

To / 致:

Company / 公司: LEDVANCE GmbH

Contact / 联系人: Mr. Krzysztof Rytel

Email / 邮箱: k.rytel@ledvance.com

From / 自:Company / 公司: TÜV NORD (HANGZHOU)
CO., LTD. / 杭州汉德质量认证
服务有限公司

Contact / 联系人: Ms. Serena / 郭玉婷 小姐

Email / 邮箱: sewu@tuv-nord.com

Subject: Announcement of cancellation

主题: 证书取消通知

File No.: PVP03164/23P-05

项目号:

License holder: LEDVANCE GmbH

持证人:

Certificate No.: 44 780 23 406749 - 323

证书号:

Product: Crystalline Silicon Terrestrial Photovoltaic (PV) Modules

产品: 地面用晶体硅光伏组件

Herewith it is declared, that the above noted certificate(s) has (have) been invalidated since 2024-05-10.
特此声明, 上述证书自 2024 年 5 月 10 日起失效。

The cancellation is due to:

取消原因:

 License holder applied for cancellation.

持证人申请取消。

 New certificate(s) (no: 44 780 23 406749 - 323R1A1M1) has (have) been issued to replace the cancelled one(s).新证书(证书号: 44 780 23 406749 - 323R1A1M1) 签发, 取代旧证书。 After the expiry date of the certificate(s), the certificate(s) has (have) not been renewed within 6 months.

证书到期 6 个月内未续证。

 After the expiry date of last factory inspection conclusion, no factory inspection has been conducted or no payment of annual fees has been received within 6 months.

上一厂检结论有效期到期后, 6 个月内未配合厂检或未支付年度费用。

 No payment of annual fees has been received within 6 month after last period of payment of annual fees.

上一证书年费支付期后, 超过 6 个月未支付证书年费。

 Others: _____

其他情况: _____

Please pay attention to stop using the invalid certificate(s) from 2024-05-10. Meanwhile, please send back the original copies of above mentioned certificate(s) to us.

请注意从 2024 年 5 月 10 日开始停止使用无效证书。同时, 请将上述证书原件寄回给我们。

TÜV NORD reserved the right of final explanation about the cancellation of certificate(s). TÜV NORD will not take any responsibility for the circumstance of misusing the invalid certificate(s) by the license holder or the manufacturer.

TÜV NORD 保留对证书取消的最终解释权。TÜV NORD 对证书持有者或制造商滥用无效证书的情况不承担任何责任。

Renewable Energy / 可再生能源

TÜV NORD (Hangzhou) Co., Ltd. / 杭州汉德质量认证服务有限公司



Serena / 郇玉婷

Technical Support / 技术支持

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: 2024-05-10

Valid until: 2026-04-27

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; IEC 61730-1:2016 / EN IEC 61730-1:2018; IEC 61730-2:2016 / EN IEC 61730-2:2018.
Registered No.:	44 780 23 406749 - 323R1A1M1
Manufacturer and factory(-ies):	See Annex 1
Test Report No.:	492012677.002
File No.:	PVP03175/24P



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Essen, 2024-05-10

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.:	862010539.003
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.:	862010603.002
Factory 3:	SOLARSPACE NEW ENERGY (CAMBODIA) CO., LTD. U B E Snoul SEZ, No.1, Plot H1, Trapaing Srer Village, Pi Thnou Commune, Snoul District, Kratie Province, Kingdom of Cambodia
Factory inspection report no.:	862010785.001
Factory 4:	Taoistic Solar Technology (changzhou) Co., Ltd. No. 269 Longxi Avenue, Zhulin Town, Jintan District, Changzhou City, Jiangsu Province, P.R. China
Factory inspection report no.:	862010816.001

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 Half-cut 182mm Mono-crystalline Silicon Solar Cells:

144 cells: MxxxP72LB-SF/BF-F7 (xxx = 525 - 565, increments of 5)
132 cells: MxxxP66LB-SF/BF-F7 (xxx = 485 - 515, increments of 5)
120 cells: MxxxP60LB-SF/BF-F7 (xxx = 440 - 470, increments of 5)
108 cells: MxxxP54LB-SF/BF-F7 (xxx = 395 - 420, increments of 5)
96 cells: MxxxP48LB-SF/BF-F7 (xxx = 355 - 375, increments of 5)
72 cells: MxxxP36LB-SF/BF-F7 (xxx = 265 - 280, increments of 5)
144 cells: MxxxP72LBT-SF/BF-F7 (xxx = 525 - 565, increments of 5)
132 cells: MxxxP66LBT-SF/BF-F7 (xxx = 485 - 515, increments of 5)
120 cells: MxxxP60LBT-SF/BF-F7 (xxx = 440 - 470, increments of 5)
108 cells: MxxxP54LBT-SF/BF-F7 (xxx = 395 - 420, increments of 5)
96 cells: MxxxP48LBT-SF/BF-F7 (xxx = 355 - 375, increments of 5)
72 cells: MxxxP36LBT-SF/BF-F7 (xxx = 265 - 280, increments of 5)
144 cells: MxxxP72LB-BB-F7 (xxx = 525 - 565, increments of 5)
132 cells: MxxxP66LB-BB-F7 (xxx = 485 - 515, increments of 5)
120 cells: MxxxP60LB-BB-F7 (xxx = 440 - 470, increments of 5)
108 cells: MxxxP54LB-BB-F7 (xxx = 395 - 420, increments of 5)
96 cells: MxxxP48LB-BB-F7 (xxx = 355 - 375, increments of 5)
72 cells: MxxxP36LB-BB-F7 (xxx = 265 - 280, increments of 5)
Remark: xxx indicates output power from the front side under STC only.

Maximum system voltage: 1500V
Overcurrent protection rating: 25A
Electrical protection class: Class II
Pollution degree: 1
Design load (positive / negative): 3600Pa / 1600Pa
Safety factors: 1.5
Fire safety class: Class A or C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)

Module types:

Double Glass PV Modules with Half-cut 210mm Mono-crystalline Silicon Solar Cells:

132 cells: MxxxP66UB-SF/BF-F7 (xxx = 645 - 665, increments of 5)
120 cells: MxxxP60UB-SF/BF-F7 (xxx = 585 - 605, increments of 5)
132 cells: MxxxP66UBT-SF/BF-F7 (xxx = 645 - 665, increments of 5)
120 cells: MxxxP60UBT-SF/BF-F7 (xxx = 585 - 605, increments of 5)



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132 cells: MxxxP66UB-BB-F7 (xxx = 645 - 665, increments of 5)
120 cells: MxxxP60UB-BB-F7 (xxx = 585 - 605, increments of 5)
Remark: xxx indicates output power from the front side under STC only.

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

Module types:

Double Glass PV Modules with Half-cut 182mm TOPCon Monocrystalline Silicon Solar Cells:

156 cells: MxxxN78LB-SF/BF-F7 (xxx = 585 - 625, increments of 5)
144 cells: MxxxN72LB-SF/BF-F7 (xxx = 540 - 595, increments of 5)
132 cells: MxxxN66LB-SF/BF-F7 (xxx = 495 - 545, increments of 5)
120 cells: MxxxN60LB-SF/BF-F7 (xxx = 450 - 495, increments of 5)
108 cells: MxxxN54LB-SF/BF-F7 (xxx = 405 - 445, increments of 5)
96 cells: MxxxN48LB-SF/BF-F7 (xxx = 360 - 395, increments of 5)
72 cells: MxxxN36LB-SF/BF-F7 (xxx = 270 - 295, increments of 5)
156 cells: MxxxN78LBT-SF/BF-F7 (xxx = 585 - 625, increments of 5)
144 cells: MxxxN72LBT-SF/BF-F7 (xxx = 540 - 595, increments of 5)
132 cells: MxxxN66LBT-SF/BF-F7 (xxx = 495 - 545, increments of 5)
120 cells: MxxxN60LBT-SF/BF-F7 (xxx = 450 - 495, increments of 5)
108 cells: MxxxN54LBT-SF/BF-F7 (xxx = 405 - 445, increments of 5)
96 cells: MxxxN48LBT-SF/BF-F7 (xxx = 360 - 395, increments of 5)
72 cells: MxxxN36LBT-SF/BF-F7 (xxx = 270 - 295, increments of 5)
156 cells: MxxxN78LB-BB-F7 (xxx = 585 - 625, increments of 5)
144 cells: MxxxN72LB-BB-F7 (xxx = 540 - 595, increments of 5)
132 cells: MxxxN66LB-BB-F7 (xxx = 495 - 545, increments of 5)
120 cells: MxxxN60LB-BB-F7 (xxx = 450 - 495, increments of 5)
108 cells: MxxxN54LB-BB-F7 (xxx = 405 - 445, increments of 5)
96 cells: MxxxN48LB-BB-F7 (xxx = 360 - 395, increments of 5)
72 cells: MxxxN36LB-BB-F7 (xxx = 270 - 295, increments of 5)
132 cells: MxxxN66RB-SF/BF-F7 (xxx = 590 - 625, increments of 5)
120 cells: MxxxN60RB-SF/BF-F7 (xxx = 535 - 565, increments of 5)
108 cells: MxxxN54RB-SF/BF-F7 (xxx = 485 - 510, increments of 5)



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96 cells: MxxxN48RB-SF/BF-F7 (xxx = 430 - 455, increments of 5)
132 cells: MxxxN66RBT-SF/BF-F7 (xxx = 590 - 625, increments of 5)
120 cells: MxxxN60RBT-SF/BF-F7 (xxx = 535 - 565, increments of 5)
108 cells: MxxxN54RBT-SF/BF-F7 (xxx = 485 - 510, increments of 5)
96 cells: MxxxN48RBT-SF/BF-F7 (xxx = 430 - 455, increments of 5)
132 cells: MxxxN66RB-BB-F7 (xxx = 590 - 625, increments of 5)
120 cells: MxxxN60RB-BB-F7 (xxx = 535 - 565, increments of 5)
108 cells: MxxxN54RB-BB-F7 (xxx = 485 - 510, increments of 5)
96 cells: MxxxN48RB-BB-F7 (xxx = 430 - 455, increments of 5)
Remark: xxx indicates output power from the front side under STC only.

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

Module types:

Double Glass PV Modules with Half-cut 183.75mm TOPCon Monocrystalline Silicon Solar Cells:

156 cells: MxxxN78QB-SF/BF-F7 (xxx = 585 - 625, increments of 5)
144 cells: MxxxN72QB-SF/BF-F7 (xxx = 540 - 595, increments of 5)
132 cells: MxxxN66QB-SF/BF-F7 (xxx = 495 - 545, increments of 5)
120 cells: MxxxN60QB-SF/BF-F7 (xxx = 450 - 495, increments of 5)
108 cells: MxxxN54QB-SF/BF-F7 (xxx = 405 - 445, increments of 5)
96 cells: MxxxN48QB-SF/BF-F7 (xxx = 360 - 395, increments of 5)
72 cells: MxxxN36QB-SF/BF-F7 (xxx = 270 - 295, increments of 5)
156 cells: MxxxN78QBT-SF/BF-F7 (xxx = 585 - 625, increments of 5)
144 cells: MxxxN72QBT-SF/BF-F7 (xxx = 540 - 595, increments of 5)
132 cells: MxxxN66QBT-SF/BF-F7 (xxx = 495 - 545, increments of 5)
120 cells: MxxxN60QBT-SF/BF-F7 (xxx = 450 - 495, increments of 5)
108 cells: MxxxN54QBT-SF/BF-F7 (xxx = 405 - 445, increments of 5)
96 cells: MxxxN48QBT-SF/BF-F7 (xxx = 360 - 395, increments of 5)
72 cells: MxxxN36QBT-SF/BF-F7 (xxx = 270 - 295, increments of 5)
156 cells: MxxxN78QB-BB-F7 (xxx = 585 - 625, increments of 5)
144 cells: MxxxN72QB-BB-F7 (xxx = 540 - 595, increments of 5)
132 cells: MxxxN66QB-BB-F7 (xxx = 495 - 545, increments of 5)



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120 cells: MxxxN60QB-BB-F7 (xxx = 450 - 495, increments of 5)
108 cells: MxxxN54QB-BB-F7 (xxx = 405 - 445, increments of 5)
96 cells: MxxxN48QB-BB-F7 (xxx = 360 - 395, increments of 5)
72 cells: MxxxN36QB-BB-F7 (xxx = 270 - 295, increments of 5)
Remark: xxx indicates output power from the front side under STC only.

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

Module types: **Double Glass PV Modules with Half-cut 166mm Mono-crystalline Silicon Solar Cells:**

144 cells: MxxxP72EB-SF/BF-F7 (xxx = 430 - 455, increments of 5)
120 cells: MxxxP60EB-SF/BF-F7 (xxx = 360 - 380, increments of 5)
144 cells: MxxxP72EB-BB-F7 (xxx = 430 - 455, increments of 5)
120 cells: MxxxP60EB-BB-F7 (xxx = 360 - 380, increments of 5)
Remark: xxx indicates output power from the front side under STC only.

Maximum system voltage: 1500V
Overcurrent protection rating: 20A
Electrical protection class: Class II
Pollution degree: 1
Design load (positive / negative): 3600Pa / 1600Pa
Safety factors: 1.5
Fire safety class: Class A or C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)



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Module types:	Double Glass PV Modules with 1/3-cut 210mm TOPCon Mono-crystalline Silicon Solar Cells: 88 cells: MxxxN88TUB-SF/BF-F7 (xxx = 290 - 310, increments of 5) Remark: xxx indicates output power from the front side under STC only.
Maximum system voltage:	1500V
Overcurrent protection rating:	25A
Electrical protection class:	Class II
Pollution degree:	1
Design load (positive / negative):	3600Pa / 1600Pa
Safety factors:	1.5
Fire safety class:	Class A or 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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