

CERTIFICATE

TÜV NORD CERT GmbH

herewith declares that

United Energy Co., Ltd.

No. 398, Ganquan Road, Shushan District, Hefei City, Anhui Province

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: 2023-02-21

Valid until: 2028-05-09

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 23 406749 - 033

Manufacturer: see Annex 1

Test Report No.: 492012305.001

File No.: PVP02067/23P



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Essen, 2023-02-21

Please also pay attention to the information stated overleaf.

Anlage 1 zum Zertifikat Nr.: / Annex 1 to Certificate No.: 44 780 23 406749 - 033

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Aktenzeichen: / File reference: PVP02067/23P

2023-02-21

Manufacturer:

Manufacturer: **Coded by debtor no. 55403167**

Factory inspection report no.: 862010379.005

Remark:

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

A handwritten signature in blue ink, appearing to read "Robert N. N. N." or similar, written in a cursive style.

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Description of product(s):

Module types:	PV Modules with 6" Mono-crystalline Silicon Solar Cells: 72 cells: UE***M-72 (***=310-375, in increment of 5) 60 cells: UE***M-60 (***=260-310, in increment of 5) 54 cells: UE***M-54 (***=235-270, in increment of 5) 48 cells: UE***M-48 (***=205-240, in increment of 5) 42 cells: UE***M-42 (***=185-210, in increment of 5) 36 cells: UE***M-36 (***=160-180, in increment of 5) 30 cells: UE***M-30 (***=135-150, in increment of 5)
Maximum system voltage:	1500V
Fuse rating:	15A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I or II
Design load (positive / negative):	5400Pa (positive) / 2400Pa (negative) or 3600Pa (positive) / 1600Pa (negative)
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (per ANSI/UL 790-2018)
Module types:	PV Modules with 6" Mono-crystalline Silicon Solar Cells: 72 cells: UE***M-72 (***=380-395, in increment of 5) 60 cells: UE***M-60 (***=320-330, in increment of 5)
Maximum system voltage:	1500V
Fuse rating:	15A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I or II
Design load (positive / negative):	3600Pa (positive) / 1600Pa (negative)
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (per ANSI/UL 790-2018)



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Module types:	PV Modules with 6" Half Cut Mono-crystalline Silicon Solar Cells: 144 cells: UE***M-72H (***=365-400, in increment of 5) 132 cells: UE***M-66H (***=335-365, in increment of 5) 120 cells: UE***M-60H (***=305-330, in increment of 5)
Maximum system voltage:	1500V
Fuse rating:	15A or 20A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I or II
Design load (positive / negative):	3600Pa (positive) / 1600Pa (negative)
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (per ANSI/UL 790-2018)

Module types:	PV Modules with 6" Half Cut Mono-crystalline Silicon Solar Cells: 144 cells: UE***M-72H (***=405-410, in increment of 5) 132 cells: UE***M-66H (***=360-375, in increment of 5) 120 cells: UE***M-60H (***=325-340, in increment of 5)
Maximum system voltage:	1500V
Fuse rating:	15A or 20A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I or II
Design load (positive / negative):	3600Pa (positive) / 1600Pa (negative)
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (per ANSI/UL 790-2018)



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Module types:	PV Modules with 6" Half Cut Mono-crystalline Silicon Solar Cells: 144 cells: UE***M-72H (***=420-455, in increment of 5) 132 cells: UE***M-66H (***=385-415, in increment of 5) 120 cells: UE***M-60H (***=350-380, in increment of 5)
Maximum system voltage:	1500V
Fuse rating:	20A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I or II
Design load (positive / negative):	3600Pa (positive) / 1600Pa (negative)
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (per ANSI/UL 790-2018)
Module types:	PV Modules with 7" Half Cut Mono-crystalline Silicon Solar Cells: 156 cells: UE***M-78H (***=560-605, in increment of 5) 144 cells: UE***M-72H (***=515-570, in increment of 5) 132 cells: UE***M-66H (***=475-520, in increment of 5) 120 cells: UE***M-60H (***=430-475, in increment of 5) 108 cells: UE***M-54H (***=390-425, in increment of 5)
Maximum system voltage:	1500V
Fuse rating:	25A or 30A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I or II
Design load (positive / negative):	3600Pa (positive) / 1600Pa (negative)
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (per ANSI/UL 790-2018)



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Module types:	PV Modules with 8" Half Cut Mono-crystalline Silicon Solar Cells: 132 cells: UE***M-66H (***=630-670, in increment of 5) 120 cells: UE***M-60H (***=575-610, in increment of 5) 108 cells: UE***M-54H (***=515-545, in increment of 5) 96 cells: UE***M-48H (***=460-485, in increment of 5) 84 cells: UE***M-42H (***=400-425, in increment of 5) 110 cells: UE***M-55H (***=520-555, in increment of 5) 100 cells: UE***M-50H (***=475-505, in increment of 5) 90 cells: UE***M-45H (***=425-455, in increment of 5) 80 cells: UE***M-40H (***=380-400, in increment of 5)
Maximum system voltage:	1500V
Fuse rating:	30A or 35A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I or II
Design load (positive / negative):	3600Pa (positive) / 1600Pa (negative)
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (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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