

# CERTIFICATE

**TÜV NORD CERT GmbH**

herewith declares that

**Shanghai JA Solar Technology Co., Ltd.**  
No. 118, Lane 3111, West Huancheng 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):**

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



Valid from: 2022-01-26

Valid until: 2024-05-13

Certification program:	P12-VA-01 Rev. 17 09.20
Certification fundamental(s):	P12.4-AA-04 Rev. 00 (IEC 60068-2-68:1994 modified)
Remark:	Test Method Lc; Dust concentration: $5\pm 0.5\text{g/m}^3$ ; Wind velocity: $20\pm 2\text{m/s}$ ; Test duration: 4 hours each side.
Registered No.:	44 780 20 406749 - 028R7A4M7
Manufacturer:	see Annex 1
Test Report No.:	492010528.021
File No.:	PVP12081/21P-03



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Essen, 2022-01-26

Please also pay attention to the information stated overleaf.

**Manufacturer:**

Manufacturer 1:	<b>Shanghai JA Solar Technology Co., Ltd.</b> No. 118, Lane 3111, West Huancheng Road, Fengxian District Shanghai 201401, P.R. China
Factory inspection report no.:	862010153.009
Manufacturer 2:	<b>Hefei JA Solar Technology Co., Ltd.</b> No. 999, Chang Ning Road, Hi-tech Zone, Hefei 230088, P.R. China
Factory inspection report no.:	862010241.008
Manufacturer 3:	<b>JA Solar (Xingtai) Co., Ltd.</b> No. 1688, Chang An Road, Xingtai Economic Development Area Xingtai City, Hebei Province, 054001, P.R. China
Factory inspection report no.:	862010290.006
Manufacturer 4:	<b>Vina Solar Technology Co., Ltd.</b> E12 factory, lot CN-03, Van Trung Industrial park 21000 Bac Giang Province, Vietnam
Factory inspection report no.:	862010302.005
Manufacturer 5:	<b>Philadelphia Solar LTD. CO</b> Al Qastal Industrial Area, Air freight Road, 11814 Amman, Jordan
Factory inspection report no.:	862010431.002
Manufacturer 6:	<b>JA Solar New Energy Yangzhou Co., Ltd.</b> No.1, Jianhua Road, Economic Development Zone Yangzhou, Jiangsu Province, 225000, P.R. China
Factory inspection report no.:	862010496.002
Manufacturer 7:	<b>Yiwu JA Solar Technology Co., Ltd.</b> No. 165, Tongze Road, Yiting Town, Yiwu City, Zhejiang Province, 322000, P.R. China.
Factory inspection report no.:	862010513.002



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Manufacturer 8: **JA Solar Viet Nam Company Limited**  
Lot G, Quang Chau Industrial Zone, Quang Chau Commune  
Viet Yen Dist, 236110 Bac Giang Province, VIETNAM.

Factory inspection report no.: 862010560.001

Manufacturer 9: **JA Solar New Energy Yangzhou Co., Ltd. (Jingshan Park)**  
No.123, Jinshan Road, Economic Development Zone,  
Yangzhou, Jiangsu Province, 225127, P.R. China

Factory inspection report no.: 862010584.001

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:

**PV Modules with Mono-crystalline Silicon Solar Cells (156mm to 158.75mm):**

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=320-345, in steps of 5)  
72 cells: JAM6(K)-72-xxx/PR (xxx=325-370, in steps of 5)  
72 cells: JAM72S02-xxx/PR (xxx=325-390, in steps of 5)  
72 cells: JAM72S01-xxx/PR/1000V (xxx=345-390, in steps of 5)  
72 cells: JAM72S01-xxx/SC/1000V (xxx=320-365, in steps of 5)  
72 cells: JAM72S01-xxx/MR/1000V (xxx=365-385, in steps of 5)  
72 cells: JAM72S09-xxx/PR/1000V (xxx=370-405, in steps of 5)  
72 cells: JAM72S09-xxx/BP/1000V (xxx=375-385, in steps of 5)  
72 cells: JAM72S02-xxx/PR/1000V (xxx=345-390, in steps of 5)  
72 cells: JAM72S02-xxx/SC/1000V (xxx=320-365, in steps of 5)  
72 cells: JAM72S02-xxx/MR/1000V (xxx=365-385, in steps of 5)  
72 cells: JAM72S12-xxx/PR/1000V (xxx=365-385, 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=265-285, in steps of 5)  
60 cells: JAM6(K)-60-xxx/PR (xxx=275-310, in steps of 5)  
60 cells: JAM60S02-xxx/PR (xxx=280-325, in steps of 5)  
60 cells: JAM60S01-xxx/PR/1000V (xxx=285-325, in steps of 5)  
60 cells: JAM60S01-xxx/SC/1000V (xxx=265-305, in steps of 5)  
60 cells: JAM60S01-xxx/MR/1000V (xxx=305-320, in steps of 5)  
60 cells: JAM60S09-xxx/PR/1000V (xxx=310-335, in steps of 5)  
60 cells: JAM60S09-xxx/BP/1000V (xxx=315-320, in steps of 5)  
60 cells: JAM60S02-xxx/PR/1000V (xxx=285-325, in steps of 5)  
60 cells: JAM60S02-xxx/SC/1000V (xxx=265-305, in steps of 5)



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60 cells: JAM60S02-xxx/MR/1000V (xxx=305-320, in steps of 5)  
60 cells: JAM60S12-xxx/PR/1000V (xxx=305-330, 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 125mm 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

Module types:

**PV Modules with Mono-crystalline Silicon half-cut Solar Cells (156mm to 158.75mm):**

72 cells: JAM72S03-xxx/PR/1000V (xxx=360-395, in steps of 5)  
72 cells: JAM72S10-xxx/PR/1000V (xxx=380-410, in steps of 5)  
72 cells: JAM72S10-xxx/BP/1000V (xxx=385-400, in steps of 5)  
72 cells: JAM72S10-xxx/MR/1000V (xxx=390-430, in steps of 5)  
72 cells: JAM72S10-xxx/MB/1000V (xxx=395-415, in steps of 5)  
72 cells: JAM72S08-xxx/PR/1000V (xxx=360-395, in steps of 5)  
72 cells: JAM72S17-xxx/PR/1000V (xxx=380-390, in steps of 5)  
72 cells: JAM72S17-xxx/MR/1000V (xxx=390-430, in steps of 5)  
72 cells: JAM72S17-xxx/GR/1000V (xxx=385-400, in steps of 5)  
60 cells: JAM60S03-xxx/PR/1000V (xxx=300-330, in steps of 5)  
60 cells: JAM60S10-xxx/PR/1000V (xxx=315-345, in steps of 5)  
60 cells: JAM60S10-xxx/BP/1000V (xxx=320-330, in steps of 5)  
60 cells: JAM60S10-xxx/MR/1000V (xxx=325-355, in steps of 5)



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60 cells: JAM60S10-xxx/MB/1000V (xxx=330-345, in steps of 5)  
60 cells: JAM60S08-xxx/PR/1000V (xxx=300-330, in steps of 5)  
60 cells: JAM60S17-xxx/PR/1000V (xxx=315-325, in steps of 5)  
60 cells: JAM60S17-xxx/MR/1000V (xxx=315-355, in steps of 5)  
78 cells: JAM78S10-xxx/MR/1000V (xxx=435-465, in steps of 5)  
66 cells: JAM66S10-xxx/MR/1000V (xxx=345-390, 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 Mono-crystalline Silicon half-cut Solar Cells (166mm to 168mm):**

72 cells: JAM72S20-xxx/MR/1000V (xxx=430-470, in steps of 5)  
72 cells: JAM72S20-xxx/MB/1000V (xxx=450-465, in steps of 5)  
60 cells: JAM60S20-xxx/MR/1000V (xxx=355-390, in steps of 5)  
60 cells: JAM60S21-xxx/MR/1000V (xxx=355-390, in steps of 5)  
60 cells: JAM60S20-xxx/MB/1000V (xxx=375-390, in steps of 5)

Maximum system voltage: 1000V  
Fuse rating: 25A  
Application class: Class A  
Electrical protection class: Class II

Module types:

**PV Modules with 182mm Mono-crystalline Silicon half-cut Solar Cells:**

60 cells: JAM60S30-xxx/MR/1000V (xxx=435-460, in steps of 5)  
66 cells: JAM66S30-xxx/MR/1000V (xxx=470-505, in steps of 5)  
72 cells: JAM72S30-xxx/MR/1000V (xxx=510-555, in steps of 5)  
78 cells: JAM78S30-xxx/MR/1000V (xxx=580-605, in steps of 5)  
54 cells: JAM54S30-xxx/MR/1000V (xxx=390-415, in steps of 5)  
78 cells: JAM78S30-xxx/GR/1000V (xxx=575-600, in steps of 5)  
72 cells: JAM72S30-xxx/GR/1000V (xxx=535-555, in steps of 5)  
66 cells: JAM66S30-xxx/GR/1000V (xxx=500-505, in steps of 5)  
60 cells: JAM60S30-xxx/GR/1000V (xxx=445-460, in steps of 5)  
54 cells: JAM54S30-xxx/GR/1000V (xxx=400-415, in steps of 5)  
72 cells: JAM72S31-xxx/MR/1000V (xxx=510-545, in steps of 5)  
66 cells: JAM66S31-xxx/MR/1000V (xxx=470-500, in steps of 5)  
60 cells: JAM60S31-xxx/MR/1000V (xxx=425-450, in steps of 5)



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54 cells: JAM54S31-xxx/MR/1000V (xxx=385-405, in steps of 5)  
78 cells: JAM78S31-xxx/GR/1000V (xxx=570-590, in steps of 5)  
72 cells: JAM72S31-xxx/GR/1000V (xxx=525-545, in steps of 5)  
66 cells: JAM66S31-xxx/GR/1000V (xxx=480-500, in steps of 5)  
60 cells: JAM60S31-xxx/GR/1000V (xxx=435-450, in steps of 5)  
54 cells: JAM54S31-xxx/GR/1000V (xxx=395-405, in steps of 5)

Maximum system voltage: 1000V  
Fuse rating: 25A  
Application class: Class A  
Electrical protection class: Class II

Module types: **PV Modules with 210mm Mono-crystalline Silicon 1/3-cut Solar Cells:**

50 cells: JAM50S40-xxx/MR/1000V (xxx=490-500, in steps of 5)

Maximum system voltage: 1000V  
Fuse rating: 25A  
Application class: Class A  
Electrical protection class: Class II

Module types: **PV Modules with 182mm Mono-crystalline Silicon 1/5-cut Solar Cells:**

76 cells: JAM76S11-xxx/PR(B)/1000V (xxx=395-415, in steps of 5)

Maximum system voltage: 1000V  
Fuse rating: 25A  
Application class: Class A  
Electrical protection class: Class II

Module types: **PV Modules with Poly-crystalline Silicon Solar Cells (156mm to 158.75mm):**

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=310-330, in steps of 5)  
72 cells: JAP72S01-xxx/SC/1000V (xxx=310-345, in steps of 5)  
72 cells: JAP72S01-xxx/PR/1000V (xxx=330-345, in steps of 5)  
72 cells: JAP72S09-xxx/SC/1000V (xxx=320-345, in steps of 5)



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72 cells: JAP72S01-xxx/MS/1000V (xxx=325-340, in steps of 5)  
72 cells: JAP72S02-xxx/SC/1000V (xxx=310-345, in steps of 5)  
72 cells: JAP72S02-xxx/PR/1000V (xxx=330-345, 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/1000V (xxx=255-290, in steps of 5)  
60 cells: JAP60S01-xxx/PR/1000V (xxx=275-285, in steps of 5)  
60 cells: JAP60S09-xxx/SC/1000V (xxx=265-290, in steps of 5)  
60 cells: JAP60S01-xxx/MS/1000V (xxx=270-280, in steps of 5)  
60 cells: JAP60S02-xxx/SC/1000V (xxx=255-290, in steps of 5)  
60 cells: JAP60S02-xxx/PR/1000V (xxx=275-285, 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

Module types:

**PV Modules with Poly-crystalline Silicon half-cut Solar Cells (156mm to 158.75mm):**

72 cells: JAP72S03-xxx/SC/1000V (xxx=320-345, in steps of 5)  
72 cells: JAP72S03-xxx/PR/1000V (xxx=335-355, in steps of 5)  
72 cells: JAP72S10-xxx/SC/1000V (xxx=335-350, in steps of 5)  
72 cells: JAP72S03-xxx/MS/1000V (xxx=320-345, in steps of 5)  
72 cells: JAP72S08-xxx/SC/1000V (xxx=320-345, in steps of 5)  
72 cells: JAP72S08-xxx/PR/1000V (xxx=335-355, in steps of 5)  
60 cells: JAP60S03-xxx/SC/1000V (xxx=270-290, in steps of 5)  
60 cells: JAP60S03-xxx/PR/1000V (xxx=280-295, in steps of 5)  
60 cells: JAP60S10-xxx/SC/1000V (xxx=275-290, in steps of 5)  
60 cells: JAP60S03-xxx/MS/1000V (xxx=270-285, in steps of 5)  
60 cells: JAP60S08-xxx/SC/1000V (xxx=270-290, in steps of 5)  
60 cells: JAP60S08-xxx/PR/1000V (xxx=280-295, in steps of 5)

Maximum system voltage: 1000V



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Fuse rating: 20A  
Application class: Class A  
Electrical protection class: Class II

Module types:

**PV Modules with Mono-crystalline Silicon Solar Cells (156mm to 158.75mm):**

72 cells: JAM6(K)-72-xxx/PR/1500V (xxx=345-370, in steps of 5)  
72 cells: JAM6(K)-72-xxx/4BB/1500V (xxx=320-345, in steps of 5)  
72 cells: JAM72S01-xxx/PR (xxx=345-390, in steps of 5)  
72 cells: JAM72S01-xxx/SC/1500V (xxx=320-365, in steps of 5)  
72 cells: JAM72S01-xxx/MR/1500V (xxx=365-385, in steps of 5)  
72 cells: JAM72S09-xxx/PR/1500V (xxx=370-405, in steps of 5)  
72 cells: JAM72S09-xxx/BP/1500V (xxx=375-385, in steps of 5)  
72 cells: JAM72S02-xxx/PR/1500V (xxx=345-390, in steps of 5)  
72 cells: JAM72S02-xxx/SC/1500V (xxx=320-365, in steps of 5)  
72 cells: JAM72S02-xxx/MR/1500V (xxx=365-385, in steps of 5)  
72 cells: JAM72S12-xxx/PR/1500V (xxx=365-385, in steps of 5)  
60 cells: JAM6(K)-60-xxx/PR/1500V (xxx=285-310, in steps of 5)  
60 cells: JAM6(K)-60-xxx/4BB/1500V (xxx=265-285, in steps of 5)  
60 cells: JAM60S01-xxx/PR/1500V (xxx=285-325, in steps of 5)  
60 cells: JAM60S01-xxx/SC/1500V (xxx=265-305, in steps of 5)  
60 cells: JAM60S01-xxx/MR/1500V (xxx=305-320, in steps of 5)  
60 cells: JAM60S09-xxx/PR/1500V (xxx=310-335, in steps of 5)  
60 cells: JAM60S09-xxx/BP/1500V (xxx=315-320, in steps of 5)  
60 cells: JAM60S02-xxx/PR/1500V (xxx=285-325, in steps of 5)  
60 cells: JAM60S02-xxx/SC/1500V (xxx=265-305, in steps of 5)  
60 cells: JAM60S02-xxx/MR/1500V (xxx=305-320, in steps of 5)  
60 cells: JAM60S12-xxx/PR/1500V (xxx=305-330, 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 Mono-crystalline Silicon half-cut Solar Cells (156mm to 158.75mm):**

72 cells: JAM72S03-xxx/PR/1500V (xxx=360-395, in steps of 5)  
72 cells: JAM72S10-xxx/PR/1500V (xxx=380-410, in steps of 5)  
72 cells: JAM72S10-xxx/BP/1500V (xxx=385-400, in steps of 5)



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72 cells: JAM72S10-xxx/MR/1500V (xxx=390-430, in steps of 5)  
72 cells: JAM72S10-xxx/MB/1500V (xxx=395-415, in steps of 5)  
72 cells: JAM72S08-xxx/PR/1500V (xxx=360-395, in steps of 5)  
72 cells: JAM72S17-xxx/PR/1500V (xxx=380-390, in steps of 5)  
72 cells: JAM72S17-xxx/MR/1500V (xxx=390-430, in steps of 5)  
72 cells: JAM72S17-xxx/GR/1500V (xxx=385-400, in steps of 5)  
60 cells: JAM60S03-xxx/PR/1500V (xxx=300-330, in steps of 5)  
60 cells: JAM60S10-xxx/PR/1500V (xxx=315-345, in steps of 5)  
60 cells: JAM60S10-xxx/BP/1500V (xxx=320-330, in steps of 5)  
60 cells: JAM60S10-xxx/MR/1500V (xxx=325-355, in steps of 5)  
60 cells: JAM60S10-xxx/MB/1500V (xxx=330-345, in steps of 5)  
60 cells: JAM60S20-xxx/MR/1500V (xxx=355-390, in steps of 5)  
60 cells: JAM60S21-xxx/MR/1500V (xxx=355-390, in steps of 5)  
60 cells: JAM60S08-xxx/PR/1500V (xxx=300-330, in steps of 5)  
60 cells: JAM60S17-xxx/PR/1500V (xxx=315-325, in steps of 5)  
60 cells: JAM60S17-xxx/MR/1500V (xxx=315-355, in steps of 5)  
78 cells: JAM78S10-xxx/MR/1500V (xxx=435-465, in steps of 5)  
66 cells: JAM66S10-xxx/MR/1500V (xxx=345-390, 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 Mono-crystalline Silicon half-cut Solar Cells (166mm to 168mm):**

72 cells: JAM72S20-xxx/MR/1500V (xxx=430-470, in steps of 5)  
72 cells: JAM72S20-xxx/MB/1500V (xxx=450-465, in steps of 5)  
60 cells: JAM60S20-xxx/MB/1500V (xxx=375-390, in steps of 5)

Maximum system voltage: 1500V  
Fuse rating: 25A  
Application class: Class A  
Electrical protection class: Class II

Module types: **PV Modules with 182mm Mono-crystalline Silicon half-cut Solar Cells:**

72 cells: JAM72S30-xxx/MR/1500V (xxx=510-555, in steps of 5)  
66 cells: JAM66S30-xxx/MR/1500V (xxx=470-505, in steps of 5)  
60 cells: JAM60S30-xxx/MR/1500V (xxx=435-460, in steps of 5)



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54 cells: JAM54S30-xxx/MR/1500V (xxx=390-415, in steps of 5)  
78 cells: JAM78S30-xxx/MR/1500V (xxx=580-605, in steps of 5)  
78 cells: JAM78S30-xxx/GR/1500V (xxx=575-600, in steps of 5)  
72 cells: JAM72S30-xxx/GR/1500V (xxx=535-555, in steps of 5)  
66 cells: JAM66S30-xxx/GR/1500V (xxx=500-505, in steps of 5)  
60 cells: JAM60S30-xxx/GR/1500V (xxx=445-460, in steps of 5)  
54 cells: JAM54S30-xxx/GR/1500V (xxx=400-415, in steps of 5)  
72 cells: JAM72S31-xxx/MR/1500V (xxx=510-545, in steps of 5)  
66 cells: JAM66S31-xxx/MR/1500V (xxx=470-500, in steps of 5)  
60 cells: JAM60S31-xxx/MR/1500V (xxx=425-450, in steps of 5)  
54 cells: JAM54S31-xxx/MR/1500V (xxx=385-405, in steps of 5)  
78 cells: JAM78S31-xxx/GR/1500V (xxx=575-590, in steps of 5)  
72 cells: JAM72S31-xxx/GR/1500V (xxx=525-545, in steps of 5)  
66 cells: JAM66S31-xxx/GR/1500V (xxx=480-500, in steps of 5)  
60 cells: JAM60S31-xxx/GR/1500V (xxx=435-450, in steps of 5)  
54 cells: JAM54S31-xxx/GR/1500V (xxx=395-405, in steps of 5)

Maximum system voltage: 1500V  
Fuse rating: 25A  
Application class: Class A  
Electrical protection class: Class II

Module types: **PV Modules with 210mm Mono-crystalline Silicon 1/3-cut Solar Cells:**

50 cells: JAM50S40-xxx/MR/1500V (xxx=490-500, in steps of 5)

Maximum system voltage: 1500V  
Fuse rating: 25A  
Application class: Class A  
Electrical protection class: Class II

Module types: **PV Modules with 182mm Mono-crystalline Silicon 1/5-cut Solar Cells:**

76 cells: JAM76S11-xxx/PR(B)/1500V (xxx=395-415, in steps of 5)

Maximum system voltage: 1500V  
Fuse rating: 25A  
Application class: Class A  
Electrical protection class: Class II



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Module types:	<b>PV Modules with Poly-crystalline Silicon Solar Cells (156mm to 158.75mm):</b> 72 cells: JAP6(K)-72-xxx/4BB/1500V (xxx=310-330, in steps of 5) 72 cells: JAP72S01-xxx/SC/1500V (xxx=310-345, in steps of 5) 72 cells: JAP72S01-xxx/PR/1500V (xxx=330-345, in steps of 5) 72 cells: JAP72S09-xxx/SC/1500V (xxx=320-345, in steps of 5) 72 cells: JAP72S01-xxx/MS/1500V (xxx=325-340, in steps of 5) 72 cells: JAP72S02-xxx/SC/1500V (xxx=310-345, in steps of 5) 72 cells: JAP72S02-xxx/PR/1500V (xxx=330-345, in steps of 5) 60 cells: JAP6(K)-60-xxx/4BB/1500V (xxx=255-275, in steps of 5) 60 cells: JAP60S01-xxx/SC/1500V (xxx=255-290, in steps of 5) 60 cells: JAP60S01-xxx/PR/1500V (xxx=275-285, in steps of 5) 60 cells: JAP60S09-xxx/SC/1500V (xxx=265-290, in steps of 5) 60 cells: JAP60S01-xxx/MS/1500V (xxx=270-280, in steps of 5) 60 cells: JAP60S02-xxx/SC/1500V (xxx=255-290, in steps of 5) 60 cells: JAP60S02-xxx/PR/1500V (xxx=275-285, in steps of 5)
Maximum system voltage:	1500V
Fuse rating:	20A
Application class:	Class A
Electrical protection class:	Class II

Module types:	<b>PV Modules with Poly-crystalline Silicon half-cut Solar Cells (156mm to 158.75mm):</b> 72 cells: JAP72S03-xxx/SC/1500V (xxx=320-345, in steps of 5) 72 cells: JAP72S03-xxx/PR/1500V (xxx=335-355, in steps of 5) 72 cells: JAP72S10-xxx/SC/1500V (xxx=335-350, in steps of 5) 72 cells: JAP72S03-xxx/MS/1500V (xxx=320-345, in steps of 5) 72 cells: JAP72S08-xxx/SC/1500V (xxx=320-345, in steps of 5) 72 cells: JAP72S08-xxx/PR/1500V (xxx=335-355, in steps of 5) 60 cells: JAP60S03-xxx/SC/1500V (xxx=270-290, in steps of 5) 60 cells: JAP60S03-xxx/PR/1500V (xxx=280-295, in steps of 5) 60 cells: JAP60S10-xxx/SC/1500V (xxx=275-290, in steps of 5) 60 cells: JAP60S03-xxx/MS/1500V (xxx=270-285, in steps of 5) 60 cells: JAP60S08-xxx/SC/1500V (xxx=270-290, in steps of 5) 60 cells: JAP60S08-xxx/PR/1500V (xxx=280-295, in steps of 5)
Maximum system voltage:	1500V
Fuse rating:	20A
Application class:	Class A



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Electrical protection class: Class II

Module types: **PV Modules with Mono-crystalline Silicon Solar Cells (156mm to 158.75mm):**

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: JAM72S02-xxx/PR (xxx=345-390, in steps of 5)  
72 cells: JAM72S01-xxx/MR (xxx=365-385, in steps of 5)  
72 cells: JAM72S02-xxx/MR (xxx=365-385, in steps of 5)  
72 cells: JAM72S09-xxx/PR (xxx=370-405, in steps of 5)  
72 cells: JAM72S12-xxx/PR (xxx=365-385, in steps of 5)  
72 cells: JAM72S09-xxx/BP (xxx=375-385, 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=285-325, in steps of 5)  
60 cells: JAM60S02-xxx/PR (xxx=285-325, in steps of 5)  
60 cells: JAM60S01-xxx/MR (xxx=305-320, in steps of 5)  
60 cells: JAM60S02-xxx/MR (xxx=305-320, in steps of 5)  
60 cells: JAM60S09-xxx/PR (xxx=310-335, in steps of 5)  
60 cells: JAM60S12-xxx/PR (xxx=305-330, in steps of 5)  
60 cells: JAM60S09-xxx/BP (xxx=315-320, in steps of 5)

Maximum system voltage: 1000V or 1500V

Fuse rating: 20A

Application class: Class A

Electrical protection class: Class II

Module types: **PV Modules with Mono-crystalline Silicon half-cut Solar Cells (156mm to 158.75mm):**

72 cells: JAM72S03-xxx/PR (xxx=360-395, in steps of 5)  
72 cells: JAM72S10-xxx/PR (xxx=380-410, in steps of 5)  
72 cells: JAM72S17-xxx/PR (xxx=380-390, in steps of 5)  
72 cells: JAM72S10-xxx/MR (xxx=390-430, in steps of 5)  
72 cells: JAM72S17-xxx/MR (xxx=390-430, in steps of 5)  
72 cells: JAM72S17-xxx/GR (xxx=385-400, in steps of 5)  
72 cells: JAM72S10-xxx/BP (xxx=385-400, in steps of 5)  
72 cells: JAM72S10-xxx/MB (xxx=395-415, in steps of 5)  
72 cells: JAM72S08-xxx/PR (xxx=360-395, in steps of 5)  
60 cells: JAM60S03-xxx/PR (xxx=300-330, in steps of 5)



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60 cells: JAM60S08-xxx/PR (xxx=300-330, in steps of 5)  
60 cells: JAM60S10-xxx/PR (xxx=315-345, in steps of 5)  
60 cells: JAM60S10-xxx/MR (xxx=325-355, in steps of 5)  
60 cells: JAM60S10-xxx/BP (xxx=320-330, in steps of 5)  
60 cells: JAM60S10-xxx/MB (xxx=330-345, in steps of 5)  
60 cells: JAM60S17-xxx/PR (xxx=315-325, in steps of 5)  
60 cells: JAM60S17-xxx/MR (xxx=315-355, in steps of 5)  
78 cells: JAM78S10-xxx/MR (xxx=435-465, in steps of 5)  
78 cells: JAM78S10-xxx/MR-J (xxx=435-465, in steps of 5)  
66 cells: JAM66S10-xxx/MR (xxx=345-390, in steps of 5)

Maximum system voltage: 1000V or 1500V  
Fuse rating: 20A  
Application class: Class A  
Electrical protection class: Class II

Module types:

**PV Modules with Mono-crystalline Silicon half-cut Solar Cells (166mm to 168mm):**

72 cells: JAM72S20-xxx/MR (xxx=430-470, in steps of 5)  
72 cells: JAM72S20-xxx/MB (xxx=450-465, in steps of 5)  
60 cells: JAM60S20-xxx/MR (xxx=355-390, in steps of 5)  
60 cells: JAM60S21-xxx/MR (xxx=355-390, in steps of 5)  
60 cells: JAM60S20-xxx/MB (xxx=375-390, in steps of 5)

Maximum system voltage: 1000V or 1500V  
Fuse rating: 20A  
Application class: Class A  
Electrical protection class: Class II

Module types:

**PV Modules with 182mm Mono-crystalline Silicon half-cut Solar Cells:**

72 cells: JAM72S30-xxx/MR (xxx=510-555, in steps of 5)  
66 cells: JAM66S30-xxx/MR (xxx=470-505, in steps of 5)  
60 cells: JAM60S30-xxx/MR (xxx=435-460, in steps of 5)  
54 cells: JAM54S30-xxx/MR (xxx=390-415, in steps of 5)  
78 cells: JAM78S30-xxx/MR (xxx=580-605, in steps of 5)  
78 cells: JAM78S30-xxx/GR (xxx=575-600, in steps of 5)  
72 cells: JAM72S30-xxx/GR (xxx=535-555, in steps of 5)  
66 cells: JAM66S30-xxx/GR (xxx=500-505, in steps of 5)  
60 cells: JAM60S30-xxx/GR (xxx=445-460, in steps of 5)



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54 cells: JAM54S30-xxx/GR (xxx=400-415, in steps of 5)  
72 cells: JAM72S31-xxx/MR (xxx=510-545, in steps of 5)  
66 cells: JAM66S31-xxx/MR (xxx=470-500, in steps of 5)  
60 cells: JAM60S31-xxx/MR (xxx=425-450, in steps of 5)  
54 cells: JAM54S31-xxx/MR (xxx=385-405, in steps of 5)  
78 cells: JAM78S31-xxx/GR (xxx=575-590, in steps of 5)  
72 cells: JAM72S31-xxx/GR (xxx=525-545, in steps of 5)  
66 cells: JAM66S31-xxx/GR (xxx=480-500, in steps of 5)  
60 cells: JAM60S31-xxx/GR (xxx=435-450, in steps of 5)  
54 cells: JAM54S31-xxx/GR (xxx=395-405, in steps of 5)

Maximum system voltage: 1000V or 1500V  
Fuse rating: 25A  
Application class: Class A  
Electrical protection class: Class II

Module types: **PV Modules with 210mm Mono-crystalline Silicon 1/3-cut Solar Cells:**

50 cells: JAM50S40-xxx/MR (xxx=490-500, in steps of 5)

Maximum system voltage: 1000V or 1500V  
Fuse rating: 25A  
Application class: Class A  
Electrical protection class: Class II

Module types: **PV Modules with 182mm Mono-crystalline Silicon 1/5-cut Solar Cells:**

68 cells: JAM68S11-xxx/PR (xxx=355-365, in steps of 5)  
68 cells: JAM68S11-xxx/PR(B) (xxx=345-365, in steps of 5)  
76 cells: JAM76S11-xxx/PR(B) (xxx=395-415, in steps of 5)

Maximum system voltage: 1000V or 1500V  
Fuse rating: 25A  
Application class: Class A  
Electrical protection class: Class II

Module types: **PV Modules with Poly-crystalline Silicon Solar Cells (156mm to 158.75mm):**

72 cells: JAP72S01-xxx/SC (xxx=310-345, in steps of 5)  
72 cells: JAP72S02-xxx/SC (xxx=310-345, in steps of 5)



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72 cells: JAP72S01-xxx/PR (xxx=330-345, in steps of 5)  
72 cells: JAP72S02-xxx/PR (xxx=330-345, in steps of 5)  
72 cells: JAP72S09-xxx/SC (xxx=320-345, in steps of 5)  
72 cells: JAP72S01-xxx/MS (xxx=325-340, in steps of 5)  
60 cells: JAP60S01-xxx/SC (xxx=255-290, in steps of 5)  
60 cells: JAP60S02-xxx/SC (xxx=255-290, in steps of 5)  
60 cells: JAP60S01-xxx/PR (xxx=275-285, in steps of 5)  
60 cells: JAP60S02-xxx/PR (xxx=275-285, in steps of 5)  
60 cells: JAP60S09-xxx/SC (xxx=265-290, in steps of 5)  
60 cells: JAP60S01-xxx/MS (xxx=270-280, in steps of 5)  
54 cells: JAP54S01-xxx/SC (xxx=245-255, in steps of 5)

Maximum system voltage: 1000V or 1500V  
Fuse rating: 20A  
Application class: Class A  
Electrical protection class: Class II

Module types:

**PV Modules with Poly-crystalline Silicon half-cut Solar Cells (156mm to 158.75mm):**

72 cells: JAP72S03-xxx/PR (xxx=335-355, in steps of 5)  
72 cells: JAP72S03-xxx/SC (xxx=320-345, in steps of 5)  
72 cells: JAP72S10-xxx/SC (xxx=335-350, in steps of 5)  
72 cells: JAP72S03-xxx/MS (xxx=320-345, in steps of 5)  
72 cells: JAP72S08-xxx/SC (xxx=320-345, in steps of 5)  
72 cells: JAP72S08-xxx/PR (xxx=335-355, in steps of 5)  
60 cells: JAP60S03-xxx/PR (xxx=280-295, in steps of 5)  
60 cells: JAP60S03-xxx/SC (xxx=270-290, in steps of 5)  
60 cells: JAP60S10-xxx/SC (xxx=275-290, in steps of 5)  
60 cells: JAP60S03-xxx/MS (xxx=270-285, in steps of 5)  
60 cells: JAP60S08-xxx/SC (xxx=270-290, in steps of 5)  
60 cells: JAP60S08-xxx/PR (xxx=280-295, in steps of 5)

Maximum system voltage: 1000V or 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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