

# CERTIFICATE

**TÜV NORD CERT GmbH**

herewith declares that

**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 mentioned below with the mark as illustrated:

**Description of product (details see Annex 2):**

**Crystalline Silicon Terrestrial Photovoltaic (PV) Modules**



Valid from: 2023-07-31  
Valid until: 2028-05-09

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 + AC:2017 + AC:2018; IEC 61730-1:2016 / EN IEC 61730-1:2018 + AC:2018; IEC 61730-2:2016 / EN IEC 61730-2:2018 + AC:2018.
Registered No.:	44 780 23 406749 - 118R2M2
Manufacturer:	see Annex 1
Test Report No.:	492012428.003
File No.:	PVP09020/22P-07



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Consumer Products



Essen, 2023-07-31

Please also pay attention to the information stated overleaf.

Anlage 1 zum Zertifikat Nr.: / Annex 1 to Certificate No.: 44 780 23 406749 - 118R2M2

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Aktenzeichen: / File reference: PVP09020/22P-07

2023-07-31

**Manufacturer:**

Manufacturer:

**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.:

862010379.006

**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:

**PV Modules with 6" Mono-crystalline Silicon Solar Cells:**

72 cells: LP156\*156-M-72-\*\*\*W(\*\*\* = 310-375, in increment of 5)

60 cells: LP156\*156-M-60-\*\*\*W(\*\*\* = 260-310, in increment of 5)

54 cells: LP156\*156-M-54-\*\*\*W(\*\*\* = 235-270, in increment of 5)

48 cells: LP156\*156-M-48-\*\*\*W(\*\*\* = 205-240, in increment of 5)

42 cells: LP156\*156-M-42-\*\*\*W(\*\*\* = 185-210, in increment of 5)

36 cells: LP156\*156-M-36-\*\*\*W(\*\*\* = 160-180, in increment of 5)

30 cells: LP156\*156-M-30-\*\*\*W(\*\*\* = 135-150, in increment of 5)

Maximum system voltage: 1500V

Fuse rating: 15A

Electrical protection class: Class II

Pollution degree: 1

Material group: I or II

Design load (positive / negative): 5400Pa (positive) / 2400Pa (negative) or  
3600Pa (positive) / 1600Pa (negative)

Safety factors: 1.5

Fire safety class: Class C according to ANSI/UL 1703-2018 (per ANSI/UL 790-2018)

Module types:

**PV Modules with 6" Mono-crystalline Silicon Solar Cells:**

72 cells: LP158\*158-M-72-\*\*\*W(\*\*\* = 380-395, in increment of 5)

60 cells: LP158\*158-M-60-\*\*\*W(\*\*\* = 320-330, in increment of 5)

Maximum system voltage: 1500V

Fuse rating: 15A

Electrical protection class: Class II

Pollution degree: 1

Material group: I or II

Design load (positive / negative): 3600Pa (positive) / 1600Pa (negative)

Safety factors: 1.5

Fire safety class: Class C according to ANSI/UL 1703-2018 (per ANSI/UL 790-2018)

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Module types:	<b>PV Modules with 6" Half Cut Mono-crystalline Silicon Solar Cells:</b> 144 cells: LP158*158-M-72-H-***W (***) = 365-400, in increment of 5) 132 cells: LP158*158-M-66-H-***W (***) = 335-365, in increment of 5) 120 cells: LP158*158-M-60-H-***W (***) = 305-330, in increment of 5)
Maximum system voltage:	1500V
Fuse rating:	15A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I or II
Design load (positive / negative):	3600Pa (positive) / 1600Pa (negative)
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (per ANSI/UL 790-2018)

Module types:	<b>PV Modules with 6" Half Cut Mono-crystalline Silicon Solar Cells:</b> 144 cells: LP158*158-M-72-MH-***W (***) = 390-410, in increment of 5) 132 cells: LP158*158-M-66-MH-***W (***) = 360-375, in increment of 5) 120 cells: LP158*158-M-60-MH-***W (***) = 325-340, in increment of 5)
Maximum system voltage:	1500V
Fuse rating:	15A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I or II
Design load (positive / negative):	3600Pa (positive) / 1600Pa (negative)
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (per ANSI/UL 790-2018)



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Module types:	<b>PV Modules with 6" Half Cut Mono-crystalline Silicon Solar Cells:</b> 144 cells: LP166*166-M-72-MH-***W (***) = 420-455, in increment of 5) 132 cells: LP166*166-M-66-MH-***W (***) = 385-415, in increment of 5) 120 cells: LP166*166-M-60-MH-***W (***) = 350-380, in increment of 5)
Maximum system voltage:	1500V
Fuse rating:	20A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I or II
Design load (positive / negative):	3600Pa (positive) / 1600Pa (negative)
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (per ANSI/UL 790-2018)

Module types:	<b>PV Modules with 7" Half Cut Mono-crystalline Silicon Solar Cells:</b> 156 cells: LP182*182-M-78-MH-***W (***) = 560-605, in increment of 5) 144 cells: LP182*182-M-72-MH-***W (***) = 515-570, in increment of 5) 132 cells: LP182*182-M-66-MH-***W (***) = 475-520, in increment of 5) 120 cells: LP182*182-M-60-MH-***W (***) = 430-475, in increment of 5) 108 cells: LP182*182-M-54-MH-***W (***) = 390-425, in increment of 5)
Maximum system voltage:	1500V
Fuse rating:	25A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I or II
Design load (positive / negative):	3600Pa (positive) / 1600Pa (negative)
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (per ANSI/UL 790-2018)



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Module types:	<b>PV Modules with 8" Half Cut Mono-crystalline Silicon Solar Cells:</b> 132 cells: LP210*210-M-66-MH-***W (***) = 630-670, in increment of 5) 120 cells: LP210*210-M-60-MH-***W (***) = 575-610, 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 (***) = 460-485, in increment of 5) 84 cells: LP210*210-M-42-MH-***W (***) = 400-425, in increment of 5) 110 cells: LP210*210-M-55-MH-***W (***) = 520-555, in increment of 5) 100 cells: LP210*210-M-50-MH-***W (***) = 475-505, in increment of 5) 90 cells: LP210*210-M-45-MH-***W (***) = 425-455, in increment of 5) 80 cells: LP210*210-M-40-MH-***W (***) = 380-400, in increment of 5)
Maximum system voltage:	1500V
Fuse rating:	30A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I or II
Design load (positive / negative):	3600Pa (positive) / 1600Pa (negative)
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (per ANSI/UL 790-2018)

Module types:	<b>PV Modules with half-cut 7" n-type TOPCon Bifacial Mono Solar Cells:</b> 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)
Maximum system voltage:	1500V
Fuse rating:	25A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I
Design load (positive / negative):	3600Pa (positive) / 1600Pa (negative)
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (per ANSI/UL 790-2018)



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Module types:

**PV Modules with half-cut 8" n-type Topcon Bifacial Mono Solar Cells:**

132 cells: LP210\*210-M-66-NH-\*\*\*W (\*\*\*) = 675-705, in increment of 5)

120 cells: LP210\*210-M-60-NH-\*\*\*W (\*\*\*) = 615-640, in increment of 5)

108 cells: LP210\*210-M-54-NH-\*\*\*W (\*\*\*) = 555-575, 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

Fuse rating:

30A

Electrical protection class:

Class II

Pollution degree:

1

Material group:

I

Design load (positive / negative):

3600Pa (positive) / 1600Pa (negative)

Safety factors:

1.5

Fire safety class:

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

Remark:

For detailed product information, please refer to CDF (Constructional Data Form) in Annex 1 of test report.



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## Certificate of conformity with the following European Directives

Registered No.:  
**44 799 23 406749 - 218**

### Low-Voltage Directive 2014/35/EU

Date of application	File reference	Test report No.	Date of issue	Place of issue
2022-09-01	PVP09020/22P-07	492012428.003	2023-07-31	Essen

This is to certify that the following products comply to the essential requirements of the above mentioned European Directive and the following standards, taking into account the German national deviations:

**Product:** Crystalline Silicon Terrestrial Photovoltaic (PV) Modules

**Type designation:** See Annex 1

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

**Standard(s):** EN IEC 61730-1:2018; EN IEC 61730-1:2018/AC:2018-06  
EN IEC 61730-2:2018; EN IEC 61730-2:2018/AC:2018-06

This Certificate of conformity is based on the evaluation of samples of the product. It does not imply an assessment of the production and it does not permit the use of a mark of conformity or of a safety mark of the TÜV NORD CERT GmbH. The holder of this certificate may use this Certificate together with his EC-Declaration of Conformity.



Certification Body  
Specialist Manager Consumer Products

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**Description of product(s):**

Module types:

**PV Modules with 6" Poly-crystalline Silicon Solar Cells:**

72 cells: LP156\*156-P-72-\*\*\*W(\*\*\* = 310-340, in increment of 5)  
60 cells: LP156\*156-P-60-\*\*\*W(\*\*\* = 260-280, in increment of 5)  
54 cells: LP156\*156-P-54-\*\*\*W(\*\*\* = 235-255, in increment of 5)  
48 cells: LP156\*156-P-48-\*\*\*W(\*\*\* = 205-225, in increment of 5)  
42 cells: LP156\*156-P-42-\*\*\*W(\*\*\* = 180-195, in increment of 5)  
36 cells: LP156\*156-P-36-\*\*\*W(\*\*\* = 155-170, in increment of 5)  
30 cells: LP156\*156-P-30-\*\*\*W(\*\*\* = 130-140, in increment of 5)

Module types:

**PV Modules with 6" Half Cut Poly-crystalline Silicon Solar Cells:**

144 cells: LP156\*156-P-72-H-\*\*\*W (\*\* = 335-370, in increment of 5)  
120 cells: LP156\*156-P-60-H-\*\*\*W (\*\* = 280-305, in increment of 5)

Module types:

**PV Modules with 6" Mono-crystalline Silicon Solar Cells:**

72 cells: LP156\*156-M-72-\*\*\*W(\*\*\* = 310-375, in increment of 5)  
60 cells: LP156\*156-M-60-\*\*\*W(\*\*\* = 260-310, in increment of 5)  
54 cells: LP156\*156-M-54-\*\*\*W(\*\*\* = 235-270, in increment of 5)  
48 cells: LP156\*156-M-48-\*\*\*W(\*\*\* = 205-240, in increment of 5)  
42 cells: LP156\*156-M-42-\*\*\*W(\*\*\* = 185-210, in increment of 5)  
36 cells: LP156\*156-M-36-\*\*\*W(\*\*\* = 160-180, in increment of 5)  
30 cells: LP156\*156-M-30-\*\*\*W(\*\*\* = 135-150, in increment of 5)  
72 cells: LP158\*158-M-72-\*\*\*W(\*\*\* = 380-395, in increment of 5)  
60 cells: LP158\*158-M-60-\*\*\*W(\*\*\* = 320-330, in increment of 5)



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Module types:

**PV Modules with 6" Half Cut Mono-crystalline Silicon Solar Cells:**

144 cells: LP158\*158-M-72-H-\*\*\*W (\*\*\*) = 365-400, in increment of 5)  
132 cells: LP158\*158-M-66-H-\*\*\*W (\*\*\*) = 335-365, in increment of 5)  
120 cells: LP158\*158-M-60-H-\*\*\*W (\*\*\*) = 305-330, in increment of 5)  
144 cells: LP158\*158-M-72-MH-\*\*\*W (\*\*\*) = 390-410, in increment of 5)  
132 cells: LP158\*158-M-66-MH-\*\*\*W (\*\*\*) = 360-375, in increment of 5)  
120 cells: LP158\*158-M-60-MH-\*\*\*W (\*\*\*) = 325-340, in increment of 5)  
144 cells: LP166\*166-M-72-MH-\*\*\*W (\*\*\*) = 420-455, in increment of 5)  
132 cells: LP166\*166-M-66-MH-\*\*\*W (\*\*\*) = 385-415, in increment of 5)  
120 cells: LP166\*166-M-60-MH-\*\*\*W (\*\*\*) = 350-380, in increment of 5)

Module types:

**PV Modules with 7" Half Cut Mono-crystalline Silicon Solar Cells:**

156 cells: LP182\*182-M-78-MH-\*\*\*W (\*\*\*) = 560-605, in increment of 5)  
144 cells: LP182\*182-M-72-MH-\*\*\*W (\*\*\*) = 515-570, in increment of 5)  
132 cells: LP182\*182-M-66-MH-\*\*\*W (\*\*\*) = 475-520, in increment of 5)  
120 cells: LP182\*182-M-60-MH-\*\*\*W (\*\*\*) = 430-475, in increment of 5)  
108 cells: LP182\*182-M-54-MH-\*\*\*W (\*\*\*) = 390-425, in increment of 5)

Module types:

**PV Modules with 8" Half Cut Mono-crystalline Silicon Solar Cells:**

132 cells: LP210\*210-M-66-MH-\*\*\*W (\*\*\*) = 630-670, in increment of 5)  
120 cells: LP210\*210-M-60-MH-\*\*\*W (\*\*\*) = 575-610, 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 (\*\*\*) = 460-485, in increment of 5)  
84 cells: LP210\*210-M-42-MH-\*\*\*W (\*\*\*) = 400-425, in increment of 5)  
110 cells: LP210\*210-M-55-MH-\*\*\*W (\*\*\*) = 520-555, in increment of 5)  
100 cells: LP210\*210-M-50-MH-\*\*\*W (\*\*\*) = 475-505, in increment of 5)  
90 cells: LP210\*210-M-45-MH-\*\*\*W (\*\*\*) = 425-455, in increment of 5)  
80 cells: LP210\*210-M-40-MH-\*\*\*W (\*\*\*) = 380-400, in increment of 5)



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Module types:

**PV Modules with half-cut 7" n-type TOPCon Bifacial Mono 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)

Module types:

**PV Modules with half-cut 8" n-type TOPCon Bifacial Mono Solar Cells:**

132 cells: LP210\*210-M-66-NH-\*\*\*W (\*\*\*) = 675-705, in increment of 5)

120 cells: LP210\*210-M-60-NH-\*\*\*W (\*\*\*) = 615-640, in increment of 5)

108 cells: LP210\*210-M-54-NH-\*\*\*W (\*\*\*) = 555-575, 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)



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