产品规格书
Product Specification

- 产 品 名 称 ： QC4.10-cds

  Product Name: QC4.10-cds

- 客 户 名 称 ：

  Customer Name：

- 供 应 商 ： QC Solar

  Vendor：QC Solar

承 认 签 章（Confirmation）					
快可承认（QC Solar confirmation）			客户承认（Customer confirmation）		
批准 Approved by	审核 Audited by	设计 Designed by	采购 Purchased by	品保 Quality Assured by	技术 Technical verified by

苏州快可光伏电子股份有限公司
QC SOLAR (SUZHOU) CORPORATION
中国苏州工业园区新发路 31 号
No.31,Xinfa road, SIP, Suzhou, China
TEL : 0512-62603391 FAX :0512-62603396

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1. 产品外观及设计性能参数要求：Product appearance and design



认证 Certificate	UL	TUV
名称 Product Name	Series QC4.10, followed by –a5, may be followed by none, followed by c12, c13, c14 or c15, followed by d1 or d3, followed by e2 or e4, may be followed by f1, **and may be followed by g1**.	QC4.10（PLUS）
认证型号 Certified Model	QC4.10-a5CDEf1g1	QC4.10-cds
额定电压 Rated Voltage	UL1500V	IEC1500V
额定电流 Rated Current	30A for 14AWG 35A for 12AWG 50A for 10AWG	36A for 2.5mm² 41A for 4.0mm² 46A for 6.0mm²
线缆规格 Cable Specification	90°C 2000V, Strands of Conductor 41~84/0.25~0.3, OD5.9~7.2mm, 14 AWG, 12 AWG, 10 AWG	IEC 1500V,Strands of Conductor 41~84/0.25~0.3, OD 4.7~7.2mm, 2.5mm², 4.0mm², 6.0mm²
防护等级 IP degree	N/A	IP65/IP68(1m,1h)
安全等级 Protection Class	N/A	Class II
接触电阻 Resistance of Connector	Max 0.2mΩ	Max 0.2mΩ
防火等级 Flammability Class	UL94 V-0	UL94 V-0
温度范围 Temperature Range	-40℃～+85℃	-40℃～+85℃

Caution	"Do Not Disconnect Under Load: PV plug connections must not be disconnected while under load. They can be placed in a no load state by switching off the DC/AC converter or breaking the AC circuit".	N/A

UL 命名 UL NOMENCLATURE	TUV 命名 TUV NOMENCLATURE

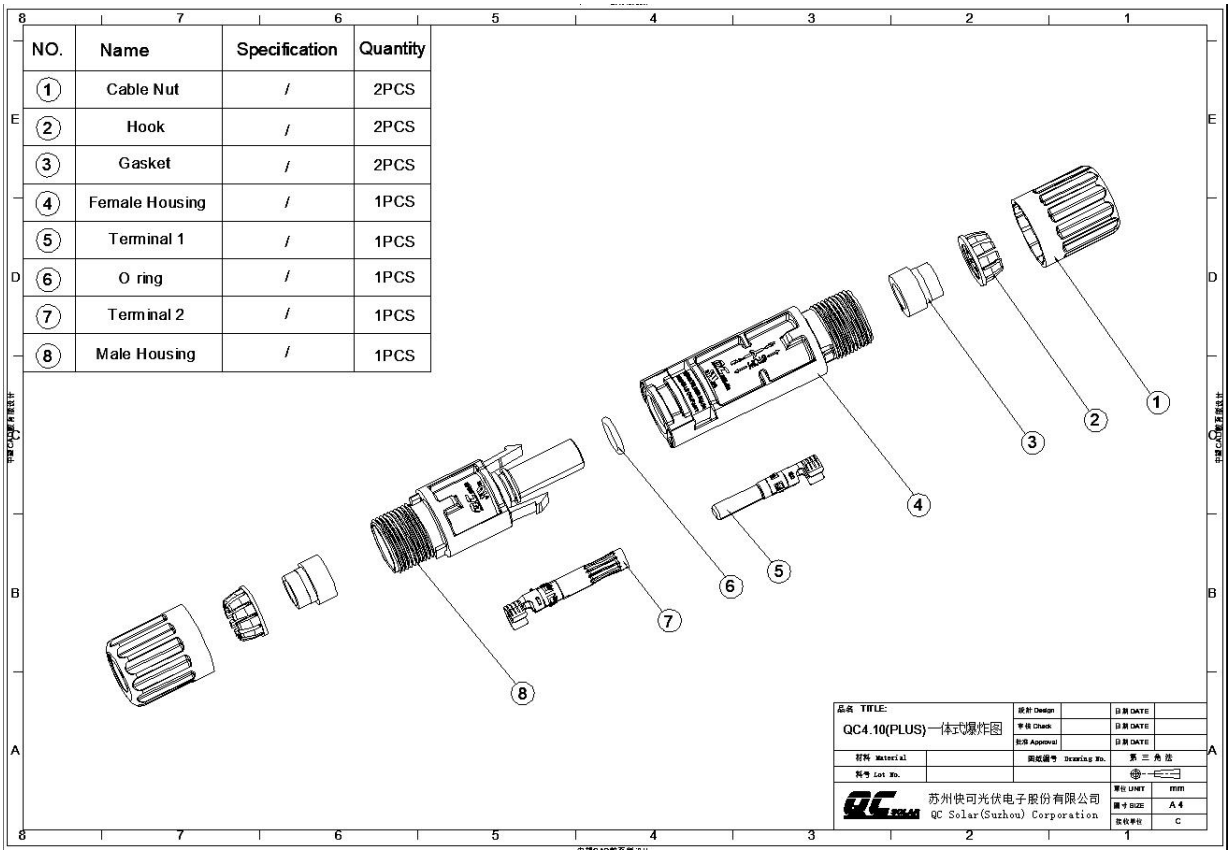
NOMENCLATURE:
QC4.10 – x x x x x x **x**
A B C D E F **G**
Where:
A – Maximum System Voltage
a5 – 1500V
B – Connector Type
none – locking type
C – PV Wire Type
c12–2000V, 12AWG, 48/0.30 (str/dia)
c13–2000V,12AWG,56/0.285 (str/dia)
c14-2000V,10AWG,84/0.285 (str/dia)
c15-2000V,14 AWG, 41/0.25 (str/dia)
D – Material of Connector Housing
d1 – EXL9330(GG)(X)(f1)(B1)(IP)
d3 – PV40Z(f1)
E – Material of Cover Nut
e2 - A3XZG5(f1)
e4 - PA66 T303(XX)GF BK - D(f1)
F - construction
f1 - Connectors with 18.6 mm outer diameter (Plus Construction)
G – Type of Pin Crimp Connector (male) and Socket Connector (female)
g1 – With an Electric Lock integrated, only for F=f1
Caution:
1. For Copper Stranded Wire Only.
2. The product installation and use meet the requirements of PV modules.
3. The connector is considered to be in compliance with UL 6703, Connectors for Use in Photovoltaic Systems, Edition 1, Revision Date 06/10/2021 only when assembled in the manner specified by these assembly instructions.
This connector is suitable for use only with Class B and C stranded copper conductors (See NFPA 70, National Electrical Code, Edition 2020, AMD 1 - 17, Revision Date 04/12/2022, Chapter 9, Table 10).
	Type Designation： QC4.10-cds
	
	Remark: QC4.10-cds is a general designation. The prefix letter "c"、"d"、"s" denotes different technical and design meanings.
	
	1. c=3 or 4
	c=3 denotes rated voltage 1500V with baffle plate;
	c=4 denotes rated voltage 1500V without baffle plate
	
	2. d=4 or 5 or 6
	d=4 denotes rated current 36A with stamping;
	d=5 denotes rated current 41A with stamping;
	d=6 denotes rated current 46A with stamping;
	
	3. s= 1 (Plus constructure)
	
	Wire cross section area or cross section range：
	1 x 2,5mm^2 for QC4.10-341; QC4.10-441;
	1 x 4,0mm^2 for QC4.10-351; QC4.10-451;
	1 x 6,0mm^2 for QC4.10-361; QC4.10-461;

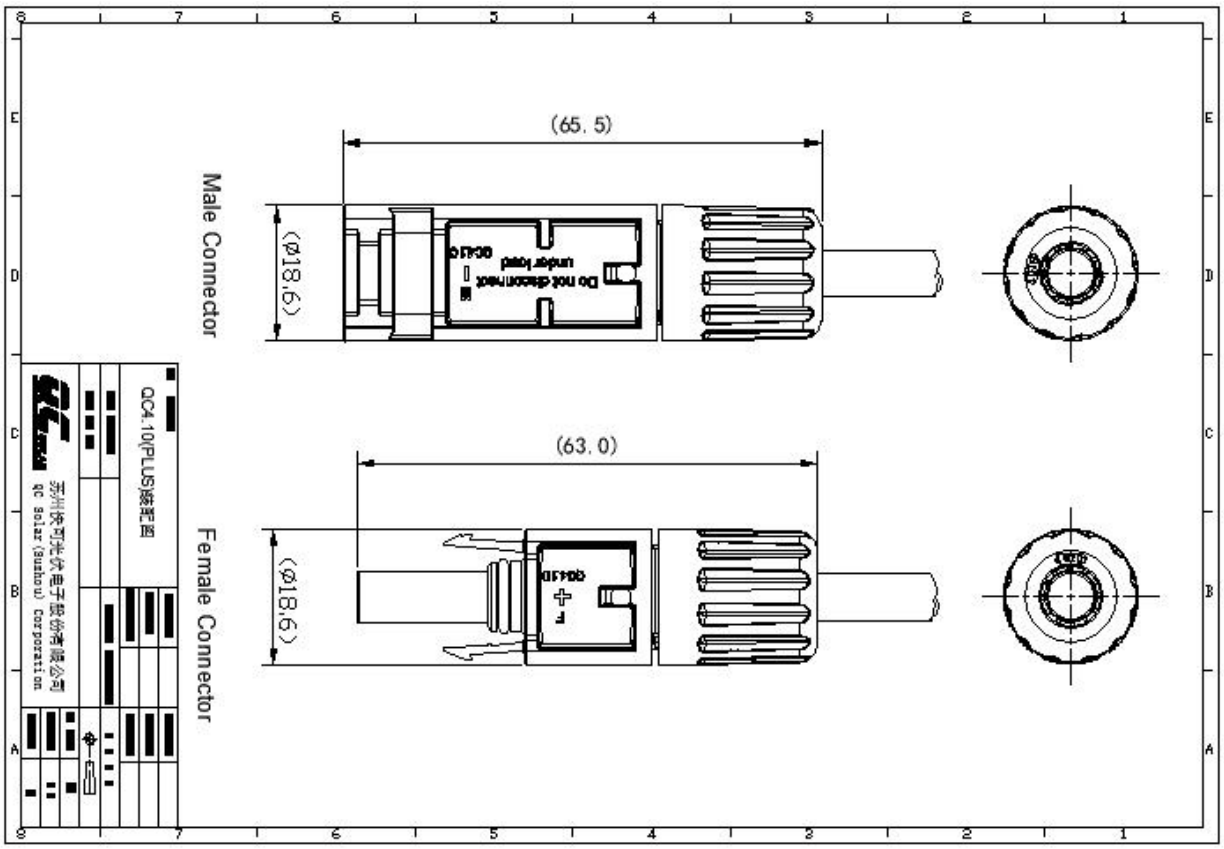
2.连接器 BOM 清单 Connector BOM List：

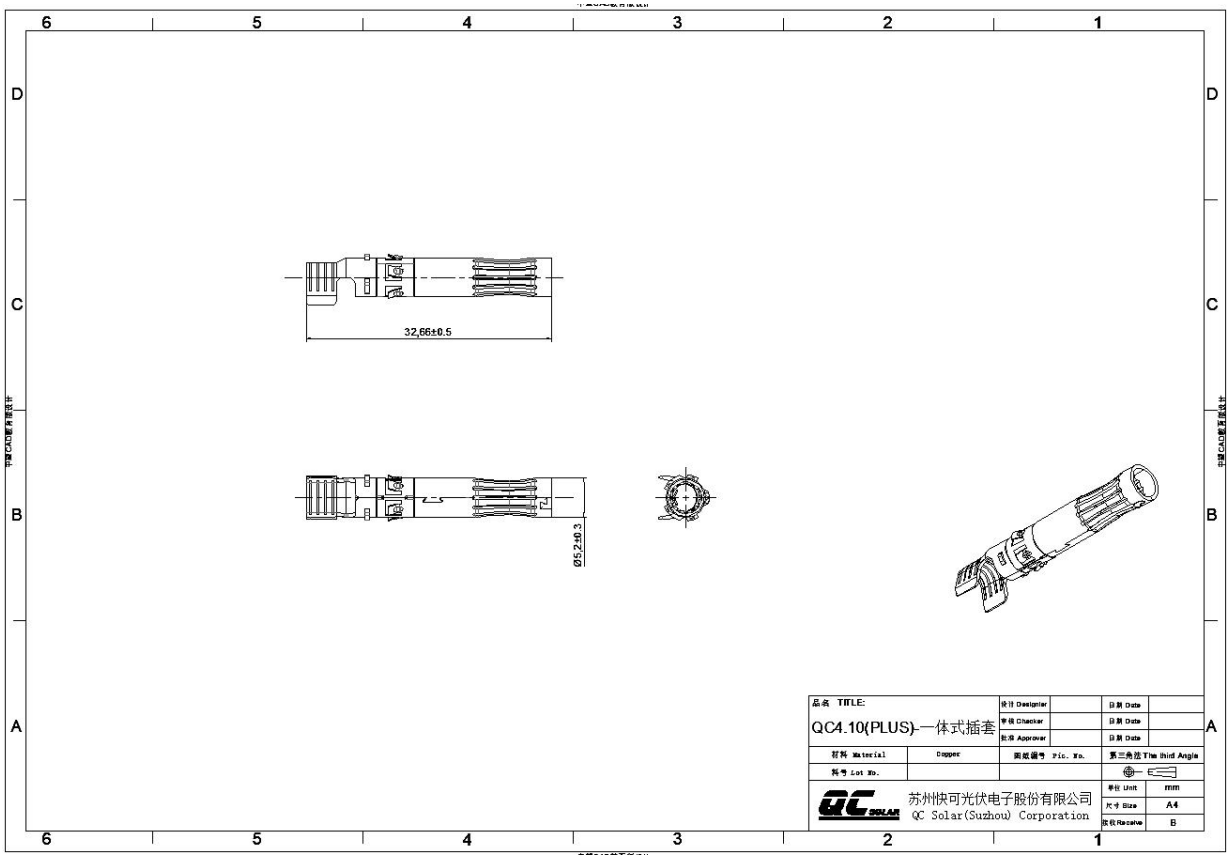
QC Solar (Suzhou) Corporation					
产品名称 Product name	Connector	材料清单 Bill Of Materials		版 本 Version	A/0
产品型号 Product	QC4.10-cds			张 数 Paper	1
客 户 Customer				发行日期 Issue date	2022.08.11
序号 No.	名 称	材 质	生产厂商	数 量	备 注
1	正极本体 Female housing	PPE	QC Solar	1 pcs	
2	负极本体 Male housing	PPE	QC Solar	1 pcs	
3	后罩 Cable clamp	PA	QC Solar	2 pcs	
4	内爪 Screw cap	PA	QC Solar	2 pcs	
5	堵头 Sealing gasket	硅橡胶 Silicon rubber	QC Solar	2 pcs	规格一:4.7-6.0 规格二:5.6-6.8 规格三:6.0-7.2
6	红色 O 型圈 O sealing ring	硅橡胶 Silicon rubber	QC Solar	1 pcs	
7	插针 Metal plug	铜镀锡 Tin-plated copper	QC Solar	1 pcs	
8	插套 Metal socket	铜镀锡 Tin-plated copper	QC Solar	1 pcs	
以上原料符合欧盟 ROHS 要求					
制表：		审核：		批准：	

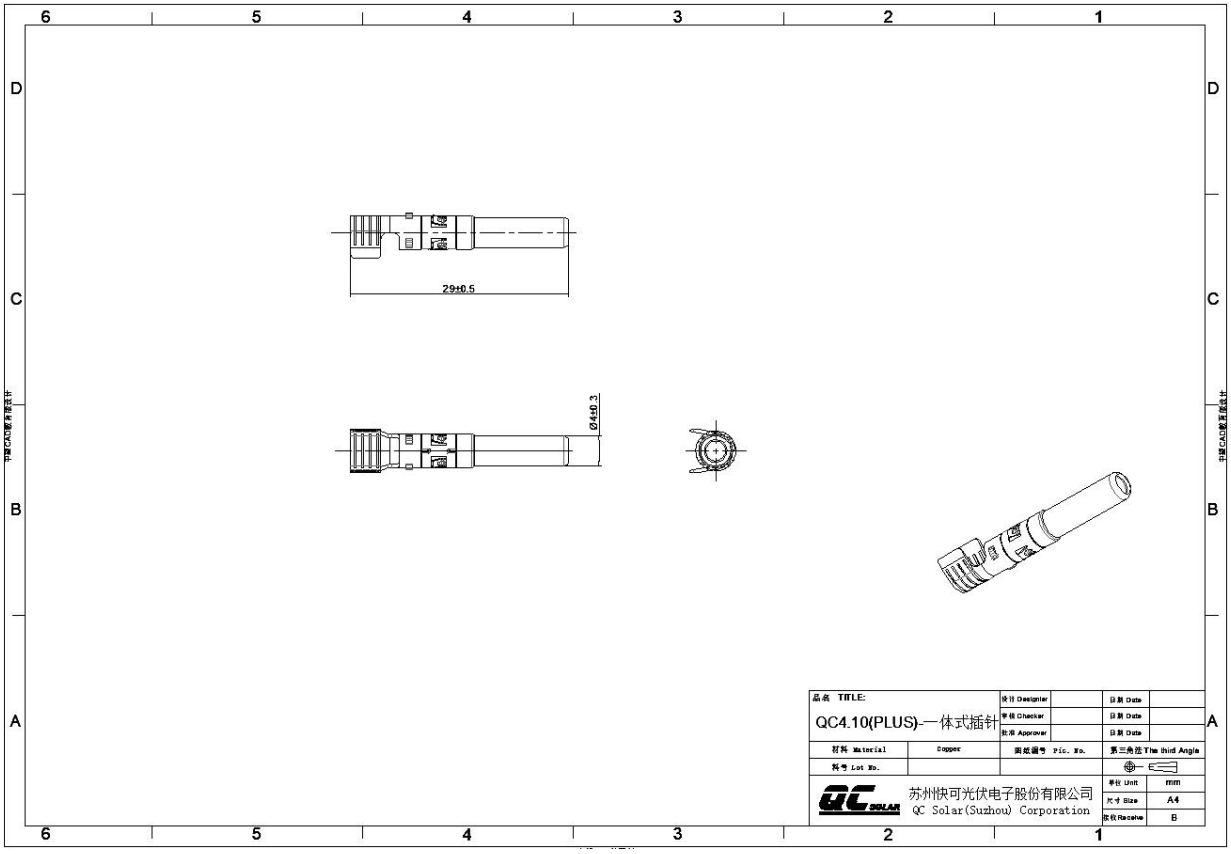
3. 连接器图纸 Drawing of connector:

NO.	Name	Specification	Quantity
①	Cable Nut	/	2PCS
②	Hook	/	2PCS
③	Gasket	/	2PCS
④	Female Housing	/	1PCS
⑤	Terminal 1	/	1PCS
⑥	O ring	/	1PCS
⑦	Terminal 2	/	1PCS
⑧	Male Housing	/	1PCS



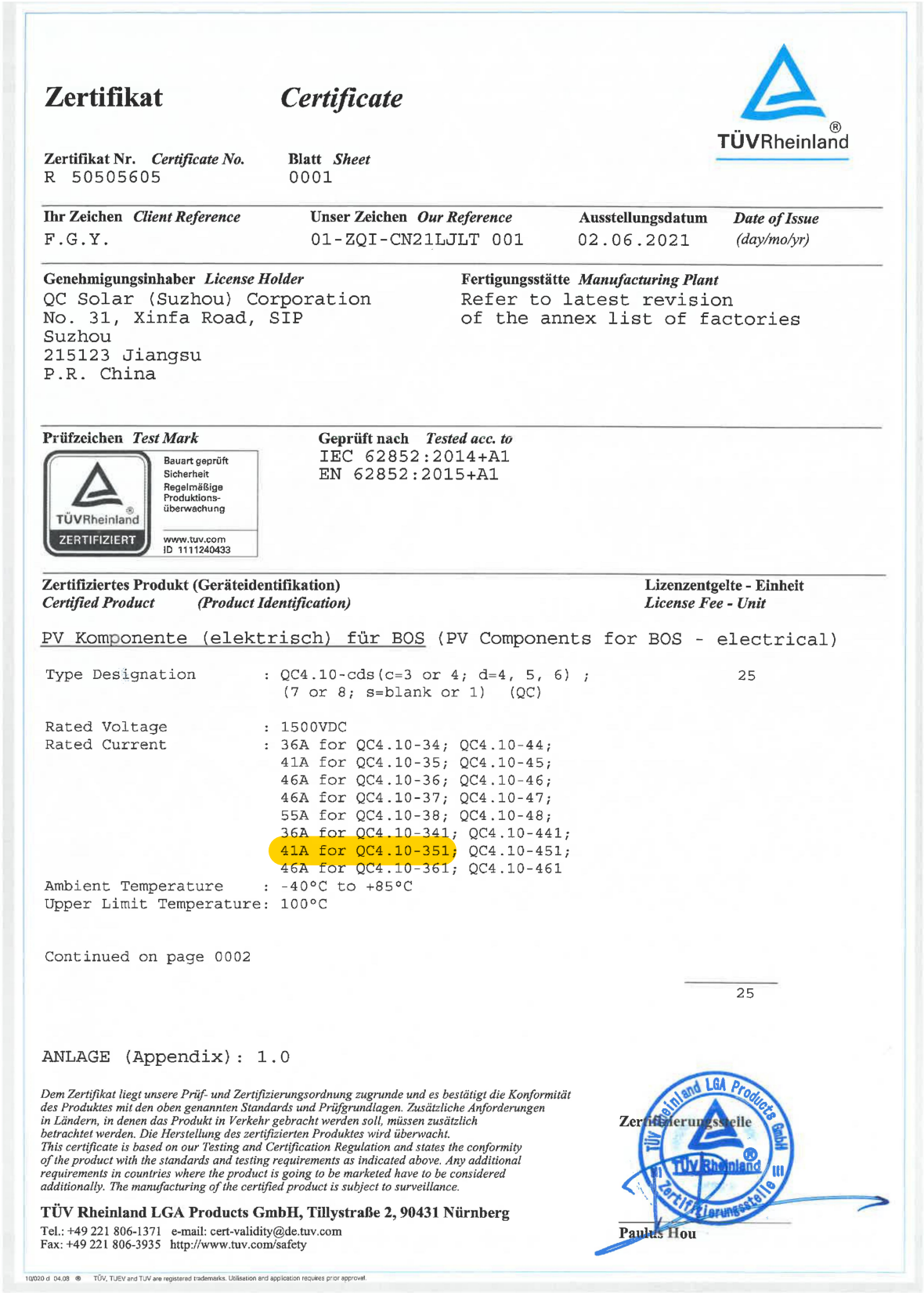



32,66±0.5
Ø5,2±0.3
品名 TITLE:
QC4.10(PLUS)-一体式插套
设计 Designer
审核 Checker
批准 Approver
日期 Date
材料 Material
Copper
图纸编号 Pic. No.
第三角法 The third Angle
料号 Lot No.
单位 Unit
mm
尺寸 Size
A4
版权 Receive
B
苏州快可光伏电子股份有限公司
QC Solar(Suzhou) Corporation


29±0.5
Ø4±0.3
品名 TITLE:
QC4.10(PLUS)-一体式插针
设计 Designer
审核 Checker
批准 Approver
日期 Date
材料 Material
Copper
图纸编号 Pic. No.
第三角法 The third Angle
料号 Lot No.
单位 Unit
mm
尺寸 Size
A4
版权 Receive
B
苏州快可光伏电子股份有限公司
QC Solar(Suzhou) Corporation

4. 连接器 TUV 证书 TUV certification of connector:

（1）莱茵



Zertifikat ***Certificate***

TÜVRheinland®

Zertifikat Nr. ***Certificate No.*** R 50505605

Blatt ***Sheet*** 0001

Ihr Zeichen *Client Reference*	Unser Zeichen *Our Reference*	Ausstellungsdatum	*Date of Issue*
F.G.Y.	01-ZQI-CN21LJLT 001	02.06.2021	*(day/mo/yr)*

Genehmigungsinhaber ***License Holder***
QC Solar (Suzhou) Corporation
No. 31, Xinfa Road, SIP
Suzhou
215123 Jiangsu
P.R. China

Fertigungsstätte ***Manufacturing Plant***
Refer to latest revision
of the annex list of factories

Prüfzeichen ***Test Mark***

TÜVRheinland ZERTIFIZIERT — Bauart geprüft, Sicherheit, Regelmäßige Produktions-überwachung — www.tuv.com ID 1111240433

Geprüft nach ***Tested acc. to***
IEC 62852:2014+A1
EN 62852:2015+A1

Zertifiziertes Produkt (Geräteidentifikation) ***Certified Product (Product Identification)***

Lizenzentgelte - Einheit ***License Fee - Unit***

PV Komponente (elektrisch) für BOS (PV Components for BOS - electrical)

Type Designation	: QC4.10-cds(c=3 or 4; d=4, 5, 6) ; (7 or 8; s=blank or 1) (QC)	25
Rated Voltage	: 1500VDC	
Rated Current	: 36A for QC4.10-34; QC4.10-44; 41A for QC4.10-35; QC4.10-45; 46A for QC4.10-36; QC4.10-46; 46A for QC4.10-37; QC4.10-47; 55A for QC4.10-38; QC4.10-48; 36A for QC4.10-341; QC4.10-441; 41A for QC4.10-351; QC4.10-451; 46A for QC4.10-361; QC4.10-461	
Ambient Temperature	: -40°C to +85°C	
Upper Limit Temperature	: 100°C	

Continued on page 0002

25

ANLAGE (Appendix): 1.0

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.
This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance.

TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg
Tel.: +49 221 806-1371 e-mail: cert-validity@de.tuv.com
Fax: +49 221 806-3935 http://www.tuv.com/safety

Zertifizierungsstelle

Paulus Hou

10/2020 d 04.08 ® TÜV, TUEV and TUV are registered trademarks. Utilisation and application requires prior approval.

（2）南德

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

CERTIFICATE

No. B 077362 0004 Rev. 05

Holder of Certificate: **QC Solar (Suzhou) Corporation**
No.31, Xinfa Road, SIP.
215123 Suzhou
PEOPLE'S REPUBLIC OF CHINA

Certification Mark:

Product: **Connector**

Connectors for Photovoltaic Systems

Model(s): **QC4.10-ab, QC4.3, QC4.Y, QC4.D,QC4.10-cds**

Parameters:

Rated Voltage:	Up to 1500VDC for QC4.3, QC4.Y,QC4.D Up to 1100VDC for QC4.10-ab, 1500VDC for QC4.10-cds
Rated Current:	30A or 35A or 40A for QC4.10-ab 36A or 41A or 46A or 42A or 55A or 60A for QC4.10-cds 30A for QC4.3 50A for QC4.Y 3A for QC4.D
Application Class	A
Protection Class:	II
Degree of Protection:	IP65/IP68(1m,1h) for QC4.10-ab, QC4.10-cds IP65/IP68(1m,1h) for QC4.Y IP65IP68(1m,24h) for QC4.D IP65/IP67 for QC4.3
Ambient Temperature:	-40°C ~ +85°C

Tested according to:
IEC 62852:2014
IEC 62852:2014/AMD1:2020
EN 62852:2015/A1:2020

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition, the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: 704071715901-05
Valid until: 2026-08-08

Date, 2021-08-09

(Yaqun Alex Liu)

TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany

5. 连接器 UL 证书 ULcertification of connector:

UL Product iQ®

QIJQ2.E340004 - Connectors for Use in Photovoltaic Systems - Component

Connectors for Use in Photovoltaic Systems - Component

QC SOLAR (SUZHOU) CORP
31 XINFA RD
SIP
SUZHOU, JIANGSU 215123 China

E340004

Cat. No.	Electrical Rating
Photovoltaic wiring-system connector	
QC4 series	600 V dc, with 10-14 AWG PV cable, 30A dc maximum
Series QC4.10, followed by -a3, followed by c1, followed by d1, d2 or d3, may be followed by e1 or e2. QC4.6-6.0	600 V dc, with 10 AWG PV cable, 30 A dc
Series QC4.10, followed by -a3, followed by c2 or c3, followed by d1, d2 or d3, may be followed by e1 or e2. QC4.6-4.0	600 V dc, with 12 AWG PV cable, 20 A dc
Series QC4.10, followed by -a3, followed by c4, followed by d1, d2 or d3, may be followed by e1 or e2. QC4.6-2.5	600 V dc, with 14 AWG PV cable, 15 A dc
Series QC4.10, followed by -a4, may be followed by b1, followed by c6, followed by d1, d2 or d3, may be followed by e1 or e2.	1000 V dc, with 10 AWG PV cable, 30 A dc
Series QC4.10, followed by -a4, may be followed by b1, followed by c7, c8 or c10, followed by d1, d2 or d3, may be followed by e1 or e2.	1000 V dc, with 12 AWG PV cable, 20 A dc
Series QC4.10, followed by -a4, may be followed by b1, followed by c9, followed by d1, d2 or d3, may be followed by e1 or e2.	1000 V dc, with 14 AWG PV cable, 15 A dc
Models QC4.10-a5BCDEFG series, where B can be b1 or none, C can be c15, D can be d1, d3 or d4, E can be e2, e3 or e4, and F can be none or f1, G can be none or g1.	1500 V dc, with 14 AWG PV cable, 30 A dc
Models QC4.10-a5BCDEFG series, where B can be b1 or none, C can be c12, D can be d1, d3 or d4, E can be e2, e3 or e4, and F can be none or f1, G can be none or g1.	1500 V dc, with 12 AWG PV cable, 35 A dc
Models QC4.10-a5BCDEFG series, where B can be b1 or none, C can be c13, D can be d1, d3 or d4, E can be e2, e3 or e4, and F can be none or f1, G can be none or g1.	1500 V dc, with 12 AWG PV cable, 35 A dc
Models QC4.10-a5BCDEFG series, where B can be b1 or none, C can be c14, D can be d1, d3 or d4, E can be e2, e3 or e4, and F can be none or f1, G can be none or g1.	1500 V dc, with 10 AWG PV cable, 50 A dc
QC4.3-ab1	1000 V dc, with 10 AWG PV cable, 30 A dc
QC4.3-ab2	1000 V dc, with 12 AWG PV cable, 20 A dc
QC4.3-ab3	1000 V dc, with 14 AWG PV cable, 15 A dc

Marking: Company name or trademark "QC", catalog designation and the Recognized Component Mark on the device or carton.

Last Updated on 2022-08-02

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL Solutions' Follow - Up Service. Only those products bearing the UL Mark should be considered to be Certified and covered under UL Solutions' Follow - Up Service. Always look for the Mark on the product.

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