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Certificate

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This certifies that the company:

Leapton Solar (Changshu) Co., Ltd.
No. 9, Sunshine Avenue, Yushan High Technology Industry Zone, Changshu City, Jiangsu Province, 215500
P.R. China

is authorized to provide the product(s) mentioned below with the mark as illustrated.

Manufacturer and factory(-ies):	See Annex 1
Description of product(s) (details see Annex 2):	**Crystalline Silicon Terrestrial Photovoltaic (PV) Modules**
Trademark:	See Annex 1
Certification scheme:	P12.4-VA-01 Rev. 01 / 01.26 Certification scheme type: Type 5 acc. to ISO/IEC 17067:2013
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

It is certified by TÜV NORD CERT GmbH that the product(s) described above has(have) been assessed according to the certification program mentioned above and found in compliance with the requirements of above specified certification fundamental(s). This certification is based on evaluation results as documented in test report(s) referenced below and production site(s) audit results as documented in factory inspection report(s) referenced in Annex 1. This certificate is valid in conjunction with these quoted report(s).

Registration no.:	44 780 24 406749 - 251R4M4	
Report no.:	492013113.006	Valid from: 2026-05-12
File no.:	PVP01049/26P-001	Valid until: 2029-06-25

Essen, 2026-05-12

Certification Body - Consumer Products

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Please also pay attention to the information stated overleaf.

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Annex 1

to certificate registration no. 44 780 24 406749 - 251R4M4

Manufacturer: **Leapton Solar (Changshu) Co., Ltd.**
No. 9, Sunshine Avenue, Yushan High Technology Industry Zone, Changshu City
Jiangsu Province, 215500, P.R. China

Trademark:

LEAPTON
SOLAR

Factory: **Leapton Solar (Changshu) Co., Ltd.**
No. 9, Sunshine Avenue, Yushan High Technology Industry Zone, Changshu City
Jiangsu Province, 215500, P.R. China

Factory inspection report no.: 862010379.008

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

Essen, 2026-05-12

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Annex 2

to certificate registration no. 44 780 24 406749 - 251R4M4

Description of product(s):

Module types:	**Double Glass PV Modules with Half-cut 210*210mm n-type TOPCon Bifacial Silicon Solar Cells:** 132 cells: LP210*210-M-66-NB-***W (*** = 665-730, in increment of 5) 120 cells: LP210*210-M-60-NB-***W (*** = 610-665, in increment of 5) 108 cells: LP210*210-M-54-NB-***W (*** = 550-595, in increment of 5) 96 cells: LP210*210-M-48-NB-***W (*** = 490-530, in increment of 5) 84 cells: LP210*210-M-42-NB-***W (*** = 430-465, in increment of 5) *** indicates rated output power generated from front side under 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 according to UL790
Isc bifaciality coefficient (φIsc):	80% ± 10%

Module types:	**Double Glass PV Modules with Half-cut 182*182/188mm n-type TOPCon Bifacial Silicon Solar Cells:** 156 cells: LP182*182-M-78-NB-***W (*** = 580-620, in increment of 5) 144 cells: LP182*182-M-72-NB-***W (*** = 535-635, in increment of 5) 132 cells: LP182*182-M-66-NB-***W (*** = 490-580, in increment of 5) 120 cells: LP182*182-M-60-NB-***W (*** = 445-530, in increment of 5) 108 cells: LP182*182-M-54-NB-***W (*** = 400-475, in increment of 5) *** indicates rated output power generated from front side under STC
Maximum system voltage:	1500V
Maximum overcurrent protection rating:	25A
Electrical protection class:	Class II

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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 according to UL790
Isc bifaciality coefficient (φIsc):	80% ± 10%
Module types:	**Double Glass PV Modules with Half-cut 182*210mm n-type TOPCon Bifacial Silicon Solar Cells:** 132 cells: LP182*210-M-66-NB-***W (*** = 580-640, in increment of 5) 120 cells: LP182*210-M-60-NB-***W (*** = 530-580, in increment of 5) 108 cells: LP182*210-M-54-NB-***W (*** = 475-520, in increment of 5) 96 cells: LP182*210-M-48-NB-***W (*** = 420-465, in increment of 5) *** indicates rated output power generated from front side under 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 according to UL790
Isc bifaciality coefficient (φIsc):	80% ± 10%
Module types:	**Double Glass PV Modules with Half-cut 182*199/191mm n-type TOPCon Bifacial Silicon Solar Cells:** 144 cells: LP182*199-M-72-NB-***W (*** = 570-655, in increment of 5) 132 cells: LP182*199-M-66-NB-***W (*** = 525-600, in increment of 5) 120 cells: LP182*199-M-60-NB-***W (*** = 475-545, in increment of 5) 108 cells: LP182*199-M-54-NB-***W (*** = 430-490, in increment of 5)

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	*** indicates rated output power generated from front side under STC
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 A according to UL790
Isc bifaciality coefficient (φIsc):	80% ± 10%

Module types:

Double Glass PV Modules with 1/4-cut 182.3*213mm n-type TOPCon Bifacial Silicon Solar Cells:

264 cells: LP182*210-M-66Q-NB-***W (*** = 620-670, in increment of 5)
252 cells: LP182*210-M-63Q-NB-***W (*** = 590-640, in increment of 5)
240 cells: LP182*210-M-60Q-NB-***W (*** = 565-610, in increment of 5)
228 cells: LP182*210-M-57Q-NB-***W (*** = 535-575, in increment of 5)
216 cells: LP182*210-M-54Q-NB-***W (*** = 510-545, in increment of 5)
204 cells: LP182*210-M-51Q-NB-***W (*** = 480-515, in increment of 5)
192 cells: LP182*210-M-48Q-NB-***W (*** = 450-485, in increment of 5)
180 cells: LP182*210-M-45Q-NB-***W (*** = 425-455, in increment of 5)
168 cells: LP182*210-M-42Q-NB-***W (*** = 395-425, in increment of 5)
*** indicates rated output power generated from front side under 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

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Safety factors:	1.5
Fire safety class:	Class A according to UL790
Isc bifaciality coefficient (φIsc):	85% ± 10%

Remark:
For detailed product information, please refer to CDF (Constructional Data Form) with the same file no.
Isc bifaciality coefficient (φIsc) = Isc_{rear}/Isc_{front}, as defined in IEC TS 60904-1-2.
The tolerance of Isc bifaciality coefficient (φIsc) is claimed by client.

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This certifies that the company:

Leapton Solar (Changshu) Co., Ltd.
No. 9, Sunshine Avenue, Yushan High Technology Industry Zone, Changshu City
Jiangsu Province, 215500
P.R. China

is authorized to provide the product(s) mentioned below with the mark as illustrated.

Manufacturer and factory(-ies):	See Annex 1
Description of product(s) (details see Annex 2):	**Crystalline Silicon Terrestrial Photovoltaic (PV) Modules**
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

It is certified by TÜV NORD CERT GmbH that the product(s) described above has(have) been assessed according to the certification program mentioned above and found in compliance with the requirements of above specified certification fundamental(s). This certification is based on evaluation results as documented in test report(s) referenced below and production site(s) audit results as documented in factory inspection report(s) referenced in Annex 1. This certificate is valid in conjunction with these quoted report(s).

Registration no.:	44 780 24 406749 - 269R1	
Report no.:	492013112.002	Valid from: 2026-01-28
File no.:	PVP01007/26P	Valid until: 2029-07-10

Essen, 2026-01-28

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Annex 1

to certificate registration no. 44 780 24 406749 - 269R1

Manufacturer:	**Leapton Solar (Changshu) Co., Ltd.** No. 9, Sunshine Avenue, Yushan High Technology Industry Zone, Changshu City Jiangsu Province, 215500, P.R. China
Factory:	**Leapton Solar (Changshu) Co., Ltd.** No. 9, Sunshine Avenue, Yushan High Technology Industry Zone, Changshu City Jiangsu Province, 215500, P.R. China
Factory inspection report no.:	862010379.008

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

Essen, 2026-01-28

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Annex 2

to certificate registration no. 44 780 24 406749 – 269R1

Description of product(s):

Module types:	**PV Modules with Half-cut 210*210mm Mono-crystalline Silicon Solar Cells:** 132 cells: LP210*210-M-66-MH-***W (*** = 630-665, in increment of 5) 120 cells: LP210*210-M-60-MH-***W (*** = 575-605, in increment of 5) 108 cells: LP210*210-M-54-MH-***W (*** = 515-545, in increment of 5) 96 cells: LP210*210-M-48-MH-***W (*** = 460-480, in increment of 5) 84 cells: LP210*210-M-42-MH-***W (*** = 400-420, in increment 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 UL790

Module types:	**PV Modules with Half-cut 182*182/188mm n-type TOPCon Bifacial Silicon Solar Cells:** 156 cells: LP182*182-M-78-NH-***W (*** = 580-625, in increment of 5) 144 cells: LP182*182-M-72-NH-***W (*** = 555-600, in increment of 5) 132 cells: LP182*182-M-66-NH-***W (*** = 510-550, in increment of 5) 120 cells: LP182*182-M-60-NH-***W (*** = 460-500, in increment of 5) 108 cells: LP182*182-M-54-NH-***W (*** = 410-450, in increment of 5) 60 cells: LP182*182-M-30-NH-***W (*** = 225-250, in increment 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

Essen, 2026-01-28

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to certificate registration no. 44 780 24 406749 – 269R1

Safety factors:	1.5
Fire safety class:	Class C according to UL790

Description of product(s):

Module types:	**PV Modules with Half-cut 182*210mm n-type TOPCon Bifacial Silicon Solar Cells:** 132 cells: LP182*210-M-66-NH-***W (*** = 580-635, in increment of 5) 120 cells: LP182*210-M-60-NH-***W (*** = 530-575, in increment of 5) 108 cells: LP182*210-M-54-NH-***W (*** = 475-520, in increment of 5) 96 cells: LP182*210-M-48-NH-***W (*** = 420-460, in increment of 5) 48 cells: LP182*210-M-24-NH-***W (*** = 210-230, in increment 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 UL790

Module types:	**PV Modules with Half-cut 182*199/191mm n-type TOPCon Bifacial Silicon Solar Cells:** 144 cells: LP182*199-M-72-NH-***W (*** = 570-655, in increment of 5) 132 cells: LP182*199-M-66-NH-***W (*** = 525-600, in increment of 5) 120 cells: LP182*199-M-60-NH-***W (*** = 475-545, in increment of 5) 108 cells: LP182*199-M-54-NH-***W (*** = 430-490, in increment of 5)
Maximum system voltage:	1500V
Maximum overcurrent protection rating:	25A
Electrical protection class:	Class II
Pollution degree:	1

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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 UL790

Description of product(s):

Module types:	**PV Modules with Half-cut 210*210mm n-type TOPCon Bifacial Silicon Solar Cells:** 132 cells: LP210*210-M-66-NH-***W (*** = 675-700, in increment of 5) 120 cells: LP210*210-M-60-NH-***W (*** = 615-635, in increment of 5) 108 cells: LP210*210-M-54-NH-***W (*** = 555-570, in increment of 5) 96 cells: LP210*210-M-48-NH-***W (*** = 490-510, in increment of 5) 84 cells: LP210*210-M-42-NH-***W (*** = 430-445, in increment 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 UL790

Remark:
For detailed product information, please refer to CDF (Constructional Data Form) with the same file no.

Essen, 2026-01-28

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