

# 安装说明书

## Installation Instructions

### 3Qxy 垂直出线接线盒

### Solar Junction Box 3Qxy(Vertical outlet)



## 1.警告 Warning

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### 1. 警告 warning

1.1 在自行安装时，如果所用的零件和工具不是 QC 所规定的，或者忽略了准备和安装操作，我们将不保证产品技术上的安全性和兼容性。

If all the parts and tools were not the ones that QC ordered, or you ignored QC' s installation instruction, we are not able to ensure the safety and compatibility of the products when you install them.

1.2 拆包后，操作人员应检查各部件是否齐全，各部件连接牢固。应在上述情况下进行安装。

After removing the package, the operator should check whether the components are complete, and the parts are firmly connected. The installation should be undertaken in the above situation.

1.3 在正式安装接线盒时，首先要确认该电池组件不在工作状态，如果一定要在阳光照射下安装，请采用安全可靠的遮阳罩遮挡电池组件避免其产生电流造成电击，人体不能同时接触接线盒连接器系统的正负极，以免发生触电。

Before installing the junction box, please ensure that the panels are not in working condition. In case that you have to install them under the sunshine, please use reliable sunshield to cover the cells to avoid electric shock by the generated current. Human body should not touch the positive and negative of the connecting system at the same time, or you will be electric shocked.

1.4 在任何状况下均不能将一套连接器系统的公插和母插插合在一起，这样做的后果很可能导致接线盒及电池组件严重烧损，使光伏发电系统不能正常工作。

In no circumstances, you can connect the male and female plug of the same connecting system. Or the junction box and panels may be badly destroyed, and the solar power generation system is not able to work properly.

1.5 在任何状况下均不能将一套连接器系统的公插和母插插合在一起，这样做的后果很可能导致接线盒及电池组件严重烧损，使光伏发电系统不能正常工作。

The positive and negative poles of the terminal and cable are fixed, please do not exchange it or reverse the polarity, or this may cause serious consequences.

1.6 如果要进行系统维护，请务必使该系统处于停止工作状态后再进行。这些警告标志或字母显示在连接器表面。

Please ensure to work under the situation of unload the power. Those cautions mark or letter showing in the connector surface.

1.7 产品如果处于长期户外且未安装状态，请做好连接器防护工作，将连接器端口插上“防尘帽”，防止连接器受到水、尘等的污染，影响产品使用性能。

If the product is outdoors for a long time and has not been installed, protect the connector by inserting a dust-proof cap into the connector port to prevent the connector from being polluted by water and dust, which may affect the product performance.

## 2.技术参数 Product Specifications

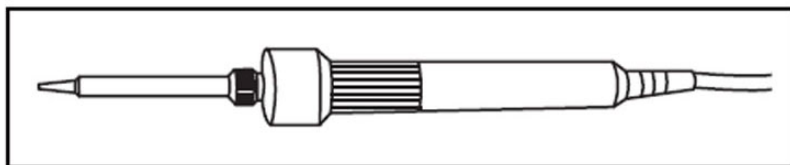
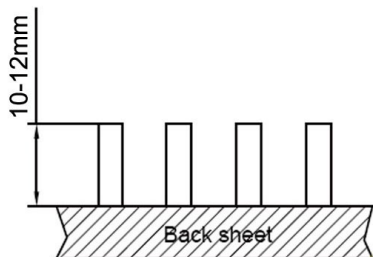
技术参数 Product Specifications	
名称 Product Name	3Qxy(x=K1 or 1 or K2 or 2 or K3 or 3 or K4 or 4 or K5 or 5 ; y=7)
额定电压 Rated Voltage	UL 1000V / 1500V
Rated Current (A dc)	18A / 20A / 22A / 25A / 28.5A / 30A / 32A / 35A
旁路二极管额定电流 Diode Rating	18A for QCM1845 20A for QCM2545 22A for QCM3045 25A for QCM4045 28.5A for QCM4045B 30A for QCM5045 30A for QCM5045B 32A for QCM5045C 35A for QCM6045
外形尺寸 Overall Dimensions	62.3mm*24.0mm*15.25mm 62.3mm*24mm*15.25mm 62.3mm*24mm*15.25mm
电缆规格 Suitable cable	4mm <sup>2</sup> or 6mm <sup>2</sup>
阻燃等级 Flammability Class	5VB
温度范围 Temperature Range	-40°C ~+85°C
提醒 Caution	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.

### 3. 汇流带规格尺寸及所需工具 Ribbon size and required tools

所需工具 Required tools

电烙铁 / 自动焊接工站，用于汇流带与端子的焊接。

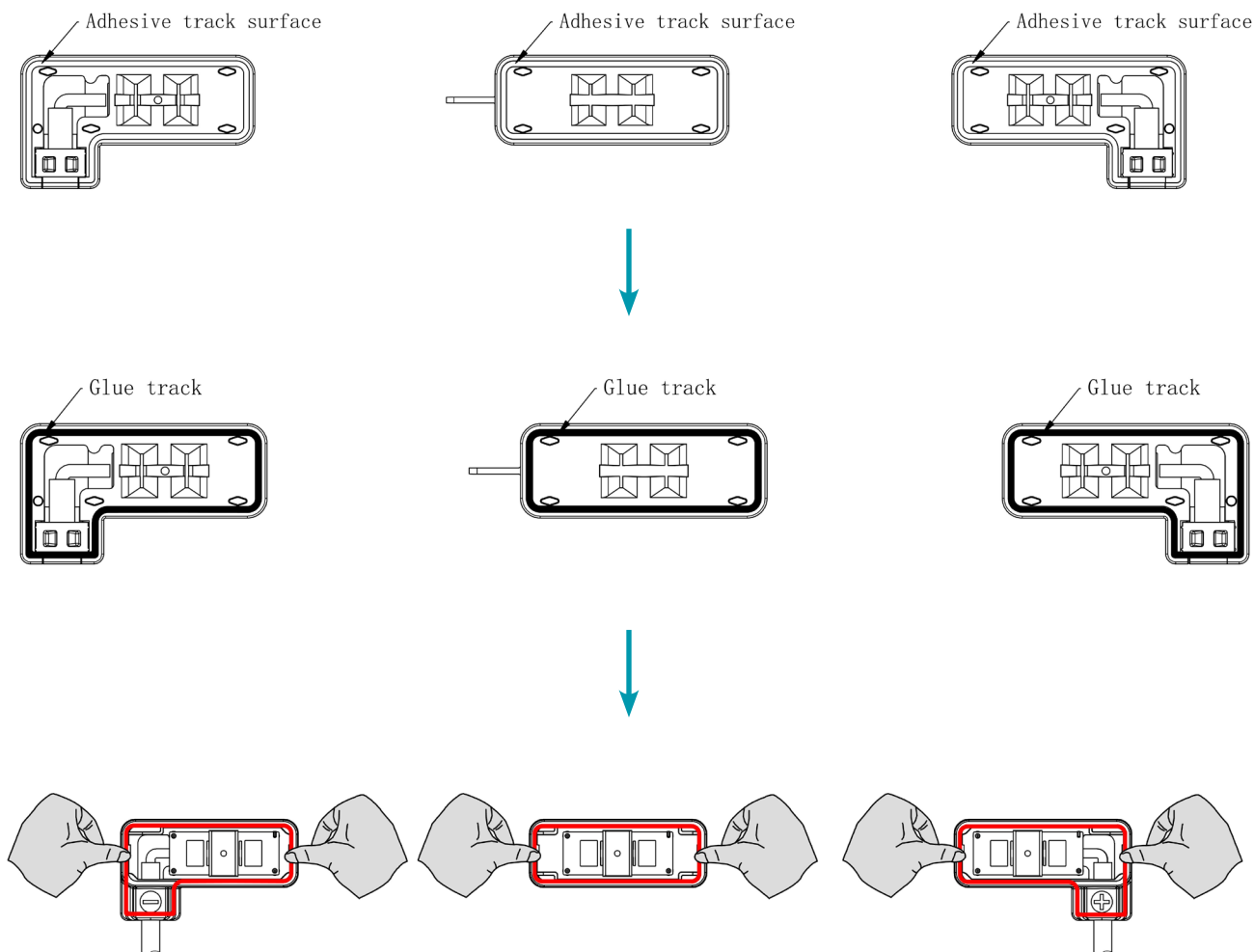
Electric iron, for the solder between ribbons and terminal



### 4. 密封胶安装 Installation with seal tool

将密封胶均匀地涂抹在盒体背面，如图所示的密封轨迹。硅胶最小厚度为 5mm。外层硅胶宽度至少为 2mm。

Put the Sealing tool to the backside of Box equably, like the sealing contrail marked in the picture. The minimum silicone gel thickness is 5mm. The outer silicone width is at least 2mm.



## 5. 焊接汇流带 Ribbon Welding

将汇流带剪切到所需长度，插入接线盒的导引孔，然后弯曲，使用电烙铁焊接牢固。

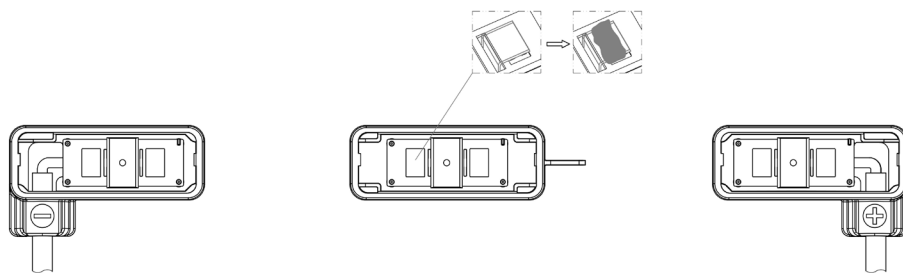
Cut the ribbon to the length needed, then curve and insert it to the open trough of the copper terminal. Weld the ribbon and cooper terminal firmly with electric iron and tin wire.

建议焊接温度 :280~350°C，焊接时间 :1~4S，客户可根据产品实际应用情况进行调整，二极管是电子元器件，焊接过程中，严禁出现过压及超高温造成二极管折弯等异常。

Recommended welding temperature :280~350°C , welding time :1~4S, which can be adjusted according to the actual application of the product. The diode is an electronic component. During welding, do not bend the diode caused by excessive pressure and ultra-high temperature .

注意：接线盒出厂时，汇流带焊接位置仅是预涂锡。客户应根据产品实际应用要求进行锡量的增补。

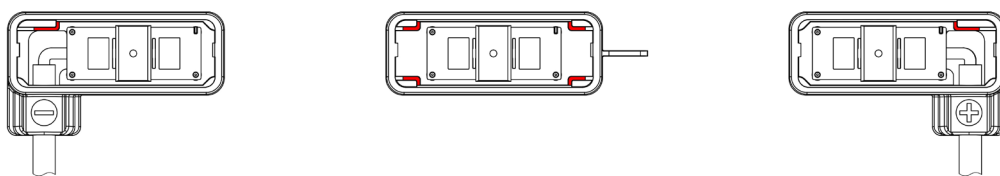
Notice: Ribbon' s soldering position just pre-tin before leaving factory. Customers could add the amount of tin according to products practical required.



## 6. 接线盒的灌胶 Potting Instruction

接线盒灌胶面需与红色面齐平，如图 1 所示，灌胶量推荐值为 7mL 左右。。

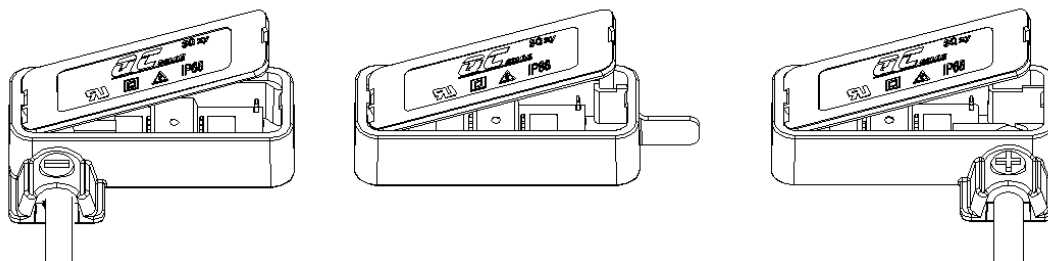
Junction box potting sealant should be flush with red face, as shown in Picture 1. Recommended potting amount around 7 ml.



## 7. 上盖安装 Cover Installation

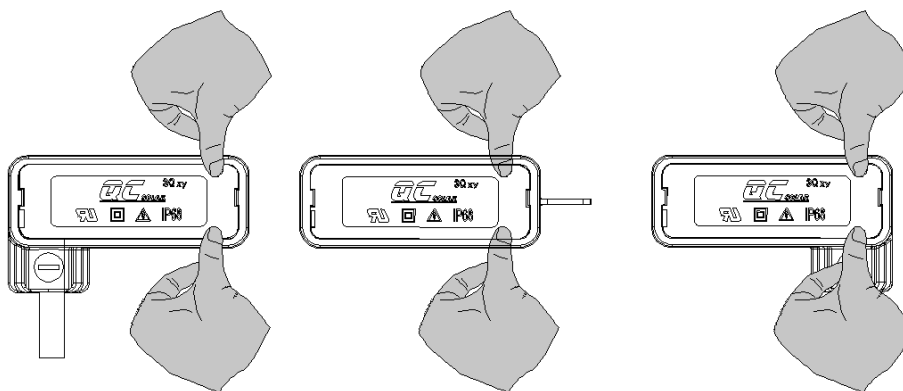
1) 将盖子倾斜插入外壳，然后向箭头所示方向用力将盖子推入外壳。

Insert the cover to the housing at an angle, then push the cover to the housing with the direction force.



2) 按压上盖，使上盖完全卡入底座。

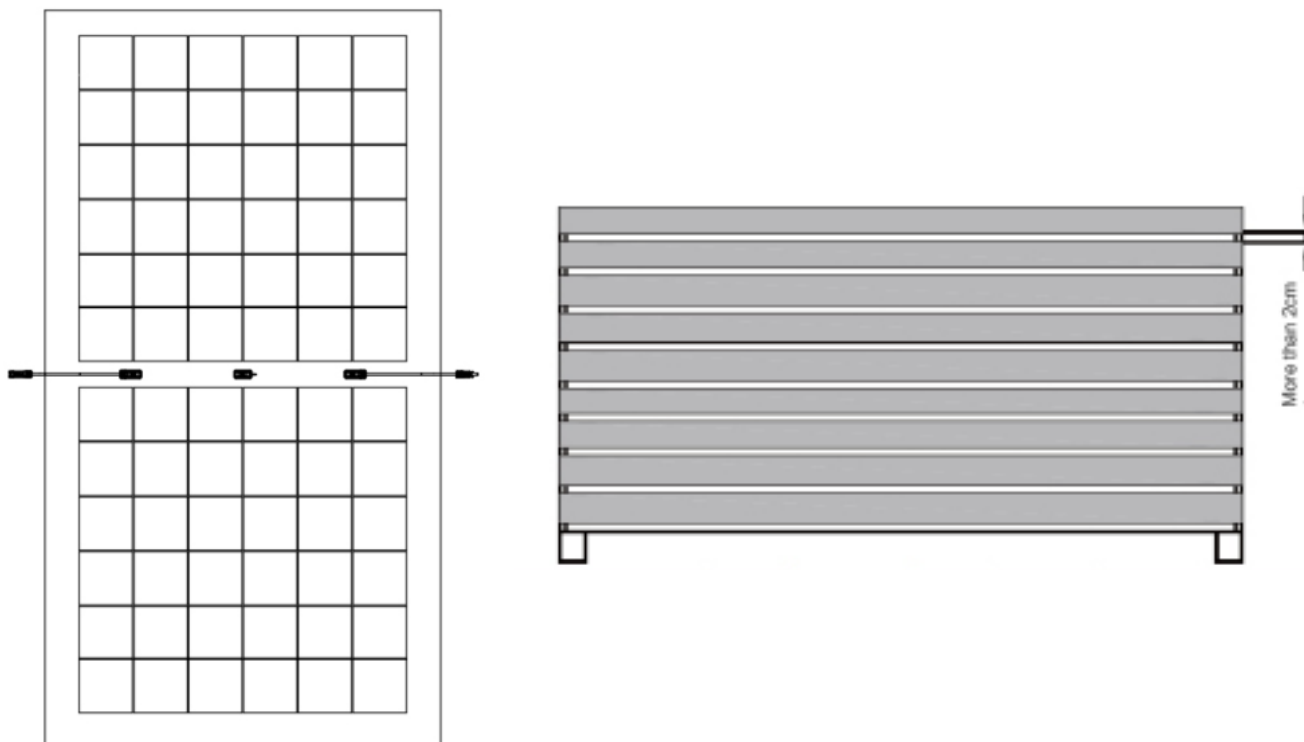
Press the cover to the bottom completely.



## 8. 注意事项 NOTE

太阳能组件粘接完接线盒后，组件与组件间需留有大于 2cm 的间隙；组件需在通风处静置 12 小时以上或至硅胶完全凝固后方可装箱，因为组件边框粘胶和接线盒粘胶在凝固时可能会释放一些腐蚀气体，该气体可能会对塑料或人体产生不良影响，严重时可能会导致接线盒或连接器产生开裂现象（如有疑问请咨询快可光伏或硅胶厂家）。

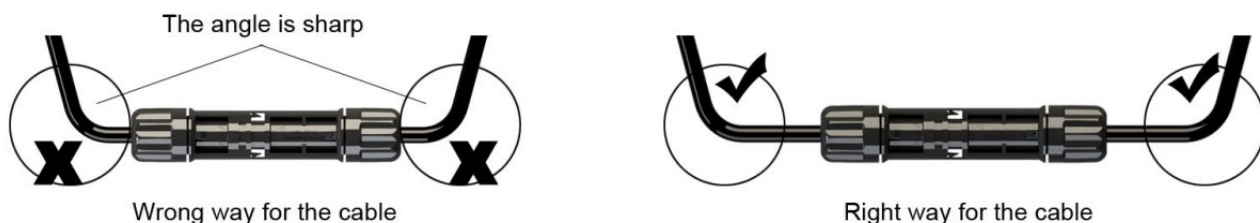
After installation of the J-Box to PV Module with silicon, we should keep more than 2 cm to each module; We should wait 12 hours to the solidification of the silicon, and after this, module could be packaged, because silicon of the J-box and Module installation may release some harmful corrosive air and that could be harmful to plastics and human beings. When the band begins to play, it may lead broken of the Nut of the QC connector and J-box.



## 9. 电缆连接 Cable's connection

注意：请参考电缆生产商的最小弯曲半径的详细要求。

Notice: Please refer to the detailed instruction ones of the min bend radius given by manufacturer.



接合状态。

The state after connection.



## 10. 联系方式 Contact us

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If the product is not match with what described in the manual, please regard what you received as the right one. This manual can be dispensed according to customers' requirements, the company's Web site can provide conditional download service, if you need more brochures, please contact us. All technical data is only as a reference when using the product, it can not be used for other business activities.

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QC Solar (Suzhou) Corporation

 中国苏州工业园区新发路 31 号 (No.31,Xinfa Road,SIP,Suzhou,China, 215123.)

 0086-0512-62603392

 market@quick-contact.com

 www.quick-contact.com



快可官方微信