

**To / 致:**

Company / 公司: Sunova Solar Technology Co., Ltd.

Contact / 联系人: Ms. Miao Lingzhu

Email / 邮箱: Mary.miao@sunova-solar.com

**From / 自:**

Company / 公司: TÜV NORD (HANGZHOU) CO., LTD. / 杭州汉德质量认证服务有限公司

Contact / 联系人: Ms. Serena.Wu / 邬玉婷 小姐

Email / 邮箱: sewu@tuv-nord.com

**Subject: Announcement of cancellation**

主题: 证书取消通知

File No.: PVP01092/24P-02

项目号:

License holder: Sunova Solar Technology Co., Ltd.

持证人:

Certificate No.: 44 780 24 406749 - 170R1M2

证书号:

Product: Crystalline Silicon Terrestrial Photovoltaic (PV) Modules

产品: 地面用晶体硅光伏组件

Herewith it is declared, that the above noted certificate(s) has (have) been invalidated since 2024-12-18.  
特此声明, 上述证书自 2024 年 12 月 18 日起失效。

The cancellation is due to:

取消原因:

License holder applied for cancellation.

持证人申请取消。

New certificate(s) (no: 44 780 24 406749 - 170R2A1M3) has (have) been issued to replace the cancelled one(s).

新证书 (证书号: 44 780 24 406749 - 170R2A1M3) 签发, 取代旧证书。

Certificate(s) is (are) expired.

证书有效期至。

Certificate(s) has (have) been suspended for one year, and the factory inspection, verification, and rectification required to restore the certificate(s) has (have) not been completed.

证书暂停满一年, 未完成恢复证书所需厂检、核查、整改等。

Certificate(s) has (have) been suspended for one year, and the annual certificate fee has (have) not been paid.

证书暂停满一年, 未支付证书年费。

Others: \_\_\_\_\_

其他情况: \_\_\_\_\_

Please pay attention to stop using the invalid certificate(s) from 2024-12-18. Meanwhile, please send back the original copies of above mentioned certificate(s) to us.

请注意从 2024 年 12 月 18 日开始停止使用无效证书。同时，请将上述证书原件寄回给我们。

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.

TÜV NORD 保留对证书取消的最终解释权。TÜV NORD 对证书持有者或制造商滥用无效证书的情况不承担任何责任。

Renewable Energy / 可再生能源

TÜV NORD (Hangzhou) Co., Ltd. / 杭州汉德质量认证服务有限公司



Serena.Wu / 邬玉婷

Technical Support / 技术支持

# CERTIFICATE

**TÜV NORD CERT GmbH**  
herewith declares that

**Yuncheng Solar Technology Co., Ltd.**

Building H, Phase II, Standard Workshop, Runzhou Road, Huishan  
Industrial Transformation and Agglomeration Area 214115 Wuxi,  
Jiangsu Province, P.R. China

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

**Description of product (details see Annex 2):**

**Crystalline Silicon Terrestrial Photovoltaic (PV) Modules**



Valid from: 2024-12-18

Valid until: 2029-04-28

Certification program:	P12-VA-01 Rev. 17 09.20
Certification fundamental(s):	IEC 61215-1:2021 / EN IEC 61215-1:2021; IEC 61215-1-1:2021 / EN IEC 61215-1-1:2021; IEC 61215-2:2021 / EN IEC 61215-2:2021; IEC 61730-1:2023; IEC 61730-2:2023.
Registered No.:	44 780 24 406749 - 170R2A1M3
Manufacturer and factory(-ies):	See Annex 1
Test Report No.:	492013047.004
File No.:	PVP11131/24P-01



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**Consumer Products**



Essen, 2024-12-18

Please also pay attention to the information stated overleaf.

**Manufacturer and factory(-ies):**

Manufacturer:

**Yuncheng Solar Technology Co., Ltd.**

Building H, Phase II, Standard Workshop, Runzhou Road, Huishan  
Industrial Transformation and Agglomeration Area 214115 Wuxi,  
Jiangsu Province, P.R. China

Factory 1:

**Yuncheng Solar Technology Co., Ltd.**

Building H, Phase II, Standard Workshop, Runzhou Road, Huishan  
Industrial Transformation and Agglomeration Area 214115 Wuxi,  
Jiangsu Province, P.R. China

Factory inspection report no.:

862010664.002

Factory 2:

**PT THORNOVA SOLAR INDONESIA**

Jalan Hang Kesturi Kabil , Desa/Kelurahan Batu Besar, Kec. Nongsa, Kota  
Batam, Provinsi Kepulauan Riau, 29466, Indonesia

Factory inspection report no.:

862011037.001

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 Half-cut 182mm n-type Mono-crystalline Silicon Solar Cells:**

156 cells: TS-SWT78(xxx) (xxx = 610-635, in increment of 5)  
156 cells: TS-SBT78(xxx) (xxx = 610-635, in increment of 5)  
156 cells: TS-BBT78(xxx) (xxx = 610-635, in increment of 5)  
156 cells: TS-BWT78(xxx) (xxx = 610-635, in increment of 5)  
156 cells: SS-xxx-78MDH(T) (xxx = 610-635, in increment of 5)  
144 cells: TS-SWT72(xxx) (xxx = 565-600, in increment of 5)  
144 cells: TS-SBT72(xxx) (xxx = 565-600, in increment of 5)  
144 cells: TS-BBT72(xxx) (xxx = 565-600, in increment of 5)  
144 cells: TS-BWT72(xxx) (xxx = 565-600, in increment of 5)  
144 cells: SS-xxx-72MDH(T) (xxx = 565-600, in increment of 5)  
132 cells: TS-SWT66(xxx) (xxx = 520-550, in increment of 5)  
132 cells: TS-SBT66(xxx) (xxx = 520-550, in increment of 5)  
132 cells: TS-BBT66(xxx) (xxx = 520-550, in increment of 5)  
132 cells: TS-BWT66(xxx) (xxx = 520-550, in increment of 5)  
132 cells: SS-xxx-66MDH(T) (xxx = 520-550, in increment of 5)  
120 cells: TS-SWT60(xxx) (xxx = 470-500, in increment of 5)  
120 cells: TS-SBT60(xxx) (xxx = 470-500, in increment of 5)  
120 cells: TS-BBT60(xxx) (xxx = 470-500, in increment of 5)  
120 cells: TS-BWT60(xxx) (xxx = 470-500, in increment of 5)  
120 cells: SS-xxx-60MDH(T) (xxx = 470-500, in increment of 5)  
108 cells: TS-SWT54(xxx) (xxx = 425-450, in increment of 5)  
108 cells: TS-SBT54(xxx) (xxx = 425-450, in increment of 5)  
108 cells: TS-BBT54(xxx) (xxx = 425-450, in increment of 5)  
108 cells: TS-BWT54(xxx) (xxx = 425-450, in increment of 5)  
108 cells: SS-xxx-54MDH(T) (xxx = 425-450, in increment of 5)

Maximum system voltage: 1500V  
Maximum overcurrent protection rating: 25A  
Electrical protection class: Class II  
Pollution degree: 1  
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)



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Module types:	<b>PV Modules with Half-cut 210mm n-type Mono-crystalline Silicon Solar Cells:</b> 132 Cells: TS-SWTxxx-66MDH-G12 (xxx = 680-710, in increment of 5) 132 Cells: TS-SBTxxx-66MDH-G12 (xxx = 680-710, in increment of 5) 132 Cells: TS-BBTxxx-66MDH-G12 (xxx = 680-710, in increment of 5) 132 Cells: TS-BWTxxx-66MDH-G12 (xxx = 680-710, in increment of 5) 132 Cells: SS-xxx-66MDH-G12(T) (xxx = 680-710, in increment of 5) 120 Cells: TS-SWTxxx-60MDH-G12 (xxx = 620-645, in increment of 5) 120 Cells: TS-SBTxxx-60MDH-G12 (xxx = 620-645, in increment of 5) 120 Cells: TS-BBTxxx-60MDH-G12 (xxx = 620-645, in increment of 5) 120 Cells: TS-BWTxxx-60MDH-G12 (xxx = 620-645, in increment of 5) 120 Cells: SS-xxx-60MDH-G12(T) (xxx = 620-645, in increment of 5)
Maximum system voltage:	1500V
Maximum overcurrent protection rating:	30A
Electrical protection class:	Class II
Pollution degree:	1
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:	<b>PV Modules with Half-cut 182.2mm x 191.6mm n-type Mono-crystalline Silicon Solar Cells:</b> 144 cells: TS-SWT72(xxx)-G10 (xxx = 595-615, in increment of 5) 144 cells: TS-SBT72(xxx)-G10 (xxx = 595-615, in increment of 5) 144 cells: TS-BBT72(xxx)-G10 (xxx = 595-615, in increment of 5) 144 cells: TS-BWT72(xxx)-G10 (xxx = 595-615, in increment of 5) 144 cells: SS-xxx-72MDH-G10(T) (xxx = 595-615, in increment of 5) 132 cells: TS-SWT66(xxx)-G10 (xxx = 545-560, in increment of 5) 132 cells: TS-SBT66(xxx)-G10 (xxx = 545-560, in increment of 5) 132 cells: TS-BBT66(xxx)-G10 (xxx = 545-560, in increment of 5) 132 cells: TS-BWT66(xxx)-G10 (xxx = 545-560, in increment of 5) 132 cells: SS-xxx-66MDH-G10 (T) (xxx = 545-560, in increment of 5) 120 cells: TS-SWT60(xxx)-G10 (xxx = 495-510, in increment of 5) 120 cells: TS-SBT60(xxx)-G10 (xxx = 495-510, in increment of 5) 120 cells: TS-BBT60(xxx)-G10 (xxx = 495-510, in increment of 5) 120 cells: TS-BWT60(xxx)-G10 (xxx = 495-510, in increment of 5) 120 cells: SS-xxx-60MDH-G10(T) (xxx = 495-510, in increment of 5) 108 cells: TS-SWT54(xxx)-G10 (xxx = 445-460, in increment of 5)
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	108 cells: TS-SBT54(xxx)-G10 (xxx = 445-460, in increment of 5)
	108 cells: TS-BBT54(xxx)-G10 (xxx = 445-460, in increment of 5)
	108 cells: TS-BWT54(xxx)-G10 (xxx = 445-460, in increment of 5)
	108 cells: SS-xxx-54MDH-G10(T) (xxx = 445-460, in increment of 5)
Maximum system voltage:	1500V
Maximum overcurrent protection rating:	25A
Electrical protection class:	Class II
Pollution degree:	1
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 Half-cut 182.2mm x 199mm n-type Monocrystalline Silicon Solar Cells:**

144 cells: TS-SWT72(xxx)-G13 (xxx = 615-640, in increment of 5)  
144 cells: TS-SBT72(xxx)-G13 (xxx = 615-640, in increment of 5)  
144 cells: TS-BBT72(xxx)-G13 (xxx = 615-640, in increment of 5)  
144 cells: TS-BWT72(xxx)-G13 (xxx = 615-640, in increment of 5)  
144 cells: SS-xxx-72MDH-G13(T) (xxx = 615-640, in increment of 5)  
132 cells: TS-SWT66(xxx)-G13 (xxx = 565-585, in increment of 5)  
132 cells: TS-SBT66(xxx)-G13 (xxx = 565-585, in increment of 5)  
132 cells: TS-BBT66(xxx)-G13 (xxx = 565-585, in increment of 5)  
132 cells: TS-BWT66(xxx)-G13 (xxx = 565-585, in increment of 5)  
132 cells: SS-xxx-66MDH-G13(T) (xxx = 565-585, in increment of 5)  
120 cells: TS-SWT60(xxx)-G13(xxx = 515-530, in increment of 5)  
120 cells: TS-SBT60(xxx)-G13(xxx = 515-530, in increment of 5)  
120 cells: TS-BBT60(xxx)-G13(xxx = 515-530, in increment of 5)  
120 cells: TS-BWT60(xxx)-G13(xxx = 515-530, in increment of 5)  
120 cells: SS-xxx-60MDH-G13(T) (xxx = 515-530, in increment of 5)  
108 cells: TS-SWT54(xxx)-G13(xxx = 460-480, in increment of 5)  
108 cells: TS-SBT54(xxx)-G13(xxx = 460-480, in increment of 5)  
108 cells: TS-BBT54(xxx)-G13(xxx = 460-480, in increment of 5)  
108 cells: TS-BWT54(xxx)-G13(xxx = 460-480, in increment of 5)  
108 cells: SS-xxx-54MDH-G13(T) (xxx = 460-480, in increment of 5)

Maximum system voltage:	1500V
Maximum overcurrent protection rating:	25A



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Electrical protection class:	Class II
Pollution degree:	1
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 Half-cut 182.2mm x 210mm n-type Mono-crystalline Silicon Solar Cells:**

132 cells: TS-SWT66(xxx)-G11(xxx = 595-620, in increment of 5)  
132 cells: TS-SBT66(xxx)-G11(xxx = 595-620, in increment of 5)  
132 cells: TS-BBT66(xxx)-G11(xxx = 595-620, in increment of 5)  
132 cells: TS-BWT66(xxx)-G11(xxx = 595-620, in increment of 5)  
132 cells: SS-xxx-66MDH-G11(T) (xxx = 595-620, in increment of 5)  
120 cells: TS-SWT60(xxx)-G11(xxx = 545-565, in increment of 5)  
120 cells: TS-SBT60(xxx)-G11(xxx = 545-565, in increment of 5)  
120 cells: TS-BBT60(xxx)-G11(xxx = 545-565, in increment of 5)  
120 cells: TS-BWT60(xxx)-G11(xxx = 545-565, in increment of 5)  
120 cells: SS-xxx-60MDH-G11(T) (xxx = 545-565, in increment of 5)  
108 cells: TS-SWT54(xxx)-G11(xxx = 485-505, in increment of 5)  
108 cells: TS-SBT54(xxx)-G11(xxx = 485-505, in increment of 5)  
108 cells: TS-BBT54(xxx)-G11(xxx = 485-505, in increment of 5)  
108 cells: TS-BWT54(xxx)-G11(xxx = 485-505, in increment of 5)  
108 cells: SS-xxx-54MDH-G11(T) (xxx = 485-505, in increment of 5)  
96 cells: TS-SWT48(xxx)-G11(xxx = 435-450, in increment of 5)  
96 cells: TS-SBT48(xxx)-G11(xxx = 435-450, in increment of 5)  
96 cells: TS-BBT48(xxx)-G11(xxx = 435-450, in increment of 5)  
96 cells: TS-BWT48(xxx)-G11(xxx = 435-450, in increment of 5)  
96 cells: SS-xxx-48MDH-G11(T)(xxx = 435-450, in increment of 5)

Maximum system voltage:	1500V
Maximum overcurrent protection rating:	25A
Electrical protection class:	Class II
Pollution degree:	1
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)



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## Module types:

**PV Modules with Half-cut 182.2mm x 169.25mm n-type Monocrystalline Silicon Solar Cells:**

156 cells: TS-SWT78(xxx)-G7(xxx = 560-595, in increment of 5)

156 cells: TS-SBT78(xxx)-G7(xxx = 560-595, in increment of 5)

156 cells: TS-BBT78(xxx)-G7(xxx = 560-595, in increment of 5)

156 cells: TS-BWT78(xxx)-G7(xxx = 560-595, in increment of 5)

156 cells: SS-xxx-78MDH-G7(T) (xxx = 560-595 in increment of 5)

144 cells: TS-SWT72(xxx)-G7(xxx = 515-550, in increment of 5)

144 cells: TS-SBT72(xxx)-G7(xxx = 515-550, in increment of 5)

144 cells: TS-BBT72(xxx)-G7(xxx = 515-550, in increment of 5)

144 cells: TS-BWT72(xxx)-G7(xxx = 515-550, in increment of 5)

144 cells: SS-xxx-72MDH-G7(T) (xxx = 515-550, in increment of 5)

120 cells: TS-SWT60(xxx)-G7(xxx = 430-455, in increment of 5)

120 cells: TS-SBT60(xxx)-G7(xxx = 430-455, in increment of 5)

120 cells: TS-BBT60(xxx)-G7(xxx = 430-455, in increment of 5)

120 cells: TS-BWT60(xxx)-G7(xxx = 430-455, in increment of 5)

120 cells: SS-xxx-60MDH-G7(T) (xxx = 430-455, in increment of 5)

Maximum system voltage:

1500V

Maximum overcurrent protection rating:

25A

Electrical protection class:

Class II

Pollution degree:

1

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) attached to test report with same file no.



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