

CERTIFICATE

TÜV NORD CERT GmbH
herewith declares that

Sonnex Energie GmbH
Gebäude 571, Cargo City Süd, 60549
Frankfurt am Main
Germany

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: 2024-08-23
Valid until: 2029-04-15

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 - 348
Manufacturer and factory(-ies):	See Annex 1
Test Report No.:	492013361.001
File No.:	PVP07166/24P



TÜV NORD CERT GmbH
Certification Body
Consumer Products



Essen, 2024-08-23

Please also pay attention to the information stated overleaf.

Anlage 1 zum Zertifikat Nr.: / Annex 1 to Certificate No.: 44 780 24 406749 - 348

Seite / Page 1 von / of 1

Aktenzeichen: / File reference: PVP07166/24P

2024-08-23

Manufacturer and factory(-ies):

Manufacturer: **Sonnex Energie GmbH**
Gebäude 571, Cargo City Süd, 60549, Frankfurt am Main, Germany

Factory : **Coded by debtor no. 55560544**

Factory inspection report no.: 862010664.003

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:	Double Glass PV Modules with Half-cut 182mm TOPCon Monocrystalline Silicon Solar Cells: 156 cells: SNX-D78HND-xxxM (xxx = 610-635, in steps of 5) 144 cells: SNX-D72HND-xxxM (xxx = 565-585, in steps of 5) 132 cells: SNX-D66HND-xxxM (xxx = 520-535, in steps of 5) 120 cells: SNX-D60HND-xxxM (xxx = 470-485, in steps of 5) 108 cells: SNX-D54HND-xxxM (xxx = 425-440, in steps of 5) 96 cells: SNX-D48HND-xxxM (xxx = 375-390, in steps of 5) 72 cells: SNX-D36HND-xxxM (xxx = 280-290, in steps of 5) Remark: xxx indicates rated output power generated from front side only at STC.
Maximum system voltage:	1500V
Maximum overcurrent protection rating:	30A
Electrical protection class:	Class II
Pollution degree:	1
98th percentile module operating temperature (T ₉₈)	70°C
Design load (positive / negative):	3600Pa / 1600Pa
Safety factors:	1.5
Fire safety class:	Class A or Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)
Module types:	Double Glass PV Modules with Half-cut 210mm TOPCon Monocrystalline Silicon Solar Cells: 132 cells: SNX-E66HND-xxxM (xxx = 680-710, in steps of 5) 120 cells: SNX-E60HND-xxxM (xxx = 615-645, in steps of 5) Remark: xxx indicates rated output power generated from front side only at STC.
Maximum system voltage:	1500V
Maximum overcurrent protection rating:	35A
Electrical protection class:	Class II
Pollution degree:	1
98th percentile module operating temperature (T ₉₈)	70°C



TÜV NORD CERT GmbH
Certification Body
Consumer Products

Design load (positive / negative): 3600Pa / 1600Pa
Safety factors: 1.5
Fire safety class: Class A or Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)

Module types: **Double Glass PV Modules with Half-cut 182.2mm x 191.6mm TOPCon Mono-crystalline Silicon Solar Cells:**
144 cells: SNX-D72HND-xxxM(R2) (xxx = 595-615, in steps of 5)
132 cells: SNX-D66HND-xxxM(R2) (xxx = 545-560, in steps of 5)
120 cells: SNX-D60HND-xxxM(R2) (xxx = 495-510, in steps of 5)
108 cells: SNX-D54HND-xxxM(R2) (xxx = 445-460, in steps of 5)
Remark: xxx indicates rated output power generated from front side only at STC.

Maximum system voltage: 1500V
Maximum overcurrent protection rating: 30A
Electrical protection class: Class II
Pollution degree: 1
98th percentile module operating temperature (T₉₈): 70°C
Design load (positive / negative): 3600Pa / 1600Pa
Safety factors: 1.5
Fire safety class: Class A or Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)

Module types: **Double Glass PV Modules with Half-cut 182.2mm x 199mm TOPCon Mono-crystalline Silicon Solar Cells:**
144 cells: SNX-D72HND-xxxM(R3) (xxx = 615-640, in steps of 5)
132 cells: SNX-D66HND-xxxM(R3) (xxx = 565-585, in steps of 5)
120 cells: SNX-D60HND-xxxM(R3) (xxx = 515-530, in steps of 5)
108 cells: SNX-D54HND-xxxM(R3) (xxx = 460-480, in steps of 5)
Remark: xxx indicates rated output power generated from front side only at STC.

Maximum system voltage: 1500V
Maximum overcurrent protection rating: 30A
Electrical protection class: Class II



TÜV NORD CERT GmbH
Certification Body
Consumer Products

Pollution degree:	1
98th percentile module operating temperature (T_{98})	70°C
Design load (positive / negative):	3600Pa / 1600Pa
Safety factors:	1.5
Fire safety class:	Class A or Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)

Module types:	Double Glass PV Modules with Half-cut 182.2mm x 210mm TOPCon Mono-crystalline Silicon Solar Cells: 132 cells: SNX-D66HND-xxxM(R4) (xxx = 595-620, in steps of 5) 120 cells: SNX-D60HND-xxxM(R4) (xxx = 545-565, in steps of 5) 108 cells: SNX-D54HND-xxxM(R4) (xxx = 485-505, in steps of 5) 96 cells: SNX-D48HND-xxxM(R4) (xxx = 435-450, in steps of 5) Remark: xxx indicates rated output power generated from front side only at STC.
---------------	---

Maximum system voltage:	1500V
Maximum overcurrent protection rating:	30A
Electrical protection class:	Class II
Pollution degree:	1
98th percentile module operating temperature (T_{98})	70°C
Design load (positive / negative):	3600Pa / 1600Pa
Safety factors:	1.5
Fire safety class:	Class A or Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)

Module types:	Double Glass PV Modules with Half-cut 182.2mm x 169.25mm TOPCon Mono-crystalline Silicon Solar Cells: 156 cells: SNX-D78HND-xxxM(R5) (xxx = 560-595, in steps of 5) 144 cells: SNX-D72HND-xxxM(R5) (xxx = 515-550, in steps of 5) 120 cells: SNX-D60HND-xxxM(R5) (xxx = 430-455, in steps of 5) Remark: xxx indicates rated output power generated from front side only at STC.
---------------	---

Maximum system voltage:	1500V
Maximum overcurrent protection rating:	30A



TÜV NORD CERT GmbH
Certification Body
Consumer Products

Electrical protection class:	Class II
Pollution degree:	1
Design load (positive / negative):	3600Pa / 1600Pa
Safety factors:	1.5
Fire safety class:	Class A or Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)

Module types: **Double Glass PV Modules with Half-cut 182mm x 188mm TOPCon Mono-crystalline Silicon Solar Cells:**

144 cells: SNX-D72HND-xxxM(R1) (xxx = 580-615, in steps of 5)

132 cells: SNX-D66HND-xxxM(R1) (xxx = 530-560, in steps of 5)

120 cells: SNX-D60HND-xxxM(R1) (xxx = 485-510, in steps of 5)

108 cells: SNX-D54HND-xxxM(R1) (xxx = 435-460, in steps of 5)

Remark: xxx indicates rated output power generated from front side only at STC.

Maximum system voltage:	1500V
Maximum overcurrent protection rating:	30A
Electrical protection class:	Class II
Pollution degree:	1
98th percentile module operating temperature (T ₉₈)	70°C
Design load (positive / negative):	3600Pa / 1600Pa
Safety factors:	1.5
Fire safety class:	Class A or 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.



TÜV NORD CERT GmbH
Certification Body
Consumer Products