

Guidance of Making the AC Cable

SmartEnergy Electronic Technology (Changzhou) Co.,Ltd

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The document 《Guidance of Making the AC Cable》 is only applied to making the AC cable of the micro inverter SMT - I1KW produced by SmartEnergy Electronic Technology (Changzhou) Co.,Ltd. It can't be used for other products.

The document can be changed without notice.

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1、 Tools

Item No.	Name of Tools	Specification	Quantity	Remark
1	electric soldering iron	None	1	
2	nipper pliers	None	1	
3	diagonal pliers	None	1	
4	hot air heating gun	None	1	

2、 Materials

Item No.	Name of Materials	Specification	Quantity	Remark
1	AC connector	AH-M20-1203MFZ01112	1	the part of the Micro inverter (inside the package)
2	heat-shrinkable tube	diameter: 4.0mm	1	
3	solder wire	None	1	
4	Cable*1	16AWG*3	1	Current \geq 7A

*1 The cable can only be used for the single micro inverter. It's not system bus. The system bus should be chosen according to the system capacity. You can choose different diameters according to the materials of wires. The rated current equal to or above 7A is recommended to ensure safety.

3、 Making Process

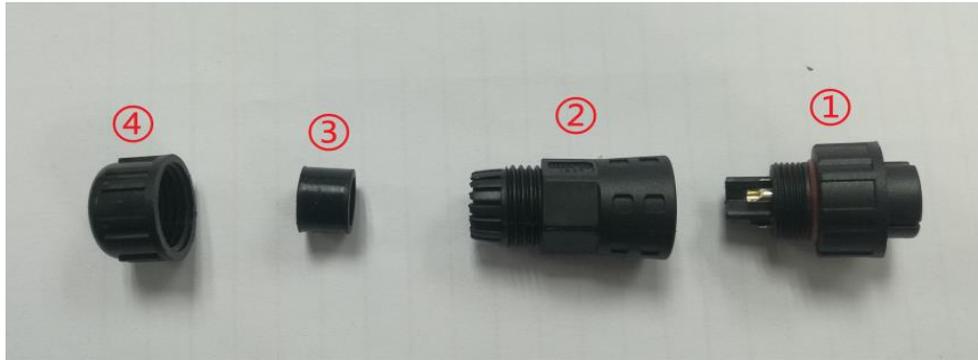
Step 1. Take out the AC connector, which will be used to the micro inverter. (As shown in the picture 1)



picture 1



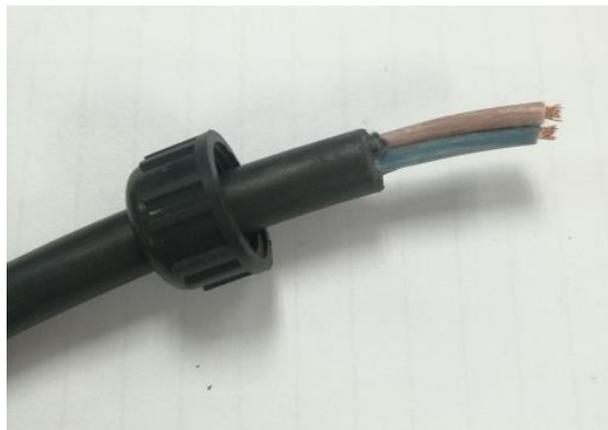
Open the AC connector, which should include the following parts. (As shown in the picture 2)



picture 2

① connector ②shell ③seal washer ④tail fastener

Step 2. Put the wire into the tail fastener ④. (As shown in the picture 3)



picture 3

Step 3. Put on the seal washer ③ and the shell ② one by one. (As shown in the picture 4)



picture 4



Step 4. Put heat-shrinkable tubes on the three wires respectively, and weld them together in order.

The order is: Pin1 is connected to the null line (N) ,
pin 2 is connected to the grounding line (PE) ,
pin 3 is connected to the live line (L) .

The welding is as shown in the picture 5.



picture 5

The heat-shrinkable tube is as shown in the picture 6.



picture 6

Step 5. After completing welding, put on the heat shrinkable tubes to the metal joints and use the hot air heating gun to make heat-shrinkable tubes cover the metal joints completely. Please Note: the hot air heating gun should be heated for a while to make the heat-shrinkable tubes shrink completely. (As shown in the picture 7)



picture 7

The semi-finished item after welding is as shown in the picture 8.



picture 8

Step 6. Assem the AC cable. Please note: the seal washer ③ must be put into the shell ② completely, and the tail fastener ④ must be tightened fully to achieve good waterproof performance.

The installation of the seal washer ③ is as shown in the picture 9, and the seal washer must be put into the shell completely.



picture 9



The finished item is as shown in the picture 10.



picture 10

4、 Declaration

·The document 《Guidance of Making the AC Cable》 is only applied to making the AC cable of the micro inverter SMT - I1KW produced by SmartEnergy Electronic Technology (Changzhou) Co.,Ltd. It can't be used for other products.

·Our company only provides the guidance for making the AC cable, so we don't provide the quality assurance and related support for the AC cables that are not produced by us.

·Our company doesn't provide the warranty service for the malfunction caused by the following situations: installation errors (such as sequence errors of connecting wires, poor welding, the tail fastener hasn't been tightened fully, etc.); using the power cord that hasn't been approved by SmartEnergy (such as the wire diameter is too small, the conductor material is unqualified, etc.)