

CERTIFICATE

TÜV NORD CERT GmbH
herewith declares that

JINNENG CLEAN ENERGY TECHNOLOGY LTD.
No.1 Wenshui Economic Development Zone
Lvliang, Shanxi, 032100
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: 2024-05-07

Valid until: 2028-07-22

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 - 011R9M12
Manufacturer:	see Annex 1
Test Report No.:	492011072.017
File No.:	PVP07125/23P-01



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Essen, 2024-05-07

Please also pay attention to the information stated overleaf.

Manufacturer and factory(-ies):

Manufacturer: **JINNENG CLEAN ENERGY TECHNOLOGY LTD.**
No.1 Wenshui Economic Development Zone
Lvliang, Shanxi, 032100, China

Factory 1: **JINNENG CLEAN ENERGY TECHNOLOGY LTD.**
No.1 Wenshui Economic Development Zone
Lvliang, Shanxi, 032100, China

Factory inspection report no.: 862010249.010

Factory 2: **Jinneng Photovoltaic Technology Ltd.**
No. 533, East Guang'an Street, Green-car Park, Jinzhong Development
Park, Demonstrative Zone of Shanxi Comprehensive Reform,
Jinzhong City, Shanxi Province, 030600, P.R. China

Factory inspection report no.: 862010378.006

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:	Double Glass PV Modules with 6" Mono Heterojunction Bifacial Solar Cells: 72 cells: JNHM72-xxx (xxx = 330-390, in increment of 5) 60 cells: JNHM60-xxx (xxx = 275-325, in increment of 5) Remark: xxx only indicates maximum power output of the front side.
Maximum system voltage:	1500V
Fuse rating:	15A
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:	Double Glass PV Modules with 6" Half-cut Mono Heterojunction Bifacial Solar Cells: 144 cells: JNHM144-xxx (xxx = 380-475, in increment of 5) 132 cells: JNHM132-xxx (xxx = 350-435, in increment of 5) 120 cells: JNHM120-xxx (xxx = 315-395, in increment of 5) Remark: xxx only indicates maximum power output of the front side.
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)



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Module types:	Double Glass PV Modules with 6" Mono Bifacial Solar Cells: 72 cells: JNBM72-xxx (xxx = 360-390, in increment of 5) 60 cells: JNBM60-xxx (xxx = 300-325, in increment of 5) Remark: xxx only indicates maximum power output of the front side.
Maximum system voltage:	1500V
Fuse rating:	15A
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:	Double Glass PV Modules with 6" Half-cut Mono Bifacial Solar Cells: 144 cells: JNBM144-xxx (xxx = 365-465, in increment of 5) 120 cells: JNBM120-xxx (xxx = 305-385, in increment of 5) Remark: xxx only indicates maximum power output of the front side.
Maximum system voltage:	1500V
Fuse rating:	20A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I
Design load (positive / negative):	1600Pa / 1600Pa (without frame) 3600Pa / 1600Pa (with frame)
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:	Double Glass PV Modules with 7" Half-cut Mono Bifacial Solar Cells: 156 cells: JNBM156-xxx (xxx = 565-605, in increment of 5) 144 cells: JNBM144-xxx (xxx = 520-560, in increment of 5) 132 cells: JNBM132-xxx (xxx = 475-510, in increment of 5) 120 cells: JNBM120-xxx (xxx = 435-465, in increment of 5) 108 cells: JNBM108-xxx (xxx = 390-420, in increment of 5) 96 cells: JNBM96-xxx (xxx = 345-370, in increment of 5) Remark: xxx only indicates maximum power output of the front side.
Maximum system voltage:	1500V
Fuse rating:	30A
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:	Double Glass PV Modules with 8" Half-cut Mono Bifacial Solar Cells: 132 cells: JNBM132-xxx (xxx = 630-670, in increment of 5) 120 cells: JNBM120-xxx (xxx = 575-610, in increment of 5) Remark: xxx only indicates maximum power output of the front side.
Maximum system voltage:	1500V
Fuse rating:	35A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I
Design load (positive / negative):	4000Pa / 1600Pa (short frame without A-side) 3600Pa / 1600Pa (with frame)
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:	Double Glass PV Modules with 7" Half-cut Mono Bifacial Solar Cells: 156 cells: JNBN156-xxx (xxx = 565-635, in increment of 5) 144 cells: JNBN144-xxx (xxx = 520-610, in increment of 5) 132 cells: JNBN132-xxx (xxx = 480-560, in increment of 5) 120 cells: JNBN120-xxx (xxx = 435-505, in increment of 5) 108 cells: JNBN108-xxx (xxx = 390-455, in increment of 5) 96 cells: JNBN96-xxx (xxx = 350-405, in increment of 5) Remark: xxx only indicates maximum power output of the front side.
Maximum system voltage:	1500V
Fuse rating:	30A
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:	Double Glass PV Modules with 7" Half-cut Mono Bifacial Solar Cells: 132 cells: JNBN132-xxx (xxx = 585-615, in increment of 5) 120 cells: JNBN120-xxx (xxx = 530-560, in increment of 5) 108 cells: JNBN108-xxx (xxx = 480-500, in increment of 5) 96 cells: JNBN96-xxx (xxx = 425-445, in increment of 5) Remark: xxx only indicates maximum power output of the front side.
Maximum system voltage:	1500V
Fuse rating:	35A
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:	Double Glass PV Modules with 6" Mono-crystalline Silicon Solar Cells: 72 cells: JNGM72-xxx (xxx = 340-380, in increment of 5) 60 cells: JNGM60-xxx (xxx = 285-315, in increment of 5) 48 cells: JNGM48-xxx (xxx = 225-250, in increment of 5) Remark: xxx only indicates maximum power output of the front side.
Maximum system voltage:	1500V
Fuse rating:	15A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I
Design load (positive / negative):	3600Pa / 1600Pa (without frame) 3600Pa / 2400Pa (with frame)
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)

Module types:	Double Glass PV Modules with 6" Poly-crystalline Silicon Solar Cells: 72 cells: JNGP72-xxx (xxx = 305-340, in increment of 5) 60 cells: JNGP60-xxx (xxx = 255-285, in increment of 5) 48 cells: JNGP48-xxx (xxx = 205-225, in increment of 5) Remark: xxx only indicates maximum power output of the front side.
Maximum system voltage:	1500V
Fuse rating:	15A
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:	Double Glass PV Modules with 8" Half-cut TOPCon Mono Bifacial Solar Cells: 132 cells: JNBN132-xxx (xxx = 670-710, in increment of 5) 120 cells: JNBN120-xxx (xxx = 610-645, in increment of 5) Remark: xxx only indicates maximum power output of the front side.
Maximum system voltage:	1500V
Fuse rating:	35A
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).



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