

CERTIFICATE

TÜV NORD CERT GmbH
herewith declares that

Sunrise energy Co., Ltd.
No.20 Tongzi River West Road, Zhonglou Development Zone
Changzhou Jiangsu, 213023
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: 2023-04-06
Valid until: 2025-11-04

Certification program:	P12-VA-01 Rev. 17 09.20
Certification fundamental(s):	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 - 218R5M5
Manufacturer:	see Annex 1
Test Report No.:	492011544.007
File No.:	PVP09016/22P-01



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Consumer Products



Essen, 2023-04-06

Please also pay attention to the information stated overleaf.

Anlage 1 zum Zertifikat Nr.: / Annex 1 to Certificate No.: 44 780 20 406749 - 218R5M5

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Aktenzeichen: / File reference: PVP09016/22P-01

2023-04-06

Manufacturer:

Manufacturer: **Sunrise energy Co., Ltd.**
No.20 Tongzi River West Road, Zhonglou Development Zone,
Changzhou Jiangsu, 213023 P.R. China

Factory inspection report no.: 862010400.005

Remark:

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



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Description of product(s):

Module types:	PV Modules with 6" Half-cut Mono-crystalline Silicon Solar Cells: 144 cells: SR-M672xxxHLP (xxx = 415 - 450, in increment of 5) 132 cells: SR-M666xxxHLP (xxx = 380 - 410, in increment of 5) 120 cells: SR-M660xxxHLP (xxx = 345 - 375, in increment of 5)
Maximum system voltage:	1500V
Fuse rating:	25A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I
Design load (positive / negative):	1600Pa / 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 7" Half-cut Mono-crystalline Silicon Solar Cells: 144 cells: SR-72MxxxHLPro (xxx = 530 - 560, in increment of 5) 132 cells: SR-66MxxxHLPro (xxx = 485 - 510, in increment of 5) 120 cells: SR-60MxxxHLPro (xxx = 440 - 465, in increment of 5) 108 cells: SR-54MxxxHLPro (xxx = 400 - 420, in increment of 5) 96 cells: SR-48MxxxHLPro (xxx = 355 - 370, in increment of 5) 84 cells: SR-42MxxxHLPro (xxx = 310 - 325, in increment of 5) 72 cells: SR-36MxxxHLPro (xxx = 265 - 280, in increment of 5)
Maximum system voltage:	1500V
Fuse rating:	25A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I
Design load (positive / negative):	1600Pa / 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 7" Half-cut TOPCon Mono-crystalline Silicon Solar Cells:

156 cells: SR-78MxxxNHLPro (xxx = 590 - 635, in increment of 5)

144 cells: SR-72MxxxNHLPro (xxx = 545 - 585, in increment of 5)

132 cells: SR-66MxxxNHLPro (xxx = 500 - 535, in increment of 5)

120 cells: SR-60MxxxNHLPro (xxx = 455 - 485, in increment of 5)

108 cells: SR-54MxxxNHLPro (xxx = 410 - 440, in increment of 5)

96 cells: SR-48MxxxNHLPro (xxx = 365 - 390, in increment of 5)

84 cells: SR-42MxxxNHLPro (xxx = 320 - 340, in increment of 5)

72 cells: SR-36MxxxNHLPro (xxx = 275 - 290, in increment of 5)

Maximum system voltage:

1500V

Fuse rating:

25A

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)

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Module types:	PV Modules with 8" Half-cut Mono-crystalline Silicon Solar Cells: 132 cells: SR-66MAXxxxH (xxx = 640 - 665, in increment of 5) 120 cells: SR-60MAXxxxH (xxx = 580 - 605, in increment of 5) 108 cells: SR-54MAXxxxH (xxx = 525 - 545, in increment of 5) 96 cells: SR-48MAXxxxH (xxx = 465 - 480, in increment of 5) 84 cells: SR-42MAXxxxH (xxx = 410 - 420, in increment of 5) 110 cells: SR-55MAXxxxH (xxx = 535 - 555, in increment of 5)
Maximum system voltage:	1500V
Fuse rating:	30A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I
Design load (positive / negative):	1600Pa / 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.



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**Certificate
of conformity with the following
European Directives**

Registered No.:
44 799 23 406749 - 080

Low-Voltage Directive 2014/35/EU

Date of application	File reference	Test report No.	Date of issue	Place of issue
2022-09-01	PVP9016/22P-01	492011544.007	2023-04-06	Essen

This is to certify that the following products comply to the essential requirements of the above mentioned European Directive and the following standards, taking into account the German national deviations:

Product: Crystalline Silicon Terrestrial Photovoltaic (PV) Modules

Type designation: See Annex 1

Applicant: **Sunrise energy Co., Ltd.**
No.20 Tongzi River West Road, Zhonglou Development Zone,
Changzhou Jiangsu, 213023 P.R. China

Standard(s): EN IEC 61730-1:2018; EN IEC 61730-1:2018/AC:2018-06
EN IEC 61730-2:2018; EN IEC 61730-2:2018/AC:2018-06

This Certificate of conformity is based on the evaluation of samples of the product. It does not imply an assessment of the production and it does not permit the use of a mark of conformity or of a safety mark of the TÜV NORD CERT GmbH. The holder of this certificate may use this Certificate together with his EC-Declaration of Conformity.



Certification Body
Specialist Manager Consumer Products

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Description of product(s):

Module types: **PV Modules with 6" Half-cut Mono-crystalline Silicon Solar Cells:**
144 cells: SR-M672xxxHLP (xxx = 415 - 450, in increment of 5)
132 cells: SR-M666xxxHLP (xxx = 380 - 410, in increment of 5)
120 cells: SR-M660xxxHLP (xxx = 345 - 375, in increment of 5)

Module types: **PV Modules with 7" Half-cut Mono-crystalline Silicon Solar Cells:**
144 cells: SR-72MxxxHLPro (xxx = 530 - 560, in increment of 5)
132 cells: SR-66MxxxHLPro (xxx = 485 - 510, in increment of 5)
120 cells: SR-60MxxxHLPro (xxx = 440 - 465, in increment of 5)
108 cells: SR-54MxxxHLPro (xxx = 400 - 420, in increment of 5)
96 cells: SR-48MxxxHLPro (xxx = 355 - 370, in increment of 5)
84 cells: SR-42MxxxHLPro (xxx = 310 - 325, in increment of 5)
72 cells: SR-36MxxxHLPro (xxx = 265 - 280, in increment of 5)

Module types: **PV Modules with 7" Half-cut TOPCon Mono-crystalline Silicon Solar Cells:**
156 cells: SR-78MxxxNHLPro (xxx = 590 - 635, in increment of 5)
144 cells: SR-72MxxxNHLPro (xxx = 545 - 585, in increment of 5)
132 cells: SR-66MxxxNHLPro (xxx = 500 - 535, in increment of 5)
120 cells: SR-60MxxxNHLPro (xxx = 455 - 485, in increment of 5)
108 cells: SR-54MxxxNHLPro (xxx = 410 - 440, in increment of 5)
96 cells: SR-48MxxxNHLPro (xxx = 365 - 390, in increment of 5)
84 cells: SR-42MxxxNHLPro (xxx = 320 - 340, in increment of 5)
72 cells: SR-36MxxxNHLPro (xxx = 275 - 290, in increment of 5)



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Module types:

PV Modules with 8" Half-cut Mono-crystalline Silicon Solar Cells:

132 cells: SR-66MAXxxxH (xxx = 640 - 665, in increment of 5)

120 cells: SR-60MAXxxxH (xxx = 580 - 605, in increment of 5)

108 cells: SR-54MAXxxxH (xxx = 525 - 545, in increment of 5)

96 cells: SR-48MAXxxxH (xxx = 465 - 480, in increment of 5)

84 cells: SR-42MAXxxxH (xxx = 410 - 420, in increment of 5)

110 cells: SR-55MAXxxxH (xxx = 535 - 555, in increment of 5)

100 cells: SR-50MAXxxxH (xxx = 485 - 500, in increment of 5)

90 cells: SR-45MAXxxxH (xxx = 435 - 450, in increment of 5)

80 cells: SR-40MAXxxxH (xxx = 390 - 400, in increment of 5)

70 cells: SR-35MAXxxxH (xxx = 340 - 350, in increment of 5)



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