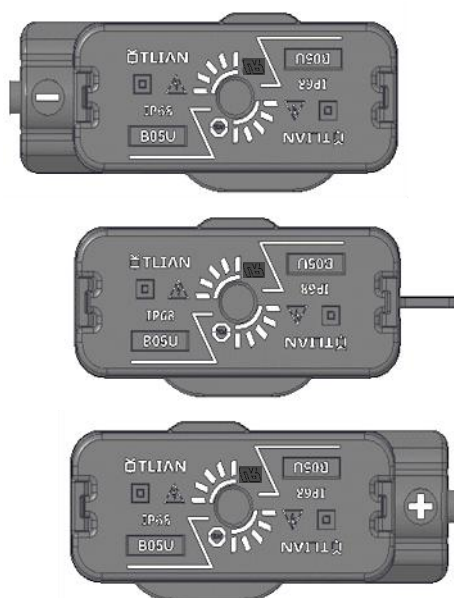


INSTRUCTION MANUAL FOR PHOTOVOLTAIC JUNCTION BOXES B05U Series

B05U 系列 安装使用说明书

Ver. 1.0



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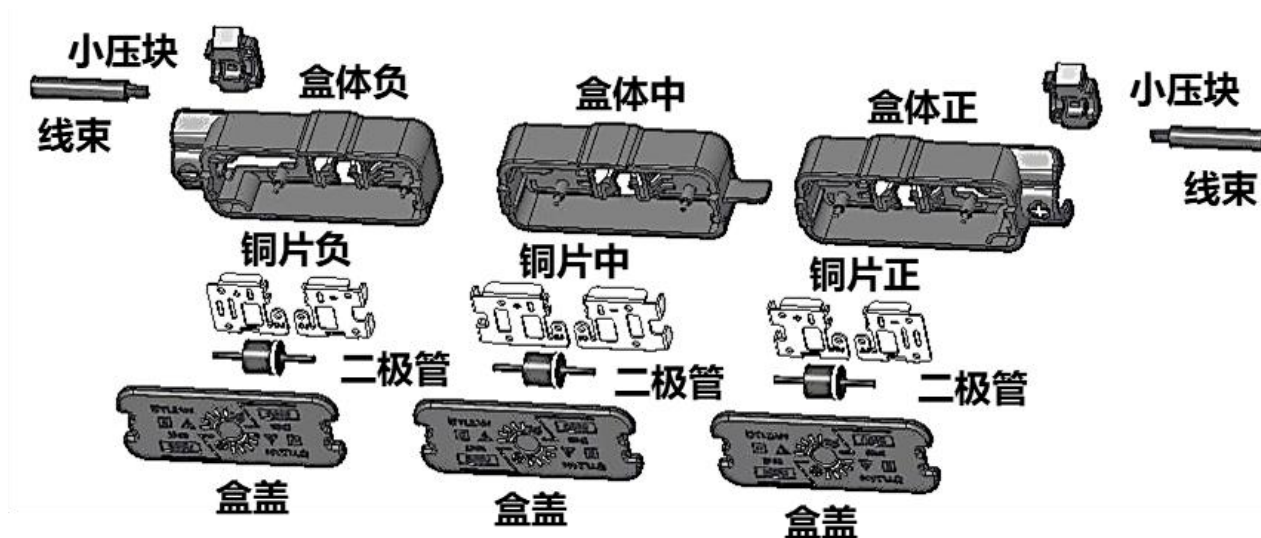
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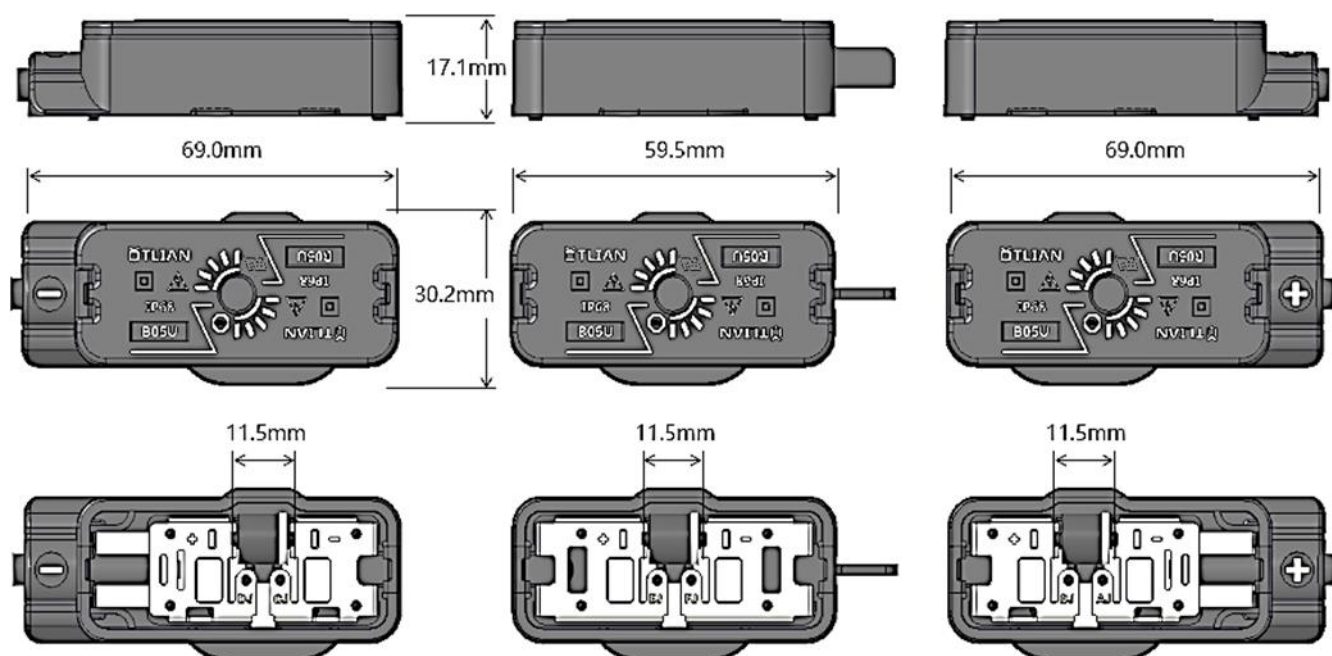
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1. Exploded View / 爆炸图



Exploded View / 爆炸图

2. Outline dimension / 外观尺寸图



Dimension tolerance : $\pm 0.5\text{mm}$

Outline dimension / 外观尺寸图

3. Technical Specifications / 技术规格

Certificate	TUV	UL
Maximum system voltage	1500V	
Diode rating	Type: TL2545TDY, Current: 25 Adc; Voltage: 45 Vdc ; Manufacturer: CHANGSHU TLIAN CO LTD Type: TL3050TDY, Current: 30 Adc; Voltage: 50 Vdc ; Manufacturer: CHANGSHU TLIAN CO LTD Type: TL3050TAYa, Current: 30 Adc; Voltage: 50 Vdc ; Manufacturer: CHANGSHU TLIAN CO LTD	
Wire Size Range	4mm ² / 6mm ²	12AWG/ 10AWG
Suitable cable	Type PV wire, rated sunlight resistant, 90°C wet or dry, 12 AWG, OD 6.4±0.2mm, 56 strands. Type PV wire, rated sunlight resistant, 90°C wet or dry, 10 AWG, OD 7.0±0.2mm, 78 strands.	
Dimension	See item 2 for detail.	
Pollution Degree	1	
Safety Class	Class II	
Insulation Material	PPO	
Contact Material	Copper /铜合金	
Connection Method	Clamping & Welding/卡接与焊接	
Protection Degree	IP68	
Operating Temperature	-40℃ ~ +85℃ for a=1, a=3 -40℃ ~ +70℃ for a=2	
Flame Resistance	UL94 5VA	
Watering roofing Str.	Potting Sealant/灌封胶	
Weight of Potting Glue	Total:3*11≈33g / 共约: 3*11≈33g	
Width of Copper Ribbons	Up to 7mm / 最大 7mm	
Optional Connector	T4 ,T6, UTX , H4 , H4-PLUS , MC4, EVO2	
Reverse current	48A	
Rated Impulse Voltage	16000V	

According Standard : IEC 62790 & UL3730
符合 IEC 62790 标准& UL3730 标准

The electrical installation instructions shall include a detailed description of the wiring method to be used in accordance with the National Electrical Code, ANSI/NFPA 70.
Maximum ambient temperature in degree C 40.

Model list :

B05U-xyabcdefgh series, where x can be b, c, d or f, y can be 4, a can be 1, 2, 3 or 4, b can be none, c can be 1, 2, 3 or 4, d can be 1, 2, 3 or 4, e can be 1, 2 or 3, f can be 1, 2, 3, 4, 5, 6, 7, 8, 9 or 10, g can be 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 or 12, h can be 1, 2, 3 or 4.

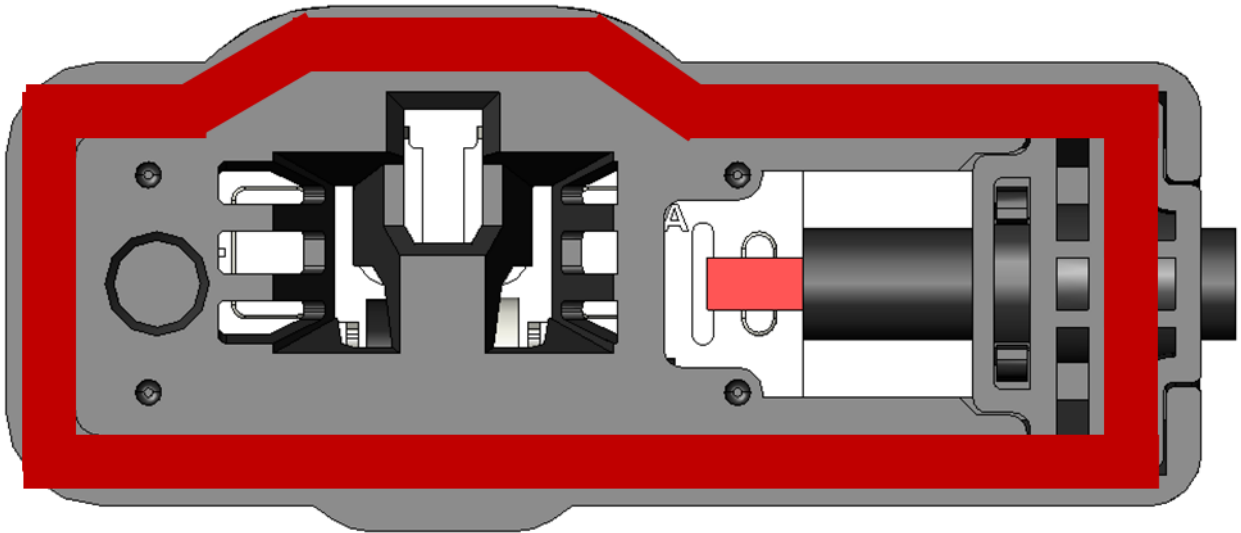
NOMENCLATURE:

Model	B05U	-	x	y	a	b	c	d	e	f	g	h
Address	I		II	III	IV	V	VI	VII	VIII	IX	X	XI

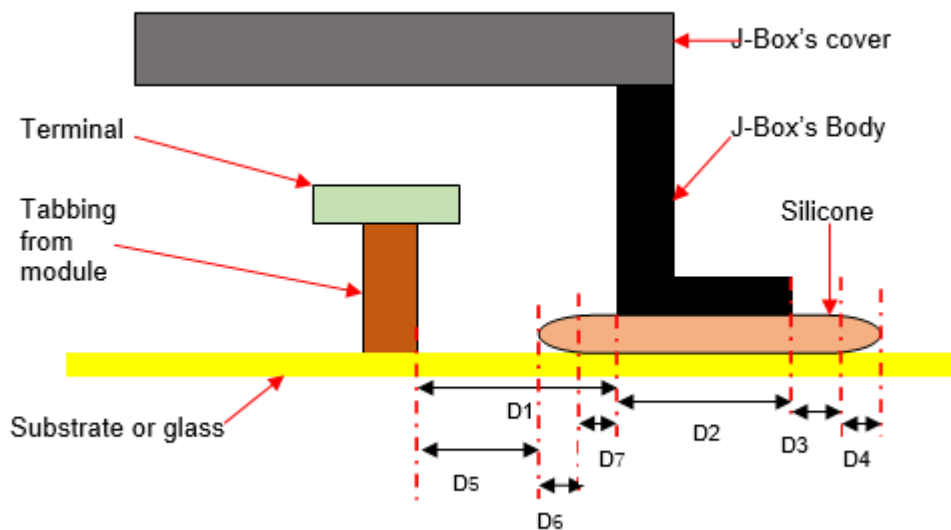
4. Installation of J-Box / 接线盒安装使用说明书

Step 1 Put the RTV silicone to the backside of J-Box equably, along the sealing trough. As shown in the figure below.

步骤一 将密封胶沿接线盒背面打胶轨迹均匀打胶

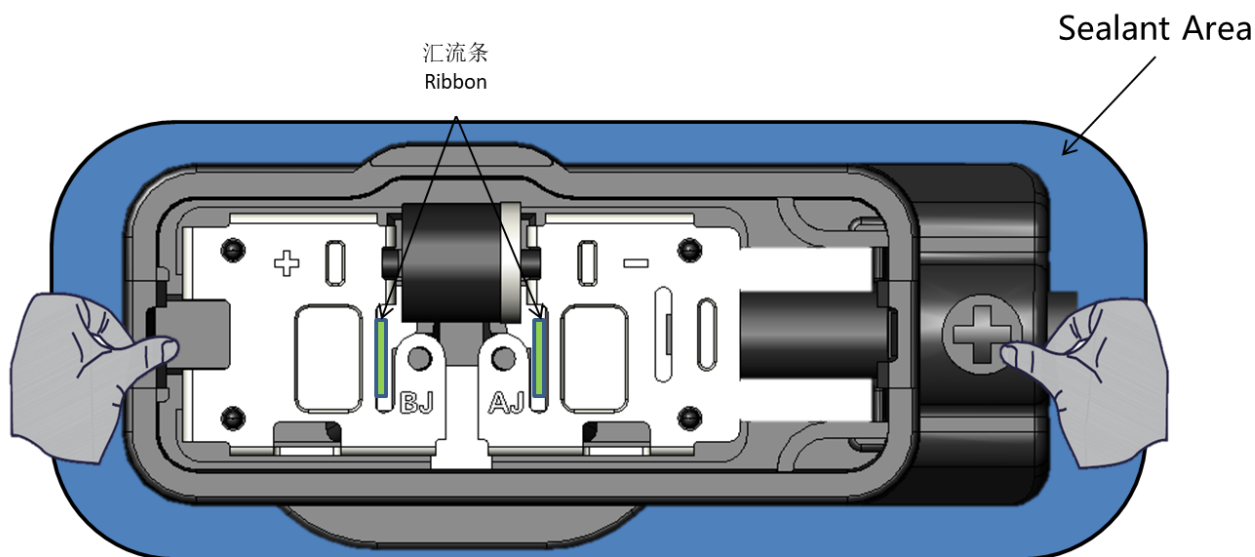


The effective outer silicone width D3 must be at least 2mm, see the following figure for detail.
有效溢胶宽度D3至少2mm, 详细参考下图。



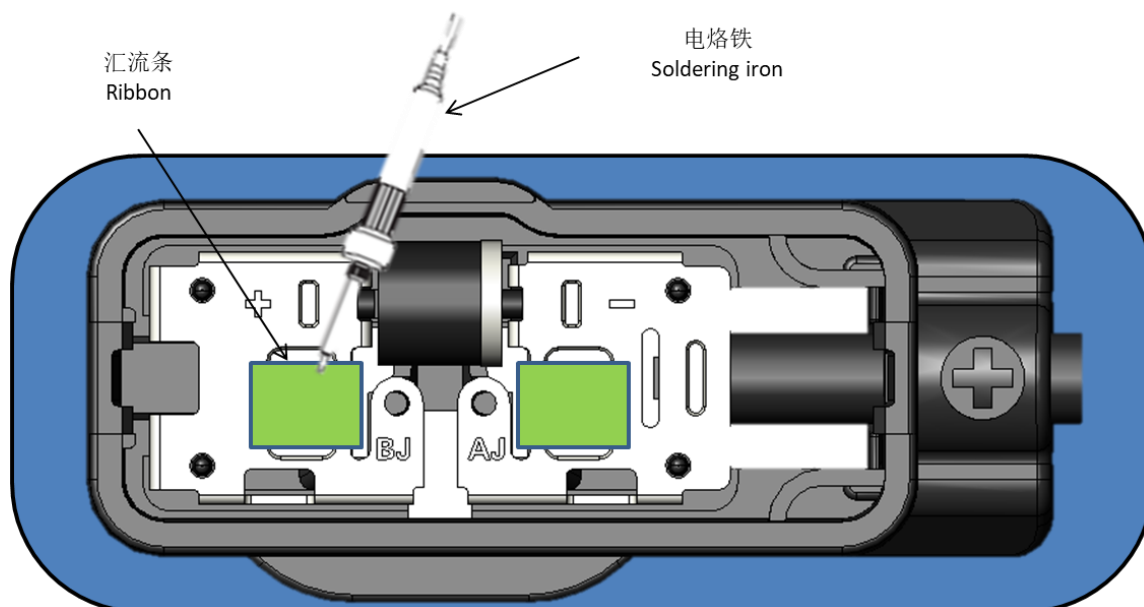
Step 2 Align ribbon on the conductor edge ,then fix and press J-Box on PV module until sealant evenly around the J-Box , and wait for sealant to harden .

步骤二 将汇流带对齐导电体边缘并对好接线盒位置，然后将其紧紧的压在组件上，直到密封胶在接线盒四周均匀溢出，等待密封胶变硬。



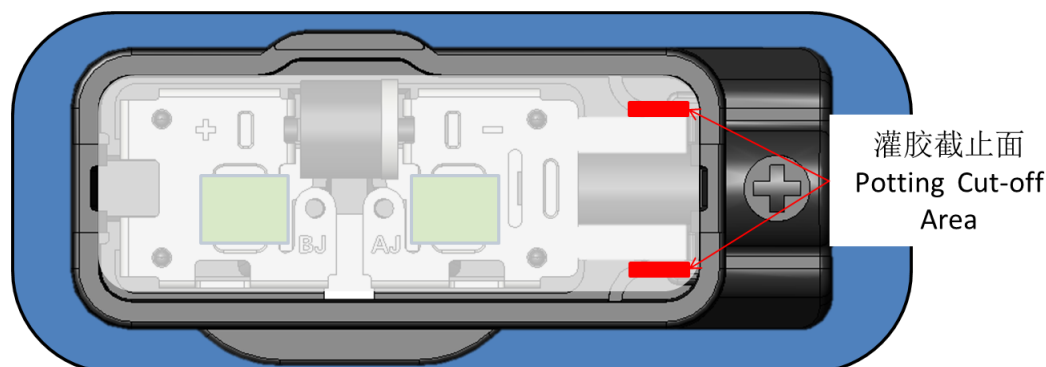
Step 3 Cut short ribbon for J-Box and bend ribbon to solder on conductor , then fix conductor and ribbon using soldering iron . (B05U(轴向)-R&B05U(轴向)-M is the same as B05U(轴向)-L)

步骤三 将汇流带剪切到所需长度弯曲后对准金属铜板的锡膏，使用电烙铁焊接牢固。(B05U(轴向)-R&B05U(轴向)-M 处理方式同 B05U(轴向)-L)



Step 4 Pour the potting material into J-Box until it blankets ribbons and conductor, the potting material should be smooth and no bubbles.

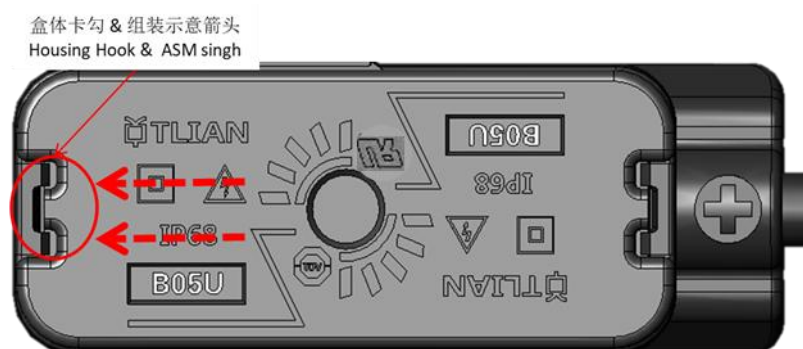
步骤四 用灌封胶灌满灌胶区域,胶水需覆盖焊带和导电体,胶水应平整无气泡。



Step 5 lid insert to the 1housing hooks after the potting material is solidified. (B05U(轴向)-

L&B05U(轴向)-M is the same as B05U(轴向)-R)

步骤五 待灌封胶固化后,将盒盖插入1个定位卡勾内。(B05U(轴向)-L&B05U(轴向)-M 处理方式同 B05U(轴向)-R)



Step 6 Press the side of lid down slowly locked into housing hooks , assembly well with a click sound . (B05U(轴向)-L&B05U(轴向)-M is the same as B05U(轴向)-R)

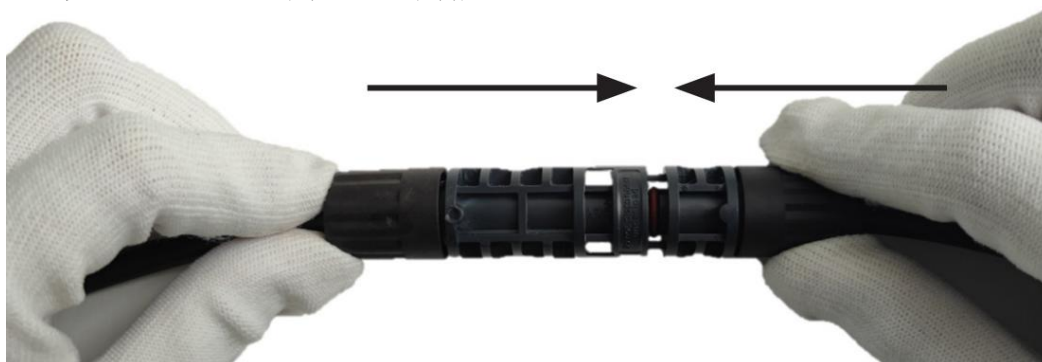
步骤六 将盒盖慢慢向下压入箱体锁定卡勾中,并有咔哒一声表示完全扣入(B05U(轴向)-L&B05U(轴向)-M 处理方式同 B05U(轴向)-R)



5. Installation and Separation of Connectors 连接器安装与分离

- a) Insert +Pin into -Slot and Hanging Corners into Corner Slots.

将正极插头插入负极插孔中，挂角进入挂角槽。



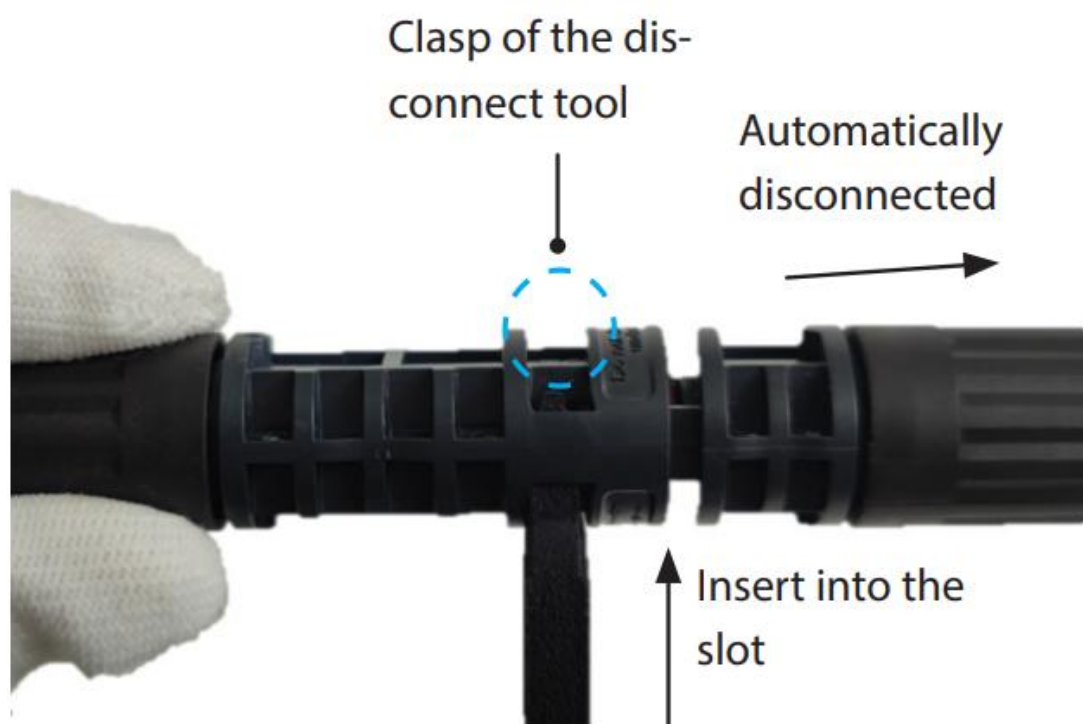
- b) When head of hanging corners extend out corner slots, connectors are locked.

挂角前端伸出槽时，安装到位。



- c) If need to open connectors, push separator feet into head of hanging corners, pull connectors out.

需打开连接器时，将分离器的分离脚推入挂角头部，然后拉开连接器。

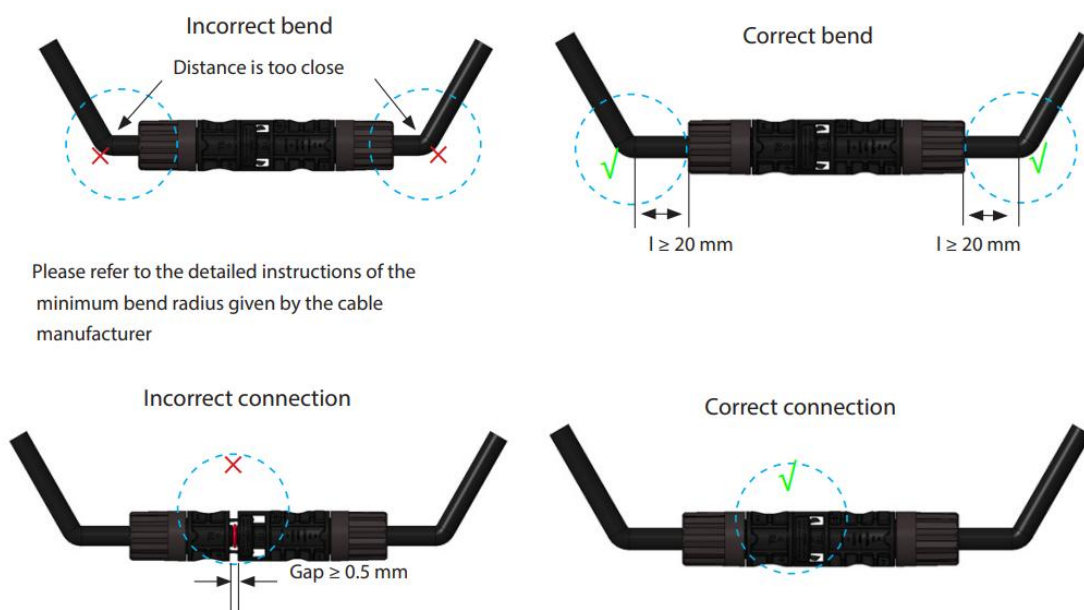


6. Notes / 注意事项

- a) Energized operation is dangerous when installing the J-Box or Connectors.
- b) J-Box and connectors cannot expose in organic solvents or corrosive substances.
- c) Connectors cannot afford more than 100N pulling force .Take it gently when transporting. J-Box or Connectors cannot be washed by water cannons directly when cleaning the component.
- d) Connectors should not be installed in the lowlands where easy to accumulate rainwater or dusts.
- e) Different series Connectors of J-Box are not allowed to do a cross-mating combination.
- f) Cable cannot be bended hardly for long time; otherwise cable will be damaged.
- g) Connectors should be inserted in places , otherwise it is unable to seal the wiring harness.
- h) It should be holding the head of connectors, not holding the cable when installing or separating connectors.

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- a) 安装接线盒或连接器时，不可带电操作。
 - b) 接线盒与连接器不可暴露在有机溶剂或有腐蚀性物质的环境中。
 - c) 连接器无法承受超过100N 的拉力,运输过程中产品应轻拿轻放；清洗组件时不能用高压水枪直接冲洗产品。
 - d) 连接器不应该安装在容易积水和积污处。
 - e) 禁止不同的产品型号连接器互插。
 - f) 线缆不可长期高强度弯曲，否则会造成线缆损伤。
 - g) 连接器需插到位，否则线束无法密封。
 - h) 连接器安装与分离时，需推拉连接器头，不可推拉线束。
-

电缆接线 Cable's connection



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