

CERTIFICATE

TÜV NORD CERT GmbH
herewith declares that

CW ENERJİ MÜHENDİSLİK TİCARET VE SANAYİ A.Ş.
Antalya OSB 1. Kısım Atatürk Blv.
No:20 Döşemealtı ANTALYA /
TÜRKİYE.

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

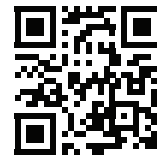


Valid from: 2024-12-26
Valid until: 2029-05-26

Certification program:	P12-VA-01 Rev. 17 09.20
Certification fundamental(s):	P12.4-AA-02 Rev. 00 (IEC TS 62804-1:2015 modified)
Remark:	Test temperature: 85°C; Relative humidity: 85%; Test duration: 192 hours.
Registered No.:	44 780 24 406749 - 500
Manufacturer and factory(-ies):	See Annex 1
Test Report No.:	492013551.001
File No.:	PVP11164/24P-08



TÜV NORD CERT GmbH
Certification Body
Consumer Products



Essen, 2024-12-26

Please also pay attention to the information stated overleaf.

Description of product(s):

Module types:	Double Glass PV Modules with Half-cut 7" PERC Mono-crystalline Silicon Solar Cells: 156 cells: CWTxxx-156PMB10 (xxx = 570-615, in increment of 5) 144 cells: CWTxxx-144PMB10 (xxx = 525-565, in increment of 5) 132 cells: CWTxxx-132PMB10 (xxx = 480-520, in increment of 5) 120 cells: CWTxxx-120PMB10 (xxx = 440-470, in increment of 5) 108 cells: CWTxxx-108PMB10 (xxx = 395-425, in increment of 5) 144 cells: CWTxxx-144PMB10R (xxx = 560-590, in increment of 5) 108 cells: CWTxxx-108PMB10R (xxx = 420-440, in increment of 5) 108 cells: CWTxxx-108PMBFB10R (xxx = 420-440, in increment of 5) 132 cells: CWTxxx-132PMB12R (xxx = 575-590, in increment of 5) 120 cells: CWTxxx-120PMB12R (xxx = 525-535, in increment of 5) 96 cells: CWTxxx-96PMB12R (xxx = 420-430, in increment of 5) 96 cells: CWTxxx-96PMBFB12R (xxx = 420-430, in increment of 5) Remark: xxx indicates output power from the front side only.
Maximum system voltage:	1500V
Maximum overcurrent protection rating:	30A
Electrical protection class:	Class II
Module types:	Double Glass PV Modules with Half-cut 7" TOPCon Mono-crystalline Silicon Solar Cells: 156 cells: CWTxxx-156TNB10 (xxx = 580-650, in increment of 5) 144 cells: CWTxxx-144TNB10 (xxx = 535-605, in increment of 5) 132 cells: CWTxxx-132TNB10 (xxx = 490-555, in increment of 5) 120 cells: CWTxxx-120TNB10 (xxx = 445-505, in increment of 5) 108 cells: CWTxxx-108TNB10 (xxx = 400-450, in increment of 5) 144 cells: CWTxxx-144TNB10R (xxx=580-620, in increments of 5) 120 cells: CWTxxx-120TNB10R (xxx=485-515, in increments of 5) 108 cells: CWTxxx-108TNB10R (xxx=435-465, in increments of 5) 108 cells: CWTxxx-108TNBFB10R (xxx=435-465, in increments of 5) 132 cells: CWTxxx-132TNB12R (xxx = 580-630, in increment of 5) 120 cells: CWTxxx-120TNB12R (xxx = 530-570, in increment of 5) 108 cells: CWTxxx-108TNB12R (xxx = 475-515, in increment of 5) 108 cells: CWTxxx-108TNBFB12R (xxx = 475-515, in increment of 5) 96 cells: CWTxxx-96TNB12R (xxx = 420-455, in increment of 5) 96 cells: CWTxxx-96TNBFB12R (xxx = 420-455, in increment of 5) Remark: xxx indicates output power from the front side only.



Maximum system voltage: 1500V

Maximum overcurrent protection rating: 30A

Electrical protection class: Class II

Module types:

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

132 cells: CWTxxx-132PMB12 (xxx = 635-685, in increment of 5)

120 cells: CWTxxx-120PMB12 (xxx = 580-620, in increment of 5)

108 cells: CWTxxx-108PMB12 (xxx = 520-560, in increment of 5)

110 cells: CWTxxx-110PMB12 (xxx = 530-570, in increment of 5)

100 cells: CWTxxx-100PMB12 (xxx = 480-515, in increment of 5)

Remark: xxx indicates output power from the front side only.

Maximum system voltage: 1500V

Maximum overcurrent protection rating: 35A

Electrical protection class: Class II

Module types:

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

132 cells: CWTxxx-132TNB12 (xxx = 665-725, in increment of 5)

120 cells: CWTxxx-120TNB12 (xxx = 605-660, in increment of 5)

108 cells: CWTxxx-108TNB12 (xxx = 545-590, in increment of 5)

110 cells: CWTxxx-110TNB12 (xxx = 530-570, in increment of 5)

100 cells: CWTxxx-100TNB12 (xxx = 480-515, in increment of 5)

Remark: xxx indicates output power from the front side only.

Maximum system voltage: 1500V

Maximum overcurrent protection rating: 35A

Electrical protection class: Class II

Module types:

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

132 cells: CWTxxx-132HJB10 (xxx = 670-740, in increment of 5)

120 cells: CWTxxx-120HJB10 (xxx = 605-670, in increment of 5)

Remark: xxx indicates output power from the front side only.

Maximum system voltage: 1500V



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Anlage 2 zum Zertifikat Nr.: / Annex 2 to Certificate No.: 44 780 24 406749 - 500

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Aktenzeichen: / File reference: PVP11164/24P-08

2024-12-26

Maximum overcurrent protection
rating: 35A

Electrical protection class: Class II

Remark:

For detailed product information, please refer to test report.

A handwritten signature in blue ink, appearing to read "Robert Müller".

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