

QC4.10产品规格说明

QC4.10 Product Specifications



PV-母电缆连接器
PV-Female cable coupler



PV-公电缆连接器
PV-Male cable coupler

名称	QC4.10连接器
额定电压	TUV1000V/UL1000V
额定电流	2.5mm ² 4mm ² 6mm ² 30A 35A 40A
安全等级	II
防护等级	IP67 Closed
连接器电阻	MAX: 5mΩ
防火等级	UL94 V-0
环境温度	-40℃~85℃

Type	QC4.10 Connector
Rated Voltage	TUV1000V/UL1000V
Rated Current	2.5mm ² 4mm ² 6mm ² 30A 35A 40A
Protection Class	II
Degree of Protection	IP67 Closed
Resistance of Connector	MAX: 5mΩ
Flammability Class	UL94 V-0
Temperature Range	-40℃~85℃

QC4.10 型号 QC4.10 Type

Type	Article	OD(mm)--Cable OD	Out Shape	Picture	Control gap	Reference torque
QC4.10	NP: Negative Plug	A: 5≤OD<6	L: With NEC lock		0<X≤0.3mm	X<5N.m
		B: 6≤OD<6.6			0<X≤0.3mm	X<5N.m
		C: 6.6≤OD<7.5	NL: Without NEC lock		0<X≤0.3mm	X<5N.m
	PP: Positive Plug	A: 5≤OD<6	_____		0<X≤0.3mm	X<5N.m
		B: 6≤OD<6.6			0<X≤0.3mm	X<5N.m
		C: 6.6≤OD<7.5			0<X≤0.3mm	X<5N.m
	NT: Negative Terminal	_____	_____		_____	_____
	PT: Positive Terminal	_____	_____		_____	_____

Example: QC4.10 — NP — C — L

QC4.10 Connector
 Negative Plug
 Cable OD: 6.6≤OD<7.5
 With NEC lock

安装使用说明书

PV-母电缆连接器

PV-公电缆连接器

- ▶ 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，我们将不保证产品安全性和技术参数一致性。
- ⚠ 为防止电击，在拆装时PV连接器必须断开电源。
- ⚠ 终端产品必须提供防电击功能。
- ▶ 不建议使用PVC电缆。
- ▶ 在负载情况下拔出：在有负载的情况下，不能拔出PV插头连接器！关掉DC/AC直流-交流变频器或打开DC交流电路断路器，使PV接头连接器处于无负的状态，则可在允许范围内带电插拔。
- ▶ 建议不要使用H07RN-F无镀锡电缆，因为电缆铜线被氧化后，压接部位的接触电阻可能会超过允许值。
- ▶ 断开的连接器必须使用防护帽，以防止灰尘和水进入。
- ▶ 插合部件防水等级IP67。它们不能长久置于水下使用。不要将QC-PV连接器放在屋顶表面。
- ▶ 产品不得在含有烃、酚、酮、氨合物等与塑料有腐蚀的环境中使用。安装过程中，禁止在连接器里添加或涂抹任何油脂及润滑剂。

Assembly instructions

PV-Female cable coupler

PV-Male cable coupler

- ▶ During your self installation, if the used part and tool are not ruled by QC or if you ignore the preparation and operation, we won't insure the safety and compatible of the product technology your self installation.
- ⚠ For protecting against electric shock, pls cut off the power when installing PV connector.
- ⚠ The final products must be supplied with the function electric shock proof.
- ▶ PVC Cable are not recommended.
- ▶ Don't pull out the PV connector under loading. Turn off the DC/AC inverter or turn on DC circuit interrupter, making PV connector in unloading. Then insert and extract under voltage is permitted.
- ▶ H07RN cables without tinned are not recommended. Cause the contact resistance of crimping place will probably exceed the permitted value since the copper wires are oxidated.
- ▶ Sealing cap must be used for disconnected connector, avoiding dust and water.
- ▶ Waterproof degree for inserted parts is IP67. They can't be put under water for long time. Don't put QC-PV connector on the roof of surface.
- ▶ Do not use under hydrocarbon, phenol, ketone, ammonia and plastic corrosive environment. During installation process, do not add any grease and lubricant in the connector.

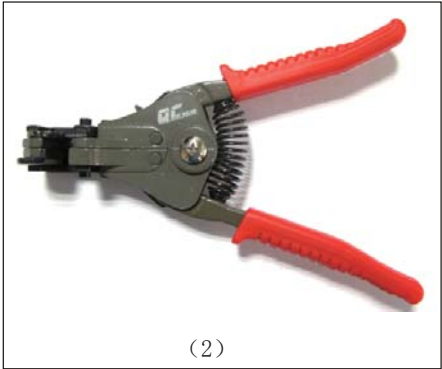


工具要求:

- (1) 工具箱
订货号: 02. 04. 003

Requirements for tools:

- (1) Tool box
Order No. : 02. 04. 003



(2)

(2) 剥线钳

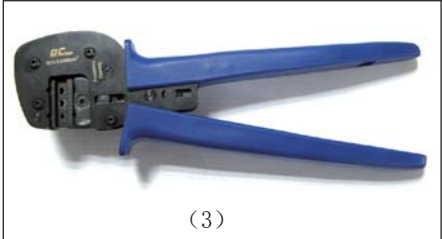
剥线钳型号	剥线范围	
2.5/14	2.5mm ²	14AWG
4.0/12	4.0mm ²	12AWG
6.0/10	6.0mm ²	10AWG

订货号: 02.04.008

(2) Strip Clamp

Type	Crimping Range	
2.5/14	2.5mm ²	14AWG
4.0/12	4.0mm ²	12AWG
6.0/10	6.0mm ²	10AWG

Order No. 02.04.008



(3)

(3) 铆接钳

铆接钳印字	铆接范围	
2.5/14	2.5mm ²	14AWG
4.0/12	4.0mm ²	12AWG
6.0/10	6.0mm ²	10AWG

订货号: 02.04.007

(3) Rivet Clamp

Mark	Riveting Range	
2.5/14	2.5mm ²	14AWG
4.0/12	4.0mm ²	12AWG
6.0/10	6.0mm ²	10AWG

Order No. 02.04.007



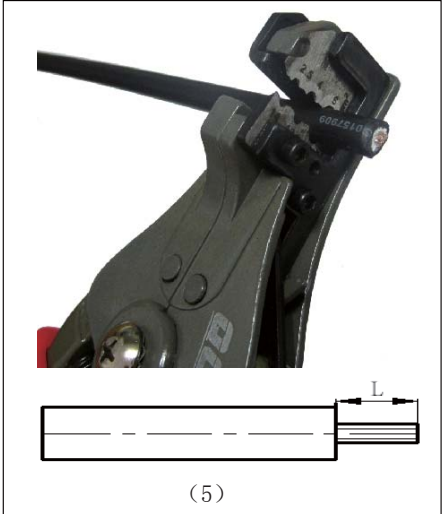
(4)

(4) 开口塑料扳手
1套=2片

- ① 订货号: 06.49.007
② 订货号: 06.49.015

(4) Plastic spanner 1 set=2 pieces

- ① Order No. 06.49.007
② Order No. 06.49.015



(5)

组装步骤:

- (5) 剥线, 剥离电缆绝缘层。L=7±0.5mm。
注意不要剪断绝缘层下的线芯。

Assembly step:

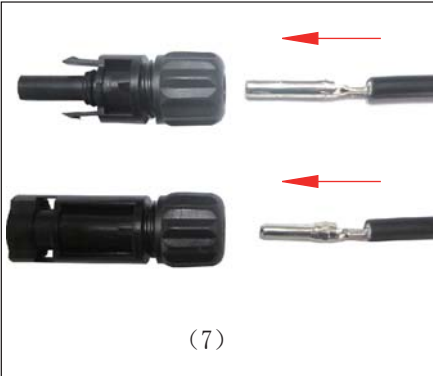
- (5) Strip the insulating layer of cable.
L=7±0.5mm.Be attention and not
to cut off the wire core.



(6)

- (6) 铆接插针插套。需保证金属件与电缆
线的同心度。铆接后电缆线与金属件的
拉力需≥310N。

- (6) Rivet terminal.Ensure the conce-
ntricity of metal parts and cable at
same level, crimped metal parts
and cable pull tension ≥310N.



(7) 将铆接好的插头插入插座或插头的绝缘套，直到其啮合。轻轻拉动导线，检查金属件是否啮合牢固。

(7) Push the riveted pin into the insulator until they engage. Pull lightly on the lead to check that the metal part has engaged.



(8) 安装电缆后罩，先用手预拧紧，再用塑料扳手旋紧电缆后罩（间隙参考第一页间隙表）。拧后罩时，需保证电缆线与后罩同心。连接器后罩为可拆卸后罩。原厂塑料扳手可用于施工现场组装，不适用于工厂内部批量组装。

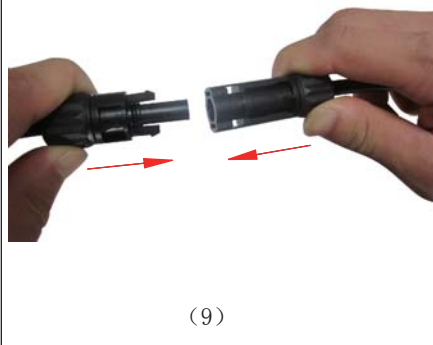
(8) Install the cable gland. First screw it by hands, then lock tightly by plastic spanner(pls refer the gap sheet for detailed gap from page one).Ensure the concentricity of cable and cable gland when screw cable gland. Cable gland is detachable, original factory plastic spanner can assembly in site, but not suitable for mass quantity assembly.

在无安全锁扣的情况下插拔电缆连接器

Insert and extract the connector without safety lock clip

插入

Insert



(9) 将公母头对插，直到它们啮合，轻轻拉动以检查是否啮合牢固。

(9) Plug the coupling together until they engage. And pull lightly to check correct engagement.

拔出

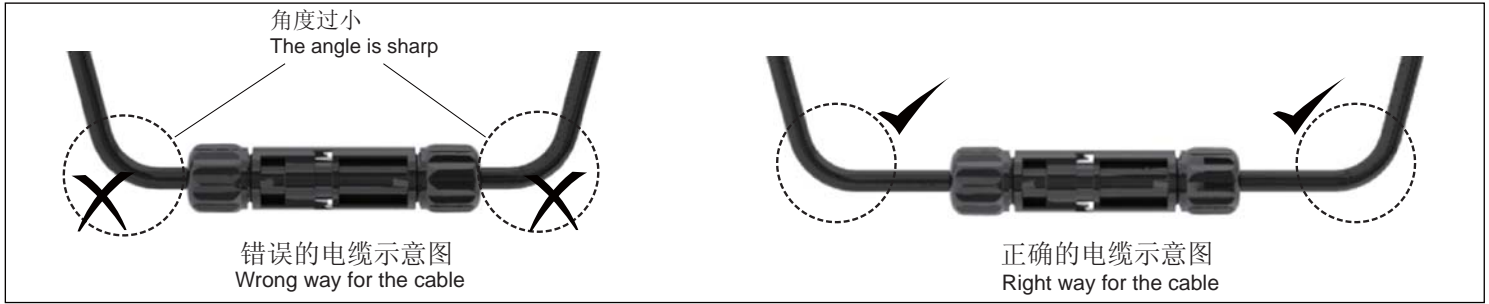
Extract



(10) 此插头连接只能用工具塑料扳手解锁。

(10) This connection can only be unlocked with plastic spanner.

电缆接线 Cable's connection



* 请参考电缆生产商的最小弯曲半径的详细要求

Please refer to the detailed instructions of the minimum bend radius given by manufacturer

接合状态 The state after connection



包装方式: Packing way:

 <p>1. 用蓝色自封袋装500pcs 正极连接器;用透明自封袋装500pcs 负极连接器。</p> <p>1.500pcs male connector packed into the blue ziplock bag, and 500 pcs female connector packed into the write ziplocj bag.</p>	 <p>2. 取正负极连接器各一袋放入纸箱中。</p> <p>2.Put one male and female bag into carton.</p>	 <p>3. 取500pcs的插针和500pcs的插套, 放在正极连接器上。</p> <p>3.Put 500pcs male pin and 500 female pin on the male connector.</p>	 <p>4. 用规格为360*320*280 (mm) 的纸箱进行封装。</p> <p>4.Seal the carton, The carton size is 360*320*280(mm).</p>	 <p>5. 1000*1200 (mm) 木托盘包装, 每层装9箱, 共4层36箱。</p> <p>5.Pallet size 1000*1200(mm) 9 caroms/layer. And total 4 layers.</p>
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化学制品	聚碳酸酯(简称PC)
碳氢化合物	
脂肪	不兼容
芳香剂	不兼容
完全卤化物	兼容
半卤化物	不兼容
酒精	兼容
酚类	不兼容
酮类	不兼容
酯类	不兼容
醚	不兼容
酸	
无机物	不兼容
有机物	兼容
氧化物	不兼容
碱	不兼容
车用液体	
汽油	不兼容
水	
耐热 (< 80° C)	不兼容
环境	
紫外线	兼容

Chemicals	LEXAN® resin
Hydrocarbons	
aliphatic	incompatible
aromatic	incompatible
halogenated fully	compatible
halogenated partly	incompatible
Alcohols	compatible
Phenols	incompatible
Ketones	incompatible
Esters	incompatible
Ethers	incompatible
Acids	
inorganic	incompatible
organic	compatible
oxidizing	incompatible
Alkalies	incompatible
Automotive fluids	
Petrol	incompatible
Water	
hot (< 80° C)	incompatible
Environmental	
UV	compatible

连接器责任免除条款

有违反下列情况之一者，并导致产品出问题，造成任何损失，产品生产厂家将不承担任何责任。

1. 产品运输、仓储
 - 1.1 产品在运输仓库过程中，不可与“附表”中有关化学品存放在一起，使产品经受这些化学品污染；
 - 1.2 产品在运输、仓库过程中，不可对产品过分承压，撞击等破坏产品行为；
 - 1.3 产品在运输、仓库过程中，常温存储，应注意避光、防水、防尘等方面防护，以免降低产品相关性能，电站现场应特别注意；
 - 1.4 产品正常存储时间2年。
2. 产品安装、使用环境
 - 2.1 产品正常工作环境温度-40~+85℃；
 - 2.2 产品现场安装，需按照“快可”产品“安装使用说明书”操作；
 - 2.3 产品在沿海、沙漠等粉尘、粉尘、灰尘多的地域使用，产品出厂前必须带防尘帽；
 - 2.4 产品在屋顶电站使用时，连接器不可直接放在屋顶表面。
3. 产品与化学品兼容性见“附表”。
4. 连接器在未耦合情况下，产品将不能满足任何IP防护等级，也不能正常使用。
 - 4.1 产品插合后满足IP67防护等级要求，不能长期置于水下或屋顶上工作。
 - 4.2 连接器在未对插的情况下，不可长时间放置于户外，这样可能会造成金属件腐蚀，并使连接器性能降低。
 - 4.3 连接器在户外安装、使用过程中，如果不能及时对插，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。
5. 连接器在安装、使用过程中，不可将连接器过分碰撞，拖在水中、草丛中、地上等防止连接器使用前内部受到污染，降低产品性能。
6. 连接器对插
 - 6.1 “快可”品牌连接器必须与“快可”品牌连接器正、负极进行对插，不可与市场其它品牌连接器对插。
 - 6.2 如果客户现场需要与其它品牌连接器正、负极对插，请事先与生产厂家联系。

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The Connector liability exemption clause

If there exist following case, and lead to product goes wrong, any loss caused, product manufacturers will not take any responsibility,

1. Product transportation and storage
 - 1.1 Products in the process of transportation, warehouse, can not stored together with those chemicals in the table of "attachment" that will lead the product pollution;
 - 1.2 Products in the process of transportation, warehouse, can not pressure too much on products, nor clash or any other behavior which will damage product;
 - 1.3 Products in the process of transportation, warehouse, should be room temperature storage, avoid light, should be waterproof and dustproof, so as not to reduce product performance, especially in power station;
 - 1.4 Product health storage for 2 years
2. Product installing and operating environment
 - 2.1 The product health working environment temperature is - 40 ~ + 85 °C
 - 2.2 The Product installing should be in accordance with the QC Solar product installation instructions.
 - 2.3 If Products are use in the coastal, desert dust and other dust more regional, they must take the dust cap before the products leave the factory
 - 2.4 When Products are use in roof power station, the connector can not put on the surface of the roof directly.
3. The Products compatible with chemical See attached
4. The connector under the condition of disconnect, the product will not be able to meet any IP protection grade, also can't normal use.
 - 4.1 Products meet IP67 degree of protection requirement after connects, while it can't work under water for a long time, or on the roof.
 - 4.2 Connector in the case of disconnect, should not be placed in the outdoor for long time, it will cause the corrosion of the metal, and lower the connector performance.
 - 4.3 When Connector in the process of outdoor installation and use, and can not connect in time, please do a good job in the connector protection, put on the dust cap and protect the connector from water, dust and other pollution which will affect the product performance.
5. Connector in the process of installation and use should not be collision, drag in the water, put in grass nor the ground. In order to prevent the pollution of inside the connector before use, reduce the product performance.
6. The connector compatible with others
 - 6.1 QC Solar brand connectors are only compatible with QC Solar brand connector, can not be compatible with other brand connectors on the market.
 - 6.2 If the customer need connect with other brand connector in station, please contact the manufacturer in advance.

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