

To:

Company: Jiangsu Jinghua New Energy
Operation Management Co., Ltd.

Contact: Mr. He Kaikai

Email: hekaikai@jinghuaenergy.com

From:

Company: TÜV NORD (HANGZHOU) CO., LTD.

Contact: Ms. Miley Li

Email: wli@tuv-nord.com

2020-11-16

Subject: Declaration of cancellation

File No.: SHV01045/20-02

License holder: **Jiangsu Jinghua New Energy Operation Management Co., Ltd.**
No.88, Wenchang East Road, Jiangdu District, Yangzhou City, P.R. China

Manufacturer: **YANGZHOU JINGHUA New Energy Technology Co., Ltd.**
No. 1 Weili Road, Xiancheng Industrial Park, Jiangdu District
Yangzhou City, Jiangsu Province, P.R. China

Certificate No.: 44 780 20 406749 - 181

Product: Crystalline Silicon Terrestrial Photovoltaic (PV) Modules

Herewith it is declared, that the above noted certificate(s) has (have) been invalidated since the date 2020-11-16.

The cancellation is to:

- ☐ License holder applied for cancellation.
- ☒ New certificate(s) has (have) been issued to replace the cancelled one(s).
(New certificate(s) : 44 780 20 406749 - 181M1)
- ☐ Annual factory inspection is refused by the license holder or the manufacturer.
- ☐ Factory Inspection fee or annual fee or registration fee is not paid by License Holder or Manufacturer.
- ☐ Others. (N/A)

Please pay attention to stop using the invalid certificate(s) from 2020-11-16. Meanwhile, please send back the original copies of above mentioned certificate(s) to us.

TÜV NORD reserved the right of final explanation about the cancellation of certificate(s). TÜV NORD will not take any responsibility for the circumstance of misusing the invalid certificate(s) by the license holder or the manufacturer.

PV Business - Renewable Energy
TÜV NORD (Hangzhou) Co., Ltd.

Miley Li
Technical Support

CERTIFICATE

TÜV NORD CERT GmbH

herewith declares that

Jiangsu Jinghua New Energy Operation Management Co., Ltd.
No.88, Wenchang East Road, Jiangdu District
Yangzhou City
P.R. China

is authorized to provide the product mentioned below with the mark as illustrated:

Description of product (details see Annex 2):

PV Modules with 6" Mono-crystalline Silicon Solar Cells

PV Modules with 6" Half-cut Mono-crystalline Silicon Solar Cells



Valid from: 2020-11-16

Valid until: 2025-09-21

Tested according to: IEC / EN 61215-1:2016;
IEC / EN 61215-1-1:2016;
IEC 61215-2:2016 / EN 61215-2:2017 + AC:2017 + AC:2018;
IEC 61730-1:2016 / EN IEC 61730-1:2018 + AC:2018;
IEC 61730-2:2016 / EN IEC 61730-2:2018 + AC:2018.
Registered No.: 44 780 20 406749 - 181M1
Manufacturer: see Annex 1
Test Report No.: 492011512.002
File No.: PVP07069/20P-01



TÜV NORD CERT GmbH
Certification Body
Consumer Products



Essen, 2020-11-16

Please also pay attention to the information stated overleaf.

Anlage 1 zum Zertifikat Nr.: / Annex 1 to Certificate No.: **44 780 20 406749 - 181M1**

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Aktenzeichen: / File reference: **PVP07069/20P-01**

2020-11-16

Manufacturer:

Manufacturer: **YANGZHOU JINGHUA New Energy Technology Co., Ltd.**
No. 1 Weili Road, Xiancheng Industrial Park, Jiangdu District
Yangzhou City, Jiangsu Province, P.R. China

Factory inspection report no.: **862010511.001**

Remark:

Factory inspection is mandatory to be performed annually. Please refer to factory inspection report for detailed information.



TÜV NORD CERT GmbH
Certification Body
Consumer Products

Description of product(s):

Module types:	PV Modules with 6" Mono-crystalline Silicon Solar Cells: 72 cells: JHM6/72Hxxx (xxx = 375-385, in increment of 5) 60 cells: JHM6/60Hxxx (xxx = 315-320, in increment of 5)
Maximum system voltage:	1500V
Fuse rating:	20A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I
Design load (positive / negative):	3600Pa / 1600Pa
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)

Module types:	PV Modules with 6" Half-cut Mono-crystalline Silicon Solar Cells: 144 cells: JHM3/72Hxxx (xxx = 380-415, in increment of 5) 120 cells: JHM3/60Hxxx (xxx = 315-345, in increment of 5) 144 cells: JHM4/72Hxxx (xxx = 425-465, in increment of 5) 120 cells: JHM4/60Hxxx (xxx = 355-385, in increment of 5)
Maximum system voltage:	1500V
Fuse rating:	20A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I
Design load (positive / negative):	3600Pa / 1600Pa
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)

Remark:

For detailed product information, please refer to CDF (Constructional Data Form) in Annex 1 of test report.



TÜV NORD CERT GmbH
Certification Body
Consumer Products



Product Service

CERTIFICATE

No. Z2 078488 0085 Rev. 05

Holder of Certificate: Suzhou Talesun Solar Technologies Co., Ltd.

No. 1 Talesun Road
Changkun Industrial Park
Shajiabang Town, Changshu
215542 Suzhou, Jiangsu Province
PEOPLE'S REPUBLIC OF CHINA

Certification Mark:



Product:

Crystalline Silicon Terrestrial Photovoltaic (PV) Modules
Mono-Crystalline Silicon Photovoltaic Module

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. See also notes overleaf.

Test report no.: 704061199501-18

Valid until: 2024-11-25

Date, 2019-11-29

(Zhulin Zhang)

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ CERTIFICADO ◆ CERTIFICAT



Product Service

CERTIFICATE

No. Z2 078488 0085 Rev. 05

Model(s):

1000 VDC system voltage modules:

TP678M-xxx, xxx=400 to 455 in step of 5
TP672M-xxx, xxx=275 to 420 in step of 5
TP660M-xxx, xxx=230 to 350 in step of 5
TP654M-xxx, xxx=205 to 280 in step of 5
TP648M-xxx, xxx=185 to 250 in step of 5
TP6H72M-xxx, xxx=335 to 405 in step of 5
TP6H60M-xxx, xxx=280 to 335 in step of 5
TP6F72M-xxx, xxx=380 to 425 in step of 5
TP6F60M-xxx, xxx=315 to 355 in step of 5
1500 VDC system voltage modules:

TP678M(H)-xxx, xxx=400 to 455 in step of 5
TP672M(H)-xxx, xxx=300 to 420 in step of 5
TP660M(H)-xxx, xxx=250 to 350 in step of 5
TP654M(H)-xxx, xxx=225 to 280 in step of 5
TP648M(H)-xxx, xxx=200 to 250 in step of 5
TP6H72M(H)-xxx, xxx=335 to 405 in step of 5
TP6H60M(H)-xxx, xxx=280 to 335 in step of 5
TP6F72M(H)-xxx, xxx=380 to 425 in step of 5
TP6F60M(H)-xxx, xxx=315 to 355 in step of 5
xxx is standing for rated output power at STC

Parameters:

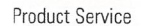
Construction:	Framed, with Junction box, Cable and Connectors.
Application Class :	Class A
Maximum System Voltage:	1000 V DC or 1500 V DC
Fire Safety Class:	Class C
Test Laboratory:	Yangzhou Opto-Electrical Products Testing Institute, No. 10 West Kaifa Road, Yangzhou, 225009 Jiangsu, P. R. China.

Tested according to:

IEC 61215:2005
IEC 61730-1:2004
IEC 61730-1:2004/AMD1:2011
IEC 61730-1:2004/AMD2:2013
IEC 61730-2:2004
IEC 61730-2:2004/AMD1:2011
EN 61730-1:2007/A11:2014
EN 61730-2:2007/A1:2012

Production Facility(ies):

003671, 078488, 096715



No. B 101462 0003 Rev. 00

Holder of Certificate: **Wuxi Thinkpower New Energy Co., Ltd.**
Building C3, Phase II, Pioneer Park
Yongan Road, Economic Development Zone
214200 Yixing City, Jiangsu Province
PEOPLE'S REPUBLIC OF CHINA

Certification Mark:



Product: Converter
Grid-Tied PV Inverter

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. See also notes overleaf.

Test report no.: 704091816201-00

Valid until: 2023-12-28

Date, 2019-01-31

(Zhengdong Ma)



Product Service

CERTIFICATE

No. B 101462 0003 Rev. 00

Model(s): TP10KTL, TP15KTL, TP20KTL.

Parameters:

Model	TP10KTL	TP15KTL	TP20KTL
Max. input voltage:	1000Vd.c.	1000Vd.c.	1000Vd.c.
MPP voltage range:	250 – 800Vd.c.	250 – 800Vd.c.	250 – 800Vd.c.
Max. input current:	17A/17A	20A/20A	25A/25A
Isc PV (absolute maximum):	25A/25A	30A/30A	38A/38A
Rated grid voltage	3/N/PE ~ 400/230V		
Rated grid frequency	50 Hz		
Max. continuous output current:	17A	23A	30A
Max. AC output active power:	10000W	15000W	20000W
Max. AC output apparent power	11000VA	16000VA	21000VA
Adjustable cos(φ):	0.8ind...0.8cap		
Protection class:	I		
Degree of protection:	IP65		
Overvoltage category	II(PV), III(MAINS)		
Operating temperature range:	-25 ... +60°C		

Tested according to: EN 62109-1:2010
EN 62109-2:2011
IEC 62109-1(ed.1)
IEC 62109-2(ed.1)

Production Facility(ies): 101462



Product Service

Compliance Document

No. D 101462 0005 Rev. 00

Holder of Certificate: **Wuxi Thinkpower New Energy Co., Ltd.**

Building C3, Phase II, Pioneer Park
Yongan Road, Economic Development Zone
214200 Yixing City, Jiangsu Province
PEOPLE'S REPUBLIC OF CHINA

Product:

Converter
Grid-Tied PV Inverter

This Compliance document confirms the compliance with the listed standards on a voluntary basis. It refers only to the sample submitted for testing and certification and does not certify the quality or safety of the serial products. See also notes overleaf.

Test report no.:

704091816202-00

Date,

2019-02-01


(Zhengdong Ma)



Product Service

Compliance Document

No. D 101462 0005 Rev. 00

Model(s): TP10KTL, TP15KTL, TP20KTL

Parameters:

Model	TP10KTL	TP15KTL	TP20KTL
Max. input voltage:	1000Vd.c.	1000Vd.c.	1000Vd.c.
MPP voltage range:	250 – 800Vd.c.	250 – 800Vd.c.	250 – 800Vd.c.
Max. input current:	17A/17A	20A/20A	25A/25A
Isc PV (absolute maximum):	25A/25A	30A/30A	38A/38A
Rated grid voltage	3/N/PE ~ 400/230V		
Rated grid frequency	50 Hz		
Max. continuous output current:	17A	23A	30A
Max. AC output active power:	10000W	15000W	20000W
Max. AC output apparent power	11000VA	16000VA	21000VA
Adjustable cos(ϕ):	0.8ind...0.8cap		
Protection class:	I		
Degree of protection:	IP65		
Overvoltage category	II(PV), III(MAINS)		
Operating temperature range:	-25 ... +60°C		

Tested according to:

- IEC 61727(ed.2)
- IEC 62116(ed.2)
- IEC 60068-2-1(ed.6)
- IEC 60068-2-2(ed.5)
- IEC 60068-2-14(ed.6)
- IEC 60068-2-30(ed.3)
- EN 50530:2010/A1:2013
- IEC 61683(ed.1)



Product Service

Compliance Document

No. D 101462 0001 Rev. 00

Holder of Certificate: **Wuxi Thinkpower New Energy Co., Ltd.**

Building C3, Phase II, Pioneer Park
Yongan Road, Economic Development Zone
214200 Yixing City, Jiangsu Province
PEOPLE'S REPUBLIC OF CHINA

Product: **Converter**
Grid-Tied PV Inverter

This Compliance document confirms the compliance with the listed standards on a voluntary basis. It refers only to the sample submitted for testing and certification and does not certify the quality or safety of the serial products. See also notes overleaf.

Test report no.: 704091816203-00

Date, 2018-09-03

(Zhengdong Ma)



Product Service

Compliance Document

No. D 101462 0001 Rev. 00

Model(s): TP10KTL, TP15KTL, TP20KTL.

Parameters:

Model	TP10KTL	TP15KTL	TP20KTL
Max. input voltage:	1000Vd.c.	1000Vd.c.	1000Vd.c.
MPP voltage range:	250 – 800Vd.c.	250 – 800Vd.c.	250 – 800Vd.c.
Max. input current:	17A/17A	20A/20A	25A/25A
Isc PV (absolute maximum):	25A/25A	30A/30A	38A/38A
Rated grid voltage	3/N/PE ~ 400/230V		
Rated grid frequency	50 Hz		
Max. continuous output current:	17A	23A	30A
Max. AC output active power:	10000W	15000W	20000W
Max. AC output apparent power	11000VA	16000VA	21000VA
Adjustable cos(ϕ):	0.8ind...0.8cap		
Protection class:	I		
Degree of protection:	IP65		
Overvoltage category	II(PV), III(MAINS)		
Operating temperature range:	-25 ... +60°C		

Tested according to: DIN VDE 0126-1-1 (VDE V 0126-1-1):2013