

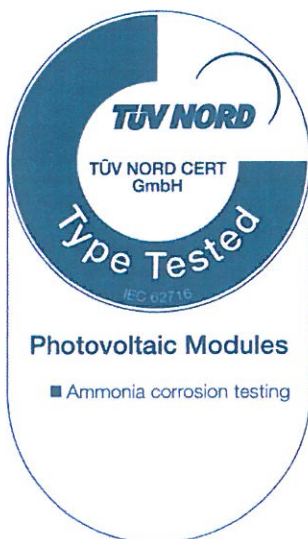
CERTIFICATE



TÜV NORD CERT GmbH
herewith declares that

Shanghai JA Solar Technology Co., Ltd.
No. 118, Lane 3111, West Huangcheng Road
Fengxian District, Shanghai
201401, P.R. China

is authorized to provide the product mentioned below with the mark as illustrated:



Description of product (details see Annex 2):

- PV Modules with 6" Mono-crystalline Silicon Solar Cells**
- PV Modules with 5" Mono-crystalline Silicon Solar Cells**
- PV Modules with 6" Poly-crystalline Silicon Solar Cells**
- PV Modules with half-cut 6" Mono-crystalline Silicon Solar Cells**
- PV Modules with half-cut 6" Poly-crystalline Silicon Solar Cells**

Tested according to: IEC 62716: 2013
Registered No.: 44 780 19 406749 - 140
Manufacturer: see Annex 1
Test Report No.: 492010517.011
File No.: SHV11077/18-01

Valid until: 2024-05-13

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Essen, 2019-05-14

Please also pay attention to the information stated overleaf.

Manufacturer:

Manufacturer 1: **Shanghai JA Solar Technology Co., Ltd.**
No. 118, Lane 3111, West Huancheng Road, Fengxian District
Shanghai 201401, P.R. China

Factory inspection report no.: 862010153.007

Manufacturer 2: **Hefei JA Solar Technology Co., Ltd.**
No. 999, Chang Ning Road, Hi-tech Zone, Hefei
230088, P.R. China

Factory inspection report no.: 862010241.005

Manufacturer 3: **JingAo Solar Co., Ltd.**
5th Jinglong Industrial Park, No. 123 Xinxing Road
Ningjin, Xingtai City, Hebei Province, 055550, P.R. China

Factory inspection report no.: 862010244.005

Manufacturer 4: **JA Solar (Xingtai) Co., Ltd.**
No. 1688, Chang An Road, Xingtai Economic Development Area
Xingtai City, Hebei Province, 054001, P.R. China

Factory inspection report no.: 862010290.003

Manufacturer 5: **Vina Solar Technology Co., Ltd.**
E12 factory, lot CN-03, Van Trung Industrial park,
21000 Bac Giang Province, Vietnam

Factory inspection report no.: 862010302.003



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Manufacturer 6: **Philadelphia Solar LTD. CO**
Al Qastal Industrial Area, Air freight Road, 11814 Amman, Jordan

Factory inspection report no.: 862010431.001

Remark:

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

A handwritten signature in blue ink, appearing to read "Rafael" or similar, written in a cursive style.

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Description of product(s):

Module types:

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

72 cells: JAM6(L)-72- xxx (xxx=295-335, in steps of 5)
72 cells: JAM6-72- xxx/SI (xxx=285-325, in steps of 5)
72 cells: JAM6(R)-72-xxx (xxx=295-340, in steps of 5)
72 cells: JAM6(R)-72-xxx/PR (xxx=330-350, in steps of 5)
72 cells: JAM6-72-xxx/PR (xxx=325-345, in steps of 5)
72 cells: JAM6(L)-72-xxx/PR (xxx=325-345, in steps of 5)
72 cells: JAM6(K)-72-xxx/4BB (xxx=320-340, in steps of 5)
72 cells: JAM6(K)-72-xxx/PR (xxx=325-360, in steps of 5)
72 cells: JAM72S01-xxx/SC (xxx=320-365, in steps of 5)
72 cells: JAM72S02-xxx/SC (xxx=320-365, in steps of 5)
72 cells: JAM72S01-xxx/PR (xxx=325-390, in steps of 5)
72 cells: JAM72S02-xxx/PR (xxx=325-390, in steps of 5)
72 cells: JAM72S01-xxx/MR (xxx=360-390, in steps of 5)
72 cells: JAM72S02-xxx/MR (xxx=365-385, in steps of 5)
72 cells: JAM72S09-xxx/PR (xxx=370-390, in steps of 5)
60 cells: JAM6(L)-60-xxx (xxx=255-280, in steps of 5)
60 cells: JAM6-60-xxx/SI (xxx=235-280, in steps of 5)
60 cells: JAM6(FA)-60-xxx/SI (xxx=255-275, in steps of 5)
60 cells: JAM6(R)(FA)-60-xxx (xxx=260-280, in steps of 5)
60 cells: JAM6(R)-60-xxx (xxx=255-280, in steps of 5)
60 cells: JAM6(R)-60-xxx/PR (xxx=280-300, in steps of 5)
60 cells: JAM6-60-xxx/PR (xxx=275-295, in steps of 5)
60 cells: JAM6(L)-60-xxx/PR (xxx=270-295, in steps of 5)
60 cells: JAM6(K)-60-xxx/4BB (xxx=265-290, in steps of 5)
60 cells: JAM6(K)-60-xxx/PR (xxx=275-305, in steps of 5)
60 cells: JAM60S01-xxx/SC (xxx=265-305, in steps of 5)
60 cells: JAM60S02-xxx/SC (xxx=265-305, in steps of 5)
60 cells: JAM60S01-xxx/PR (xxx=280-325, in steps of 5)
60 cells: JAM60S02-xxx/PR (xxx=280-325, in steps of 5)
60 cells: JAM60S01-xxx/MR (xxx=300-330, in steps of 5)
60 cells: JAM60S02-xxx/MR (xxx=305-320, in steps of 5)



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60 cells: JAM60S09-xxx/PR (xxx=310-325, in steps of 5)
48 cells: JAM6(FA)-48-xxx/SI (xxx=205-220, in steps of 5)
48 cells: JAM6(R)(FA)-48-xxx (xxx=210-225, in steps of 5)
48 cells: JAM6(R)-48-xxx/PR (xxx=220-235, in steps of 5)
48 cells: JAM6-48-xxx/PR (xxx=215-235, in steps of 5)
48 cells: JAM6(L)-48-xxx/PR (xxx=215-235, in steps of 5)
48 cells: JAM6(K)-48xxx/4BB (xxx=210-225, in steps of 5)
48 cells: JAM6(K)-48-xxx/PR (xxx=220-235, in steps of 5)

Maximum system voltage: 1000V
Fuse rating: 20A
Application class: Class A
Electrical protection class: Class II

Module types:

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

72 cells: JAM72S03-xxx/PR (xxx=355-400, in steps of 5)
72 cells: JAM72S10-xxx/PR (xxx=380-415, in steps of 5)
60 cells: JAM60S03-xxx/PR (xxx=295-335, in steps of 5)
60 cells: JAM60S10-xxx/PR (xxx=315-345, in steps of 5)

Maximum system voltage: 1000V
Fuse rating: 20A
Application class: Class A
Electrical protection class: Class II

Module types:

PV Modules with 5" Mono-crystalline Silicon Solar Cells:

72 cells: JAM5-72-xxx/SI (xxx=180-210, in steps of 5)
72 cells: JAM5(L)-72-xxx/SI (xxx=180-220, in steps of 5)
72 cells: JAM5(R)-72-xxx (xxx=195-220, in steps of 5)

Maximum system voltage: 1000V
Fuse rating: 10A
Application class: Class A
Electrical protection class: Class II



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Module types:

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

72 cells: JAP6-72-xxx/3BB (xxx=250-330, in steps of 5)
72 cells: JAP6-72-xxx/4BB (xxx=305-330, in steps of 5)
72 cells: JAP6-72-xxx/RE (xxx=305-330, in steps of 5)
72 cells: JAP6-72-xxx/4BB/RE (xxx=305-330, in steps of 5)
72 cells: JAP6(K)-72-xxx/4BB (xxx=305-330, in steps of 5)
72 cells: JAP72S01-xxx/SC (xxx=305-345, in steps of 5)
72 cells: JAP72S02-xxx/SC (xxx=305-345, in steps of 5)
72 cells: JAP72S01-xxx/PR (xxx=330-345, in steps of 5)
72 cells: JAP72S09-xxx/SC (xxx=320-340, in steps of 5)
60 cells: JAP6-60-xxx/3BB (xxx=240-275, in steps of 5)
60 cells: JAP6(FA)-60-xxx/3BB (xxx=250-270, in steps of 5)
60 cells: JAP6-60-xxx/4BB (xxx=250-275, in steps of 5)
60 cells: JAP6-60-xxx/RE (xxx=255-280, in steps of 5)
60 cells: JAP6-60-xxx/4BB/RE (xxx=255-280, in steps of 5)
60 cells: JAP6(K)-60-xxx/4BB (xxx=255-275, in steps of 5)
60 cells: JAP60S01-xxx/SC (xxx=250-290, in steps of 5)
60 cells: JAP60S02-xxx/SC (xxx=250-290, in steps of 5)
60 cells: JAP60S01-xxx/PR (xxx=275-285, in steps of 5)
60 cells: JAP60S09-xxx/SC (xxx=265-280, in steps of 5)
54 cells: JAP54S01-xxx/SC (xxx=245-255, in steps of 5)
48 cells: JAP6(FA)-48-xxx/3BB (xxx=200-220, in steps of 5)
48 cells: JAP6-48-xxx/3BB (xxx=200-220, in steps of 5)

Maximum system voltage: 1000V
Fuse rating: 20A
Application class: Class A
Electrical protection class: Class II



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Module types: **PV Modules with half-cut 6" Poly-crystalline Silicon Solar Cells:**

- 72 cells: JAP72S03-xxx/PR (xxx=335-380, in steps of 5)
- 72 cells: JAP72S03-xxx/SC (xxx=320-350, in steps of 5)
- 72 cells: JAP72S10-xxx/SC (xxx=335-350, in steps of 5)
- 60 cells: JAP60S03-xxx/PR (xxx=280-315, in steps of 5)
- 60 cells: JAP60S03-xxx/SC (xxx=270-300, in steps of 5)
- 60 cells: JAP60S10-xxx/SC (xxx=275-290, in steps of 5)

Maximum system voltage: 1000V
Fuse rating: 20A
Application class: Class A
Electrical protection class: Class II

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

- 72 cells: JAM6(K)-72-xxx/PR/1500V (xxx=345-365, in steps of 5)
- 72 cells: JAM6(K)-72-xxx/4BB/1500V (xxx=320-340, in steps of 5)
- 72 cells: JAM72S01-xxx/PR (xxx=325-390, in steps of 5)
- 72 cells: JAM72S01-xxx/MR (xxx=360-390, in steps of 5)
- 72 cells: JAM72S01-xxx/SC (xxx=320-365, in steps of 5)
- 72 cells: JAM72S09-xxx/PR (xxx=370-390, in steps of 5)
- 60 cells: JAM6(K)-60-xxx/PR/1500V (xxx=285-305, in steps of 5)
- 60 cells: JAM6(K)-60-xxx/4BB/1500V (xxx=265-290, in steps of 5)
- 60 cells: JAM60S01-xxx/PR (xxx=280-325, in steps of 5)
- 60 cells: JAM60S01-xxx/MR (xxx=300-330, in steps of 5)
- 60 cells: JAM60S01-xxx/SC (xxx=265-305, in steps of 5)
- 60 cells: JAM60S09-xxx/PR (xxx=310-325, in steps of 5)

Maximum system voltage: 1500V
Fuse rating: 20A
Application class: Class A
Electrical protection class: Class II



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Module types:

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

72 cells: JAP6(K)-72-xxx/4BB/1500V (xxx=305-330, in steps of 5)
72 cells: JAP72S01-xxx/SC (xxx=305-345, in steps of 5)
72 cells: JAP72S01-xxx/PR (xxx=330-345, in steps of 5)
72 cells: JAP72S09-xxx/SC (xxx=320-340, in steps of 5)
60 cells: JAP6(K)-60-xxx/4BB/1500V (xxx=255-275, in steps of 5)
60 cells: JAP60S01-xxx/SC (xxx=255-290, in steps of 5)
60 cells: JAP60S01-xxx/PR (xxx=275-285, in steps of 5)
60 cells: JAP60S09-xxx/SC (xxx=265-280, in steps of 5)
54 cells: JAP54S01-xxx/SC (xxx=245-255, in steps of 5)

Maximum system voltage:

1500V

Fuse rating:

20A

Application class:

Class A

Electrical protection class:

Class II

Module types:

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

72 cells: JAM72S03-xxx/PR (xxx=335-400, in steps of 5)
72 cells: JAM72S10-xxx/PR (xxx=380-415, in steps of 5)
60 cells: JAM60S03-xxx/PR (xxx=295-335, in steps of 5)
60 cells: JAM60S10-xxx/PR (xxx=315-345, in steps of 5)

Maximum system voltage:

1500V

Fuse rating:

20A

Application class:

Class A

Electrical protection class:

Class II



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Module types:	PV Modules with half-cut 6" Poly-crystalline Silicon Solar Cells: 72 cells: JAP72S03-xxx/PR (xxx=335-380, in steps of 5) 72 cells: JAP72S03-xxx/SC (xxx=320-350, in steps of 5) 72 cells: JAP72S10-xxx/SC (xxx=335-350, in steps of 5) 60 cells: JAP60S03-xxx/PR (xxx=280-315, in steps of 5) 60 cells: JAP60S03-xxx/SC (xxx=270-300, in steps of 5) 60 cells: JAP60S10-xxx/SC (xxx=275-290, in steps of 5)
Maximum system voltage:	1500V
Fuse rating:	20A
Application class:	Class A
Electrical protection class:	Class II

Remark:

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



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