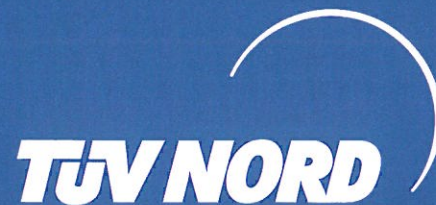


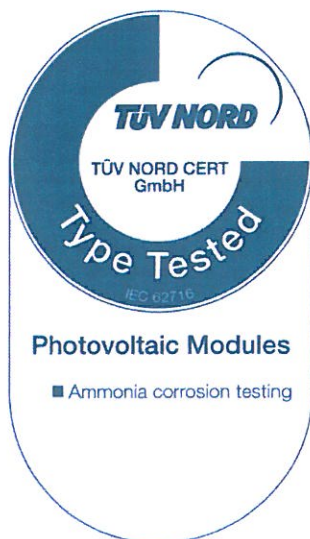
CERTIFICATE



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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Consumer Products



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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Consumer Products

Anlage 1 zum Zertifikat Nr.: / Annex 1 to Certificate No.: **44 780 19 406749 - 140**

Seite / Page **2 von / of 2**

Aktenzeichen: / File reference: **SHV11077/18-01**

2019-05-14

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".

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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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Consumer Products

	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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Consumer Products

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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Consumer Products

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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Consumer Products

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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Consumer Products

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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