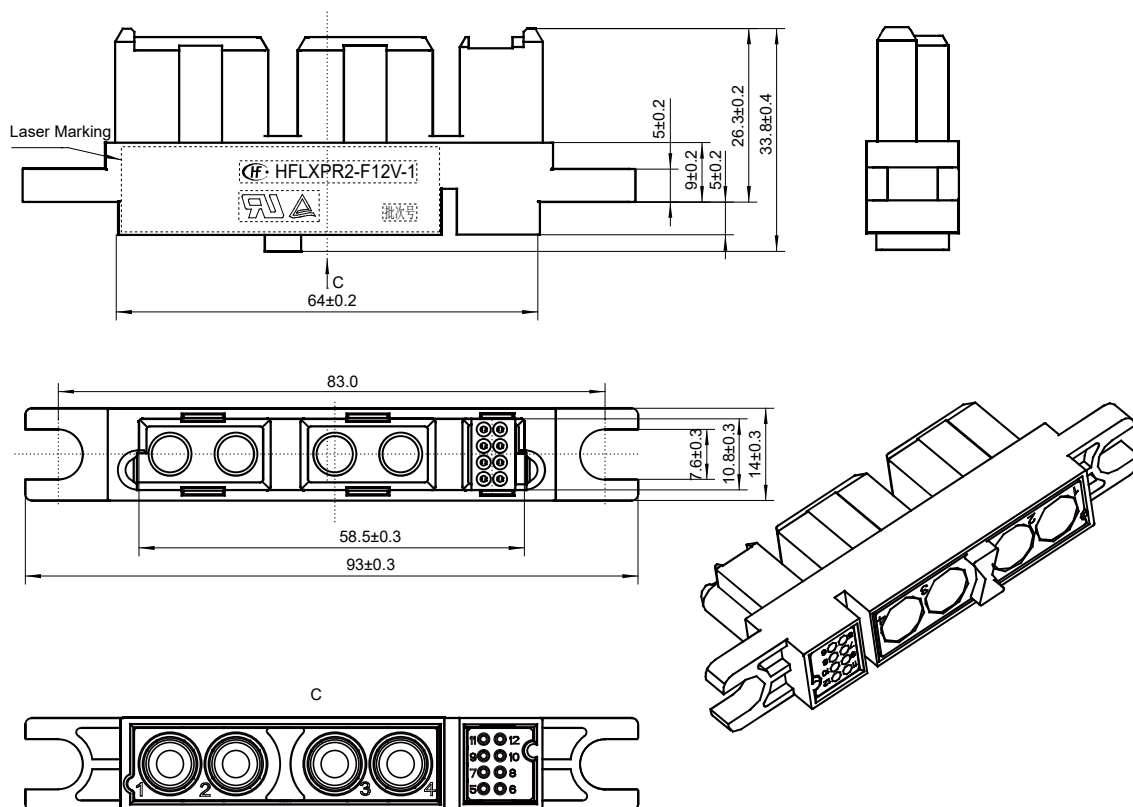
ISO9001, IATF16949, ISO14001, ISO45001, IECQ QC 080000 CERTIFIED

2023 Rev. 1.00

OUTLINE DIMENSIONS AND PC BOARD LAYOUT

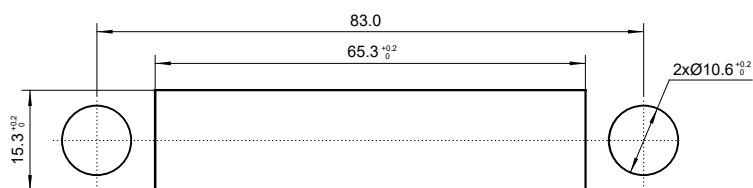
Unit: mm

Outline Dimensions



Notes: Pins 9 and 10 of the DC output connector must be short circuited, otherwise the module cannot be turned on and used.

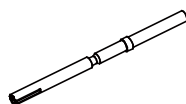
PCB Layout (Bottom view)



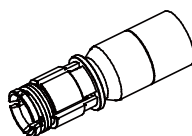
DIMENSION OF RELATED ACCESSORY(Package delivery)

Unit: mm

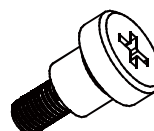
Ø0.8 Socket



Ø5 Socket component



Assembly screw



SELECTION OF PARTS

Serial No.	Part And Components Name	Material	Finishing
1	Ø0.8 Socket	Copper Alloy	Silver plated
2	Ø5 Socket component		
3	Assembly screw	35#	galvanizing

PRECAUTIONS FOR USE

1. Adapter cable:

Power Pin: 13mm² ~ 16mm² (Recommended: flame-retardant cable with Voltage Resistance of 1000VDC, Temperature Resistance of -40°C to 150°C and Conductor Cross Section of 16mm²).

Example: ISO6722 DC1500V 150°C Single core unshielded 16mm², UL3961 AWG6).

Signal Pin: 22AWG ~ 26AWG (Recommended: Twisted pair shielded flame-retardant cable with Voltage Resistance of 60VDC, Temperature Resistance of -40°C to 105°C, and Conductor Cross Section of 0.128mm² (26AWG) to 0.325mm² (22AWG)).

2. Recommendation for heat shrink tube: Temperature Resistance $\geq 125^{\circ}\text{C}$, Voltage Resistance 2500VAC/1min, Thickness $\geq 0.3\text{mm}$ after heat shrink;

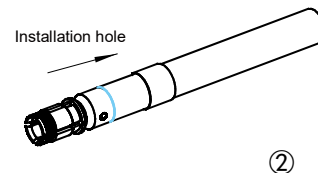
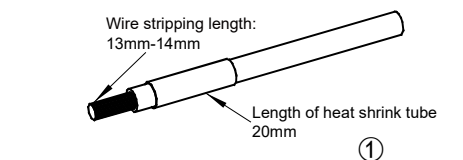
3. Whether the metal jack press line is reliable, refer to the minimum pulling force requirements:

Conductor Cross Section 16mm², minimum pulling force 500N

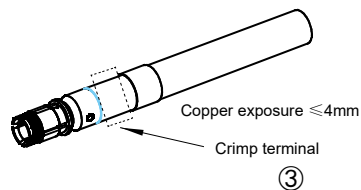
4. Outside diameter of metal terminal covered with heat shrink tube after heat shrink: $\leq 9.1\text{mm}$

5. The operation process is as follows:

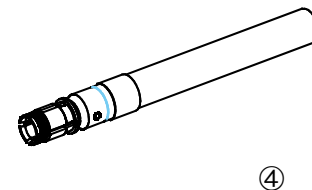
Power cord production



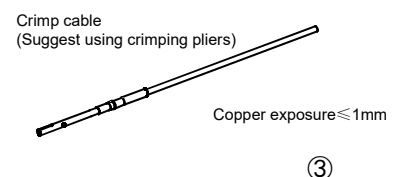
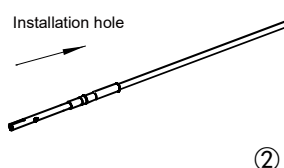
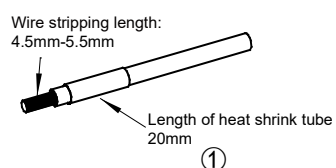
Crimp cable
(A hexagonal crimp machine is recommended)
The pressure line position should not exceed the blue scale line



Use a heat gun to tighten the heat shrink tube
The pressure line position should not exceed the blue scale line

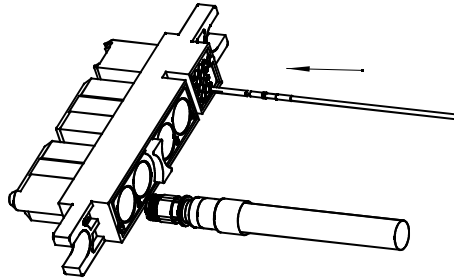


Signal line production



PRECAUTIONS FOR USE

Connection of power and signal lines



Disclaimer

The specification is for reference only. 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.

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