

CERTIFICATE OF COMPLIANCE

Certificate Number 20190621-E342623
Report Reference E342623-20150731
Issue Date 2019-JUNE-21

Issued to: JIANGSU TONGLIN ELECTRIC CO LTD
666 GANGMAO RD
ECONOMIC DEVELOPMENT ZONE
YANGZHONG
JIANGSU 212000 CHINA

**This certificate confirms that
representative samples of**

COMPONENT - CONNECTORS FOR USE IN
PHOTOVOLTAIC SYSTEMS
See Addendum page

Have been investigated by UL in accordance with the component requirements in the Standard(s) indicated on this Certificate. UL Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for installation in complete equipment submitted for investigation to UL LLC.

Standard(s) for Safety:

UL 6703 - Standard for Connectors for Use in Photovoltaic Systems
UL 1703 - Standard for Safety for Flat-Plate Photovoltaic Modules and Panels
CAN/CSA-C22.2 No 182.5-14 - Photovoltaic Connectors
CAN/CSA-C22.2 No 65-13 - Wire Connectors


Additional Information:

See the UL Online Certifications Directory at <https://iq.ulprospector.com> for additional information.

This *Certificate of Compliance* does not provide authorization to apply the UL Recognized Component Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Recognized Component Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Recognized Component Mark on the product.



Bruce Mahrenholz, Director North American Certification Program
UL LLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please contact a local UL Customer Service Representative at <http://ul.com/aboutul/locations/>



CERTIFICATE OF COMPLIANCE

Certificate Number 20190621-E342623
Report Reference E342623-20150731
Issue Date 2019-JUNE-21

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

USR, CNR - Component Photovoltaic Connector, locking type, Cat. No. TL-CABLE01S-F series, followed by abcdef, where a can be F or M, b can be E or V, c can be X, T or V, d can be E or V, e can be E or V, f can be 2, 4 or 6. BIG series, followed by C, P or Q, followed by F or M, followed by A or B, followed by 2, 4, 6 or 8, followed by V, Z or E, followed by X, T, V or 0, followed by U, 1, V or 0, followed by X, T, R or 0.

Component Photovoltaic Connector, latching type, Cat. No. TL-CABLE01S-FR series, followed by abcdef, where a can be F or M, b can be E or V, c can be X, T or V, d can be E or V, e can be E or V, f can be 2, 4 or 6.



Bruce Mahrenholz, Director North American Certification Program
UL LLC

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Zertifikat

Certificate



Zertifikat Nr. *Certificate No.*
R 50424961

Blatt *Sheet*
0001

Ihr Zeichen *Client Reference*
L.Q.J.

Unser Zeichen *Our Reference*
01-YX-50207971 001

Ausstellungsdatum *Date of Issue*
14.12.2018 *(day/month)*

Genehmigungsinhaber *License Holder*
Jiangsu Tonglin Electric
Co., Ltd.
666# Gangmao RD,
Economic Development Zone
Yangzhong City, Jiangsu 212200
P. R. China

Fertigungsstätte *Manufacturing Plant*
Jiangsu Tonglin Electric
Co., Ltd.
666# Gangmao RD,
Economic Development Zone
Yangzhong City, Jiangsu 212200
P. R. China

Prüfzeichen *Test Mark*



Bauart geprüft
Sicherheit
Regelmäßige
Produktions-
überwachung

www.tuv.com
ID 1419084490

Geprüft nach *Tested acc. to*

IEC 62852:2014
EN 62852:2015

Zertifiziertes Produkt (Geräteidentifikation)
Certified Product (Product Identification)

Lizenzentgelte - Einheit
License Fee - Unit

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

Type Designation : BIGabcdefgh(a=C or P or Q, 20
b=F or M, c=A or B, d=2 or 4 or 6,
e=E or V or Z, f=X or T or V or 0,
g=U or 1 or V or 0,
h=X or T or R or 0) (TL)

Rated Voltage : 1500VDC
Rated Current : 40A for BIGabc2efgh;
45A for BIGabc4efgh;
55A for BIGabc6efgh

Ambient Temperature : -40°C to +90°C
Upper Limit Temperature: 105°C
Cross Section Range : 1 x 2,5mm²; 1 x 4,0mm²; 1 x 6,0mm²
Protection Degree : IP65/IP68 (1m, 1h)
Application Class : Class A

Remark: The labelling requirements acc. to EU Directive
2001/95 have to be observed for distribution within
the EEA.

ANLAGE (Appendix): 1.0

20

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



Dipl.-Ing. (FH) Bernd Scheirer

Zertifikat

Certificate



Zertifikat Nr. *Certificate No.*
R 50424961

Blatt *Sheet*
0002

Ihr Zeichen *Client Reference*
L.Q.J.

Unser Zeichen *Our Reference*
01-LXL-50207971 002

Ausstellungsdatum *Date of Issue*
26.09.2019 (day/mo/yr)

Genehmigungsinhaber *License Holder*
Jiangsu Tonglin Electric
Co., Ltd.
666# Gangmao RD,
Economic Development Zone
Yangzhong City, Jiangsu 212200
P. R. China

Fertigungsstätte *Manufacturing Plant*
Jiangsu Tonglin Electric
Co., Ltd.
666# Gangmao RD,
Economic Development Zone
Yangzhong City, Jiangsu 212200
P. R. China

Prüfzeichen *Test Mark*



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www.tuv.com
ID 1419064490

Geprüft nach *Tested acc. to*

IEC 62852:2014
EN 62852:2015

Zertifiziertes Produkt (Geräteidentifikation)
Certified Product (Product Identification)

Lizenzentgelte - Einheit
License Fee - Unit

PV Komponente (elektrisch) für BOS (PV Components for BOS - electrical)
as page 0001

Addition

Type Designation : BIGabcdefgh(a=C or P or Q, b=F or M, c=A or B, d=8, e=E or V or Z, f=X or T or V or 0, g=U or 1 or V or 0, h=X or T or R or 0)
(Jiangsu Tonglin(LOGO)) 20

Rated Voltage : 1500VDC

Rated Current : 70A

Cross Section Range : 1 x 10,0mm²

ANLAGE (Appendix): 1.1

20

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



Dipl.-Ing. (FH) Bernd Schreier

Certificate



Certificate No.: 6058381.05DS.001

Applicant: Jiangsu Tonglin Electric Co., Ltd.
666# Gangmao RD, Economic Development Zone, Yangzhong City, Jiangsu
212200, P.R. China

The scope of this certificate includes the following products:

Connectors for Photovoltaic Systems

Type: BIGabcdefgh(a=C or P or Q, b=F or M, c=A or B, d=2 or 4 or 6, e=E or V or Z, f=X or T or V or 0, g=U or 1 or V or 0, h=X or T or R or 0)

Rated Voltage:	1500 Vdc
Rated Current:	See annex 1 for details
Ambient Temperature:	-40 °C to +90 °C
Upper Limit Temperature:	105 °C
Cross Section Range:	1 x 2,5 mm ² ; 1 x 4,0 mm ² ; 1 x 6,0 mm ²
Protection Degree:	IP65/IP68(1 h,1 m)
Application Class:	Class A
Production Plant:	See annex 1 for details

According to the results of the type examination and annual quality controls of the production processes carried out by the seal awarding body

DEKRA Testing and Certification (Shanghai) Ltd.
3F #250 Jiangchangan Road Building 16 Headquarter Economy Park Shibe Hi-Tech Park,
Jing'an District Shanghai 200436 China

compliance with the requirements specified in Standards
IEC 62852: 2014
EN 62852: 2015

are ensured.

Shanghai, 10 July 2019

It expires at the latest on: 10 July 2024

Cliff Lin
Certification Body, Company

Connectors
for PV Systems
Type Testing
▶ IEC 62852:2014
▶ EN 62852:2015
▶ Periodically Factory
Inspection as per CIG
021-024
www.dekra-seal.com



Certificate



Annex 1 of 6058381.05DS.001

Rated Current: 40 A for BIGabc2efgh;
45 A for BIGabc4efgh;
55 A for BIGabc6efgh

Production Plant: Jianguo Tonglin Electric Co., Ltd.
Address of Production Plant: 666# Gangmao RD, Economic Development Zone, Yangzhong City,
Jianguo 212200, P.R. China

Certificate



Certificate No.: 6058381.05DS.002

Report No.: 6058381.054A.002
Licensee: Jiangsu Tonglin Electric Co., Ltd.
Address of Licensee: 666# Gangmao RD, Economic Development Zone, Yangzhong City, Jiangsu 212200, P.R. China
Production Plant(s): see annex 1 for details
The scope of this certificate includes the following products: Connectors Photovoltaic Systems
Type(s): see annex 1 for details
Parameters: see annex 1 for details

According to the results of the type examination and annual quality controls of the production processes carried out by the seal awarding body

DEKRA Testing and Certification (Shanghai) Ltd.
3F #250 Jiangchangsan Road Building 16 Headquarter Economy Park Shibeí Hi-Tech Park,
Jing'an District Shanghai 200436 China
compliance with the requirements specified in Standards
IEC 62852:2014
EN 62852:2015

are ensured.

Shanghai, 07 January 2020

It expires at the latest on: 07 January 2025

Cliff Lin
Certification Body, Company



Certificate



Annex 1 of 6058381.05DS.002

Type(s): BIGabcdefgh(a=C or P or Q, b=F or M, c=A or B, d=8, e=E or V or Z, f=X or T or V or 0, g=U or 1 or V or 0, h=X or T or R or 0)
Rated Voltage: 1500 Vdc
Rated Current: 70 A for BIGabc8efgh
Cross Section Range: 1 x 10,0 mm² for BIGabc8efgh

Production Plant: Jiangsu Tonglin Electric Co., Ltd.
Address of Production Plant: 666# Gangmao RD, Economic Development Zone, Yangzhong City, Jiangsu 212200, P.R. China

Zertifikat

Certificate



Zertifikat Nr. *Certificate No.*
R 50524455

Blatt *Sheet*
0001

Ihr Zeichen *Client Reference*
Z.D.Y.

Unser Zeichen *Our Reference*
01-LWP-CN21UL7C 001

Ausstellungsdatum *Date of Issue*
19.11.2021
(day/mo/yr)

Genehmigungsinhaber *License Holder*
Jiangsu Tonglin Electric
Co., Ltd.
666# Gangmao RD,
Economic Development Zone
Yangzhong City
212200 Jiangsu
P.R. China

Fertigungsstätte *Manufacturing Plant*
Jiangsu Tonglin Electric
Co., Ltd.
666# Gangmao RD,
Economic Development Zone
Yangzhong City
212200 Jiangsu
P.R. China

Prüfzeichen *Test Mark*



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www.tuv.com
ID 1111247036

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 : BIGabcd 29
(a=C, P or Q; b=F or M) ;
(c=A or B, d=2, 4, 6 or 8)
(Jiangsu Tonglin (logo))

Rated Voltage : 1500VDC
Rated Current : 40A for BIGabc2; 45A for BIGabc4;
55A for BIGabc6; 70A for BIGabc8
Ambient Temperature : -40°C to +90°C

Upper Limit Temperature: 105°C
Cross Section Range : 1 x 2,5mm²; 1 x 4,0mm²;
1 x 6,0mm²; 1 x 10,0mm²
Protection Degree : IP65/IP68 (1m, 1h)
Application Class : Class A

Remark: The labelling requirements acc. to EU Directive
2001/95 have to be observed for distribution within
the EEA.

ANLAGE (Appendix): 1.0

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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.
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TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg

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Fax: +49 221 806-3935

Zertifizierungsstelle



Dipl.-Ing. (FH) Bernd Scheifer