

CERTIFICATE

TÜV NORD CERT GmbH
herewith declares that

LEDVANCE GmbH
Parkring 1-5 85748 Garching
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: 2024-12-09

Valid until: 2029-04-24

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 / EN IEC 61730-1:2018; IEC 61730-2:2023 / EN IEC 61730-2:2018.
Registered No.:	44 780 24 406749 - 468
Manufacturer and factory(-ies):	See Annex 1
Test Report No.:	492013517.001
File No.:	PVP11017/24P-01



TÜV NORD CERT GmbH
Certification Body
Consumer Products



Essen, 2024-12-09

Please also pay attention to the information stated overleaf.

Manufacturer and factory(-ies):

Manufacturer: **LEDVANCE GmbH**
Parkring 1-5 85748 Garching Germany

Factory 1: **Solarspace Technology (Xuzhou) Co., Ltd.**
South side of Kunming Road, Peixian Economic Development Zone,
Xuzhou City, Jiangsu Province, P.R. China

Factory inspection report no.: 862010539.004

Factory 2: **Solarspace Technology (Suqian) Co., Ltd.**
No. 1299, Shanghai Road, Economic and Technological Development
Zone, Suqian City, Jiangsu Province, P.R. China

Factory inspection report no.: 862010603.003

Remark:

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



TÜV NORD CERT GmbH
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Consumer Products

Description of product(s):

Module types:

Single Glass PV Modules with Half-cut 182mm Mono-crystalline Silicon Solar Cells:

144 cells: MxxxP72QM-SF/BF(xxx=545-570, increments of 5)
 144 cells: MxxxP72QM-BB(xxx=545 -570, increments of 5)
 132 cells: MxxxP66QM-SF/BF(xxx=500-520, increments of 5)
 132 cells: MxxxP66QM-BB(xxx=500-520, increments of 5)
 120 cells: MxxxP60QM-SF/BF(xxx=455-475, increments of 5)
 120 cells: MxxxP60QM-BB(xxx=455 -475, increments of 5)
 108 cells: MxxxP54QM-SF/BF(xxx= 410-425, increments of 5)
 108 cells: MxxxP54QM-BB(xxx=410-425, increments of 5)
 96 cells: MxxxP48QM-SF/BF(xxx=365-380, increments of 5)
 96 cells: MxxxP48QM-BB(xxx=365-380, increments of 5)
 72 cells: MxxxP36QM-SF/BF(xxx=275 -285, increments of 5)
 72 cells: MxxxP36QM-BB(xxx=275-285, increments of 5)
 144 cells: MxxxP72LM-SF/BF(xxx=545 -570, increments of 5)
 144 cells: MxxxP72LM-BB(xxx=545-570, increments of 5)
 132 cells: MxxxP66LM-SF/BF(xxx=500-520, increments of 5)
 132 cells: MxxxP66LM-BB(xxx=500 -520, increments of 5)
 120 cells: MxxxP60LM-SF/BF(xxx=455-475, increments of 5)
 120 cells: MxxxP66LM-BB(xxx= 455 -475, increments of 5)
 108 cells: MxxxP54LM-SF/BF(xxx=410-425, increments of 5)
 108 cells: MxxxP54LM-BB(xxx=410-425, increments of 5)
 96 cells: MxxxP48LM-SF/BF(xxx= 365 -380, increments of 5)
 96 cells: MxxxP48LM-BB(xxx=365 -380, increments of 5)
 72 cells: MxxxP36LM-SF/BF(xxx=275-285, increments of 5)
 72 cells: MxxxP36LM-BB(xxx=275 -285, increments of 5)

Maximum system voltage: 1500V

Maximum overcurrent protection rating: 25A

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 C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)



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Consumer Products

Module types:

Single Glass PV Modules with Half-cut 182mm TOPCon Mono-crystalline Silicon Solar Cells:

156 cells: MxxxN78LM-SF/BF(xxx=590-610, increments of 5)

144 cells: MxxxN72LM-SF/BF(xxx=545-600, increments of 5)

132 cells: MxxxN66LM-SF/BF(xxx=545-600, increments of 5)

120 cells: MxxxN60LM-SF/BF(xxx=455-500, increments of 5)

108 cells: MxxxN54LM-SF/BF(xxx=410-450, increments of 5)

96 cells: MxxxN48LM-SF/BF(xxx=365-400, increments of 5)

72 cells: MxxxN36LM-SF/BF(xxx=275-300, increments of 5)

Maximum system voltage:

1500V

Maximum overcurrent protection rating:

25A

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 C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)

Module types:	Single Glass PV Modules with Half-cut 210mm Mono-crystalline Silicon Solar Cells: 132 cells: MxxxP66UM-SF/BF(xxx=650-680, increments of 5) 132 cells: MxxxP66UM-BB(xxx=650-680, increments of 5) 120 cells: MxxxP60UM-SF/BF(xxx=590-615, increments of 5) 120 cells: MxxxP60UM-BB(xxx=590-615, increments of 5)
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 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.