## Declaration of low-reflection modules

Solar modules are designed to absorb solar energy and generate electricity, all JA Solar modules are currently designed with anti-reflective front surfaces to reduce the light reflection.

JA Solar as the PV Module manufacture hereby confirms that the new modules for the Series S10, S20 and S30; the Series D30, D40 are low reflection in the sense that they have an absorption $>90 \%$

All JA Solar customers are encouraged to consult with JA Solar technical support staff for any further question they may have.

Globaı Muctnm. Service Department
June 20th, 2023

## 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: 2023-11-21
Valid until: 2026-09-29

Certification program:
Certification fundamental(s):
Remark:

Registered No.:
Manufacturer:
Test Report No.:
File No.:

P12-VA-01 Rev. 1709.20
IEC 61701:2020
Test Method 6
Test duration: 1344 hours
4478023 406749-191R3A2M4
see Annex 1
492012551.005

PVP03150/23P-01

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Essen, 2023-11-21

Please also pay attention to the information stated overleaf.


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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 ( $x x x=295-335$, in steps of 5)
> 72 cells: JAM6-72- xxx/SI ( $x x x=285-325$, in steps of 5)
> 72 cells: JAM6(R)-72-xxx ( $x x x=295-340$, in steps of 5 )
> 72 cells: JAM6(R)-72-xxx/PR (xxx=330-350, in steps of 5)
> 72 cells: JAM6-72-xxx/PR ( $x x x=325-345$, in steps of 5)
> 72 cells: JAM6(L)-72-xxx/PR ( $x x x=325-345$, in steps of 5 )
> 72 cells: JAM6(K)-72-xxx/4BB ( $x x x=320-345$, in steps of 5 )
> 72 cells: JAM6(K)-72-xxx/PR ( $x x x=325-370$, in steps of 5 )
> 72 cells: JAM72S02-xxx/PR (xxx=325-390, in steps of 5)
> 72 cells: JAM72S01-xxx/PR/1000V ( $x x x=345-390$, in steps of 5)
> 72 cells: JAM72S01-xxx/SC/1000V ( $x x x=320-365$, in steps of 5)
> 72 cells: JAM72S01-xxx/MR/1000V ( $x x x=365-385$, in steps of 5 )
> 72 cells: JAM72S09-xxx/PR/1000V ( $x x x=370-405$, in steps of 5)
> 72 cells: JAM72S09-xxx/BP/1000V ( $x$ xx=375-385, in steps of 5 )
> 72 cells: JAM72S02-xxx/PR/1000V ( $x x x=345-390$, in steps of 5)
> 72 cells: JAM72S02-xxx/SC/1000V ( $x x x=320-365$, in steps of 5 )
> 72 cells: JAM72S02-xxx/MR/1000V ( $x x x=365-385$, in steps of 5)
> 72 cells: JAM72S12-xxx/PR/1000V ( $x x x=365-385$, 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 ( $x x x=255-280$, in steps of 5 )
> 60 cells: JAM6(R)-60-xxx/PR ( $x x x=280-300$, in steps of 5 )
> 60 cells: JAM6-60-xxx/PR ( $x x x=275-295$, in steps of 5)
> 60 cells: JAM6(L)-60-xxx/PR ( $x x x=270-295$, in steps of 5)
> 60 cells: JAM6(K)-60-xxx/4BB ( $x x x=265-285$, in steps of 5)
> 60 cells: JAM6(K)-60-xxx/PR ( $x x x=275-310$, 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 ( $x x x=265-305$, in steps of 5 )
> 60 cells: JAM60S01-xxx/MR/1000V ( $x x x=305-320$, in steps of 5)
> 60 cells: JAM60S09-xxx/PR/1000V ( $x x x=310-335$, in steps of 5)
> 60 cells: JAM60S09-xxx/BP/1000V ( $x x x=315-320$, in steps of 5)
> 60 cells: JAM60S02-xxx/PR/1000V ( $x x x=285-325$, in steps of 5 )
> 60 cells: JAM60S02-xxx/SC/1000V (xxx=265-305, in steps of 5)
> 60 cells: JAM60S02-xxx/MR/1000V (xxx=305-320, in steps of 5)

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|  | 60 cells: JAM60S12-xxx/PR/1000V ( $x$ xx=305-330, in steps of 5) |
| :---: | :---: |
|  | 48 cells: JAM6(FA)-48-xxx/SI ( $x x x=205-220$, in steps of 5) |
|  | 48 cells: JAM6(R)(FA)-48-xxx ( $x x x=210-225$, in steps of 5) |
|  | 48 cells: JAM6(R)-48-xxx/PR ( $\mathrm{xxx}=220-235$, in steps of 5) |
|  | 48 cells: JAM6-48-xxx/PR ( $x$ xx $=215-235$, in steps of 5) |
|  | 48 cells: JAM6(L)-48-xxx/PR ( $x \times x=215-235$, in steps of 5) |
|  | 48 cells: JAM6(K)-48xxx/4BB ( $x \times x=210-225$, in steps of 5) |
|  | 48 cells: JAM6(K)-48-xxx/PR ( $\mathrm{xxx}=220-235$, in steps of 5) |
| Maximum system voltage: | 1000 V |
| Fuse rating: | 20A |
| Application class: | Class A |
| Electrical protection class: | Class II |

Module types:

Maximum system voltage:
Fuse rating:
Application class:
Electrical protection class:

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 ) 1000 V
10A
Class A
Class II

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

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

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|  | 60 cells: JAM60S08-xxx/PR/1000V (xxx=300-330, in steps of 5) |
| :---: | :---: |
|  | 60 cells: JAM60S17-xxx/PR/1000V ( $x x x=315-325$, in steps of 5) |
|  | 60 cells: JAM60S17-xxx/MR/1000V ( $x x x=315-355$, in steps of 5) |
|  | 78 cells: JAM78S10-xxx/MR/1000V ( $x x x=435-465$, in steps of 5) |
|  | 66 cells: JAM66S10-xxx/MR/1000V (xxx=345-390, in steps of 5) |
| Maximum system voltage: | 1000 V |
| Fuse rating: | 20A |
| Application class: | Class A |
| Electrical protection class: | Class II |
| Module types: | PV Modules with Mono-crystalline Silicon half-cut Solar Cells ( 166 mm to 168 mm ): |
|  | 72 cells: JAM72S20-xxx/MR/1000V (xxx=430-470, in steps of 5) |
|  | 72 cells: JAM72S20-xxx/MB/1000V ( $x$ xx=450-465, in steps of 5) |
|  | 60 cells: JAM60S20-xxx/MR/1000V ( $x x x=355-390$, in steps of 5) |
|  | 60 cells: JAM60S21-xxx/MR/1000V ( $x x x=355-390$, in steps of 5) |
|  | 60 cells: JAM60S20-xxx/MB/1000V (xxx=375-390, in steps of 5) |
| Maximum system voltage: | 1000 V |
| 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=470-510, in steps of 5)
72 cells: JAM72S30-xxx/MR/1000V ( $x x x=510-560$, in steps of 5)
78 cells: JAM78S30-xxx/MR/1000V ( $x x x=580-605$, in steps of 5)
54 cells: JAM54S30-xxx/MR/1000V (xxx=390-425, in steps of 5) 78 cells: JAM78S30-xxx/GR/1000V (xxx=575-610, in steps of 5)
72 cells: JAM72S30-xxx/GR/1000V ( $x x x=510-560$, in steps of 5 )
66 cells: JAM66S30-xxx/GR/1000V ( $x x x=500-510$, in steps of 5 )
60 cells: JAM60S30-xxx/GR/1000V ( $x x x=445-470$, in steps of 5)
54 cells: JAM54S30-xxx/GR/1000V (xxx=400-420, in steps of 5) 72 cells: JAM72S31-xxx/MR/1000V ( $x x x=510-545$, in steps of 5) 66 cells: JAM66S31-xxx/MR/1000V (xxx=470-500, in steps of 5) 60 cells: JAM60S31-xxx/MR/1000V ( $x x x=425-450$, in steps of 5 ) 54 cells: JAM54S31-xxx/MR/1000V (xxx=385-415, in steps of 5)

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78 cells: JAM78S31-xxx/GR/1000V ( $x x x=570-590$, in steps of 5) 72 cells: JAM72S31-xxx/GR/1000V ( $x x x=525-545$, in steps of 5) 66 cells: JAM66S31-xxx/GR/1000V ( $x x x=480-500$, in steps of 5) 60 cells: JAM60S31-xxx/GR/1000V ( $x x x=435-450$, in steps of 5) 54 cells: JAM54S31-xxx/GR/1000V (xxx=395-415, in steps of 5) 72 cells: JAM72S40-xxx/GR/1000V ( $x x x=540-575$, in steps of 5 ) 66 cells: JAM66S40-xxx/GR/1000V ( $x x x=495-525$, in steps of 5 ) 60 cells: JAM60S40-xxx/GR/1000V ( $x x x=450-480$, in steps of 5) 54 cells: JAM54S40-xxx/GR/1000V ( $x x x=405-430$, in steps of 5) 72 cells: JAM72S41-xxx/GR/1000V ( $x x x=540-570$, in steps of 5) 66 cells: JAM66S41-xxx/GR/1000V ( $x x x=495-525$, in steps of 5 ) 60 cells: JAM60S41-xxx/GR/1000V ( $x x x=450-475$, in steps of 5) 54 cells: JAM54S41-xxx/GR/1000V (xxx=405-430, in steps of 5) 72 cells: JAM72S30-xxx/LR/1000V ( $x x x=555-580$, in steps of 5) 54 cells: JAM54S30-xxx/LR/1000V ( $x x x=415-435$, in steps of 5) 54 cells: JAM54S31-xxx/LR/1000V ( $x x x=415-425$, in steps of 5 ) 54 cells: JAM54S30-xxx/MB/1000V (xxx=385-410, in steps of 5) 54 cells: JAM54S31-xxx/MB/1000V (xxx=385-405, in steps of 5) 54 cells: JAM54S30-xxx/LB/1000V (xxx=410-425, in steps of 5) 54 cells: JAM54S31-xxx/LB/1000V (xxx=410-415, in steps of 5) 1000 V

```
25A
```

Class A
Class II
Module types:
Maximum system voltage:
Fuse rating:
Application class:
Electrical protection class:

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

50 cells: JAM50S40-xxx/MR/1000V ( $x x x=490-500$, in steps of 5) 66 cells: JAM66S35-xxx/MR/1000V ( $x x x=650-670$, in steps of 5 ) 60 cells: JAM60S35-xxx/MR/1000V (xxx=590-610, in steps of 5) 1000 V
25A
Class A
Class II

| Module types: | PV Modules with 182 mm 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: | 1000 V |
| Fuse rating: | 25A |
| Application class: | Class A |
| Electrical protection class: | Class II |
| Module types: | PV Modules with Poly-crystalline Silicon Solar Cells ( 156 mm to 158.75 mm ): |
|  | 72 cells: JAP6-72-xxx/3BB ( $\mathrm{xxx}=250-330$, in steps of 5) |
|  | 72 cells: JAP6-72-xxx/4BB ( $\mathrm{xxx}=305-330$, in steps of 5) |
|  | 72 cells: JAP6-72-xxx/RE ( $\mathrm{xxx}=305-330$, in steps of 5) |
|  | 72 cells: JAP6-72-xxx/4BB/RE ( $x x x=305-330$, in steps of 5) |
|  | 72 cells: JAP6(K)-72-xxx/4BB ( $\mathrm{xxx}=310-330$, 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) |
|  | 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 ( $\mathrm{xxx}=240-275$, in steps of 5) |
|  | 60 cells: JAP6(FA)-60-xxx/3BB ( $\mathrm{xxx}=250-270$, in steps of 5) |
|  | 60 cells: JAP6-60-xxx/4BB ( $\mathrm{xxx}=250-275$, 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 ( $\mathrm{xxx}=255-275$, 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 ( $\mathrm{xxx}=245-255$, in steps of 5) |
|  | 48 cells: JAP6(FA)-48-xxx/3BB ( $\mathrm{xxx}=200-220$, in steps of 5 ) |
|  | 48 cells: JAP6-48-xxx/3BB (xxx=200-220, in steps of 5) |
| Maximum system voltage: | 1000 V |
| Fuse rating: | 20 A |

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## Application class:

Electrical protection class:
Module types:

Maximum system voltage:
Fuse rating:
Application class:
Electrical protection class:

Module types:

## Class A

Class II
PV Modules with Poly-crystalline Silicon half-cut Solar Cells (156mm to 158.75 mm ):
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 ( $x x x=335-350$, 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 ( $x x x=335-355$, 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 ( $x x x=270-285$, in steps of 5)
60 cells: JAP60S08-xxx/SC/1000V ( $x x x=270-290$, in steps of 5) 60 cells: JAP60S08-xxx/PR/1000V ( $x x x=280-295$, in steps of 5 )

1000 V
20A
Class A
Class II

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

72 cells: JAM6(K)-72-xxx/PR/1500V ( $x x x=345-370$, in steps of 5)
72 cells: JAM6(K)-72-xxx/4BB/1500V ( $x \times x=320-345$, in steps of 5 )
72 cells: JAM72S01-xxx/PR (xxx=345-390, in steps of 5)
72 cells: JAM72S01-xxx/SC/1500V ( $x x x=320-365$, in steps of 5)
72 cells: JAM72S01-xxx/MR/1500V ( $x x x=365-385$, in steps of 5)
72 cells: JAM72S09-xxx/PR/1500V ( $x x x=370-405$, in steps of 5)
72 cells: JAM72S09-xxx/BP/1500V ( $x x x=375-385$, in steps of 5)
72 cells: JAM72S02-xxx/PR/1500V ( $x x x=345-390$, in steps of 5 )
72 cells: JAM72S02-xxx/SC/1500V ( $x x x=320-365$, in steps of 5 )
72 cells: JAM72S02-xxx/MR/1500V ( $x x x=365-385$, in steps of 5)
72 cells: JAM72S12-xxx/PR/1500V ( $x x x=365-385$, in steps of 5)
60 cells: JAM6(K)-60-xxx/PR/1500V ( $x x x=285-310$, in steps of 5)
60 cells: JAM6(K)-60-xxx/4BB/1500V ( $x x x=265-285$, in steps of 5 )
60 cells: JAM60S01-xxx/PR/1500V ( $x x x=285-325$, in steps of 5)
60 cells: JAM60S01-xxx/SC/1500V (xxx=265-305, in steps of 5)

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# 60 cells: JAM60S01-xxx/MR/1500V ( $x x x=305-320$, 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 ( $x x x=265-305$, in steps of 5 ) 60 cells: JAM60S02-xxx/MR/1500V ( $x x x=305-320$, in steps of 5) 60 cells: JAM60S12-xxx/PR/1500V (xxx=305-330, in steps of 5) 72 cells: JAM6(K)(DG)-72-xxx/PR/1500V (xxx=330-365, in steps of 5) 72 cells: JAM6(K)(DG)-72-xxx/4BB/1500V (xxx=320-340, in steps of 5) 72 cells: JAM72D00-xxx/PR ( $x x x=340-385$, in steps of 5) 72 cells: JAM72D00-xxx/PR/1500V ( $x x x=340-385$, in steps of 5 ) 72 cells: JAM72D00-xxx/SC (xxx=320-340, in steps of 5) 72 cells: JAM72D00-xxx/BP ( $x x x=330-385$; in steps of 5) 72 cells: JAM72D00-xxx/BP/1500V (xxx=330-385, in steps of 5) 72 cells: JAM72D00-xxx/MB ( $x x x=370-380$, in steps of 5 ) 72 cells: JAM72D00-xxx/MB/1500V (xxx=370-380, in steps of 5) 72 cells: JAM72D09-xxx/BP (xxx=360-400, in steps of 5) 72 cells: JAM72D09-xxx/BP/1500V ( $x x x=360-400$, in steps of 5) 60 cells: JAM6(DG)-60-xxx/1500V ( $x x x=250-270$, in steps of 5 ) 60 cells: JAM6(K)(DG)-60-xxx/4BB/1500V (xxx=260-285, in steps of 5) 60 cells: JAM6(K)(DG)-60-xxx/PR/1500V ( $x x x=270-305$, in steps of 5) 60 cells: JAM6(DG)-60-xxx/4BB/1500V (xxx=260-280, in steps of 5) 60 cells: JAM60D00-xxx/PR (xxx=285-320, in steps of 5) 60 cells: JAM60D00-xxx/PR/1500V ( $x x x=285-320$, in steps of 5) 60 cells: JAM60D00-xxx/SC ( $x x x=260-285$, in steps of 5 ) 60 cells: JAM60D00-xxx/BP ( $x x x=275-320$, in steps of 5) 60 cells: JAM60D00-xxx/BP/1500V (xxx=275-320, in steps of 5) 60 cells: JAM60D00-xxx/MB (xxx=310-315, in steps of 5) 60 cells: JAM60D00-xxx/MB/1500V (xxx=310-315, in steps of 5) 60 cells: JAM60D09-xxx/BP ( $x x x=300-340$, in steps of 5 ) 60 cells: JAM60D09-xxx/BP/1500V (xxx=300-340, in steps of 5 ) <br> Maximum system voltage: <br> Fuse rating: <br> Application class: <br> Electrical protection class: <br> 1500 V <br> 20A <br> Class A <br> Class II 

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

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) 72 cells: JAM72S10-xxx/MR/1500V ( $x x x=390-430$, 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 ( $x x x=390-430$, in steps of 5) 72 cells: JAM72S17-xxx/GR/1500V ( $x x x=385-400$, in steps of 5) 60 cells: JAM60S03-xxx/PR/1500V ( $x x x=300-330$, in steps of 5) 60 cells: JAM60S10-xxx/PR/1500V ( $x x x=315-345$, in steps of 5) 60 cells: JAM60S10-xxx/BP/1500V ( $x x x=320-330$, in steps of 5 ) 60 cells: JAM60S10-xxx/MR/1500V ( $x x x=325-355$, in steps of 5) 60 cells: JAM60S10-xxx/MB/1500V ( $x x x=330-345$, in steps of 5 ) 60 cells: JAM60S20-xxx/MR/1500V ( $x x x=355-390$, in steps of 5) 60 cells: JAM60S21-xxx/MR/1500V (xxx=355-390, in steps of 5) 60 cells: JAM60S08-xxx/PR/1500V ( $x x x=300-330$, in steps of 5) 60 cells: JAM60S17-xxx/PR/1500V ( $x x x=315-325$, in steps of 5 ) 60 cells: JAM60S17-xxx/MR/1500V ( $x x x=315-355$, 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) 72 cells: JAM72D10-xxx/MB ( $x x x=385-430$, in steps of 5 ) 72 cells: JAM72D10-xxx/MB/1500V ( $x x x=385-430$, in steps of 5 ) 60 cells: JAM60D10-xxx/MB (xxx=320-355, in steps of 5) 60 cells: JAM60D10-xxx/MB/1500V (xxx=320-355, in steps of 5) 72 cells: JAM72D10-xxx/BP (xxx=385-415, in steps of 5) 72 cells: JAM72D10-xxx/BP/1500V ( $x x x=385-415$, in steps of 5) 60 cells: JAM60D10-xxx/BP ( $x x x=320-345$, in steps of 5 ) 60 cells: JAM60D10-xxx/BP/1500V ( $x x x=320-345$, in steps of 5 ) 78 cells: JAM78D10-xxx/MB (xxx=435-455, in steps of 5) 78 cells: JAM78D10-xxx/MB/1500V ( $x x x=435-455$, in steps of 5) 66 cells: JAM66D10-xxx/MB ( $x x x=360-380$, in steps of 5) 66 cells: JAM66D10-xxx/MB/1500V ( $x x x=360-380$, in steps of 5) 72 cells: JAM72D20-xxx/MB ( $x x x=430-465$, in steps of 5 ) 72 cells: JAM72D20-xxx/MB/1500V (xxx=430-465, in steps of 5) 60 cells: JAM60D20-xxx/MB ( $x x x=355-385$, in steps of 5 ) 60 cells: JAM60D20-xxx/MB/1500V (xxx=355-385, in steps of 5) 72 cells: JAM72D10-xxx/TB (xxx=400-420, in steps of 5 )

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|  | 72 cells: JAM72D10-xxx/TB/1500V ( $\mathrm{xxx}=400-420$, in steps of 5 ) |
| :---: | :---: |
|  | 60 cells: JAM60D10-xxx/TB (xxx=335-350, in steps of 5) |
|  | 60 cells: JAM60D10-xxx/TB/1500V (xxx=335-350, 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 ( 166 mm to 168 mm ): |
|  | 72 cells: JAM72S20-xxx/MR/1500V (xxx=430-470, in steps of 5) |
|  | 72 cells: JAM72S20-xxx/MB/1500V ( $\mathrm{xxx}=450-465$, in steps of 5) |
|  | 60 cells: JAM60S20-xxx/MB/1500V (xxx=375-390, in steps of 5) |
| Maximum system voltage: | 1500 V |
| 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:
78 cells: JAM78S30-xxx/MR/1500V ( $x x x=580-605$, in steps of 5)
72 cells: JAM72S30-xxx/MR/1500V ( $x x x=510-560$, in steps of 5)
66 cells: JAM66S30-xxx/MR/1500V ( $x x x=470-510$, in steps of 5 )
60 cells: JAM60S30-xxx/MR/1500V ( $x x x=435-460$, in steps of 5)
54 cells: JAM54S30-xxx/MR/1500V (xxx=390-425, in steps of 5)
78 cells: JAM78S30-xxx/MR/1500V ( $x x x=575-610$, in steps of 5)
78 cells: JAM78S30-xxx/GR/1500V ( $x x x=575-600$, in steps of 5)
72 cells: JAM72S30-xxx/GR/1500V ( $x x x=510-560$, in steps of 5 )
66 cells: JAM66S30-xxx/GR/1500V ( $x x x=500-510$, in steps of 5)
60 cells: JAM60S30-xxx/GR/1500V (xxx=445-470, in steps of 5)
54 cells: JAM54S30-xxx/GR/1500V ( $x x x=400-420$, in steps of 5 )
72 cells: JAM72S31-xxx/MR/1500V ( $x x x=510-545$, in steps of 5)
66 cells: JAM66S31-xxx/MR/1500V ( $x x x=470-500$, in steps of 5)
60 cells: JAM60S31-xxx/MR/1500V ( $x x x=425-450$, in steps of 5)
54 cells: JAM54S31-xxx/MR/1500V ( $x x x=385-415$, in steps of 5)
78 cells: JAM78S31-xxx/GR/1500V ( $x x x=575-590$, in steps of 5)
72 cells: JAM72S31-xxx/GR/1500V ( $x x x=525-545$, in steps of 5)
66 cells: JAM66S31-xxx/GR/1500V ( $x x x=480-500$, in steps of 5 )

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60 cells: JAM60S31-xxx/GR/1500V ( $x x x=435-450$, in steps of 5)
54 cells: JAM54S31-xxx/GR/1500V (xxx=395-415, in steps of 5)
72 cells: JAM72S40-xxx/GR/1500V ( $x x x=540-575$, in steps of 5)
66 cells: JAM66S40-xxx/GR/1500V ( $x x x=495-525$, in steps of 5)
60 cells: JAM60S40-xxx/GR/1500V (xxx=450-480, in steps of 5)
54 cells: JAM54S40-xxx/GR/1500V ( $x x x=405-430$, in steps of 5 )
72 cells: JAM72S41-xxx/GR/1500V ( $x x x=540-570$, in steps of 5)
66 cells: JAM66S41-xxx/GR/1500V ( $x x x=495-525$, in steps of 5)
60 cells: JAM60S41-xxx/GR/1500V ( $x x x=450-475$, in steps of 5 )
54 cells: JAM54S41-xxx/GR/1500V ( $x x x=405-430$, in steps of 5 )
72 cells: JAM72S30-xxx/LR/1500V ( $x x x=555-580$, in steps of 5)
54 cells: JAM54S30-xxx/LR/1500V ( $x x x=415-435$, in steps of 5 )
54 cells: JAM54S31-xxx/LR/1500V ( $x x x=415-425$, in steps of 5)
54 cells: JAM54S30-xxx/MB/1500V (xxx=385-410, in steps of 5)
54 cells: JAM54S31-xxx/MB/1500V ( $x x x=385-405$, in steps of 5)
54 cells: JAM54S30-xxx/LB/1500V ( $x x x=410-425$, in steps of 5 )
54 cells: JAM54S31-xxx/LB/1500V (xxx=410-415, in steps of 5)
78 cells: JAM78D30-xxx/MB (xxx=580-605, in steps of 5)
78 cells: JAM78D30-xxx/MB/1500V ( $x x x=580-605$, in steps of 5)
72 cells: JAM72D30-xxx/MB ( $x x x=505-560$, in steps of 5 )
72 cells: JAM72D30-xxx/MB/1500V ( $x x x=505-560$, in steps of 5)
72 cells: JAM72D30-xxx/MB/F ( $x x x=505-560$, in steps of 5 )
72 cells: JAM72D30-xxx/MB/F/1500V ( $x x x=505-560$, in steps of 5)
66 cells: JAM66D30-xxx/MB (xxx=465-505, in steps of 5)
66 cells: JAM66D30-xxx/MB/1500V ( $x x x=465-505$, in steps of 5)
66 cells: JAM66D30-xxx/MB/F (xxx=465-505, in steps of 5 )
66 cells: JAM66D30-xxx/MB/F/1500V (xxx=465-505, in steps of 5)
60 cells: JAM60D30-xxx/MB ( $x x x=435-460$, in steps of 5 )
60 cells: JAM60D30-xxx/MB/1500V ( $x x x=435-460$, in steps of 5 )
54 cells: JAM54D30-xxx/MB ( $x x x=390-415$, in steps of 5 )
54 cells: JAM54D30-xxx/MB/1500V (xxx=390-415, in steps of 5)
54 cells: JAM54D31-xxx/MB (xxx=395-400, in steps of 5)
54 cells: JAM54D31-xxx/MB/1500V ( $x x x=395-400$, in steps of 5 )
78 cells: JAM78D30-xxx/GB (xxx=585-610, in steps of 5)
78 cells: JAM78D30-xxx/GB/1500V (xxx=585-610, in steps of 5)
72 cells: JAM72D30-xxx/GB ( $x x x=505-560$, in steps of 5 )
72 cells: JAM72D30-xxx/GB/1500V ( $x x x=505-560$, in steps of 5 )
66 cells: JAM66D30-xxx/GB (xxx=495-510, in steps of 5)
66 cells: JAM66D30-xxx/GB/1500V ( $x x x=495-510$, in steps of 5)
60 cells: JAM60D30-xxx/GB (xxx=450-470, in steps of 5)

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60 cells: JAM60D30-xxx/GB/1500V (xxx=450-470/1500V, in steps of 5 )
54 cells: JAM54D30-xxx/GB (xxx=405-420, in steps of 5)
54 cells: JAM54D30-xxx/GB/1500V (xxx=405-420, in steps of 5)
54 cells: JAM54D31-xxx/GB (xxx=410-420, in steps of 5 )
54 cells: JAM54D31-xxx/GB/1500V (xxx=410-420, in steps of 5)
72 cells: JAM72D30-xxx/HB ( $x x x=530-560$, in steps of 5 )
72 cells: JAM72D30-xxx/HB/1500V (xxx=530-560, in steps of 5)
72 cells: JAM72D30-xxx/TB ( $x x x=540-580$, in steps of 5)
72 cells: JAM72D30-xxx/TB/1500V (xxx=540-580, in steps of 5)
78 cells: JAM78D40-xxx/MB ( $x x x=580-630$, in steps of 5 )
78 cells: JAM78D40-xxx/MB/1500V ( $x x x=580-630$, in steps of 5 )
72 cells: JAM72D40-xxx/MB ( $x x x=540-585$, in steps of 5 )
72 cells: JAM72D40-xxx/MB/1500V (xxx=540-585, in steps of 5)
66 cells: JAM66D40-xxx/MB ( $x x x=500-535$, in steps of 5 )
66 cells: JAM66D40-xxx/MB/1500V ( $x x x=500-535$, in steps of 5 )
60 cells: JAM60D40-xxx/MB ( $x x x=455-485$, in steps of 5 )
60 cells: JAM60D40-xxx/MB/1500V ( $x x x=455-485$, in steps of 5)
54 cells: JAM54D40-xxx/MB (xxx=405-440, in steps of 5)
54 cells: JAM54D40-xxx/MB/1500V ( $x x x=405-440$, in steps of 5)
78 cells: JAM78D40-xxx/GB (xxx=580-635, in steps of 5)
78 cells: JAM78D40-xxx/GB/1500V ( $x x x=580-635$, in steps of 5)
72 cells: JAM72D40-xxx/GB ( $x x x=540-585$, in steps of 5)
72 cells: JAM72D40-xxx/GB/1500V ( $x x x=540-585$, in steps of 5)
66 cells: JAM66D40-xxx/GB (xxx=500-535, in steps of 5)
66 cells: JAM66D40-xxx/GB/1500V ( $x x x=500-535$, in steps of 5 )
60 cells: JAM60D40-xxx/GB ( $x x x=455-485$, in steps of 5 )
60 cells: JAM60D40-xxx/GB/1500V (xxx=455-485, in steps of 5)
54 cells: JAM54D40-xxx/GB (xxx=405-440, in steps of 5)
54 cells: JAM54D40-xxx/GB/1500V (xxx=405-440, in steps of 5)
54 cells: JAM54D41-xxx/GB ( $x x x=415-435$, in steps of 5 )
54 cells: JAM54D41-xxx/GB/1500V (xxx=415-435, in steps of 5)
72 cells: JAM72D40-xxx/LB (xxx=575-600, in steps of 5)
72 cells: JAM72D40-xxx/LB/1500V ( $x x x=575-600$, in steps of 5)
54 cells: JAM54D40-xxx/LB (xxx=420-450, in steps of 5 )
54 cells: JAM54D40-xxx/LB/1500V ( $x x x=420-450$, in steps of 5 )
54 cells: JAM54D41-xxx/LB (xxx=420-440, in steps of 5)
54 cells: JAM54D41-xxx/LB/1500V (xxx=420-440, in steps of 5)
72 cells: JAM72D42-xxx/LB ( $x x x=590-635$, in steps of 5)
72 cells: JAM72D42-xxx/LB/1500V ( $x x x=590-635$, in steps of 5 )
54 cells: JAM54D42-xxx/LB ( $x x x=455-470$, in steps of 5 )

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## TEVNORD



Electrical protection class:

Module types

Maximum system voltage:
Fuse rating:
Application class:
Electrical protection class:

Module types:

Class II

## PV Modules with 182mm Mono-crystalline Silicon 1/5-cut Solar Cells: <br> 76 cells: JAM76S11-xxx/PR(B)/1500V (xxx=395-415, in steps of 5) 1500 V <br> 25A <br> Class A <br> Class II

## PV Modules with Poly-crystalline Silicon Solar Cells (156mm to

 158.75mm):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 ( $x x x=330-345$, in steps of 5 )
72 cells: JAP72S09-xxx/SC/1500V (xxx=320-345, in steps of 5)
72 cells: JAP72S01-xxx/MS/1500V ( $x x x=325-340$, in steps of 5 )
72 cells: JAP72S02-xxx/SC/1500V ( $x x x=310-345$, in steps of 5 )
72 cells: JAP72S02-xxx/PR/1500V ( $x x x=330-345$, in steps of 5 )
60 cells: JAP6(K)-60-xxx/4BB/1500V ( $x x x=255-275$, in steps of 5 )
60 cells: JAP60S01-xxx/SC/1500V (xxx=255-290, in steps of 5)
60 cells: JAP60S01-xxx/PR/1500V ( $x x x=275-285$, in steps of 5)
60 cells: JAP60S09-xxx/SC/1500V ( $x x x=265-290$, 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)
72 cells: JAP6(DG)-72-xxx/4BB/1500V (xxx=305-325, in steps of 5)
72 cells: JAP6(DG)-72-xxx/3BB/1500V (xxx=305-315, in steps of 5)
72 cells: JAP6(DG)-72-xxx/4BB/RE/1500V ( $x x x=310-335$, in steps of 5)
72 cells: JAP6(K)(DG)-72-xxx/4BB/1500V (xxx=310-335, in steps of 5)
72 cells: JAP72D00-xxx/SC (xxx=305-345, in steps of 5)
72 cells: JAP72D00-xxx/SC/1500V (xxx=310-340, in steps of 5 )
72 cells: JAP72D00-xxx/PR (xxx=330-350, in steps of 5)
72 cells: JAP72D00-xxx/PR/1500V (xxx=330-345, in steps of 5 )
72 cells: JAP72D09-xxx/SC (xxx=325-345, in steps of 5 )
72 cells: JAP72D09-xxx/SC/1500V (xxx=330-345, in steps of 5)
60 cells: JAP6(DG)-60-xxx/4BB/1500V ( $x x x=250-275$, in steps of 5)
60 cells: JAP6(DG)-60-xxx/3BB/1500V ( $x x x=245-265$, in steps of 5)

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|  | 60 cells: JAP6(DG)-60-xxx/4BB/RE/1500V (xxx=255-280, in steps of 5) 60 cells: JAP6(K)(DG)-60-xxx/4BB/1500V ( $x x x=255-280$, in steps of 5) <br> 60 cells: JAP60D00-xxx/SC ( $x x x=255-290$, in steps of 5 ) <br> 60 cells: JAP60D00-xxx/SC/1500V (xxx=260-285, in steps of 5) <br> 60 cells: JAP60D00-xxx/PR (xxx=275-290, in steps of 5) <br> 60 cells: JAP60D00-xxx/PR/1500V (xxx=275-290, in steps of 5) <br> 60 cells: JAP60D09-xxx/SC ( $x x x=270-290$, in steps of 5) <br> 60 cells: JAP60D09-xxx/SC/1500V (xxx=275-290, in steps of 5) |
| :---: | :---: |
| Maximum system voltage: | 1500 V |
| Fuse rating: | 20 A |
| Application class: | Class A |
| Electrical protection class: | Class II |
| Module types: | PV Modules with Poly-crystalline Silicon half-cut Solar Cells ( 156 mm to 158.75 mm ): <br> 72 cells: JAP72S03-xxx/SC/1500V (xxx=320-345, in steps of 5) 72 cells: JAP72S03-xxx/PR/1500V ( $x x x=335-355$, in steps of 5 ) 72 cells: JAP72S10-xxx/SC/1500V ( $x x x=335-350$, in steps of 5 ) 72 cells: JAP72S03-xxx/MS/1500V ( $x x x=320-345$, in steps of 5 ) 72 cells: JAP72S08-xxx/SC/1500V ( $x x x=320-345$, in steps of 5 ) 72 cells: JAP72S08-xxx/PR/1500V ( $x x x=335-355$, 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 ( $x x x=275-290$, in steps of 5 ) 60 cells: JAP60S03-xxx/MS/1500V ( $x x x=270-285$, 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: | 1500 V |
| Fuse rating: | 20A |
| Application class: | Class A |
| Electrical protection class: | Class II |
| Module types: | PV Modules with Mono-crystalline Silicon Solar Cells (156mm to 158.75 mm ): <br> 72 cells: JAM72S01-xxx/SC ( $x x x=320-365$, in steps of 5 ) <br> 72 cells: JAM72S02-xxx/SC ( $x x x=320-365$, in steps of 5 ) <br> 72 cells: JAM72S02-xxx/PR ( $x x x=345-390$, in steps of 5 ) <br> 72 cells: JAM72S01-xxx/MR ( $x x x=365-385$, in steps of 5 ) |

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## TWVNORD

Maximum system voltage:
Fuse rating:
Application class:
Electrical protection class:

Module types:

72 cells: JAM72S02-xxx/MR ( $x x x=365-385$, in steps of 5)
72 cells: JAM72S09-xxx/PR ( $x x x=370-405$, in steps of 5)
72 cells: JAM72S12-xxx/PR ( $x x x=365-385$, 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 ( $x x x=265-305$, in steps of 5)
60 cells: JAM60S01-xxx/PR ( $x x x=285-325$, in steps of 5)
60 cells: JAM60S02-xxx/PR ( $x x x=285-325$, in steps of 5)
60 cells: JAM60S01-xxx/MR ( $x x x=305-320$, in steps of 5)
60 cells: JAM60S02-xxx/MR ( $x x x=305-320$, in steps of 5 )
60 cells: JAM60S09-xxx/PR ( $x x x=310-335$, in steps of 5)
60 cells: JAM60S12-xxx/PR ( $x x x=305-330$, in steps of 5) 60 cells: JAM60S09-xxx/BP ( $x x x=315-320$, in steps of 5 ) 1000 V or 1500 V

20A
Class A
Class II

PV Modules with Mono-crystalline Silicon half-cut Solar Cells ( 156 mm to 158.75 mm ):
72 cells: JAM72S03-xxx/PR ( $x x x=360-395$, in steps of 5)
72 cells: JAM72S10-xxx/PR ( $x x x=380-410$, insteps of 5 )
72 cells: JAM72S17-xxx/PR ( $x x x=380-390$, in steps of 5 )
72 cells: JAM72S10-xxx/MR ( $x x x=390-430$, in steps of 5 )
72 cells: JAM72S17-xxx/MR ( $x x x=390-430$, in steps of 5 )
72 cells: JAM72S17-xxx/GR ( $x x x=385-400$, in steps of 5)
72 cells: JAM72S10-xxx/BP ( $x x x=385-400$, in steps of 5 )
72 cells: JAM72S10-xxx/MB ( $x x x=395-415$, in steps of 5 )
72 cells: JAM72S08-xxx/PR ( $x x x=360-395$, in steps of 5 )
60 cells: JAM60S03-xxx/PR ( $x x x=300-330$, in steps of 5)
60 cells: JAM60S08-xxx/PR (xxx=300-330, in steps of 5)
60 cells: JAM60S10-xxx/PR ( $x x x=315-345$, in steps of 5 )
60 cells: JAM60S10-xxx/MR ( $x x x=325-355$, in steps of 5 )
60 cells: JAM60S10-xxx/BP ( $x x x=320-330$, in steps of 5 )
60 cells: JAM60S10-xxx/MB ( $x x x=330-345$, in steps of 5)
60 cells: JAM60S17-xxx/PR ( $x x x=315-325$, in steps of 5)
60 cells: JAM60S17-xxx/MR ( $x x x=315-355$, in steps of 5 )
78 cells: JAM78S10-xxx/MR ( $x x x=435-465$, in steps of 5 )
78 cells: JAM78S10-xxx/MR-J (xxx=435-465, in steps of 5 )

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|  | 66 cells: JAM66S10-xxx/MR ( $\mathrm{xxx}=345-390$, in steps of 5 ) |
| :---: | :---: |
| Maximum system voltage: | 1000 V or 1500 V |
| Fuse rating: | 20A |
| Application class: | Class A |
| Electrical protection class: | Class II |
| Module types: | PV Modules with Mono-crystalline Silicon half-cut Solar Cells ( 166 mm to 168 mm ): |
|  | 72 cells: JAM72S20-xxx/MR ( $\mathrm{xxx}=430-470$, in steps of 5 ) |
|  | 72 cells: JAM72S20-xxx/MB ( $\mathrm{xxx}=450-465$, in steps of 5) |
|  | 60 cells: JAM60S20-xxx/MR ( $\mathrm{xxx}=355-390$, in steps of 5) |
|  | 60 cells: JAM60S21-xxx/MR ( $\mathrm{xxx}=355-390$, in steps of 5) |
|  | 60 cells: JAM60S20-xxx/MB (xxx=375-390, in steps of 5) |
| Maximum system voltage: | 1000 V or 1500 V |
| 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:

78 cells: JAM78S30-xxx/MR ( $x x x=580-605$, in steps of 5 )
72 cells: JAM72S30-xxx/MR ( $x x x=510-560$, in steps of 5)
66 cells: JAM66S30-xxx/MR ( $x x x=470-505$, in steps of 5)
60 cells: JAM60S30-xxx/MR ( $x x x=435-460$, in steps of 5 )
54 cells: JAM54S30-xxx/MR ( $x x x=390-425$, in steps of 5 )
78 cells: JAM78S30-xxx/GR ( $x x x=575-610$, in steps of 5 )
72 cells: JAM72S30-xxx/GR (xxx=510-560, in steps of 5)
66 cells: JAM66S30-xxx/GR (xxx=500-510, in steps of 5)
60 cells: JAM60S30-xxx/GR (xxx=445-470, in steps of 5)
54 cells: JAM54S30-xxx/GR (xxx=400-420, 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=385-415, in steps of 5)
78 cells: JAM78S31-xxx/GR (xxx=575-590, in steps of 5)
72 cells: JAM72S31-xxx/GR ( $x x x=525-545$, 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)

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54 cells: JAM54S31-xxx/GR ( $x x x=395-415$, in steps of 5 )
72 cells: JAM72S40-xxx/GR ( $x x x=540-575$, in steps of 5 )
66 cells: JAM66S40-xxx/GR (xxx=495-525, in steps of 5)
60 cells: JAM60S40-xxx/GR (xxx=450-480, in steps of 5)
54 cells: JAM54S40-xxx/GR (xxx=405-430, in steps of 5)
72 cells: JAM72S41-xxx/GR ( $x x x=540-570$, in steps of 5 )
66 cells: JAM66S41-xxx/GR ( $x x x=495-525$, in steps of 5 )
60 cells: JAM60S41-xxx/GR (xxx=450-475, in steps of 5)
54 cells: JAM54S41-xxx/GR (xxx=405-430, in steps of 5)
72 cells: JAM72S30-xxx/LR ( $x x x=555-580$, in steps of 5 )
54 cells: JAM54S30-xxx/LR ( $x x x=415-435$, in steps of 5 )
54 cells: JAM54S31-xxx/LR ( $x x x=415-425$, in steps of 5 )
54 cells: JAM54S30-xxx/MB (xxx=385-410, in steps of 5) 54 cells: JAM54S31-xxx/MB (xxx=385-405, in steps of 5)
54 cells: JAM54S30-xxx/LB ( $x x x=410-425$, in steps of 5 ) 54 cells: JAM54S31-xxx/LB (xxx=410-415, in steps of 5 )

Maximum system voltage:
Fuse rating:
Application class:
Electrical protection class:

Module types:

Maximum system voltage:
Fuse rating:
Application class:
Electrical protection class:

1000 V or 1500 V
25A
Class A
Class II

PV Modules with 210 mm Mono-crystalline Silicon 1/3-cut Solar Cells:
50 cells: JAM50S40-xxx/MR ( $x x x=490-500$, in steps of 5 )
66 cells: JAM66S35-xxx/MR ( $x x x=650-670$, in steps of 5 )
60 cells: JAM60S35-xxx/MR (xxx=590-610, in steps of 5)
1000 V or 1500 V
25A
Class A
Class II

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| 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) ( $x$ xx=345-365, in steps of 5) |
|  | 76 cells: JAM76S11-xxx/PR(B) ( $\mathrm{xxx}=395-415$, in steps of 5) |
| Maximum system voltage: | 1000 V or 1500 V |
| Fuse rating: | 25A |
| Application class: | Class A |
| Electrical protection class: | Class II |
| Module types: | PV Modules with Poly-crystalline Silicon Solar Cells (156mm to 158.75 mm ): |
|  | 72 cells: JAP72S01-xxx/SC ( $\mathrm{xxx}=310-345$, in steps of 5) |
|  | 72 cells: JAP72S02-xxx/SC ( $\mathrm{xxx}=310-345$, in steps of 5) |
|  | 72 cells: JAP72S01-xxx/PR ( $\mathrm{xxx}=330-345$, in steps of 5) |
|  | 72 cells: JAP72S02-xxx/PR ( $\mathrm{xxx}=330-345$, in steps of 5) |
|  | 72 cells: JAP72S09-xxx/SC ( $\mathrm{xxx}=320-345$, in steps of 5) |
|  | 72 cells: JAP72S01-xxx/MS ( $\mathrm{xxx}=325-340$, in steps of 5) |
|  | 60 cells: JAP60S01-xxx/SC ( $\mathrm{xxx}=255-290$, in steps of 5) |
|  | 60 cells: JAP60S02-xxx/SC ( $\mathrm{xxx}=255-290$, in steps of 5) |
|  | 60 cells: JAP60S01-xxx/PR ( $\mathrm{xxx}=275-285$, in steps of 5) |
|  | 60 cells: JAP60S02-xxx/PR ( $\mathrm{xxx}=275-285$; in steps of 5) |
|  | 60 cells: JAP60S09-xxx/SC ( $\mathrm{xxx}=265-290$, in steps of 5) |
|  | 60 cells: JAP60S01-xxx/MS (xxx=270-280, in steps of 5) |
|  | 54 cells: JAP54S01-xxx/SC ( $\mathrm{xxx}=245-255$, in steps of 5) |
| Maximum system voltage: | 1000 V or 1500 V |
| 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 ( $x x x=335-355$, in steps of 5)
72 cells: JAP72S03-xxx/SC ( $x x x=320-345$, in steps of 5)
72 cells: JAP72S10-xxx/SC ( $x x x=335-350$, in steps of 5)
72 cells: JAP72S03- $x x$ /M ( $x x=320-345$, in steps of 5)
72 cells: JAP72S08-xxx/SC ( $x x x=320-345$, in steps of 5)
72 cells: JAP72S08-xxx/PR ( $x x x=335-355$, in steps of 5)

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60 cells: JAP60S03-xxx/PR ( $x x x=280-295$, in steps of 5 )
60 cells: JAP60S03-xxx/SC ( $x x x=270-290$, in steps of 5 )
60 cells: JAP60S10-xxx/SC ( $x x x=275-290$, in steps of 5 )
60 cells: JAP60S03-xxx/MS ( $x x x=270-285$, in steps of 5 )
60 cells: JAP60S08-xxx/SC ( $x x x=270-290$, in steps of 5 )
60 cells: JAP60S08-xxx/PR ( $x x x=280-295$, in steps of 5 )
1000 V or 1500 V
20 A
Class A
Class II

## Remark:

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

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Certification Body
Consumer Products

## CERTIFICATE

No．Z2 0720920295 Rev． 64

Holder of Certificate：Shanghai JA Solar Technology Co．，Ltd．
No．118，Lane 3111
West Huancheng Road
Fengxian District
201401 Shanghai
PEOPLE＇S REPUBLIC OF CHINA

## Certification Mark：



Crystalline Silicon Terrestrial Photovoltaic（PV）Modules Mono－Crystalline Silicon Photovoltaic Module


#### Abstract

The product was tested on a voluntary basis and complies with the essential requirements．The certification mark shown above can be affixed on the product．It is not permitted to alter the certification mark in any way．In addition，the certification holder must not transfer the certificate to third parties．This certificate is valid until the listed date，unless it is cancelled earlier．All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied．For details see：www．tuvsud．com／ps－cert


Test report no．：
704061604115－79

Valid until：
2028－08－31

$$
\text { Date, } \quad 2023-09-01
$$


（ Zhulin Zhang ）

1500 V DC Maximum System Voltage，Double Glass Modules： JAM72D00－xxx／BP／1500V，JAM72D00－xxx／BP，xxx＝ 330 to 385 in steps of 5； JAM60D00－xxx／BP／1500V，JAM60D00－xxx／BP，$x x x=275$ to 320 in steps of 5； JAM60D00－xxx／PR／1500V，JAM60D00－xxx／PR，xxx＝ 285 to 320 in steps of 5； JAM72D00－xxx／PR／1500V，JAM72D00－xxx／PR，xxx＝ 340 to 385 in steps of 5； JAM60D00－xxx／MB／1500V，JAM60D00－xxx／MB，$x x x=310$ to 315 in steps of 5； JAM72D00－xxx／MB／1500V，JAM72D00－xxx／MB，$x x x=370$ to 380 in steps of 5 JAM72D09－xxx／BP／1500V，JAM72D09－xxx／BP，$x x x=360$ to 400 in steps of 5； JAM60D09－xxx／BP／1500V，JAM60D09－xxx／BP，$x x x=300$ to 340 in steps of 5； JAM72D10－xxx／MB／1500V，JAM72D10－xxx／MB，xxx＝ 385 to 430 in steps of 5； JAM60D10－xxx／MB／1500V，JAM60D10－xxx／MB，$x x x=320$ to 355 in steps of 5； JAM72D10－xxx／BP／1500V，JAM72D10－xxx／BP，xxx＝ 385 to 415 in steps of 5； JAM60D10－xxx／BP／1500V，JAM60D10－xxx／BP，$x x x=320$ to 345 in steps of 5； JAM66D10－xxx／MB／1500V，JAM66D10－xxx／MB，$x x x=360$ to 380 in steps of 5； JAM78D10－xxx／MB／1500V，JAM78D10－xxx／MB，xxx＝ 435 to 455 in steps of 5； JAM72D20－xxx／MB／1500V，JAM72D20－xxx／MB，xxx＝ 430 to 465 in steps of 5； JAM60D20－xxx／MB／1500V，JAM60D20－xxx／MB，$x x x=355$ to 385 in steps of 5； JAM72D10－xxx／TB／1500V，JAM72D10－xxx／TB，$x x x=400$ to 420 in steps of 5； JAM60D10－xxx／TB／1500V，JAM60D10－xxx／TB，$x x x=335$ to 350 in steps of 5； JAM78D30－xxx／MB／1500V，JAM78D30－xxx／MB，xxx＝ 580 to 605 in steps of 5； JAM72D30－xxx／MB／1500V，JAM72D30－xxx／MB，$x x x=505$ to 555 in steps of 5； JAM72D30－xxx／MB／F／1500V，JAM72D30－xxx／MB／F，
xxx＝505 to 555 in steps of 5；
JAM66D30－xxx／MB／1500V，JAM66D30－xxx／MB，$x x x=465$ to 505 in steps of 5； JAM66D30－xxx／MB／F／1500V，JAM66D30－xxx／MB／F，
xxx＝465 to 505 in steps of 5 ；
JAM60D30－xxx／MB／1500V，JAM60D30－xxx／MB，$x x x=435$ to 460 in steps of 5； JAM54D30－xxx／MB／1500V，JAM54D30－xxx／MB，$x x x=390$ to 415 in steps of 5； JAM54D31－xxx／MB／1500V，JAM54D31－xxx／MB，$x x x=395$ to 400 in steps of 5； JAM50D40－xxx／MB／1500V，JAM50D40－xxx／MB，$x x x=485$ to 500 in steps of 5； JAM78D30－xxx／GB／1500V，JAM78D30－xxx／GB，$x x x=585$ to 610 in steps of 5； JAM72D30－xxx／GB／1500V，JAM72D30－xxx／GB，xxx＝ 540 to 560 in steps of 5； JAM66D30－xxx／GB／1500V，JAM66D30－xxx／GB，xxx＝ 495 to 510 in steps of 5； JAM60D30－xxx／GB／1500V，JAM60D30－xxx／GB，$x x x=450$ to 470 in steps of 5； JAM54D30－xxx／GB／1500V，JAM54D30－xxx／GB，$x x x=405$ to 420 in steps of 5； JAM54D31－xxx／GB／1500V，JAM54D31－xxx／GB，xxx＝ 410 to 420 in steps of 5； JAM72D30－xxx／HB／1500V，JAM72D30－xxx／HB，$x x x=530$ to 560 in steps of 5； JAM78D40－xxx／MB／1500V，JAM78D40－xxx／MB，xxx＝ 580 to 630 in steps of 5； JAM72D40－xxx／MB／1500V，JAM72D40－xxx／MB，$x x x=540$ to 585 in steps of 5； JAM66D40－xxx／MB／1500V，JAM66D40－xxx／MB，xxx＝ 500 to 535 in steps of 5； JAM60D40－xxx／MB／1500V，JAM60D40－xxx／MB，xxx＝ 455 to 485 in steps of 5； JAM54D40－xxx／MB／1500V，JAM54D40－xxx／MB，$x x x=405$ to 440 in steps of 5 JAM78D40－xxx／GB／1500V，JAM78D40－xxx／GB，xxx＝ 580 to 635 in steps of 5； JAM72D40－xxx／GB／1500V，JAM72D40－xxx／GB，xxx＝ 540 to 585 in steps of 5； JAM66D40－xxx／GB／1500V，JAM66D40－xxx／GB，xxx＝ 500 to 535 in steps of 5； JAM60D40－xxx／GB／1500V，JAM60D40－xxx／GB，xxx＝ 455 to 485 in steps of 5； JAM54D40－xxx／GB／1500V，JAM54D40－xxx／GB，xxx＝ 405 to 440 in steps of 5； JAM54D41－xxx／GB／1500V，JAM54D41－xxx／GB，xxx＝ 415 to 435 in steps of 5； JAM66D35－xxx／MB／1500V，JAM66D35－xxx／MB，xxx＝ 650 to 665 in steps of 5； JAM60D35－xxx／MB／1500V，JAM60D35－xxx／MB，xxx＝ 590 to 605 in steps of 5； JAM72D30－xxx／TB／1500V，JAM72D30－xxx／TB，xxx＝ 540 to 580 in steps of 5； JAM72D40－xxx／LB／1500V，JAM72D40－xxx／LB，$x x x=575$ to 600 in steps of 5 ； JAM54D40－xxx／LB／1500V，JAM54D40－xxx／LB，xxx＝ 420 to 450 in steps of 5； JAM54D41－xxx／LB／1500V，JAM54D41－xxx／LB，$x x x=420$ to 440 in steps of 5； JAM72D42－xxx／LB／1500V，JAM72D42－xxx／LB，$x x x=605$ to 630 in steps of 5； JAM54D42－xxx／LB／1500V，JAM54D42－xxx／LB，$x x x=455$ to 470 in steps of 5； JAM66D42－xxx／MB／1500V，JAM66D42－xxx／MB，$x x x=555$ to 575 in steps of 5； JAM72D30－xxx／LB／1500V，JAM72D30－xxx／LB，$x x x=555$ to 575 in steps of 5； JAM54D30－xxx／LB／1500V，JAM54D30－xxx／LB，$x x x=420$ to 430 in steps of 5 ； JAM66D45－xxx／LB／1500V，JAM66D45－xxx／LB，xxx＝ 585 to 605 in steps of 5；

1000 V DC Maximum System Voltage，Single Glass Modules： JAM6（K）－72－xxx／PR，xxx＝ 345 to 370 in steps of 5； JAM6（K）－60－xxx／PR，xxx＝ 285 to 310 in steps of 5； JAM6（K）－72－xxx／4BB，$x x x=320$ to 345 in steps of 5 ； JAM6（K）－60－xxx／4BB，xxx＝ 265 to 285 in steps of 5； JAM72S01－xxx／SC／1000V，xxx＝ 320 to 365 in steps of 5； JAM60S01－xxx／SC／1000V，xxx＝ 265 to 305 in steps of 5； JAM72S01－xxx／PR／1000V，xxx＝ 345 to 390 in steps of 5； JAM60S01－xxx／PR／1000V，xxx＝ 285 to 325 in steps of 5；

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JAM72S01-xxx/MR/1000V, $x x x=365$ to 385 in steps of 5; JAM60S01-xxx/MR/1000V, $x x x=305$ to 320 in steps of 5; JAM72S03-xxx/PR/1000V, $x x x=360$ to 395 in steps of 5; JAM60S03-xxx/PR/1000V, $x x x=300$ to 330 in steps of 5; JAM72S09-xxx/PR/1000V, xxx= 370 to 405 in steps of 5; JAM60S09-xxx/PR/1000V, xxx= 310 to 335 in steps of 5; JAM72S10-xxx/PR/1000V, $x x x=380$ to 410 in steps of 5; JAM60S10-xxx/PR/1000V, $x x x=315$ to 345 in steps of 5 ; JAM72S10-xxx/MR/1000V, xxx= 390 to 430 in steps of 5; JAM60S10-xxx/MR/1000V, xxx= 325 to 355 in steps of 5; JAM60S10-xxx/MR-L/1000V, xxx= 325 to 355 in steps of 5 ; JAM78S10-xxx/MR/1000V, xxx= 435 to 465 in steps of 5; JAM66S10-xxx/MR/1000V, $x x x=345$ to 390 in steps of 5; JAM72S09-xxx/BP/1000V, $x x x=375$ to 385 in steps of 5; JAM60S09-xxx/BP/1000V, xxx= 315 to 320 in steps of 5 ; JAM72S10-xxx/BP/1000V, xxx= 385 to 400 in steps of 5 ; JAM60S10-xxx/BP/1000V, $x x x=320$ to 330 in steps of 5 . JAM72S02-xxx/PR/1000V, $x x x=345$ to 390 in steps of 5; JAM60S02-xxx/PR/1000V, $x x x=285$ to 325 in steps of 5; JAM72S02-xxx/SC/1000V, xxx= 320 to 365 in steps of 5; JAM60S02-xxx/SC/1000V, xxx= 265 to 305 in steps of 5; JAM72S02-xxx/MR/1000V, $x x x=365$ to 385 in steps of 5 ; JAM60S02-xxx/MR/1000V, xxx= 305 to 320 in steps of 5; JAM72S08-xxx/PR/1000V, $x x x=360$ to 395 in steps of 5; JAM60S08-xxx/PR/1000V, $x x x=300$ to 330 in steps of 5; JAM72S12-xxx/PR/1000V, xxx= 365 to 385 in steps of 5; JAM60S12-xxx/PR/1000V, $x x x=305$ to 330 in steps of 5; JAM72S17-xxx/PR/1000V, $x x x=380$ to 390 in steps of 5; JAM60S17-xxx/PR/1000V, $x x x=315$ to 325 in steps of 5; JAM72S17-xxx/MR/1000V, xxx= 390 to 430 in steps of 5; JAM60S17-xxx/MR/1000V, xxx= 315 to 355 in steps of 5; JAM72S10-xxx/MB/1000V, xxx= 395 to 415 in steps of 5; JAM60S10-xxx/MB/1000V, xxx= 330 to 345 in steps of 5; JAM72S20-xxx/MR/1000V, xxx= 430 to 470 in steps of 5; JAM60S20-xxx/MR/1000V, $x x x=355$ to 390 in steps of 5 ; JAM78S30-xxx/MR/1000V, xxx= 580 to 605 in steps of 5 ; JAM72S30-xxx/MR/1000V, $x x x=510$ to 555 in steps of 5; JAM66S30-xxx/MR/1000V, $x x x=470$ to 505 in steps of 5; JAM60S30-xxx/MR/1000V, xxx=435 to 460 in steps of 5; JAM54S30-xxx/MR/1000V, xxx= 390 to 425 in steps of 5; JAM54S30-xxx/MB/1000V, xxx= 385 to 410 in steps of 5; JAM54S31-xxx/MB/1000V, xxx= 385 to 405 in steps of 5; JAM60S21-xxx/MR/1000V, xxx= 355 to 390 in steps of 5; JAM50S40-xxx/MR/1000V, xxx= 490 to 500 in steps of 5; JAM72S20-xxx/MB/1000V, xxx= 450 to 465 in steps of 5; JAM60S20-xxx/MB/1000V, xxx= 375 to 390 in steps of 5 ; JAM72S31-xxx/MR/1000V, $x x x=510$ to 545 in steps of 5 ; JAM66S31-xxx/MR/1000V, xxx= 470 to 500 in steps of 5 ; JAM60S31-xxx/MR/1000V, xxx= 425 to 450 in steps of 5; JAM54S31-xxx/MR/1000V, xxx= 385 to 405 in steps of 5; JAM76S11-xxx/PR(B)/1000V, xxx= 395 to 415 in steps of 5 ; JAM78S30-xxx/GR/1000V, xxx= 575 to 610 in steps of 5; JAM72S30-xxx/GR/1000V, xxx= 535 to 560 in steps of 5; JAM66S30-xxx/GR/1000V, xxx= 500 to 510 in steps of 5; JAM60S30-xxx/GR/1000V, xxx= 445 to 470 in steps of 5; JAM54S30-xxx/GR/1000V, xxx= 400 to 420 in steps of 5; JAM78S31-xxx/GR/1000V, xxx= 570 to 590 in steps of 5; JAM72S31-xxx/GR/1000V, xxx= 525 to 545 in steps of 5 ; JAM66S31-xxx/GR/1000V, xxx= 480 to 500 in steps of 5; JAM60S31-xxx/GR/1000V, xxx= 430 to 450 in steps of 5; JAM54S31-xxx/GR/1000V, xxx= 395 to 415 in steps of 5; JAM72S17-xxx/GR/1000V, xxx= 385 to 400 in steps of 5; JAM72S40-xxx/GR/1000V, xxx= 540 to 575 in steps of 5 ; JAM66S40-xxx/GR/1000V, xxx= 495 to 525 in steps of 5; JAM60S40-xxx/GR/1000V, xxx= 450 to 480 in steps of 5; JAM54S40-xxx/GR/1000V, xxx= 405 to 430 in steps of 5; JAM72S41-xxx/GR/1000V, xxx= 540 to 570 in steps of 5; JAM66S41-xxx/GR/1000V, xxx= 495 to 525 in steps of 5; JAM60S41-xxx/GR/1000V, xxx= 450 to 475 in steps of 5; JAM54S41-xxx/GR/1000V, xxx= 405 to 430 in steps of 5;

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JAM66S35-xxx/MR/1000V, xxx= 650 to 670 in steps of 5; JAM60S35-xxx/MR/1000V, xxx= 590 to 610 in steps of 5; JAM72S30-xxx/LR/1000V, xxx= 555 to 580 in steps of 5 ; JAM54S30-xxx/LR/1000V, $x x x=415$ to 435 in steps of 5 ; JAM54S31-xxx/LR/1000V, xxx= 415 to 420 in steps of 5; JAM54S30-xxx/LB/1000V, $x x x=410$ to 425 in steps of 5; JAM54S31-xxx/LB/1000V, $x x x=410$ to 415 in steps of 5 ;
1000 V DC or 1500 V DC Maximum System Voltage, Single Glass Modules:
JAM72S01-xxx/SC, $x x x=320$ to 365 in steps of 5; JAM60S01-xxx/SC, xxx= 265 to 305 in steps of 5; JAM60S01-xxx/PR, $x x x=285$ to 325 in steps of 5; JAM72S01-xxx/MR, xxx= 365 to 385 in steps of 5; JAM60S01-xxx/MR, $x x x=305$ to 320 in steps of 5; JAM72S03-xxx/PR, $x x x=360$ to 395 in steps of 5; JAM60S03-xxx/PR, $x x x=300$ to 330 in steps of 5 ; JAM72S09-xxx/PR, $x x x=370$ to 405 in steps of 5; JAM60S09-xxx/PR, $x x x=310$ to 335 in steps of 5; JAM72S10-xxx/PR, $x x x=380$ to 410 in steps of 5; JAM60S10-xxx/PR, $x x x=315$ to 345 in steps of 5; JAM72S10-xxx/MR, $x x x=390$ to 430 in steps of 5 ; JAM60S10-xxx/MR, xxx= 325 to 355 in steps of 5; JAM60S10-xxx/MR-L, xxx= 325 to 355 in steps of 5; JAM78S10-xxx/MR, xxx= 435 to 465 in steps of 5; JAM66S10-xxx/MR, $x x x=345$ to 390 in steps of 5; JAM72S09-xxx/BP, $x x x=375$ to 385 in steps of 5; JAM60S09-xxx/BP, $x x x=315$ to 320 in steps of 5; JAM72S10-xxx/BP, $x x x=385$ to 400 in steps of 5; JAM60S10-xxx/BP, $x x x=320$ to 330 in steps of 5 ; JAM72S02-xxx/PR, $x x x=345$ to 390 in steps of 5; JAM60S02-xxx/PR, $x x x=285$ to 325 in steps of 5; JAM72S02-xxx/SC, $x x x=320$ to 365 in steps of 5; JAM60S02-xxx/SC, xxx= 265 to 305 in steps of 5; JAM72S02-xxx/MR, $x x x=365$ to 385 in steps of 5; JAM60S02-xxx/MR, $x x x=305$ to 320 in steps of 5; JAM72S08-xxx/PR, $x x x=360$ to 395 in steps of 5; JAM60S08-xxx/PR, $x x x=300$ to 330 in steps of 5; JAM72S12-xxx/PR, xxx= 365 to 385 in steps of 5; JAM60S12-xxx/PR, xxx= 305 to 330 in steps of 5; JAM72S17-xxx/PR, xxx= 380 to 390 in steps of 5; JAM60S17-xxx/PR, $x x x=315$ to 325 in steps of 5; JAM72S17-xxx/MR, xxx= 390 to 430 in steps of 5; JAM60S17-xxx/MR, $x x x=315$ to 355 in steps of 5; JAM72S10-xxx/MB, $x x x=395$ to 415 in steps of 5; JAM60S10-xxx/MB, $x x x=330$ to 345 in steps of 5; JAM72S20-xxx/MR, $x x x=430$ to 470 in steps of 5; JAM60S20-xxx/MR, $x x x=355$ to 390 in steps of 5; JAM78S10-xxx/MR-J, xxx= 435 to 465 in steps of 5; JAM78S30-xxx/MR, xxx= 580 to 605 in steps of 5; JAM72S30-xxx/MR, $x x x=510$ to 555 in steps of 5; JAM66S30-xxx/MR, $x x x=470$ to 505 in steps of 5 ; JAM60S30-xxx/MR, $x x x=435$ to 460 in steps of 5; JAM54S30-xxx/MR, $x x x=390$ to 425 in steps of 5; JAM54S30-xxx/MB, xxx= 385 to 410 in steps of 5; JAM54S31-xxx/MB, $x x x=385$ to 405 in steps of 5; JAM60S21-xxx/MR, $x x x=355$ to 390 in steps of 5; JAM50S40-xxx/MR, xxx= 490 to 500 in steps of 5; JAM72S20-xxx/MB, $x x x=450$ to 465 in steps of 5; JAM60S20-xxx/MB, xxx= 375 to 390 in steps of 5; JAM68S11-xxx/PR, xxx= 355 to 365 in steps of 5; JAM68S11-xxx/PR(B), $x x x=345$ to 365 in steps of 5; JAM72S31-xxx/MR, xxx= 510 to 545 in steps of 5; JAM66S31-xxx/MR, $x x x=470$ to 500 in steps of 5 ; JAM60S31-xxx/MR, xxx= 425 to 450 in steps of 5; JAM54S31-xxx/MR, xxx= 385 to 405 in steps of 5; JAM76S11-xxx/PR(B), xxx= 395 to 415 in steps of 5; JAM78S30-xxx/GR, xxx=575 to 610 in steps of 5; JAM72S30-xxx/GR, xxx= 535 to 560 in steps of 5; JAM66S30-xxx/GR, xxx= 500 to 510 in steps of 5;


#### Abstract

JAM60S30-xxx/GR, xxx= 445 to 470 in steps of 5; JAM54S30-xxx/GR, $x x x=400$ to 420 in steps of 5; JAM78S31-xxx/GR, xxx= 570 to 590 in steps of 5; JAM72S31-xxx/GR, xxx= 525 to 545 in steps of 5; JAM66S31-xxx/GR, xxx= 480 to 500 in steps of 5; JAM60S31-xxx/GR, xxx= 435 to 450 in steps of 5; JAM54S31-xxx/GR, xxx= 395 to 415 in steps of 5; JAM72S17-xxx/GR, xxx= 385 to 400 in steps of 5; JAM72S40-xxx/GR, xxx= 540 to 575 in steps of 5; JAM66S40-xxx/GR, xxx= 495 to 525 in steps of 5; JAM60S40-xxx/GR, xxx= 450 to 480 in steps of 5; JAM54S40-xxx/GR, xxx= 405 to 430 in steps of 5; JAM72S41-xxx/GR, xxx= 540 to 570 in steps of 5; JAM66S41-xxx/GR, xxx= 495 to 525 in steps of 5; JAM60S41-xxx/GR, xxx= 450 to 475 in steps of 5; JAM54S41-xxx/GR, xxx= 405 to 430 in steps of 5; JAM66S35-xxx/MR, $x x x=650$ to 670 in steps of 5 ; JAM60S35-xxx/MR, xxx= 590 to 610 in steps of 5; JAM72S30-xxx/LR, $x x x=555$ to 580 in steps of 5; JAM54S30-xxx/LR, xxx= 415 to 435 in steps of 5; JAM54S31-xxx/LR, $x x x=415$ to 420 in steps of 5 ; JAM54S30-xxx/LB, $x x x=410$ to 425 in steps of 5 ; JAM54S31-xxx/LB, $x x x=410$ to 415 in steps of 5;


1500 V DC Maximum System Voltage, Single Glass Modules: JAM6(K)-72-xxx/PR/1500V, xxx= 345 to 370 in steps of 5; JAM6(K)-60-xxx/PR/1500V, xxx= 285 to 310 in steps of 5; JAM6(K)-72-xxx/4BB/1500V, $x x x=320$ to 345 in steps of 5; JAM6(K)-60-xxx/4BB/1500V, xxx= 265 to 285 in steps of 5; JAM72S01-xxx/SC/1500V, xxx= 320 to 365 in steps of 5; JAM60S01-xxx/SC/1500V, xxx= 265 to 305 in steps of 5; JAM72S01-xxx/PR, xxx= 345 to 390 in steps of 5 ; JAM60S01-xxx/PR/1500V, xxx= 285 to 325 in steps of 5; JAM72S01-xxx/MR/1500V, xxx= 365 to 385 in steps of 5; JAM60S01-xxx/MR/1500V, xxx= 305 to 320 in steps of 5; JAM72S03-xxx/PR/1500V, $x x x=360$ to 395 in steps of 5; JAM60S03-xxx/PR/1500V, xxx= 300 to 330 in steps of 5; JAM72S09-xxx/PR/1500V, xxx= 370 to 405 in steps of 5; JAM60S09-xxx/PR/1500V, $x x x=310$ to 335 in steps of 5; JAM72S10-xxx/PR/1500V, $x x x=380$ to 410 in steps of 5; JAM60S10-xxx/PR/1500V, xxx= 315 to 345 in steps of 5; JAM72S10-xxx/MR/1500V, xxx= 390 to 430 in steps of 5 ; JAM60S10-xxx/MR/1500V, xxx= 325 to 355 in steps of 5; JAM60S10-xxx/MR-L/1500V, xxx= 325 to 355 in steps of 5 ; JAM78S10-xxx/MR/1500V, xxx= 435 to 465 in steps of 5; JAM66S10-xxx/MR/1500V, xxx= 345 to 390 in steps of 5; JAM72S09-xxx/BP/1500V, $x x x=375$ to 385 in steps of 5; JAM60S09-xxx/BP/1500V, xxx= 315 to 320 in steps of 5; JAM72S10-xxx/BP/1500V, $x x x=385$ to 400 in steps of 5; JAM60S10-xxx/BP/1500V, xxx= 320 to 330 in steps of 5; JAM72S02-xxx/PR/1500V, $x x x=345$ to 390 in steps of 5; JAM60S02-xxx/PR/1500V, xxx= 285 to 325 in steps of 5; JAM72S02-xxx/SC/1500V, xxx= 320 to 365 in steps of 5; JAM60S02-xxx/SC/1500V, xxx= 265 to 305 in steps of 5; JAM72S02-xxx/MR/1500V, xxx= 365 to 385 in steps of 5; JAM60S02-xxx/MR/1500V, xxx= 305 to 320 in steps of 5; JAM72S08-xxx/PR/1500V, xxx= 360 to 395 in steps of 5; JAM60S08-xxx/PR/1500V, xxx= 300 to 330 in steps of 5; JAM72S12-xxx/PR/1500V, xxx= 365 to 385 in steps of 5; JAM60S12-xxx/PR/1500V, xxx= 305 to 330 in steps of 5; JAM72S17-xxx/PR/1500V, $x x x=380$ to 390 in steps of 5 ; JAM60S17-xxx/PR/1500V, xxx= 315 to 325 in steps of 5; JAM72S17-xxx/MR/1500V, xxx= 390 to 430 in steps of 5; JAM60S17-xxx/MR/1500V, $x x x=315$ to 355 in steps of 5 ; JAM72S10-xxx/MB/1500V, xxx= 395 to 415 in steps of 5; JAM60S10-xxx/MB/1500V, $x x x=330$ to 345 in steps of 5; JAM72S20-xxx/MR/1500V, xxx= 430 to 470 in steps of 5; JAM60S20-xxx/MR/1500V, xxx= 355 to 390 in steps of 5; JAM78S30-xxx/MR/1500V, xxx= 580 to 605 in steps of 5; JAM72S30-xxx/MR/1500V, $x x x=510$ to 555 in steps of 5 ;

## CERTIFICATE

## No．Z2 0720920295 Rev． 64


#### Abstract

JAM66S30－xxx／MR／1500V，xxx＝470 to 505 in steps of 5； JAM60S30－xxx／MR／1500V，$x x x=435$ to 460 in steps of 5； JAM54S30－xxx／MR／1500V，xxx＝ 390 to 425 in steps of 5； JAM54S30－xxx／MB／1500V，xxx＝ 385 to 410 in steps of 5； JAM54S31－xxx／MB／1500V，xxx＝ 385 to 405 in steps of 5； JAM60S21－xxx／MR／1500V，xxx＝ 355 to 390 in steps of 5； JAM50S40－xxx／MR／1500V，xxx＝ 490 to 500 in steps of 5 ； JAM72S20－xxx／MB／1500V，xxx＝ 450 to 465 in steps of 5； JAM60S20－xxx／MB／1500V，$x x x=375$ to 390 in steps of 5 ； JAM72S31－xxx／MR／1500V，xxx＝ 510 to 545 in steps of 5； JAM66S31－xxx／MR／1500V，$x x x=470$ to 500 in steps of 5 ； JAM60S31－xxx／MR／1500V，xxx＝ 425 to 450 in steps of 5； JAM54S31－xxx／MR／1500V，xxx＝ 385 to 405 in steps of 5； JAM76S11－xxx／PR（B）／1500V，xxx＝ 395 to 415 in steps of 5 ； JAM78S30－xxx／GR／1500V，xxx＝ 575 to 610 in steps of 5； JAM72S30－xxx／GR／1500V，xxx＝ 535 to 560 in steps of 5 ； JAM66S30－xxx／GR／1500V，xxx＝ 500 to 510 in steps of 5 ； JAM60S30－xxx／GR／1500V，xxx＝ 445 to 470 in steps of 5； JAM54S30－xxx／GR／1500V，xxx＝ 400 to 420 in steps of 5； JAM78S31－xxx／GR／1500V，xxx＝ 570 to 590 in steps of 5； JAM72S31－xxx／GR／1500V，xxx＝ 525 to 545 in steps of 5； JAM66S31－xxx／GR／1500V，xxx＝ 480 to 500 in steps of 5； JAM60S31－xxx／GR／1500V，xxx＝ 435 to 450 in steps of 5； JAM54S31－xxx／GR／1500V，xxx＝ 395 to 415 in steps of 5； JAM72S17－xxx／GR／1500V，xxx＝ 385 to 400 in steps of 5； JAM72S40－xxx／GR／1500V，xxx＝ 540 to 575 in steps of 5； JAM66S40－xxx／GR／1500V，xxx＝ 495 to 525 in steps of 5； JAM60S40－xxx／GR／1500V，xxx＝ 450 to 480 in steps of 5； JAM54S40－xxx／GR／1500V，xxx＝ 405 to 430 in steps of 5； JAM72S41－xxx／GR／1500V，xxx＝ 540 to 570 in steps of 5； JAM66S41－xxx／GR／1500V，xxx＝ 495 to 525 in steps of 5； JAM60S41－xxx／GR／1500V，xxx＝ 450 to 475 in steps of 5； JAM54S41－xxx／GR／1500V，xxx＝ 405 to 430 in steps of 5； JAM66S35－xxx／MR／1500V，$x x x=650$ to 670 in steps of 5 ； JAM60S35－xxx／MR／1500V，xxx＝ 590 to 610 in steps of 5； JAM72S30－xxx／LR／1500V，$x x x=555$ to 580 in steps of 5； JAM54S30－xxx／LR／1500V，$x x x=415$ to 435 in steps of 5 ； JAM54S31－xxx／LR／1500V，$x x x=415$ to 420 in steps of 5； JAM54S30－xxx／LB／1500V，$x x x=410$ to 425 in steps of 5 ； JAM54S31－xxx／LB／1500V，xxx＝ 410 to 415 in steps of 5； xxx is standing for rated output power at STC


## Parameters：

Construction：
Test Laboratory：

Safety Class：
Maximum System Voltage
Fire Safety Class：
Production Facility（ies）：

Framed or Frameless，with Junction box， Cable and Connectors．
Yangzhou Opto－Electrical Products Testing Institute No． 10 West Kaifa Road，Yangzhou 225009 Jiangsu，P．R．China
Class II
1500 V DC or 1000 V DC
Class C according to UL790． 079395，095903，090968，108746，072092， 109998，112017，113943，114922，001783， 004170，113691，117043，119123，120210， 117684，114994，120736，115500，120016， 108093， 121678.

## Tested according to：

IEC 61215－1：2016
IEC 61215－1－1：2016
IEC 61215－2：2016
IEC 61730－1：2016
IEC 61730－2：2016
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

## IDVNORD

## 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

Certification program:
Certification fundamental(s):
Registered No.:
Manufacturer:
Test Report No.:
File No.:

P12-VA-01 Rev. 1709.20
IEC 62716:2013 / EN 62716:2013 + AC:2014.
4478019 406749-303R13A7M15
see Annex 1
492010719.025

PVP04070/23P-02


TÜV NORD CERT GmbH Certification Body
Consumer Products

Please also pay attention to the information stated overleaf.

THVNORD
Anlage 1 zum Zertifikat Nr.: / Annex 1 to Certificate No.: 4478019 406749-303R13A7M15
Seite / Page 1 von / of 2
Aktenzeichen: / File reference: PVP04070/23P-02

## Manufacturer:

Manufacturer 1

Factory inspection report no.:

Manufacturer 2:

Factory inspection report no.: 862010241.009
862010153.010 230088, P.R. China

Manufacturer 4:

Factory inspection report no

Manufacturer 5:

Factory inspection report no.:

Manufacturer 6:

Factory inspection report no

Manufacturer 7:


TÜV NORD CERT GmbH
Certification Body
Consumer Products


Factory inspection report no.: 862010560.002

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

Hefei JA Solar Technology Co., Ltd.
No. 999, Chang Ning Road, Hi-tech Zone, Hefei

JA Solar (Xingtai) Co., Ltd.
No. 1688, Chang An Road, Xingtai Economic Development Area Xingtai City, Hebei Province, 054001, P.R. China
862010290.007

Vina Solar Technology Co., Ltd. E12 factory, lot CN-03, Van Trung Industrial park 21000 Bac Giang Province, Vietnam
862010302.006

JA Solar New Energy Yangzhou Co., Ltd.
No.1, Jianhua Road, Economic Development Zone Yangzhou, Jiangsu Province, 225000, P.R. China 862010496.003

Yiwu JA Solar Technology Co., Ltd.
No. 165, Tongze Road, Yiting Town, Yiwu City, Zhejiang Province, 322000, P.R. China.
862010513.003

## JA Solar Viet Nam Company Limited

 Lot G, Quang Chau Industrial Zone, Quang Chau Commune Viet Yen Dist, 236110 Bac Giang Province, VIETNAM.Anlage 1 zum Zertifikat Nr.: / Annex 1 to Certificate No.: 4478019 406749-303R13A7M15
Site / Page $\mathbf{2}$ vo / of $\mathbf{2}$
Aktenzeichen: / File reference: PVP04070/23P-02
2023-05-19

| Manufacturer 8: | JA Solar New Energy Hangzhou Co., Ltd. (Jingshan Park) |
| :--- | :--- |
|  | No.123, Jinshan Road, Economic Development Zone, |
|  | Yangzhou, Jiangsu Province, 225127, P.R. China |
| Factory inspection report no.: | 862010584.002 |

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


TÜV NORD CERT GmbH
Certification Body
Consumer Products

## Description of product(s):

Module types:

Maximum system voltage:
Fuse rating:
Application class:
Electrical protection class:

Module types:

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

72 cells: JAM6(K)(DG)-72-xxx/PR/1500V ( $x x x=330-365$, in steps of 5)
72 cells: JAM6(K)(DG)-72-xxx/4BB/1500V ( $x x x=320-340$, in steps of 5 )
72 cells: JAM72D00-xxx/PR ( $x x x=340-385$, in steps of 5 )
72 cells: JAM72D00-xxx/PR/1500V (xxx=340-385, in steps of 5)
72 cells: JAM72D00-xxx/SC ( $x x x=320-340$, in steps of 5 )
72 cells: JAM72D00-xxx/BP ( $x x x=330-385$, in steps of 5 )
72 cells: JAM72D00-xxx/BP/1500V ( $x x x=330-385$, in steps of 5)
72 cells: JAM72D00-xxx/MB ( $x x x=370-380$, in steps of 5 )
72 cells: JAM72D00-xxx/MB/1500V ( $x x x=370-380$, in steps of 5 )
72 cells: JAM72D09-xxx/BP ( $x x x=360-400$, in steps of 5)
72 cells: JAM72D09-xxx/BP/1500V ( $x x x=360-400$, in steps of 5)
60 cells: JAM6(DG)-60-xxx/1500V ( $x x x=250-270$, in steps of 5 )
60 cells: JAM6(K)(DG)-60-xxx/4BB/1500V ( $x x x=260-285$, in steps of 5)
60 cells: JAM6(K)(DG)-60-xxx/PR/1500V (xxx=270-305, in steps of 5)
60 cells: JAM6(DG)-60-xxx/4BB/1500V ( $x x x=260-280$, in steps of 5)
60 cells: JAM60D00-xxx/PR (xxx=285-320, in steps of 5 )
60 cells: JAM60D00-xxx/PR/1500V ( $x x x=285-320$, in steps of 5 )
60 cells: JAM60D00-xxx/SC ( $x x x=260-285$, in steps of 5 )
60 cells: JAM60D00-xxx/BP ( $x x x=275-320$, in steps of 5 )
60 cells: JAM60D00-xxx/BP/1500V ( $x x x=275-320$, in steps of 5)
60 cells: JAM60D00-xxx/MB ( $x x x=310-315$, in steps of 5 )
60 cells: JAM60D00-xxx/MB/1500V ( $x x x=310-315$, in steps of 5 )
60 cells: JAM60D09-xxx/BP ( $x x x=300-340$, in steps of 5 )
60 cells: JAM60D09-xxx/BP/1500V ( $x x x=300-340$, in steps of 5 )
1500 V
20A
Class A
Class II

PV Modules with Mono-crystalline Silicon half-cut Solar Cells ( 156 mm to 158.75 mm ):
72 cells: JAM72D10-xxx/MB ( $x x x=385-430$, in steps of 5 )
72 cells: JAM72D10-xxx/MB/1500V ( $x x x=385-430$, in steps of 5)
60 cells: JAM60D10-xxx/MB ( $x x x=320-355$, in steps of 5 )
60 cells: JAM60D10-xxx/MB/1500V ( $x x x=320-355$, in steps of 5)
72 cells: JAM72D10-xxx/BP ( $x x x=385-415$, in steps of 5 )

Maximum system voltage:
Fuse rating:
Application class:
Electrical protection class:

Module types:

72 cells: JAM72D10-xxx/BP/1500V ( $x x x=385-415$, in steps of 5) 60 cells: JAM60D10-xxx/BP ( $x x x=320-345$, in steps of 5 ) 60 cells: JAM60D10-xxx/BP/1500V ( $x x x=320-345$, in steps of 5) 78 cells: JAM78D10-xxx/MB (xxx=435-455, in steps of 5 ) 78 cells: JAM78D10-xxx/MB/1500V ( $x x x=435-455$, in steps of 5) 66 cells: JAM66D10-xxx/MB ( $x x x=360-380$, in steps of 5) 66 cells: JAM66D10-xxx/MB/1500V ( $x x x=360-380$, in steps of 5) 72 cells: JAM72D20-xxx/MB ( $x x x=430-465$, in steps of 5 ) 72 cells: JAM72D20-xxx/MB/1500V ( $x x x=430-465$, in steps of 5 ) 60 cells: JAM60D20-xxx/MB ( $x x x=355-385$, in steps of 5) 60 cells: JAM60D20-xxx/MB/1500V ( $x x x=355-385$, in steps of 5) 72 cells: JAM72D10-xxx/TB ( $x x x=400-420$, in steps of 5) 72 cells: JAM72D10-xxx/TB/1500V ( $x x x=400-420$, in steps of 5) 60 cells: JAM60D10-xxx/TB ( $x x x=335-350$, in steps of 5 ) 60 cells: JAM60D10-xxx/TB/1500V ( $x x x=335-350$, in steps of 5 )

20 A or 25 A
Class A
Class II

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

78 cells: JAM78D30-xxx/MB ( $x x x=580-605$, in steps of 5)
78 cells: JAM78D30-xxx/MB/1500V ( $x x x=580-605$, in steps of 5 )
72 cells: JAM72D30-xxx/MB ( $x x x=505-555$, in steps of 5 )
72 cells: JAM72D30-xxx/MB/1500V ( $x x x=505-555$, in steps of 5 )
72 cells: JAM72D30-xxx/MB/F (xxx=505-555, in steps of 5)
72 cells: JAM72D30-xxx/MB/F/1500V ( $x x x=505-555$, in steps of 5)
66 cells: JAM66D30-xxx/MB (xxx=465-505, in steps of 5)
66 cells: JAM66D30-xxx/MB/1500V ( $x x x=465-505$, in steps of 5)
66 cells: JAM66D30-xxx/MB/F (xxx=465-505, in steps of 5 )
66 cells: JAM66D30-xxx/MB/F/1500V (xxx=465-505, in steps of 5)
60 cells: JAM60D30-xxx/MB ( $x x x=435-460$, in steps of 5 )
60 cells: JAM60D30-xxx/MB/1500V (xxx=435-460, in steps of 5)
54 cells: JAM54D30-xxx/MB ( $x x x=390-415$, in steps of 5 )
54 cells: JAM54D30-xxx/MB/1500V ( $x x x=390-415$, in steps of 5)
54 cells: JAM54D31-xxx/MB (xxx=395-400, in steps of 5)
54 cells: JAM54D31-xxx/MB/1500V (xxx=395-400, in steps of 5)
78 cells: JAM78D30-xxx/GB ( $x x x=585-610$, in steps of 5 )

78 cells: JAM78D30-xxx/GB/1500V (xxx=585-610, in steps of 5) 72 cells: JAM72D30-xxx/GB ( $x x x=540-560$, in steps of 5 ) 72 cells: JAM72D30-xxx/GB/1500V ( $x x x=540-560$, in steps of 5 ) 66 cells: JAM66D30-xxx/GB ( $x x x=495-510$, in steps of 5 ) 66 cells: JAM66D30-xxx/GB/1500V ( $x x x=495-510$, in steps of 5 ) 60 cells: JAM60D30-xxx/GB ( $x x x=450-470$, in steps of 5 ) 60 cells: JAM60D30-xxx/GB/1500V ( $x x x=450-470$, in steps of 5 ) 54 cells: JAM54D30-xxx/GB ( $x x x=405-420$, in steps of 5 ) 54 cells: JAM54D30-xxx/GB/1500V ( $x x x=405-420$, in steps of 5 ) 54 cells: JAM54D31-xxx/GB ( $x x x=410-420$, in steps of 5 ) 54 cells: JAM54D31-xxx/GB/1500V ( $x x x=410-420$, in steps of 5) 72 cells: JAM72D30-xxx/HB ( $x x x=530-560$, in steps of 5 ) 72 cells: JAM72D30-xxx/HB/1500V ( $x x x=530-560$, in steps of 5) 72 cells: JAM72D30-xxx/TB ( $x x x=540-580$, in steps of 5 ) 72 cells: JAM72D30-xxx/TB/1500V ( $x x x=540-580$, in steps of 5 ) 78 cells: JAM78D40-xxx/MB ( $x x x=580-630$, in steps of 5) 78 cells: JAM78D40-xxx/MB/1500V ( $x x x=580-630$, in steps of 5) 72 cells: JAM72D40-xxx/MB ( $x x x=540-580$, in steps of 5 ) 72 cells: JAM72D40-xxx/MB/1500V ( $x x x=540-580$, in steps of 5) 66 cells: JAM66D40-xxx/MB ( $x x x=500-530$, in steps of 5 ) 66 cells: JAM66D40-xxx/MB/1500V (xxx=500-530, in steps of 5) 60 cells: JAM60D40-xxx/MB ( $x x x=455-480$, in steps of 5 )
60 cells: JAM60D40-xxx/MB/1500V ( $x x x=455-480$, in steps of 5 ) 54 cells: JAM54D40-xxx/MB ( $x x x=405-435$, in steps of 5 ) 54 cells: JAM54D40-xxx/MB/1500V (xxx=405-435, in steps of 5) 78 cells: JAM78D40-xxx/GB ( $x x x=580-635$, in steps of 5 ) 78 cells: JAM78D40-xxx/GB/1500V ( $x x x=580-635$, in steps of 5) 72 cells: JAM72D40-xxx/GB ( $x x x=540-585$, in steps of 5 ) 72 cells: JAM72D40-xxx/GB/1500V ( $x x x=540-585$, in steps of 5) 66 cells: JAM66D40-xxx/GB ( $x x x=500-535$, in steps of 5)
66 cells: JAM66D40-xxx/GB/1500V ( $x x x=500-535$, in steps of 5) 60 cells: JAM60D40-xxx/GB ( $x x x=455-485$, in steps of 5)
60 cells: JAM60D40-xxx/GB/1500V ( $x x x=455-485$, in steps of 5) 54 cells: JAM54D40-xxx/GB ( $x x x=405-440$, in steps of 5 )
54 cells: JAM54D40-xxx/GB/1500V ( $x x x=405-440$, in steps of 5)
54 cells: JAM54D41-xxx/GB ( $x x x=415-435$, in steps of 5 )
54 cells: JAM54D41-xxx/GB/1500V ( $x x x=415-435$, in steps of 5)
72 cells: JAM72D40-xxx/LB ( $x x x=575-600$, in steps of 5)
72 cells: JAM72D40-xxx/LB/1500V ( $x x x=575-600$, in steps of 5 )


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|  | 54 cells: JAM54D40-xxx/LB ( $x$ xx $=420-450$, in steps of 5 ) |
| :---: | :---: |
|  | 54 cells: JAM54D40-xxx/LB/1500V ( $x$ xx $=420-450$, in steps of 5) |
|  | 54 cells: JAM54D41-xxx/LB (xxx=420-440, in steps of 5) |
|  | 54 cells: JAM54D41-xxx/LB/1500V (xxx=420-440, in steps of 5) |
|  | 72 cells: JAM72D42-xxx/LB ( $\mathrm{xxx}=605-630$, in steps of 5) |
|  | 72 cells: JAM72D42-xxx/LB/1500V (xxx=605-630, in steps of 5) |
|  | 72 cells: JAM72D30-xxx/LB ( $x$ xx $=555-575$, in steps of 5) |
|  | 72 cells: JAM72D30-xxx/LB/1500V ( $x$ xx=555-575, in steps of 5) |
|  | 54 cells: JAM54D30-xxx/LB ( $x x x=420-430$, in steps of 5) |
|  | 54 cells: JAM54D30-xxx/LB/1500V (xxx=420-430, in steps of 5) |
| Maximum system voltage: | 1500 V |
| Fuse rating: | 30A |
| Application class: | Class A |
| Electrical protection class: | Class II |
| Module types: | PV Modules with 210 mm Mono-crystalline Silicon 1/3-cut Solar Cells: |
|  | 50 cells: JAM50D40-xxx/MB ( $x x x=485-500$, in steps of 5) |
|  | 50 cells: JAM50D40-xxx/MB/1500V (xxx=485-500, in steps of 5) |
| Maximum system voltage: | 1500 V |
| Fuse rating: | 30A |
| Application class: | Class A |
| Electrical protection class: | Class II |
| Module types: | PV Modules with 210 mm Mono-crystalline Silicon 1/2-cut Solar Cells: |
|  | 66 cells: JAM66D35-xxx/MB (xxx=650-665, in steps of 5) |
|  | 66 cells: JAM66D35-xxx/MB/1500V (xxx=650-665, in steps of 5) |
|  | 60 cells: JAM60D35-xxx/MB (xxx=590-605, in steps of 5) |
|  | 60 cells: JAM60D35-xxx/MB/1500V (xxx=590-605, in steps of 5) |
| Maximum system voltage: | 1500 V |
| Fuse rating: | 30A |
| Application class: | Class A |
| Electrical protection class: | Class II |
| Module types: | PV Modules with Poly-crystalline Silicon Solar Cells (156mm to 158.75 mm ): |
| $2 \operatorname{lop}^{2} x_{1}$ |  |
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## Remark:

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


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## CERTIFICATE

## TÜV NORD CERT GmbH <br> 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: 2024-01-10
Valid until: 2026-09-29


Essen, 2024-01-10

Please also pay attention to the information stated overleaf.


[^0]|  |  |
| :---: | :---: |
| Aktenzeichen: / File reference: PVP0 | 23P-03 2024-01-10 |
| Manufacturer 8 : | HSA ENERJI A.S. |
|  | OSB III. Kisim Keciliköy OSB Mah., Mustafa Kemal Bulvari No:15/1., 45030 Yunusemre - Manisa, TURKEY |
| Factory inspection report no.: | 862010735.001 |
| Manufacturer 9 : | Dongtai JA Solar Technology Co., Ltd. |
|  | No. 8 Zaofeng North Road, Dongtai High-tech Zone, Dongtai City, 224248 Yancheng City, Jiangsu Province, PEOPLE'S REPUBLIC OF CHINA |
| Factory inspection report no.: | 862010802.001 |
| Manufacturer 10 : | QuJing JA Solar Technology Co., Ltd. |
|  | North of Nanhai Avenue and East of Shaoxi Road, Qujing Economic and Technological Development Zone, 655000 Qujing City, Yunnan Province, PEOPLE'S REPUBLIC OF CHINA |
| Factory inspection report no.: | 862010866.001 |
| Manufacturer 10 : | Inner Mongolia JA Solar PV Technology Co., Ltd. |
|  | No.21, Zhuangbei Avenue, Xin Guihua Area, Equipment park, Qingshan District, 014000 Baotou, Inner Mogolia Autonomous Region, PEOPLE'S REPUBLIC OF CHINA |
| Factory inspection report no.: | 862010874.001 |

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 158.75 mm ):

72 cells: JAM6(L)-72- xxx ( $x x x=295-335$, in steps of 5 )
72 cells: JAM6-72- xxx/SI ( $x x x=285-325$, in steps of 5)
72 cells: JAM6(R)-72-xxx ( $x x x=295-340$, in steps of 5 )
72 cells: JAM6(R)-72-xxx/PR ( $x x x=330-350$, in steps of 5 )
72 cells: JAM6-72-xxx/PR ( $x x x=325-345$, in steps of 5 )
72 cells: JAM6(L)-72-xxx/PR ( $x x x=325-345$, 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 ( $x x x=325-370$, in steps of 5 )
72 cells: JAM72S02-xxx/PR ( $x x x=325-390$, in steps of 5 )
72 cells: JAM72S01-xxx/PR/1000V ( $x x x=345-390$, in steps of 5 )
72 cells: JAM72S01-xxx/SC/1000V ( $x x x=320-365$, in steps of 5 )
72 cells: JAM72S01-xxx/MR/1000V ( $x x x=365-385$, in steps of 5)
72 cells: JAM72S09-xxx/PR/1000V ( $x x x=370-405$, in steps of 5 )
72 cells: JAM72S09-xxx/BP/1000V ( $x x x=375-385$, in steps of 5 )
72 cells: JAM72S02-xxx/PR/1000V ( $x x x=345-390$, in steps of 5 )
72 cells: JAM72S02-xxx/SC/1000V ( $x x x=320-365$, in steps of 5 )
72 cells: JAM72S02-xxx/MR/1000V ( $x x x=365-385$, in steps of 5 )
72 cells: JAM72S12-xxx/PR/1000V ( $x x x=365-385$, in steps of 5)
60 cells: JAM6(L)-60-xxx ( $x x x=255-280$, in steps of 5 )
60 cells: JAM6-60-xxx/SI ( $x x x=235-280$, in steps of 5 )
60 cells: JAM6(FA)-60-xxx/SI ( $x x x=255-275$, 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 ( $x x x=280-300$, in steps of 5 )
60 cells: JAM6-60-xxx/PR ( $x x x=275-295$, in steps of 5 )
60 cells: JAM6(L)-60-xxx/PR ( $x x x=270-295$, in steps of 5 )
60 cells: JAM6(K)-60-xxx/4BB ( $x x x=265-285$, in steps of 5 )
60 cells: JAM6(K)-60-xxx/PR ( $x x x=275-310$, 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 ( $x x x=305-320$, in steps of 5 )
60 cells: JAM60S09-xxx/PR/1000V ( $x x x=310-335$, in steps of 5 )
60 cells: JAM60S09-xxx/BP/1000V ( $x x x=315-320$, in steps of 5 )
60 cells: JAM60S02-xxx/PR/1000V ( $x x x=285-325$, 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 ( $\mathrm{xxx}=205-220$, in steps of 5) |
|  | 48 cells: JAM6(R)(FA)-48-xxx ( $\mathrm{xxx}=210-225$, in steps of 5) |
|  | 48 cells: JAM6(R)-48-xxx/PR ( $x x x=220-235$, in steps of 5) |
|  | 48 cells: JAM6-48-xxx/PR ( $x x x=215-235$, in steps of 5) |
|  | 48 cells: JAM6(L)-48-xxx/PR ( $\mathrm{xxx}=215-235$, in steps of 5) |
|  | 48 cells: JAM6(K)-48xxx/4BB ( $\mathrm{xxx}=210-225$, in steps of 5) |
|  | 48 cells: JAM6(K)-48-xxx/PR ( $\mathrm{xxx}=220-235$, in steps of 5) |
| Maximum system voltage: | 1000 V |
| Fuse rating: | 20A |
| Application class: | Class A |
| Electrical protection class: | Class II |
| Module types: | PV Modules with 125 mm Mono-crystalline Silicon Solar Cells: 72 cells: JAM5-72-xxx/SI ( $x x x=180-210$, in steps of 5 ) |
|  | 72 cells: JAM5(L)-72-xxx/SI ( $\mathrm{xxx}=180-220$, in steps of 5) |
|  | 72 cells: JAM5(R)-72-xxx ( $\mathrm{xxx}=195-220$, in steps of 5 ) |
| Maximum system voltage: | 1000 V |
| Fuse rating: | 10A |
| Application class: | Class A |
| Electrical protection class: | Class II |
| Module types: | PV Modules with Mono-crystalline Silicon half-cut Solar Cells ( 156 mm to 158.75 mm ): |
|  | 72 cells: JAM72S03-xxx/PR/1000V ( $\mathrm{xxx}=360-395$, in steps of 5) |
|  | 72 cells: JAM 72 S $10-x x x / P R / 1000 \mathrm{~V}$ ( $x x x=380-410$, in steps of 5) |
|  | 72 cells: JAM72S10-xxx/BP/1000V ( $\mathrm{xxx}=385-400$, 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 ( $\mathrm{xxx}=360-395$, in steps of 5) |
|  | 72 cells: JAM72S17-xxx/PR/1000V ( $\mathrm{xxx}=380-390$, in steps of 5) |
|  | 72 cells: JAM72S17-xxx/MR/1000V ( $\mathrm{xxx}=390-430$, in steps of 5 ) |
|  | 72 cells: JAM72S17-xxx/GR/1000V ( $\mathrm{xxx}=385-400$, in steps of 5) |
|  | 60 cells: JAM60S03-xxx/PR/1000V ( $x x x=300-330$, in steps of 5) |
|  | 60 cells: JAM60S10-xxx/PR/1000V ( $x$ xx=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 ( $x$ xx=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: | 1000 V |
| Fuse rating: | 20A |
| Application class: | Class A |
| Electrical protection class: | Class II |
| Module types: | PV Modules with Mono-crystalline Silicon half-cut Solar Cells ( 166 mm to 168 mm ): |
|  | 72 cells: JAM72S20-xxx/MR/1000V ( $x$ xx=430-470, in steps of 5) |
|  | 72 cells: JAM72S20-xxx/MB/1000V ( $x x x=450-465$, in steps of 5) |
|  | 60 cells: JAM60S20-xxx/MR/1000V ( $\mathrm{xxx}=355-390$, in steps of 5) |
|  | 60 cells: JAM60S21-xxx/MR/1000V ( $x$ xx $=355-390$, 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 ( $x x x=435-460$, in steps of 5) 66 cells: JAM66S30-xxx/MR/1000V ( $x x x=470-510$, in steps of 5 )
72 cells: JAM72S30-xxx/MR/1000V ( $x x x=510-560$, in steps of 5 )
78 cells: JAM78S30-xxx/MR/1000V ( $x x x=580-605$, in steps of 5)
54 cells: JAM54S30-xxx/MR/1000V ( $x x x=390-425$, in steps of 5 )
78 cells: JAM78S30-xxx/GR/1000V ( $x x x=575-610$, in steps of 5 )
72 cells: JAM72S30-xxx/GR/1000V ( $x x x=510-560$, in steps of 5 )
66 cells: JAM66S30-xxx/GR/1000V ( $x x x=500-510$, in steps of 5)
60 cells: JAM60S30-xxx/GR/1000V ( $x x x=445-470$, in steps of 5 )
54 cells: JAM54S30-xxx/GR/1000V (xxx=400-420, in steps of 5 )
72 cells: JAM72S31-xxx/MR/1000V ( $x x x=510-545$, in steps of 5)
66 cells: JAM66S31-xxx/MR/1000V ( $x x x=470-500$, in steps of 5)
60 cells: JAM60S31-xxx/MR/1000V (xxx=425-450, in steps of 5 )

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Anlage 2 zum Zertifikat Nr.: / Annex 2 to Cerificate No.: 4478023 406749-193R4A3M5

54 cells: JAM54S31-xxx/MR/1000V (xxx=385-415, in steps of 5)
78 cells: JAM78S31-xxx/GR/1000V ( $x x x=575-590$, in steps of 5)
72 cells: JAM72S31-xxx/GR/1000V ( $x x x=525-545$, in steps of 5)
66 cells: JAM66S31-xxx/GR/1000V ( $x \times x=480-500$, in steps of 5)
60 cells: JAM60S31-xxx/GR/1000V ( $x$ xx $=435-450$, in steps of 5)
54 cells: JAM54S31-xxx/GR/1000V ( $x x x=395-415$, in steps of 5 )
72 cells: JAM72S40-xxx/GR/1000V ( $x x x=540-575$, in steps of 5)
66 cells: JAM66S40-xxx/GR/1000V ( $x x x=495-525$, in steps of 5)
60 cells: JAM60S40-xxx/GR/1000V ( $x x x=450-480$, in steps of 5 )
54 cells: JAM54S40-xxx/GR/1000V ( $x x x=405-430$, in steps of 5 )
72 cells: JAM72S41-xxx/GR/1000V ( $x x x=540-570$, in steps of 5 )
66 cells: JAM66S41-xxx/GR/1000V ( $x x x=495-525$, in steps of 5 )
60 cells: JAM60S41-xxx/GR/1000V ( $x x x=450-475$, in steps of 5 )
54 cells: JAM54S41-xxx/GR/1000V ( $x x x=405-430$, in steps of 5 )
72 cells: JAM72S30-xxx/LR/1000V ( $x x x=555-580$, in steps of 5 )
54 cells: JAM54S30-xxx/LR/1000V ( $x x x=415-435$, in steps of 5)
54 cells: JAM54S31-xxx/LR/1000V ( $x x x=415-425$, in steps of 5 )
72 cells: JAM72S30-xxx/MB/1000V ( $x x x=535-550$, in steps of 5 )
72 cells: JAM72S31-xxx/MB/1000V ( $x x x=525-540$, in steps of 5 )
54 cells: JAM54S30-xxx/MB/1000V ( $x x x=385-410$, in steps of 5)
54 cells: JAM54S31-xxx/MB/1000V ( $x x x=385-405$, in steps of 5 )
54 cells: JAM54S30-xxx/LB/1000V ( $x x x=410-425$, in steps of 5 ) 54 cells: JAM54S31-xxx/LB/1000V (xxx=410-415, in steps of 5 ) 1000V

25A
Class A
Class II

## PV Modules with 210 mm Mono-crystalline Silicon 1/3-cut Solar

 Cells:50 cells: JAM50S40-xxx/MR/1000V ( $x x x=490-500$, in steps of 5 )
66 cells: JAM66S35-xxx/MR/1000V ( $x x x=650-670$, in steps of 5 ) 60 cells: JAM60S35-xxx/MR/1000V ( $x x x=590-610$, in steps of 5 ) 1000V

25A
Class A
Class II

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| 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: | 1000 V |
| Fuse rating: | 25A |
| Application class: | Class A |
| Electrical protection class: | Class II |
| Module types: | PV Modules with Poly-crystalline Silicon Solar Cells ( 156 mm to 158.75 mm ): |
|  | 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 ( $x x x=305-330$, in steps of 5) |
|  | 72 cells: JAP6-72-xxx/4BB/RE ( $x x x=305-330$, in steps of 5) |
|  | 72 cells: JAP6(K)-72-xxx/4BB ( $x x x=310-330$, 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) |
|  | 72 cells: JAP72S01-xxx/MS/1000V ( $\mathrm{xxx}=325-340$, in steps of 5) |
|  | 72 cells: JAP72S02-xxx/SC/1000V ( $x$ xx=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 ( $\mathrm{xxx}=250-270$, 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 ( $x x x=255-280$, in steps of 5) |
|  | 60 cells: JAP6(K)-60-xxx/4BB (xxx=255-275, in steps of 5) |
|  | 60 cells: JAP60S01-xxx/SC/1000V ( $\mathrm{xxx}=255-290$, in steps of 5) |
|  | 60 cells: JAP60S01-xxx/PR/1000V ( $x$ xx $=275-285$, 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 ( $x x x=200-220$, in steps of 5 ) |
| Maximum system voltage: | 1000 V |
| Fuse rating: | 20A |

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Application cl
Electrical prot
Module types

Maximum system voltage:
Fuse rating:
Application class:
Electrical protection class:

Module types:

## Class A

Class II

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

72 cells: JAM6(K)-72-xxx/PR/1500V ( $x x x=345-370$, in steps of 5)
72 cells: JAM6(K)-72-xxx/4BB/1500V ( $x x x=320-345$, in steps of 5 )
72 cells: JAM72S01-xxx/PR ( $x x x=345-390$, in steps of 5 )
72 cells: JAM72S01-xxx/SC/1500V ( $x x x=320-365$, in steps of 5 )
72 cells: JAM72S01-xxx/MR/1500V ( $x x x=365-385$, in steps of 5 )
72 cells: JAM72S09-xxx/PR/1500V ( $x x x=370-405$, in steps of 5 )
72 cells: JAM72S09-xxx/BP/1500V ( $x x x=375-385$, in steps of 5 )
72 cells: JAM72S02-xxx/PR/1500V ( $x x x=345-390$, 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 ( $x x x=365-385$, 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 ( $x x x=285-325$, in steps of 5)

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60 cells: JAM60S01-xxx/SC/1500V ( $x x x=265-305$, in steps of 5)
60 cells: JAM60S01-xxx/MR/1500V ( $x x x=305-320$, in steps of 5)
60 cells: JAM60S09-xxx/PR/1500V ( $x x x=310-335$, in steps of 5 )
60 cells: JAM60S09-xxx/BP/1500V ( $x x x=315-320$, in steps of 5)
60 cells: JAM60S02-xxx/PR/1500V ( $x x x=285-325$, in steps of 5)
60 cells: JAM60S02-xxx/SC/1500V ( $x x x=265-305$, in steps of 5)
60 cells: JAM60S02-xxx/MR/1500V ( $x x x=305-320$, in steps of 5)
60 cells: JAM60S12-xxx/PR/1500V ( $x x x=305-330$, in steps of 5)
72 cells: JAM6(K)(DG)-72-xxx/PR/1500V ( $x x x=330-365$, in steps of 5 )
72 cells: JAM6(K)(DG)-72-xxx/4BB/1500V (xxx=320-340, in steps of 5)
72 cells: JAM72D00-xxx/PR ( $x x x=340-385$, in steps of 5)
72 cells: JAM72D00-xxx/PR/1500V ( $x x x=340-385$, in steps of 5 )
72 cells: JAM72D00-xxx/SC ( $x x x=320-340$, in steps of 5 )
72 cells: JAM72D00-xxx/BP ( $x x x=330-385$, in steps of 5 )
72 cells: JAM72D00-xxx/BP/1500V ( $x x x=330-385$, in steps of 5 )
72 cells: JAM72D00-xxx/MB ( $x x x=370-380$, in steps of 5 )
72 cells: JAM72D00-xxx/MB/1500V ( $x x x=370-380$, in steps of 5)
72 cells: JAM72D09-xxx/BP ( $x x x=360-400$, in steps of 5 )
72 cells: JAM72D09-xxx/BP/1500V ( $x x x=360-400$, in steps of 5 )
60 cells: JAM6(DG)-60-xxx/1500V ( $x x x=250-270$, in steps of 5 )
60 cells: JAM6(K)(DG)-60-xxx/4BB/1500V ( $x x x=260-285$, in steps of 5 )
60 cells: JAM6(K)(DG)-60-xxx/PR/1500V (xxx=270-305, in steps of 5)
60 cells: JAM6(DG)-60-xxx/4BB/1500V (xxx=260-280, in steps of 5)
60 cells: JAM60D00-xxx/PR ( $x x x=285-320$, in steps of 5 )
60 cells: JAM60D00-xxx/PR/1500V (xxx=285-320, in steps of 5)
60 cells: JAM60D00-xxx/SC (xxx=260-285, in steps of 5)
60 cells: JAM60D00-xxx/BP ( $x x x=275-320$, in steps of 5 )
60 cells: JAM60D00-xxx/BP/1500V ( $x x x=275-320$, in steps of 5 )
60 cells: JAM60D00-xxx/MB ( $x x x=310-315$, in steps of 5)
60 cells: JAM60D00-xxx/MB/1500V ( $x x x=310-315$, in steps of 5)
60 cells: JAM60D09-xxx/BP ( $x x x=300-340$, in steps of 5 )
60 cells: JAM60D09-xxx/BP/1500V ( $x x x=300-340$, in steps of 5 )
Maximum system voltage:
1500 V
Fuse rating:
Application class:
Electrical protection class:
20A
Class A
Class II

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Module types:

## TÜV NORD CERT GmbH Certification Body Consumer Products

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

72 cells: JAM72S03-xxx/PR/1500V ( $x x x=360-395$, in steps of 5)
72 cells: JAM72S10-xxx/PR/1500V ( $x x x=380-410$, in steps of 5 )
72 cells: JAM72S10-xxx/BP/1500V ( $x x x=385-400$, in steps of 5)
72 cells: JAM72S10-xxx/MR/1500V ( $x x x=390-430$, in steps of 5 )
72 cells: JAM72S10-xxx/MB/1500V ( $x x x=395-415$, in steps of 5)
72 cells: JAM72S08-xxx/PR/1500V ( $x x x=360-395$, in steps of 5 )
72 cells: JAM72S17-xxx/PR/1500V ( $x x x=380-390$, in steps of 5 )
72 cells: JAM72S17-xxx/MR/1500V ( $x x x=390-430$, in steps of 5)
72 cells: JAM72S17-xxx/GR/1500V ( $x x x=385-400$, in steps of 5 )
60. cells: JAM60S03-xxx/PR/1500V ( $x x x=300-330$, in steps of 5)

60 cells: JAM60S10-xxx/PR/1500V ( $x x x=315-345$, in steps of 5)
60 cells: JAM60S10-xxx/BP/1500V ( $x x x=320-330$, in steps of 5)
60 cells: JAM60S10-xxx/MR/1500V ( $x x x=325-355$, in steps of 5)
60 cells: JAM60S10-xxx/MB/1500V ( $x x x=330-345$, in steps of 5 )
60 cells: JAM60S20-xxx/MR/1500V ( $x x x=355-390$, in steps of 5)
60 cells: JAM60S21-xxx/MR/1500V ( $x x x=355-390$, in steps of 5)
60 cells: JAM60S08-xxx/PR/1500V ( $x x x=300-330$, in steps of 5)
60 cells: JAM60S17-xxx/PR/1500V ( $x x x=315-325$, in steps of 5)
60 cells: JAM60S17-xxx/MR/1500V ( $x x x=315-355$, in steps of 5)
78 cells: JAM78S10-xxx/MR/1500V ( $x x x=435-465$, in steps of 5 )
66 cells: JAM66S10-xxx/MR/1500V ( $x x x=345-390$, in steps of 5 )
72 cells: JAM72D10-xxx/MB ( $x x x=385-430$, in steps of 5 )
72 cells: JAM72D10-xxx/MB/1500V ( $x x x=385-430$, in steps of 5 )
60 cells: JAM60D10-xxx/MB ( $x x x=320-355$, in steps of 5 )
60 cells: JAM60D10-xxx/MB/1500V ( $x x x=320-355$, in steps of 5 )
72 cells: JAM72D10-xxx/BP ( $x x x=385-415$, in steps of 5 )
72 cells: JAM72D10-xxx/BP/1500V ( $x x x=385-415$, in steps of 5)
60 cells: JAM60D10-xxx/BP ( $x x x=320-345$, in steps of 5 )
60 cells: JAM60D10-xxx/BP/1500V ( $x x x=320-345$, in steps of 5 )
78 cells: JAM78D10-xxx/MB ( $x x x=435-455$, in steps of 5 )
78 cells: JAM78D10-xxx/MB/1500V ( $x x x=435-455$, in steps of 5 )
66 cells: JAM66D10-xxx/MB ( $x x x=360-380$, in steps of 5 )
66 cells: JAM66D10-xxx/MB/1500V (xxx=360-380, in steps of 5)
72 cells: JAM72D20-xxx/MB ( $x x x=430-465$, in steps of 5 )
72 cells: JAM72D20-xxx/MB/1500V (xxx=430-465, in steps of 5)
60 cells: JAM60D20-xxx/MB (xxx=355-385, in steps of 5)
60 cells: JAM60D20-xxx/MB/1500V ( $x x x=355-385$, in steps of 5 )
72 cells: JAM72D10-xxx/TB ( $x x x=400-420$, in steps of 5 )

|  | 72 cells: JAM72D10-xxx/TB/1500V ( $x x x=400-420$, in steps of 5 ) 60 cells: JAM60D10-xxx/TB ( $x x x=335-350$, in steps of 5 ) <br> 60 cells: JAM60D10-xxx/TB/1500V ( $x x x=335-350$, 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 ( 166 mm to 168 mm ): |
|  | 72 cells: JAM72S20-xxx/MR/1500V ( $x$ xx=430-470, in steps of 5) |
|  | 72 cells: JAM72S20-xxx/MB/1500V ( $x$ xx $=450-465$, in steps of 5 ) |
|  | 60 cells: JAM60S20-xxx/MB/1500V ( $x$ xx $=375-390$, in steps of 5 ) |
| Maximum system voltage: | 1500 V |
| 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:
78 cells: JAM78S30-xxx/MR/1500V ( $x x x=580-605$, in steps of 5)
72 cells: JAM72S30-xxx/MR/1500V ( $x x x=510-560$, in steps of 5 )
66 cells: JAM66S30-xxx/MR/1500V ( $x x x=470-510$, in steps of 5)
60 cells: JAM60S30-xxx/MR/1500V ( $x x x=435-460$, in steps of 5 )
54 cells: JAM54S30-xxx/MR/1500V (xxx=390-425, in steps of 5)
78 cells: JAM78S30-xxx/GR/1500V ( $x x x=575-610$, in steps of 5 )
72 cells: JAM72S30-xxx/GR/1500V ( $x x x=510-560$, in steps of 5 )
66 cells: JAM66S30-xxx/GR/1500V ( $x x x=500-510$, in steps of 5 )
60 cells: JAM60S30-xxx/GR/1500V ( $x x x=445-470$, in steps of 5 )
54 cells: JAM54S30-xxx/GR/1500V ( $x x x=400-420$, in steps of 5 )
72 cells: JAM72S31-xxx/MR/1500V ( $x x x=510-545$, in steps of 5 )
66 cells: JAM66S31-xxx/MR/1500V ( $x x x=470-500$, in steps of 5)
60 cells: JAM60S31-xxx/MR/1500V ( $x x x=425-450$, in steps of 5 )
54 cells: JAM54S31-xxx/MR/1500V ( $x x x=385-415$, in steps of 5)
78 cells: JAM78S31-xxx/GR/1500V ( $x x x=575-590$, in steps of 5)
72 cells: JAM72S31-xxx/GR/1500V ( $x x x=525-545$, in steps of 5)
66 cells: JAM66S31-xxx/GR/1500V ( $x x x=480-500$, in steps of 5)
60 cells: JAM60S31-xxx/GR/1500V ( $x x x=435-450$, in steps of 5 )

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54 cells: JAM54S31-xxx/GR/1500V ( $x x x=395-415$, in steps of 5 ) 72 cells: JAM72S40-xxx/GR/1500V ( $x x x=540-575$, in steps of 5) 66 cells: JAM66S40-xxx/GR/1500V ( $x x x=495-525$, in steps of 5) 60 cells: JAM60S40-xxx/GR/1500V ( $x x x=450-480$, in steps of 5 ) 54 cells: JAM54S40-xxx/GR/1500V ( $x x x=405-430$, in steps of 5)
72 cells: JAM72S41-xxx/GR/1500V ( $x x x=540-570$, in steps of 5)
66 cells: JAM66S41-xxx/GR/1500V ( $x x x=495-525$, in steps of 5)
60 cells: JAM60S41-xxx/GR/1500V ( $x x x=450-475$, in steps of 5)
54 cells: JAM54S41-xxx/GR/1500V ( $x x x=405-430$, in steps of 5)
72 cells: JAM72S30-xxx/LR/1500V ( $x x x=555-580$, in steps of 5 )
54 cells: JAM54S30-xxx/LR/1500V ( $x x x=415-435$, in steps of 5 )
54 cells: JAM54S31-xxx/LR/1500V ( $x x x=415-425$, in steps of 5 )
72 cells: JAM72S30-xxx/MB/1500V ( $x x x=535-550$, in steps of 5 )
72 cells: JAM72S31-xxx/MB/1500V ( $x x x=525-540$, in steps of 5 )
54 cells: JAM54S30-xxx/MB/1500V ( $x x x=385-410$, in steps of 5 )
54 cells: JAM54S31-xxx/MB/1500V ( $x x x=385-405$, in steps of 5 )
54 cells: JAM54S30-xxx/LB/1500V (xxx=410-425, in steps of 5)
54 cells: JAM54S31-xxx/LB/1500V (xxx=410-415, in steps of 5)
78 cells: JAM78D30-xxx/MB ( $x x x=580-605$, in steps of 5 )
78 cells: JAM78D30-xxx/MB/1500V ( $x x x=580-605$, in steps of 5)
72 cells: JAM72D30-xxx/MB ( $x x x=505-560$, in steps of 5 )
72 cells: JAM72D30-xxx/MB/1500V ( $x x x=505-560$, in steps of 5)
72 cells: JAM72D30-xxx/MB/F (xxx=505-560, in steps of 5)
72 cells: JAM72D30-xxx/MB/F/1500V ( $x x x=505-560$, in steps of 5)
66 cells: JAM66D30-xxx/MB ( $x x x=465-505$, in steps of 5 )
66 cells: JAM66D30-xxx/MB/1500V ( $x x x=465-505$, in steps of 5)
66 cells: JAM66D30-xxx/MB/F ( $x x x=465-505$, in steps of 5 )
66 cells: JAM66D30-xxx/MB/F/1500V ( $x x x=465-505$, in steps of 5)
60 cells: JAM60D30-xxx/MB ( $x x x=435-460$, in steps of 5 )
60 cells: JAM60D30-xxx/MB/1500V ( $x x x=435-460$, in steps of 5 )
54 cells: JAM54D30-xxx/MB (xxx=390-415, in steps of 5)
54 cells: JAM54D30-xxx/MB/1500V (xxx=390-415, in steps of 5)
54 cells: JAM54D31-xxx/MB (xxx=395-400, in steps of 5)
54 cells: JAM54D31-xxx/MB/1500V ( $x x x=395-400$, in steps of 5 )
78 cells: JAM78D30-xxx/GB ( $x x x=585-610$, in steps of 5 )
78 cells: JAM78D30-xxx/GB/1500V (xxx=585-610, in steps of 5)
72 cells: JAM72D30-xxx/GB ( $x x x=505-560$, in steps of 5 )
72 cells: JAM72D30-xxx/GB/1500V ( $x x x=505-560$, in steps of 5 )
66 cells: JAM66D30-xxx/GB ( $x x x=495-510$, in steps of 5 )
66 cells: JAM66D30-xxx/GB/1500V (xxx=495-510, in steps of 5)

60 cells: JAM60D30-xxx/GB ( $x x x=450-470$, in steps of 5 )
60 cells: JAM60D30-xxx/GB/1500V ( $x x x=450-470$, in steps of 5)
54 cells: JAM54D30-xxx/GB (xxx=405-420, in steps of 5)
54 cells: JAM54D30-xxx/GB/1500V ( $x x x=405-420$, in steps of 5 )
54 cells: JAM54D31-xxx/GB ( $x x x=410-420$, in steps of 5 )
54 cells: JAM54D31-xxx/GB/1500V ( $x x x=410-420$, in steps of 5 )
72 cells: JAM72D30-xxx/HB ( $x x x=530-560$, in steps of 5 )
72 cells: JAM72D30-xxx/HB/1500V ( $x x x=530-560$, in steps of 5)
78 cells: JAM78D30-xxx/TB (xxx=580-630, in steps of 5)
78 cells: JAM78D30-xxx/TB/1500V (xxx=580-630, in steps of 5)
72 cells: JAM72D30-xxx/TB ( $x x x=540-580$, in steps of 5)
72 cells: JAM72D30-xxx/TB/1500V ( $x x x=540-580$, in steps of 5)
78 cells: JAM78D40-xxx/MB (xxx=580-635, in steps of 5)
78 cells: JAM78D40-xxx/MB/1500V ( $x x x=580-635$, in steps of 5)
72 cells: JAM72D40-xxx/MB ( $x x x=540-590$, in steps of 5 )
72 cells: JAM72D40-xxx/MB/1500V ( $x x x=540-590$, in steps of 5 )
66 cells: JAM66D40-xxx/MB (xxx=500-535, in steps of 5)
66 cells: JAM66D40-xxx/MB/1500V (xxx=500-535, in steps of 5)
60 cells: JAM60D40-xxx/MB (xxx=455-485, in steps of 5)
60 cells: JAM60D40-xxx/MB/1500V ( $x x x=455-485$, in steps of 5 )
54 cells: JAM54D40-xxx/MB (xxx=405-440, in steps of 5)
54 cells: JAM54D40-xxx/MB/1500V (xxx=405-440, in steps of 5)
78 cells: JAM78D40-xxx/GB ( $x x x=580-635$, in steps of 5 )
78 cells: JAM78D40-xxx/GB/1500V ( $x x x=580-635$, in steps of 5 )
72 cells: JAM72D40-xxx/GB ( $x x x=540-590$, in steps of 5 )
72 cells: JAM72D40-xxx/GB/1500V ( $x x x=540-590$, in steps of 5)
66 cells: JAM66D40-xxx/GB (xxx=500-535, in steps of 5)
66 cells: JAM66D40-xxx/GB/1500V ( $x x x=500-535$, in steps of 5)
60 cells: JAM60D40-xxx/GB ( $x x x=455-485$, in steps of 5 )
60 cells: JAM60D40-xxx/GB/1500V ( $x x x=455-485$, in steps of 5 )
54 cells: JAM54D40-xxx/GB (xxx=405-440, in steps of 5)
54 cells: JAM54D40-xxx/GB/1500V ( $x x x=405-440$, in steps of 5)
54 cells: JAM54D41-xxx/GB (xxx=415-435, in steps of 5)
54 cells: JAM54D41-xxx/GB/1500V ( $x x x=415-435$, in steps of 5)
72 cells: JAM72D30-xxx/LB ( $x x x=555-575$, in steps of 5 )
72 cells: JAM72D30-xxx/LB/1500V ( $x x x=555-575$, in steps of 5 )
54 cells: JAM54D30-xxx/LB ( $x x x=420-430$, in steps of 5 )
54 cells: JAM54D30-xxx/LB/1500V ( $x x x=420-430$, in steps of 5 )
66 cells: JAM66D42-xxx/MB ( $x x x=540-595$, in steps of 5 )
66 cells: JAM66D42-xxx/MB/1500V ( $x x x=540-595$, in steps of 5 )

| Maximum system voltage: | 1500 V |
| :---: | :---: |
| Fuse rating: | 25A or 30A |
| Application class: | Class A |
| Electrical protection class: | Class II |
| Module types: | PV Modules with 182 mm Mono-crystalline Silicon half-cut or Asymmetric cut Solar Cells: |
|  | 72 cells: JAM72D40-xxx/LB ( $\mathrm{xxx}=560-600$, in steps of 5) |
|  | 72 cells: JAM72D40-xxx/LB/1500V ( $\mathrm{xxx}=560-600$, in steps of 5) |
|  | 60 cells: JAM60D40-xxx/LB (xxx=485-500, in steps of 5) |
|  | 60 cells: JAM60D40-xxx/LB/1500V (xxx=485-500, in steps of 5) |
|  | 54 cells: JAM54D40-xxx/LB (xxx=420-450, in steps of 5) |
|  | 54 cells: JAM54D40-xxx/LB/1500V ( $\mathrm{xxx}=420-450$, in steps of 5) |
|  | 54 cells: JAM54D41-xxx/LB (xxx=420-440, in steps of 5) |
|  | 54 cells: JAM54D41-xxx/LB/1500V (xxx=420-440, in steps of 5) |
|  | 72 cells: JAM72D42-xxx/LB (xxx=590-635, in steps of 5) |
|  | 72 cells: JAM72D42-xxx/LB/1500V (xxx=590-635, in steps of 5) |
|  | 60 cells: JAM60D42-xxx/LB (xxx=500-525, in steps of 5) |
|  | 60 cells: JAM60D42-xxx/LB/1500V (xxx=500-525, in steps of 5) |
|  | 54 cells: JAM54D42-xxx/LB ( $\mathrm{xxx}=455-470$, in steps of 5) |
|  | 54 cells: JAM54D42-xxx/LB/1500V ( $\mathrm{xxx}=455-470$, in steps of 5) |
|  | 78 cells: JAM78D49-xxx/LB ( $\mathrm{xxx}=585-610$, in steps of 5) |
|  | 78 cells: JAM78D49-xxx/LB $/ 1500 \mathrm{~V}$ ( $\mathrm{xxx}=585-610$, in steps of 5) |
|  | 66 cells: JAM66D45-xxx/LB (xxx=585-610, in steps of 5) |
|  | 66 cells: JAM66D45-xxx/LB /1500V (xxx=585-610, in steps of 5) |
|  | 72 cells: JAM72D40-xxx/HB ( $\mathrm{xxx}=585-605$, in steps of 5) |
|  | 72 cells: JAM72D40-xxx/HB /1500V (xxx=585-605, in steps of 5) |
|  | 54 cells: JAM54D40-xxx/HB (xxx=440-450, in steps of 5) |
|  | 54 cells: JAM54D40-xxx/HB /1500V (xxx=440-450, in steps of 5) |
|  | 54 cells: JAM54D41-xxx/HB (xxx=430-445, in steps of 5) |
|  | 54 cells: JAM54D41-xxx/HB /1500V (xxx=430-445, in steps of 5) |
| Maximum system voltage: | 1500 V |
| Fuse rating: | 25A |
| Application class: | Class A |
| Electrical protection class: | Class II |

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| Module types: | PV Modules with 210mm Mono-crystalline Silicon 1/3-cut Solar |
| :--- | :--- |
|  | Cells: |
|  | 50 cells: JAM50S40-xxx/MR/1500V $(x x x=490-500$, in steps of 5) |
|  | 50 cells: JAM50D40-xxx/MB $(x x x=485-500$, in steps of 5) |
|  | 50 cells: JAM50D40-xxx/MB/1500V $(x x x=485-500$, in steps of 5) |
|  | 1500 V |
| Maximum system voltage: | 25 A |
| Fuse rating: | Class A |
| Application class: | Class II |

Module types:

Maximum system voltage:
Fuse rating:
Application class:
Electrical protection class:

Module types:

Maximum system voltage:
Fuse rating:
Application class:
Electrical protection class:

Module types:

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## PV Modules with 210 mm Mono-crystalline Silicon 1/2-cut Solar Cells:

66 cells: JAM66S35-xxx/MR/1500V ( $x x x=650-670$, in steps of 5) 60 cells: JAM60S35-xxx/MR/1500V (xxx=590-610, in steps of 5) 66 cells: JAM66D35-xxx/MB (xxx=650-665, in steps of 5) 66 cells: JAM66D35-xxx/MB/1500V ( $x x x=650-665$, in steps of 5) 60 cells: JAM60D35-xxx/MB (xxx=590-605, in steps of 5 ) 60 cells: JAM60D35-xxx/MB/1500V ( $x x x=590-605$, in steps of 5 ) 1500 V

25A
Class A
Class II

PV Modules with 182mm Mono-crystalline Silicon 1/5-cut Solar Cells:
76 cells: JAM76S11-xxx/PR(B)/1500V ( $x$ xx $=395-415$, in steps of 5 ) 1500 V

25A
Class A
Class II

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

72 cells: JAP6(K)-72-xxx/4BB/1500V ( $x x x=310-330$, in steps of 5 )
72 cells: JAP72S01-xxx/SC/1500V ( $x x x=310-345$, in steps of 5 )
72 cells: JAP72S01-xxx/PR/1500V (xxx=330-345, in steps of 5)
72 cells: JAP72S09-xxx/SC/1500V ( $x x x=320-345$, in steps of 5 )

72 cells: JAP72S01-xxx/MS/1500V (xxx=325-340, in steps of 5)
72 cells: JAP72S02-xxx/SC/1500V ( $x x x=310-345$, in steps of 5 ) 72 cells: JAP72S02-xxx/PR/1500V ( $x x x=330-345$, 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 ( $x x x=255-290$, in steps of 5) 60 cells: JAP60S01-xxx/PR/1500V ( $x x x=275-285$, 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 ( $x x x=275-285$, in steps of 5 ) 72 cells: JAP6(DG)-72-xxx/4BB/1500V ( $x x x=305-325$, in steps of 5 ) 72 cells: JAP6(DG)-72-xxx/3BB/1500V ( $x x x=305-315$, in steps of 5 ) 72 cells: JAP6(DG)-72-xxx/4BB/RE/1500V ( $x x x=310-335$, in steps of 5 ) 72 cells: JAP6(K)(DG)-72-xxx/4BB/1500V ( $x x x=310-335$, in steps of 5 ) 72 cells: JAP72D00-xxx/SC ( $x x x=305-345$, in steps of 5) 72 cells: JAP72D00-xxx/SC/1500V ( $x x x=310-340$, in steps of 5) 72 cells: JAP72D00-xxx/PR ( $x x x=330-350$, in steps of 5 ) 72 cells: JAP72D00-xxx/PR/1500V (xxx=330-345, in steps of 5) 72 cells: JAP72D09-xxx/SC ( $x x x=325-345$, in steps of 5) 72 cells: JAP72D09-xxx/SC/1500V (xxx=330-345, in steps of 5) 60 cells: JAP6(DG)-60-xxx/4BB/1500V (xxx=250-275, in steps of 5) 60 cells: JAP6(DG)-60-xxx/3BB/1500V (xxx=245-265, in steps of 5) 60 cells: JAP6(DG)-60-xxx/4BB/RE/1500V ( $x x x=255-280$, in steps of 5 ) 60 cells: JAP6(K)(DG)-60-xxx/4BB/1500V (xxx=255-280, in steps of 5) 60 cells: JAP60D00-xxx/SC (xxx=255-290, in steps of 5) 60 cells: JAP60D00-xxx/SC/1500V (xxx=260-285, in steps of 5 ) 60 cells: JAP60D00-xxx/PR ( $x x x=275-290$, in steps of 5) 60 cells: JAP60D00-xxx/PR/1500V ( $x$ xx $=275-290$, in steps of 5 ) 60 cells: JAP60D09-xxx/SC (xxx=270-290, in steps of 5) 60 cells: JAP60D09-xxx/SC/1500V (xxx=275-290, in steps of 5 ) 1500 V

20A
Class A
Class II

Module types:

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

72 cells: JAP72S03-xxx/SC/1500V (xxx=320-345, in steps of 5)
72 cells: JAP72S03-xxx/PR/1500V ( $x x x=335-355$, in steps of 5 )

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72 cells: JAP72S10-xxx/SC/1500V (xxx=335-350, in steps of 5)
72 cells: JAP72S03-xxx/MS/1500V ( $x x x=320-345$, in steps of 5)
72 cells: JAP72S08-xxx/SC/1500V ( $x x x=320-345$, in steps of 5 )
72 cells: JAP72S08-xxx/PR/1500V ( $x x x=335-355$, in steps of 5 )
60 cells: JAP60S03-xxx/SC/1500V ( $x x x=270-290$, in steps of 5 )
60 cells: JAP60S03-xxx/PR/1500V (xxx=280-295, in steps of 5)
60 cells: JAP60S10-xxx/SC/1500V ( $x x x=275-290$, in steps of 5 )
60 cells: JAP60S03-xxx/MS/1500V ( $x x x=270-285$, in steps of 5)
60 cells: JAP60S08-xxx/SC/1500V (xxx=270-290, in steps of 5 )
60 cells: JAP60S08-xxx/PR/1500V ( $x x x=280-295$, in steps of 5)
1500 V
20A
Class A
Class II

Module types:

Maximum system voltage:
Fuse rating:
Application class:
Electrical protection class:
PV Modules with Mono-crystalline Silicon Solar Cells (156mm to 158.75 mm ):

72 cells: JAM72S01-xxx/SC ( $x x x=320-365$, in steps of 5 )
72 cells: JAM72S02-xxx/SC ( $x x x=320-365$, in steps of 5 )
72 cells: JAM72S02-xxx/PR ( $x x x=345-390$, in steps of 5 )
72 cells: JAM72S01-xxx/MR ( $x x x=365-385$, in steps of 5 )
72 cells: JAM72S02-xxx/MR ( $x x x=365-385$, in steps of 5 )
72 cells: JAM72S09-xxx/PR ( $x x x=370-405$, in steps of 5 )
72 cells: JAM72S12-xxx/PR ( $x x x=365-385$, in steps of 5 )
72 cells: JAM72S09-xxx/BP ( $x x x=375-385$, in steps of 5)
60 cells: JAM60S01-xxx/SC ( $x x x=265-305$, in steps of 5)
60 cells: JAM60S02-xxx/SC (xxx=265-305, in steps of 5)
60 cells: JAM60S01-xxx/PR ( $x x x=285-325$, in steps of 5)
60 cells: JAM60S02-xxx/PR ( $x x x=285-325$, in steps of 5)
60 cells: JAM60S01-xxx/MR ( $x x x=305-320$, in steps of 5 )
60 cells: JAM60S02-xxx/MR ( $x x x=305-320$, in steps of 5 )
60 cells: JAM60S09-xxx/PR ( $x x x=310-335$, in steps of 5 )
60 cells: JAM60S12-xxx/PR ( $x x x=305-330$, in steps of 5 )
60 cells: JAM60S09-xxx/BP ( $x x x=315-320$, in steps of 5 )
1000 V or 1500 V
20A
Class A
Class II


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| Aktenzeichen: / File reference: PVP05094/23P-03 |  |
| :---: | :---: |
| Module types: | PV Modules with Mono-crystalline Silicon half-cut Solar Cells ( 156 mm to 158.75 mm ): |
|  | 72 cells: JAM72S03-xxx/PR (xxx=360-395, in steps of 5) |
|  | 72 cells: JAM72S10-xxx/PR (xxx=380-410, insteps of 5) |
|  | 72 cells: JAM72S17-xxx/PR ( $\mathrm{xxx}=380-390$, 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 ( $x x x=385-400$, in steps of 5) |
|  | 72 cells: JAM72S10-xxx/MB ( $x x x=395-415$, in steps of 5) |
|  | 72 cells: JAM72S08-xxx/PR ( $x x x=360-395$, in steps of 5) |
|  | 60 cells: JAM60S03-xxx/PR ( $x x x=300-330$, in steps of 5) |
|  | 60 cells: JAM60S08-xxx/PR ( $x x x=300-330$, in steps of 5) |
|  | 60 cells: JAM60S10-xxx/PR ( $x x x=315-345$, in steps of 5) |
|  | 60 cells: JAM60S10-xxx/MR ( $\mathrm{xxx}=325-355$, in steps of 5) |
|  | 60 cells: JAM60S10-xxx/BP ( $x$ xx=320-330, in steps of 5) |
|  | 60 cells: JAM60S10-xxx/MB ( $x$ xx $=330-345$, in steps of 5) |
|  | 60 cells: JAM60S17-xxx/PR ( $x x x=315-325$, in steps of 5) |
|  | 60 cells: JAM60S17-xxx/MR ( $x x x=315-355$, in steps of 5) |
|  | 78 cells: JAM78S10-xxx/MR ( $\mathrm{xxx}=435-465$, 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: | 1000 V or 1500 V |
| Fuse rating: | 20A |
| Application class: | Class A |
| Electrical protection class: | Class II |
| Module types: | PV Modules with Mono-crystalline Silicon half-cut Solar Cells ( 166 mm to 168 mm ): |
|  | 72 cells: JAM72S20-xxx/MR ( $x$ xx=430-470, in steps of 5) |
|  | 72 cells: JAM72S20-xxx/MB ( $x x x=450-465$, in steps of 5) |
|  | 60 cells: JAM60S20-xxx/MR ( $x$ xx $=355-390$, in steps of 5) |
|  | 60 cells: JAM60S21-xxx/MR ( $x x x=355-390$, in steps of 5) |
|  | 60 cells: JAM60S20-xxx/MB (xxx=375-390, in steps of 5) |
| Maximum system voltage: | 1000 V or 1500 V |
| Fuse rating: | 20A |
| Application class: | Class A |

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## Electrical protection class:

Module types:

Class II

PV Modules with 182mm Mono-crystalline Silicon half-cut Solar Cells:
78 cells: JAM78S30-xxx/MR ( $x x x=580-605$, in steps of 5)
72 cells: JAM72S30-xxx/MR ( $x x x=510-560$, in steps of 5 )
66 cells: JAM66S30-xxx/MR (xxx=470-510, in steps of 5)
60 cells: JAM60S30-xxx/MR (xxx=435-460, in steps of 5 )
54 cells: JAM54S30-xxx/MR ( $x x x=390-425$, in steps of 5 )
78 cells: JAM78S30-xxx/GR ( $x x x=575-610$, in steps of 5 )
72 cells: JAM72S30-xxx/GR ( $x x x=510-560$, in steps of 5 )
66 cells: JAM66S30-xxx/GR ( $x x x=500-510$, in steps of 5 )
60 cells: JAM60S30-xxx/GR (xxx=445-470, in steps of 5)
54 cells: JAM54S30-xxx/GR ( $x x x=400-420$, in steps of 5 )
72 cells: JAM72S31-xxx/MR ( $x x x=510-545$, in steps of 5 )
66 cells: JAM66S31-xxx/MR ( $x x x=470-500$, in steps of 5 )
60 cells: JAM60S31-xxx/MR ( $x x x=425-450$, in steps of 5 )
54 cells: JAM54S31-xxx/MR ( $x x x=385-415$, in steps of 5 )
78 cells: JAM78S31-xxx/GR ( $x x x=575-590$, in steps of 5 )
72 cells: JAM72S31-xxx/GR ( $x x x=525-545$, in steps of 5 )
66 cells: JAM66S31-xxx/GR ( $x x x=480-500$, in steps of 5 )
60 cells: JAM60S31-xxx/GR ( $x x x=435-450$, in steps of 5 )
54 cells: JAM54S31-xxx/GR ( $x x x=395-415$, in steps of 5 )
72 cells: JAM72S40-xxx/GR ( $x x x=540-575$, in steps of 5 )
66 cells: JAM66S40-xxx/GR ( $x x x=495-525$, in steps of 5 )
60 cells: JAM60S40-xxx/GR ( $x x x=450-480$, in steps of 5 )
54 cells: JAM54S40-xxx/GR ( $x x x=405-430$, in steps of 5 )
72 cells: JAM72S41-xxx/GR ( $x x x=540-570$, in steps of 5 )
66 cells: JAM66S41-xxx/GR (xxx=495-525, in steps of 5 )
60 cells: JAM60S41-xxx/GR (xxx=450-475, in steps of 5 )
54 cells: JAM54S41-xxx/GR ( $x x x=405-430$, in steps of 5 )
72 cells: JAM72S30-xxx/LR ( $x x x=555-580$, in steps of 5)
54 cells: JAM54S30-xxx/LR ( $x x x=415-435$, in steps of 5 )
54 cells: JAM54S31-xxx/LR (xxx=415-425, in steps of 5)
72 cells: JAM72S30-xxx/MB ( $x x x=535-550$, in steps of 5 )
72 cells: JAM72S31-xxx/MB ( $x x x=525-540$, in steps of 5 )
54 cells: JAM54S30-xxx/MB ( $x x x=385-410$, in steps of 5 )
54 cells: JAM54S31-xxx/MB ( $x x x=385-405$, in steps of 5)
54 cells: JAM54S30-xxx/LB ( $x x x=410-425$, in steps of 5 )
54 cells: JAM54S31-xxx/LB ( $x x x=410-415$, in steps of 5 )

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


| Module types: | PV Modules with $\mathbf{2 1 0} \mathrm{mm}$ Mono-crystalline Silicon $1 / 3$-cut Solar Cells: <br> 50 cells: JAM50S40-xxx/MR (xxx=490-500, in steps of 5) <br> 66 cells: JAM66S35-xxx/MR ( $x x x=650-670$, in steps of 5 ) <br> 60 cells: JAM60S35-xxx/MR (xxx=590-610, in steps of 5) |
| :---: | :---: |
| Maximum system voltage: | 1000 V or 1500 V |
| 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: <br> 68 cells: JAM68S11-xxx/PR (xxx=355-365, in steps of 5) <br> 68 cells: JAM68S11-xxx/PR(B) ( $x x x=345-365$, in steps of 5) <br> 76 cells: JAM76S11-xxx/PR(B) ( $x x x=395-415$, in steps of 5 ) |
| Maximum system voltage: | 1000 V or 1500 V |
| Fuse rating: | 25A |
| Application class: | Class A |
| Electrical protection class: | Class II |

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

72 cells: JAP72S01-xxx/SC ( $x x x=310-345$, in steps of 5 )
72 cells: JAP72S02-xxx/SC ( $x x x=310-345$, in steps of 5 )
72 cells: JAP72S01-xxx/PR ( $x x x=330-345$, in steps of 5 )
72 cells: JAP72S02-xxx/PR ( $x x x=330-345$, in steps of 5 )
72 cells: JAP72S09-xxx/SC ( $x x x=320-345$, in steps of 5 )
72 cells: JAP72S01-xxx/MS (xxx=325-340, in steps of 5)
60 cells: JAP60S01-xxx/SC ( $x x x=255-290$, in steps of 5 )
60 cells: JAP60S02-xxx/SC ( $x x x=255-290$, in steps of 5)
60 cells: JAP60S01-xxx/PR ( $x x x=275-285$, in steps of 5 )
60 cells: JAP60S02-xxx/PR ( $x x x=275-285$, in steps of 5)

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|  | 60 cells: JAP60S09-xxx/SC (xxx=265-290, in steps of 5) |
| :---: | :---: |
|  | 60 cells: JAP60S01-xxx/MS ( $x x x=270-280$, in steps of 5) |
|  | 54 cells: JAP54S01-xxx/SC (xxx=245-255, in steps of 5) |
| Maximum system voltage: | 1000 V or 1500 V |
| Fuse rating: | 20A |
| Application class: | Class A |
| Electrical protection class: | Class II |
| Module types: | PV Modules with Poly-crystalline Silicon half-cut Solar Cells ( 156 mm to 158.75 mm ): |
|  | 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 ( $\mathrm{xxx}=335-350$, in steps of 5 ) |
|  | 72 cells: JAP72S03-xxx/MS (xxx=320-345, in steps of 5) |
|  | 72 cells: JAP72S08-xxx/SC ( $x x x=320-345$, in steps of 5) |
|  | 72 cells: JAP72S08-xxx/PR ( $x x x=335-355$, in steps of 5) |
|  | 60 cells: JAP60S03-xxx/PR ( $x x x=280-295$, 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: | 1000 V or 1500 V |
| 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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Consumer Products

## CERTIFICATE

No．Z2 0720920295 Rev． 63

Holder of Certificate：Shanghai JA Solar Technology Co．，Ltd．
No．118，Lane 3111
West Huancheng Road
Fengxian District
201401 Shanghai
PEOPLE＇S REPUBLIC OF CHINA

## Certification Mark：



Product：
Crystalline Silicon Terrestrial Photovoltaic（PV）Modules Mono－Crystalline Silicon Photovoltaic Module

The product was tested on a voluntary basis and complies with the essential requirements．The
certification mark shown above can be affixed on the product．It is not permitted to alter the
cetrification mark in any way．In addition，the certification holder must not transfer the certificate to
third parties．This certificate is valid until the listed date，unless it is cancelled earlier．All applicable
requirements of the testing and certification regulations of TÜV SÜD Group have to be complied．For
details see：www．tuvsud．com／ps－cert
Test report no．：$\quad 704061604115-78$

Valid until：
2028－07－30

Date，2023－08－01

（ Zhulin Zhang ）

1500 V DC Maximum System Voltage，Double Glass Modules： JAM72D00－xxx／BP／1500V，JAM72D00－xxx／BP，xxx＝ 330 to 385 in steps of 5； JAM60D00－xxx／BP／1500V，JAM60D00－xxx／BP，$x x x=275$ to 320 in steps of 5； JAM60D00－xxx／PR／1500V，JAM60D00－xxx／PR，xxx＝ 285 to 320 in steps of 5； JAM72D00－xxx／PR／1500V，JAM72D00－xxx／PR，xxx＝ 340 to 385 in steps of 5； JAM60D00－xxx／MB／1500V，JAM60D00－xxx／MB，$x x x=310$ to 315 in steps of 5； JAM72D00－xxx／MB／1500V，JAM72D00－xxx／MB，$x x x=370$ to 380 in steps of 5 JAM72D09－xxx／BP／1500V，JAM72D09－xxx／BP，$x x x=360$ to 400 in steps of 5； JAM60D09－xxx／BP／1500V，JAM60D09－xxx／BP，$x x x=300$ to 340 in steps of 5； JAM72D10－xxx／MB／1500V，JAM72D10－xxx／MB，xxx＝ 385 to 430 in steps of 5； JAM60D10－xxx／MB／1500V，JAM60D10－xxx／MB，$x x x=320$ to 355 in steps of 5； JAM72D10－xxx／BP／1500V，JAM72D10－xxx／BP，xxx＝ 385 to 415 in steps of 5； JAM60D10－xxx／BP／1500V，JAM60D10－xxx／BP，$x x x=320$ to 345 in steps of 5； JAM66D10－xxx／MB／1500V，JAM66D10－xxx／MB，$x x x=360$ to 380 in steps of 5； JAM78D10－xxx／MB／1500V，JAM78D10－xxx／MB，xxx＝ 435 to 455 in steps of 5； JAM72D20－xxx／MB／1500V，JAM72D20－xxx／MB，xxx＝ 430 to 465 in steps of 5； JAM60D20－xxx／MB／1500V，JAM60D20－xxx／MB，$x x x=355$ to 385 in steps of 5； JAM72D10－xxx／TB／1500V，JAM72D10－xxx／TB，$x x x=400$ to 420 in steps of 5； JAM60D10－xxx／TB／1500V，JAM60D10－xxx／TB，$x x x=335$ to 350 in steps of 5； JAM78D30－xxx／MB／1500V，JAM78D30－xxx／MB，xxx＝ 580 to 605 in steps of 5； JAM72D30－xxx／MB／1500V，JAM72D30－xxx／MB，$x x x=505$ to 555 in steps of 5； JAM72D30－xxx／MB／F／1500V，JAM72D30－xxx／MB／F，
xxx＝505 to 555 in steps of 5；
JAM66D30－xxx／MB／1500V，JAM66D30－xxx／MB，$x x x=465$ to 505 in steps of 5； JAM66D30－xxx／MB／F／1500V，JAM66D30－xxx／MB／F，
xxx＝465 to 505 in steps of 5 ；
JAM60D30－xxx／MB／1500V，JAM60D30－xxx／MB，$x x x=435$ to 460 in steps of 5； JAM54D30－xxx／MB／1500V，JAM54D30－xxx／MB，$x x x=390$ to 415 in steps of 5； JAM54D31－xxx／MB／1500V，JAM54D31－xxx／MB，$x x x=395$ to 400 in steps of 5； JAM50D40－xxx／MB／1500V，JAM50D40－xxx／MB，$x x x=485$ to 500 in steps of 5； JAM78D30－xxx／GB／1500V，JAM78D30－xxx／GB，$x x x=585$ to 610 in steps of 5； JAM72D30－xxx／GB／1500V，JAM72D30－xxx／GB，xxx＝ 540 to 560 in steps of 5； JAM66D30－xxx／GB／1500V，JAM66D30－xxx／GB，xxx＝ 495 to 510 in steps of 5； JAM60D30－xxx／GB／1500V，JAM60D30－xxx／GB，$x x x=450$ to 470 in steps of 5； JAM54D30－xxx／GB／1500V，JAM54D30－xxx／GB，$x x x=405$ to 420 in steps of 5； JAM54D31－xxx／GB／1500V，JAM54D31－xxx／GB，xxx＝ 410 to 420 in steps of 5； JAM72D30－xxx／HB／1500V，JAM72D30－xxx／HB，$x x x=530$ to 560 in steps of 5； JAM78D40－xxx／MB／1500V，JAM78D40－xxx／MB，xxx＝ 580 to 630 in steps of 5； JAM72D40－xxx／MB／1500V，JAM72D40－xxx／MB，$x x x=540$ to 585 in steps of 5； JAM66D40－xxx／MB／1500V，JAM66D40－xxx／MB，xxx＝ 500 to 535 in steps of 5； JAM60D40－xxx／MB／1500V，JAM60D40－xxx／MB，xxx＝ 455 to 485 in steps of 5； JAM54D40－xxx／MB／1500V，JAM54D40－xxx／MB，$x x x=405$ to 440 in steps of 5 JAM78D40－xxx／GB／1500V，JAM78D40－xxx／GB，xxx＝ 580 to 635 in steps of 5； JAM72D40－xxx／GB／1500V，JAM72D40－xxx／GB，xxx＝ 540 to 585 in steps of 5； JAM66D40－xxx／GB／1500V，JAM66D40－xxx／GB，xxx＝ 500 to 535 in steps of 5； JAM60D40－xxx／GB／1500V，JAM60D40－xxx／GB，xxx＝ 455 to 485 in steps of 5； JAM54D40－xxx／GB／1500V，JAM54D40－xxx／GB，xxx＝ 405 to 440 in steps of 5； JAM54D41－xxx／GB／1500V，JAM54D41－xxx／GB，$x x x=415$ to 435 in steps of 5； JAM66D35－xxx／MB／1500V，JAM66D35－xxx／MB，xxx＝ 650 to 665 in steps of 5； JAM60D35－xxx／MB／1500V，JAM60D35－xxx／MB，xxx＝ 590 to 605 in steps of 5； JAM72D30－xxx／TB／1500V，JAM72D30－xxx／TB，xxx＝ 540 to 580 in steps of 5； JAM72D40－xxx／LB／1500V，JAM72D40－xxx／LB，$x x x=575$ to 600 in steps of 5 ； JAM54D40－xxx／LB／1500V，JAM54D40－xxx／LB，xxx＝ 420 to 450 in steps of 5； JAM54D41－xxx／LB／1500V，JAM54D41－xxx／LB，$x x x=420$ to 440 in steps of 5； JAM72D42－xxx／LB／1500V，JAM72D42－xxx／LB，$x x x=605$ to 630 in steps of 5； JAM54D42－xxx／LB／1500V，JAM54D42－xxx／LB，$x x x=455$ to 470 in steps of 5； JAM72D30－xxx／LB／1500V，JAM72D30－xxx／LB，$x x x=555$ to 575 in steps of 5； JAM54D30－xxx／LB／1500V，JAM54D30－xxx／LB，$x x x=420$ to 430 in steps of 5； JAM66D45－xxx／LB／1500V，JAM66D45－xxx／LB，xxx＝ 585 to 605 in steps of 5 ；

1000 V DC Maximum System Voltage，Single Glass Modules：
JAM6（K）－72－xxx／PR，xxx＝ 345 to 370 in steps of 5；
JAM6（K）－60－xxx／PR，xxx＝ 285 to 310 in steps of 5；
JAM6（K）－72－xxx／4BB，$x x x=320$ to 345 in steps of 5；
JAM6（K）－60－xxx／4BB，xxx＝ 265 to 285 in steps of 5；
JAM72S01－xxx／SC／1000V，xxx＝ 320 to 365 in steps of 5；
JAM60S01－xxx／SC／1000V，xxx＝ 265 to 305 in steps of 5；
JAM72S01－xxx／PR／1000V，xxx＝ 345 to 390 in steps of 5；
JAM60S01－xxx／PR／1000V，xxx＝ 285 to 325 in steps of 5；
JAM72S01－xxx／MR／1000V，xxx＝ 365 to 385 in steps of 5 ；
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#### Abstract

JAM60S01-xxx/MR/1000V, $x x x=305$ to 320 in steps of 5; JAM72S03-xxx/PR/1000V, xxx= 360 to 395 in steps of 5; JAM60S03-xxx/PR/1000V, $x x x=300$ to 330 in steps of 5; JAM72S09-xxx/PR/1000V, xxx= 370 to 405 in steps of 5; JAM60S09-xxx/PR/1000V, xxx= 310 to 335 in steps of 5; JAM72S10-xxx/PR/1000V, $x x x=380$ to 410 in steps of 5; JAM60S10-xxx/PR/1000V, $x x x=315$ to 345 in steps of 5; JAM72S10-xxx/MR/1000V, xxx= 390 to 430 in steps of 5; JAM60S10-xxx/MR/1000V, xxx= 325 to 355 in steps of 5 ; JAM60S10-xxx/MR-L/1000V, xxx= 325 to 355 in steps of 5; JAM78S10-xxx/MR/1000V, xxx= 435 to 465 in steps of 5; JAM66S10-xxx/MR/1000V, xxx= 345 to 390 in steps of 5; JAM72S09-xxx/BP/1000V, $x x x=375$ to 385 in steps of 5; JAM60S09-xxx/BP/1000V, $x x x=315$ to 320 in steps of 5; JAM72S10-xxx/BP/1000V, xxx= 385 to 400 in steps of 5; JAM60S10-xxx/BP/1000V, $x x x=320$ to 330 in steps of 5. JAM72S02-xxx/PR/1000V, $x x x=345$ to 390 in steps of 5 ; JAM60S02-xxx/PR/1000V, $x x x=285$ to 325 in steps of 5; JAM72S02-xxx/SC/1000V, xxx= 320 to 365 in steps of 5; JAM60S02-xxx/SC/1000V, xxx= 265 to 305 in steps of 5; JAM72S02-xxx/MR/1000V, xxx= 365 to 385 in steps of 5; JAM60S02-xxx/MR/1000V, xxx= 305 to 320 in steps of 5; JAM72S08-xxx/PR/1000V, $x x x=360$ to 395 in steps of 5; JAM60S08-xxx/PR/1000V, $x x x=300$ to 330 in steps of 5; JAM72S12-xxx/PR/1000V, xxx= 365 to 385 in steps of 5; JAM60S12-xxx/PR/1000V, $x x x=305$ to 330 in steps of 5; JAM72S17-xxx/PR/1000V, $x x x=380$ to 390 in steps of 5 ; JAM60S17-xxx/PR/1000V, $x x x=315$ to 325 in steps of 5; JAM72S17-xxx/MR/1000V, xxx= 390 to 430 in steps of 5; JAM60S17-xxx/MR/1000V, $x x x=315$ to 355 in steps of 5 ; JAM72S10-xxx/MB/1000V, xxx= 395 to 415 in steps of 5 ; JAM60S10-xxx/MB/1000V, $x x x=330$ to 345 in steps of 5 ; JAM72S20-xxx/MR/1000V, xxx= 430 to 470 in steps of 5; JAM60S20-xxx/MR/1000V, xxx= 355 to 390 in steps of 5; JAM78S30-xxx/MR/1000V, xxx= 580 to 605 in steps of 5 ; JAM72S30-xxx/MR/1000V, xxx=510 to 555 in steps of 5; JAM66S30-xxx/MR/1000V, $x x x=470$ to 505 in steps of 5; JAM60S30-xxx/MR/1000V, xxx=435 to 460 in steps of 5; JAM54S30-xxx/MR/1000V, $x x x=390$ to 425 in steps of 5; JAM60S21-xxx/MR/1000V, xxx= 355 to 390 in steps of 5; JAM50S40-xxx/MR/1000V, xxx= 490 to 500 in steps of 5; JAM72S20-xxx/MB/1000V, xxx= 450 to 465 in steps of 5; JAM60S20-xxx/MB/1000V, xxx= 375 to 390 in steps of 5; JAM72S31-xxx/MR/1000V, xxx= 510 to 545 in steps of 5 ; JAM66S31-xxx/MR/1000V, xxx= 470 to 500 in steps of 5; JAM60S31-xxx/MR/1000V, xxx= 425 to 450 in steps of 5 ; JAM54S31-xxx/MR/1000V, $x x x=385$ to 405 in steps of 5 ; JAM76S11-xxx/PR(B)/1000V, xxx= 395 to 415 in steps of 5; JAM78S30-xxx/GR/1000V, xxx= 575 to 610 in steps of 5 ; JAM72S30-xxx/GR/1000V, xxx= 535 to 560 in steps of 5 ; JAM66S30-xxx/GR/1000V, xxx= 500 to 510 in steps of 5; JAM60S30-xxx/GR/1000V, $x x x=445$ to 470 in steps of 5; JAM54S30-xxx/GR/1000V, xxx= 400 to 420 in steps of 5; JAM78S31-xxx/GR/1000V, xxx= 570 to 590 in steps of 5; JAM72S31-xxx/GR/1000V, xxx= 525 to 545 in steps of 5; JAM66S31-xxx/GR/1000V, xxx= 480 to 500 in steps of 5; JAM60S31-xxx/GR/1000V, $x x x=430$ to 450 in steps of 5; JAM54S31-xxx/GR/1000V, $x x x=395$ to 415 in steps of 5; JAM72S17-xxx/GR/1000V, xxx= 385 to 400 in steps of 5; JAM72S40-xxx/GR/1000V, xxx= 540 to 575 in steps of 5 ; JAM66S40-xxx/GR/1000V, xxx= 495 to 525 in steps of 5; JAM60S40-xxx/GR/1000V, $x x x=450$ to 480 in steps of 5; JAM54S40-xxx/GR/1000V, xxx= 405 to 430 in steps of 5; JAM72S41-xxx/GR/1000V, xxx= 540 to 570 in steps of 5; JAM66S41-xxx/GR/1000V, xxx= 495 to 525 in steps of 5; JAM60S41-xxx/GR/1000V, xxx= 450 to 475 in steps of 5; JAM54S41-xxx/GR/1000V, xxx= 405 to 430 in steps of 5; JAM66S35-xxx/MR/1000V, xxx= 650 to 670 in steps of 5; JAM60S35-xxx/MR/1000V, $x x x=590$ to 610 in steps of 5 ; JAM72S30-xxx/LR/1000V, xxx= 555 to 580 in steps of 5;


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JAM54S30-xxx/LR/1000V, xxx= 415 to 435 in steps of 5 JAM54S31-xxx/LR/1000V, $x x x=415$ to 420 in steps of 5;
1000 V DC or 1500 V DC Maximum System Voltage, Single Glass Modules:
JAM72S01-xxx/SC, $x x x=320$ to 365 in steps of 5; JAM60S01-xxx/SC, xxx= 265 to 305 in steps of 5; JAM60S01-xxx/PR, xxx= 285 to 325 in steps of 5; JAM72S01-xxx/MR, xxx= 365 to 385 in steps of 5; JAM60S01-xxx/MR, $x x x=305$ to 320 in steps of 5; JAM72S03-xxx/PR, $x x x=360$ to 395 in steps of 5; JAM60S03-xxx/PR, xxx= 300 to 330 in steps of 5; JAM72S09-xxx/PR, $x x x=370$ to 405 in steps of 5; JAM60S09-xxx/PR, $x x x=310$ to 335 in steps of 5; JAM72S10-xxx/PR, $x x x=380$ to 410 in steps of 5; JAM60S10-xxx/PR, $x x x=315$ to 345 in steps of 5; JAM72S10-xxx/MR, $x x x=390$ to 430 in steps of 5 ; JAM60S10-xxx/MR, xxx= 325 to 355 in steps of 5; JAM60S10-xxx/MR-L, xxx= 325 to 355 in steps of 5; JAM78S10-xxx/MR, xxx= 435 to 465 in steps of 5; JAM66S10-xxx/MR, $x x x=345$ to 390 in steps of 5; JAM72S09-xxx/BP, $x x x=375$ to 385 in steps of 5; JAM60S09-xxx/BP, $x x x=315$ to 320 in steps of 5; JAM72S10-xxx/BP, $x x x=385$ to 400 in steps of 5; JAM60S10-xxx/BP, xxx= 320 to 330 in steps of 5; JAM72S02-xxx/PR, $x x x=345$ to 390 in steps of 5; JAM60S02-xxx/PR, xxx= 285 to 325 in steps of 5; JAM72S02-xxx/SC, $x x x=320$ to 365 in steps of 5; JAM60S02-xxx/SC, xxx= 265 to 305 in steps of 5; JAM72S02-xxx/MR, xxx= 365 to 385 in steps of 5; JAM60S02-xxx/MR, $x x x=305$ to 320 in steps of 5; JAM72S08-xxx/PR, $x x x=360$ to 395 in steps of 5; JAM60S08-xxx/PR, $x x x=300$ to 330 in steps of 5; JAM72S12-xxx/PR, xxx= 365 to 385 in steps of 5; JAM60S12-xxx/PR, $x x x=305$ to 330 in steps of 5; JAM72S17-xxx/PR, $x x x=380$ to 390 in steps of 5; JAM60S17-xxx/PR, $x x x=315$ to 325 in steps of 5; JAM72S17-xxx/MR, xxx= 390 to 430 in steps of 5; JAM60S17-xxx/MR, $x x x=315$ to 355 in steps of 5; JAM72S10-xxx/MB, $x x x=395$ to 415 in steps of 5; JAM60S10-xxx/MB, $x x x=330$ to 345 in steps of 5; JAM72S20-xxx/MR, $x x x=430$ to 470 in steps of 5; JAM60S20-xxx/MR, xxx= 355 to 390 in steps of 5; JAM78S10-xxx/MR-J, xxx= 435 to 465 in steps of 5 ; JAM78S30-xxx/MR, xxx= 580 to 605 in steps of 5; JAM72S30-xxx/MR, $x x x=510$ to 555 in steps of 5; JAM66S30-xxx/MR, $x x x=470$ to 505 in steps of 5 ; JAM60S30-xxx/MR, $x x x=435$ to 460 in steps of 5 ; JAM54S30-xxx/MR, $x x x=390$ to 425 in steps of 5; JAM60S21-xxx/MR, $x x x=355$ to 390 in steps of 5; JAM50S40-xxx/MR, $x x x=490$ to 500 in steps of 5; JAM72S20-xxx/MB, $x x x=450$ to 465 in steps of 5; JAM60S20-xxx/MB, xxx= 375 to 390 in steps of 5; JAM68S11-xxx/PR, $x x x=355$ to 365 in steps of 5; JAM68S11-xxx/PR(B), xxx= 345 to 365 in steps of 5; JAM72S31-xxx/MR, xxx= 510 to 545 in steps of 5; JAM66S31-xxx/MR, $x x x=470$ to 500 in steps of 5; JAM60S31-xxx/MR, xxx= 425 to 450 in steps of 5; JAM54S31-xxx/MR, xxx= 385 to 405 in steps of 5; JAM76S11-xxx/PR(B), xxx= 395 to 415 in steps of 5; JAM78S30-xxx/GR, xxx= 575 to 610 in steps of 5 ; JAM72S30-xxx/GR, xxx= 535 to 560 in steps of 5; JAM66S30-xxx/GR, xxx= 500 to 510 in steps of 5; JAM60S30-xxx/GR, xxx= 445 to 470 in steps of 5; JAM54S30-xxx/GR, xxx= 400 to 420 in steps of 5; JAM78S31-xxx/GR, xxx= 570 to 590 in steps of 5; JAM72S31-xxx/GR, xxx= 525 to 545 in steps of 5; JAM66S31-xxx/GR, xxx= 480 to 500 in steps of 5; JAM60S31-xxx/GR, xxx= 435 to 450 in steps of 5; JAM54S31-xxx/GR, xxx= 395 to 415 in steps of 5;

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JAM72S17-xxx/GR, $x x x=385$ to 400 in steps of 5; JAM72S40-xxx/GR, xxx= 540 to 575 in steps of 5; JAM66S40-xxx/GR, xxx= 495 to 525 in steps of 5; JAM60S40-xxx/GR, xxx= 450 to 480 in steps of 5; JAM54S40-xxx/GR, xxx= 405 to 430 in steps of 5; JAM72S41-xxx/GR, xxx= 540 to 570 in steps of 5; JAM66S41-xxx/GR, $x x x=495$ to 525 in steps of 5; JAM60S41-xxx/GR, xxx= 450 to 475 in steps of 5; JAM54S41-xxx/GR, xxx= 405 to 430 in steps of 5; JAM66S35-xxx/MR, $x x x=650$ to 670 in steps of 5 ; JAM60S35-xxx/MR, $x x x=590$ to 610 in steps of 5; JAM72S30-xxx/LR, $x x x=555$ to 580 in steps of 5; JAM54S30-xxx/LR, xxx= 415 to 435 in steps of 5; JAM54S31-xxx/LR, $x x x=415$ to 420 in steps of 5;


1500 V DC Maximum System Voltage, Single Glass Modules: JAM6(K)-72-xxx/PR/1500V, $x x x=345$ to 370 in steps of 5; JAM6(K)-60-xxx/PR/1500V, $x x x=285$ to 310 in steps of 5; JAM6(K)-72-xxx/4BB/1500V, $x x x=320$ to 345 in steps of 5; JAM6(K)-60-xxx/4BB/1500V, xxx= 265 to 285 in steps of 5; JAM72S01-xxx/SC/1500V, xxx= 320 to 365 in steps of 5; JAM60S01-xxx/SC/1500V, xxx= 265 to 305 in steps of 5; JAM72S01-xxx/PR, xxx= 345 to 390 in steps of 5; JAM60S01-xxx/PR/1500V, xxx= 285 to 325 in steps of 5; JAM72S01-xxx/MR/1500V, xxx= 365 to 385 in steps of 5; JAM60S01-xxx/MR/1500V, xxx= 305 to 320 in steps of 5; JAM72S03-xxx/PR/1500V, $x x x=360$ to 395 in steps of 5; JAM60S03-xxx/PR/1500V, $x x x=300$ to 330 in steps of 5; JAM72S09-xxx/PR/1500V, $x x x=370$ to 405 in steps of 5; JAM60S09-xxx/PR/1500V, $x x x=310$ to 335 in steps of 5; JAM72S10-xxx/PR/1500V, xxx= 380 to 410 in steps of 5; JAM60S10-xxx/PR/1500V, xxx= 315 to 345 in steps of 5; JAM72S10-xxx/MR/1500V, xxx= 390 to 430 in steps of 5; JAM60S10-xxx/MR/1500V, xxx= 325 to 355 in steps of 5 ; JAM60S10-xxx/MR-L/1500V, xxx= 325 to 355 in steps of 5; JAM78S10-xxx/MR/1500V, xxx= 435 to 465 in steps of 5; JAM66S10-xxx/MR/1500V, xxx= 345 to 390 in steps of 5 ; JAM72S09-xxx/BP/1500V, $x x x=375$ to 385 in steps of 5; JAM60S09-xxx/BP/1500V, $x x x=315$ to 320 in steps of 5; JAM72S10-xxx/BP/1500V, xxx= 385 to 400 in steps of 5; JAM60S10-xxx/BP/1500V, xxx= 320 to 330 in steps of 5; JAM72S02-xxx/PR/1500V, xxx= 345 to 390 in steps of 5; JAM60S02-xxx/PR/1500V, xxx= 285 to 325 in steps of 5; JAM72S02-xxx/SC/1500V, xxx= 320 to 365 in steps of 5; JAM60S02-xxx/SC/1500V, xxx= 265 to 305 in steps of 5; JAM72S02-xxx/MR/1500V, xxx= 365 to 385 in steps of 5; JAM60S02-xxx/MR/1500V, xxx= 305 to 320 in steps of 5 ; JAM72S08-xxx/PR/1500V, xxx= 360 to 395 in steps of 5; JAM60S08-xxx/PR/1500V, $x x x=300$ to 330 in steps of 5; JAM72S12-xxx/PR/1500V, xxx= 365 to 385 in steps of 5; JAM60S12-xxx/PR/1500V, xxx= 305 to 330 in steps of 5; JAM72S17-xxx/PR/1500V, $x x x=380$ to 390 in steps of 5; JAM60S17-xxx/PR/1500V, $x x x=315$ to 325 in steps of 5; JAM72S17-xxx/MR/1500V, xxx= 390 to 430 in steps of 5; JAM60S17-xxx/MR/1500V, xxx= 315 to 355 in steps of 5; JAM72S10-xxx/MB/1500V, xxx= 395 to 415 in steps of 5; JAM60S10-xxx/MB/1500V, xxx= 330 to 345 in steps of 5; JAM72S20-xxx/MR/1500V, xxx= 430 to 470 in steps of 5; JAM60S20-xxx/MR/1500V, xxx= 355 to 390 in steps of 5 ; JAM78S30-xxx/MR/1500V, xxx= 580 to 605 in steps of 5; JAM72S30-xxx/MR/1500V, $x x x=510$ to 555 in steps of 5; JAM66S30-xxx/MR/1500V, xxx=470 to 505 in steps of 5; JAM60S30-xxx/MR/1500V, $x x x=435$ to 460 in steps of 5; JAM54S30-xxx/MR/1500V, xxx= 390 to 425 in steps of 5; JAM60S21-xxx/MR/1500V, xxx= 355 to 390 in steps of 5; JAM50S40-xxx/MR/1500V, xxx= 490 to 500 in steps of 5; JAM72S20-xxx/MB/1500V, xxx= 450 to 465 in steps of 5; JAM60S20-xxx/MB/1500V, xxx= 375 to 390 in steps of 5; JAM72S31-xxx/MR/1500V, xxx= 510 to 545 in steps of 5 ; JAM66S31-xxx/MR/1500V, xxx= 470 to 500 in steps of 5;

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#### Abstract

JAM60S31-xxx/MR/1500V, xxx= 425 to 450 in steps of 5; JAM54S31-xxx/MR/1500V, xxx= 385 to 405 in steps of 5; JAM76S11-xxx/PR(B)/1500V, xxx= 395 to 415 in steps of 5; JAM78S30-xxx/GR/1500V, xxx= 575 to 610 in steps of 5; JAM72S30-xxx/GR/1500V, xxx= 535 to 560 in steps of 5; JAM66S30-xxx/GR/1500V, xxx= 500 to 510 in steps of 5; JAM60S30-xxx/GR/1500V, xxx= 445 to 470 in steps of 5; JAM54S30-xxx/GR/1500V, xxx= 400 to 420 in steps of 5; JAM78S31-xxx/GR/1500V, $x x x=570$ to 590 in steps of 5; JAM72S31-xxx/GR/1500V, xxx= 525 to 545 in steps of 5; JAM66S31-xxx/GR/1500V, xxx= 480 to 500 in steps of 5; JAM60S31-xxx/GR/1500V, $x x x=435$ to 450 in steps of 5; JAM54S31-xxx/GR/1500V, xxx= 395 to 415 in steps of 5; JAM72S17-xxx/GR/1500V, $x x x=385$ to 400 in steps of 5; JAM72S40-xxx/GR/1500V, xxx= 540 to 575 in steps of 5; JAM66S40-xxx/GR/1500V, xxx= 495 to 525 in steps of 5; JAM60S40-xxx/GR/1500V, $x x x=450$ to 480 in steps of 5 ; JAM54S40-xxx/GR/1500V, xxx= 405 to 430 in steps of 5; JAM72S41-xxx/GR/1500V, xxx= 540 to 570 in steps of 5; JAM66S41-xxx/GR/1500V, xxx= 495 to 525 in steps of 5; JAM60S41-xxx/GR/1500V, xxx= 450 to 475 in steps of 5; JAM54S41-xxx/GR/1500V, $x x x=405$ to 430 in steps of 5; JAM66S35-xxx/MR/1500V, xxx= 650 to 670 in steps of 5; JAM60S35-xxx/MR/1500V, $x x x=590$ to 610 in steps of 5; JAM72S30-xxx/LR/1500V, xxx= 555 to 580 in steps of 5; JAM54S30-xxx/LR/1500V, $x x x=415$ to 435 in steps of 5 ; JAM54S31-xxx/LR/1500V, $x x x=415$ to 420 in steps of 5; xxx is standing for rated output power at STC


Parameters:

Tested according to:

Construction:
Test Laboratory:

Safety Class:
Maximum System Voltage:
Fire Safety Class:
Production Facility(ies):

Framed or Frameless, with Junction box, Cable and Connectors. Yangzhou Opto-Electrical Products Testing Institute No. 10 West Kaifa Road, Yangzhou 225009 Jiangsu, P. R. China Class II
1500 V DC or 1000 V DC
Class C according to UL790. 079395, 095903, 090968, 108746, 072092, 109998, 112017, 113943, 114922, 001783, 004170, 113691, 117043, 119123, 120210, 117684, 114994, 120736, 115500, 120016, 108093, 121678.

## CERTIFICATE

No．Z2 0720920300 Rev． 23

Holder of Certificate：Shanghai JA Solar Technology Co．，Ltd．
No．118，Lane 3111
West Huancheng Road
Fengxian District
201401 Shanghai
PEOPLE＇S REPUBLIC OF CHINA

## Certification Mark：

Product：


Crystalline Silicon Terrestrial Photovoltaic（PV）Modules Mono－Crystalline Silicon Photovoltaic Module

The product was tested on a voluntary basis and complies with the essential requirements．The certification mark shown above can be affixed on the product．It is not permitted to alter the certification mark in any way．In addition，the certification holder must not transfer the certificate to third parties．This certificate is valid until the listed date，unless it is cancelled earlier．All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied．For details see：www．tuvsud．com／ps－cert

Test report no．：704061900211－23
Valid until：
2028－04－28

Date，2023－06－02

（ Zhulin Zhang ）

## CERTIFICATE

No．Z2 0720920300 Rev． 23

Model（s）：
Maximum System Voltage： 1000 V DC
JAM6（K）－72－xxx／PR，$x x x=345$ to 370 in steps of 5 JAM6（K）－60－xxx／PR，xxx＝285 to 310 in steps of 5 JAM6（K）－72－xxx／4BB，$x x x=320$ to 345 in steps of 5 JAM6（K）－60－xxx／4BB，xxx＝265 to 285 in steps of 5 JAM72S01－xxx／SC／1000V，xxx＝320 to 365 in steps of 5 JAM60S01－xxx／SC／1000V，$x x x=265$ to 305 in steps of 5 JAM72S01－xxx／PR／1000V，$x x x=345$ to 390 in steps of 5 JAM60S01－xxx／PR／1000V，$x x x=285$ to 325 in steps of 5 JAM72S03－xxx／PR／1000V，$x x x=360$ to 395 in steps of 5 JAM60S03－xxx／PR／1000V，$x x x=300$ to 330 in steps of 5 JAM72S09－xxx／PR／1000V，$x x x=370$ to 405 in steps of 5 JAM60S09－xxx／PR／1000V，$x x x=310$ to 335 in steps of 5 JAM72S09－xxx／BP／1000V，$x x x=375$ to 385 in steps of 5 JAM60S09－xxx／BP／1000V，$x x x=315$ to 320 in steps of 5 JAM72S10－xxx／PR／1000V，$x x x=380$ to 410 in steps of 5 JAM60S10－xxx／PR／1000V，$x x x=315$ to 345 in steps of 5 JAM72S10－xxx／BP／1000V，$x x x=385$ to 400 in steps of 5 JAM60S10－xxx／BP／1000V，$x x x=320$ to 330 in steps of 5 JAM72S10－xxx／MR／1000V，xxx＝390 to 430 in steps of 5 JAM60S10－xxx／MR／1000V，xxx＝325 to 355 in steps of 5 JAM78S10－xxx／MR／1000V，$x x x=435$ to 465 in steps of 5 JAM66S10－xxx／MR／1000V，$x x x=345$ to 390 in steps of 5 JAM72S17－xxx／MR／1000V，$x x x=390$ to 430 in steps of 5 JAM60S17－xxx／MR／1000V，$x x x=315$ to 355 in steps of 5 JAM72S10－xxx／MB／1000V，$x x x=395$ to 415 in steps of 5 JAM60S10－xxx／MB／1000V，xxx＝330 to 345 in steps of 5 JAM72S20－xxx／MR／1000V，$x x x=430$ to 470 in steps of 5 JAM60S20－xxx／MR／1000V，$x x x=355$ to 390 in steps of 5 JAM72S30－xxx／MR／1000V，$x x x=510$ to 555 in steps of 5 JAM66S30－xxx／MR／1000V，xxx＝470 to 505 in steps of 5 JAM60S30－xxx／MR／1000V，$x x x=435$ to 460 in steps of 5 JAM60S21－xxx／MR／1000V，$x x x=355$ to 390 in steps of 5 JAM54S30－xxx／MR／1000V，xxx＝390 to 425 in steps of 5 JAM72S20－xxx／MB／1000V，xxx＝450 to 465 in steps of 5 JAM60S20－xxx／MB／1000V，$x x x=375$ to 390 in steps of 5 JAM76S11－xxxPR（B）／1000V，xxx＝395 to 415 in steps of 5 JAM78S30－xxx／GR／1000V，$x x x=575$ to 610 in steps of 5 JAM72S30－xxx／GR／1000V，xxx＝535 to 560 in steps of 5 JAM66S30－xxx／GR／1000V，$x x x=500$ to 510 in steps of 5 JAM60S30－xxx／GR／1000V，xxx＝445 to 465 in steps of 5 JAM54S30－xxx／GR／1000V，$x x x=400$ to 420 in steps of 5 JAM78S31－xxx／GR／1000V，$x x x=570$ to 590 in steps of 5 JAM72S31－xxx／GR／1000V，xxx＝525 to 545 in steps of 5 JAM66S31－xxx／GR／1000V，$x x x=480$ to 500 in steps of 5 JAM60S31－xxx／GR／1000V，xxx＝435 to 450 in steps of 5 JAM54S31－xxx／GR／1000V，$x x x=395$ to 415 in steps of 5 JAM72S31－xxx／MR／1000V，$x x x=510$ to 545 in steps of 5 JAM66S31－xxx／MR／1000V，xxx＝470 to 500 in steps of 5 JAM60S31－xxx／MR／1000V，$x x x=425$ to 450 in steps of 5 JAM54S31－xxx／MR／1000V，xxx＝385 to 405 in steps of 5 JAM78S30－xxx／MR／1000V，xxx＝580 to 605 in steps of 5 JAM72S17－xxx／GR／1000V，$x x x=385$ to 400 in steps of 5 JAM72S40－xxx／GR／1000V，$x x x=540$ to 575 in steps of 5 JAM66S40－xxx／GR／1000V，xxx＝495 to 525 in steps of 5 JAM60S40－xxx／GR／1000V，xxx＝450 to 480 in steps of 5 JAM54S40－xxx／GR／1000V，$x x x=405$ to 430 in steps of 5 JAM72S41－xxx／GR／1000V，xxx＝540 to 570 in steps of 5 JAM66S41－xxx／GR／1000V，xxx＝495 to 525 in steps of 5 JAM60S41－xxx／GR／1000V，$x x x=450$ to 475 in steps of 5 JAM54S41－xxx／GR／1000V，$x x x=405$ to 430 in steps of 5 JAM66S35－xxx／MR／1000V，$x x x=650$ to 670 in steps of 5

## CERTIFICATE

No. Z2 0720920300 Rev. 23
JAM60S35-xxx/MR/1000V, $x x x=590$ to 610 in steps of 5 JAM72S30-xxx/LR/1000V,xxx=555 to 580 in steps of 5 JAM54S30-XXX/LR/1000Vxxx=415 to435in steps of 5 JAM54S31-XXX/LR/1000V.xxx=415 to 420 in steps of 5


#### Abstract

Maximum System Voltage: 1500 V DC JAM72D00-xxx/BP/1500V, xxx=330 to 385 in steps of 5 JAM72D00-xxx/BP, xxx=330 to 385 in steps of 5 JAM60D00-xxx/BP/1500V, $x x x=275$ to 320 in steps of 5 JAM60D00-xxx/BP, $\mathbf{x x x}=275$ to 320 in steps of 5 JAM72D00-xxx/PR/1500V, $x x x=340$ to 385 in steps of 5 JAM72D00-xxx/PR, $x x x=340$ to 385 in steps of 5 JAM60D00-xxx/PR/1500V, xxx=285 to 320 in steps of 5 JAM60D00-xxx/PR, xxx=285 to 320 in steps of 5 JAM72D09-xxx/BP/1500V, $x x x=360$ to 400 in steps of 5 JAM72D09-xxx/BP, $x x x=360$ to 400 in steps of 5 JAM60D09-xxx/BP/1500V, xxx=300 to 340 in steps of 5 JAM60D09-xxx/BP, $x x x=300$ to 340 in steps of 5 JAM72D10-xxx/MB/1500V, $x x x=385$ to 430 in steps of 5 JAM72D10-xxx/MB, $x x x=385$ to 430 in steps of 5 JAM60D10-xxx/MB/1500V, $x x x=320$ to 355 in steps of 5 JAM60D10-xxx/MB, $x x x=320$ to 355 in steps of 5 JAM72D10-xxx/BP/1500V, $x x x=385$ to 415 in steps of 5 JAM72D10-xxx/BP, $x x x=385$ to 415 in steps of 5 JAM60D10-xxx/BP/1500V, xxx=320 to 345 in steps of 5 JAM60D10-xxx/BP, $x x x=320$ to 345 in steps of 5 JAM66D10-xxx/MB, $x x x=360$ to 380 in steps of 5 JAM66D10-xxx/MB/1500V, $x x x=360$ to 380 in steps of 5 JAM78D10-xxx/MB, $x x x=435$ to 455 in steps of 5 JAM78D10-xxx/MB/1500V, xxx=435 to 455 in steps of 5 JAM72D20-xxx/MB, $x x x=430$ to 465 in steps of 5 JAM72D20-xxx/MB/1500V, xxx=430 to 465 in steps of 5 JAM60D20-xxx/MB, $x x x=355$ to 385 in steps of 5 JAM60D20-xxx/MB/1500V, $x x x=355$ to 385 in steps of 5 JAM6(K)-72-xxx/PR/1500V, $x x x=345$ to 370 in steps of 5 JAM6(K)-60-xxx/PR/1500V, $x x x=285$ to 310 in steps of 5 JAM6(K)-72-xxx/4BB/1500V, $x x x=320$ to 345 in steps of 5 JAM6(K)-60-xxx/4BB/1500V, xxx=265 to 285 in steps of 5 JAM72S01-xxx/SC/1500V, $x x x=320$ to 365 in steps of 5 JAM60S01-xxx/SC/1500V, xxx=265 to 305 in steps of 5 JAM72S01-xxx/PR, xxx=345 to 390 in steps of 5 JAM60S01-xxx/PR/1500V, $x x x=285$ to 325 in steps of 5 JAM72S03-xxx/PR/1500V, $x x x=360$ to 395 in steps of 5 JAM60S03-xxx/PR/1500V, $x x x=300$ to 330 in steps of 5 JAM72S09-xxx/PR/1500V, $x x x=370$ to 405 in steps of 5 JAM60S09-xxx/PR/1500V, $x x x=310$ to 335 in steps of 5 JAM72S10-xxx/PR/1500V, $x x x=380$ to 410 in steps of 5 JAM60S10-xxx/PR/1500V, $x x x=315$ to 345 in steps of 5 JAM78S10-xxx/MR/1500V, $x x x=435$ to 465 in steps of 5 JAM66S10-xxx/MR/1500V, xxx=345 to 390 in steps of 5 JAM72S09-xxx/BP/1500V, $x x x=375$ to 385 in steps of 5 JAM60S09-xxx/BP/1500V, $x x x=315$ to 320 in steps of 5 JAM72S10-xxx/BP/1500V, $x x x=385$ to 400 in steps of 5 JAM60S10-xxx/BP/1500V, $x x x=320$ to 330 in steps of 5 JAM72S10-xxx/MB/1500V, $x x x=395$ to 415 in steps of 5 JAM60S10-xxx/MB/1500V, $x x x=330$ to 345 in steps of 5 JAM72S20-xxx/MR/1500V, $x x x=430$ to 470 in steps of 5 JAM60S20-xxx/MR/1500V, $x x x=355$ to 390 in steps of 5 JAM72S30-xxx/MR/1500V, $x x x=510$ to 555 in steps of 5 JAM66S30-xxx/MR/1500V, xxx=470 to 505 in steps of 5 JAM60S30-xxx/MR/1500V, $x x x=435$ to 460 in steps of 5


## CERTIFICATE

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JAM54S30-xxx/MR/1500V, $x x x=390$ to 425 in steps of 5 JAM60S21-xxx/MR/1500V, $x x x=355$ to 390 in steps of 5 JAM72D30-xxx/MB, $x x x=505$ to 555 in steps of 5 JAM72D30-xxx/MB/1500V, xxx=505 to 555 in steps of 5 JAM66D30-xxx/MB, xxx=465 to 505 in steps of 5 JAM66D30-xxx/MB/1500V, xxx=465 to 505 in steps of 5 JAM60D30-xxx/MB, $x x x=435$ to 460 in steps of 5 JAM60D30-xxx/MB/1500V, xxx=435 to 460 in steps of 5 JAM54D30-xxx/MB, xxx=390 to 415 in steps of 5 JAM54D30-xxx/MB/1500V, $x x x=390$ to 415 in steps of 5 JAM54D31-xxx/MB, $x x x=395$ to 400 in steps of 5 JAM54D31-xxx/MB/1500V, $x x x=395$ to 400 in steps of 5 JAM72S20-xxx/MB/1500V, xxx=450 to 465 in steps of 5 JAM60S20-xxx/MB/1500V, $x x x=375$ to 390 in steps of 5 JAM76S11-xxxPR(B)/1500V, $x x x=395$ to 415 in steps of 5 JAM78D30-xxx/GB, JAM78D30-xxx/GB/1500V, xxx=585 to 610 in steps of 5 JAM72D30-xxx/GB, JAM72D30-xxx/GB/1500V, xxx=540 to 560 in steps of 5 JAM66D30-xxx/GB, JAM66D30-xxx/GB/1500V, xxx=495 to 510 in steps of 5 JAM60D30-xxx/GB, JAM60D30-xxx/GB/1500V, $x x x=450$ to 465 in steps of 5 JAM54D30-xxx/GB, JAM54D30-xxx/GB/1500V, $x x x=405$ to 420 in steps of 5 JAM54D31-xxx/GB, JAM54D30-xxx/GB/1500V, $x x x=410$ to 420 in steps of 5
JAM78S30-xxx/GR/1500V, xxx=575 to 610 in steps of 5 JAM72S30-xxx/GR/1500V, $x x x=535$ to 560 in steps of 5 JAM66S30-xxx/GR/1500V, xxx=500 to 510 in steps of 5 JAM60S30-xxx/GR/1500V, xxx=445 to 465 in steps of 5 JAM54S30-xxx/GR/1500V, $x x x=400$ to 420 in steps of 5 JAM78S31-xxx/GR/1500V, $x x x=570$ to 590 in steps of 5 JAM72S31-xxx/GR/1500V, xxx=525 to 545 in steps of 5 JAM66S31-xxx/GR/1500V, xxx=480 to 500 in steps of 5 JAM60S31-xxx/GR/1500V, $x x x=435$ to 450 in steps of 5 JAM54S31-xxx/GR/1500V, xxx=395 to 415 in steps of 5 JAM72S10-xxx/MR/1500V, $x x x=390$ to 430 in steps of 5 JAM60S10-xxx/MR/1500V, $x x x=325$ to 355 in steps of 5 JAM72S17-xxx/MR/1500V, $x x x=390$ to 430 in steps of 5 JAM60S17-xxx/MR/1500V, $x x x=315$ to 355 in steps of 5 JAM72S31-xxx/MR/1500V, $x x x=510$ to 545 in steps of 5 JAM66S31-xxx/MR/1500V, $x x x=470$ to 500 in steps of 5 JAM60S31-xxx/MR/1500V, xxx=425 to 450 in steps of 5 JAM54S31-xxx/MR/1500V, $x x x=385$ to 405 in steps of 5 JAM78S30-xxx/MR/1500V, xxx=580 to 605 in steps of 5 JAM72S17-xxx/GR/1500V, $x x x=385$ to 400 in steps of 5 JAM78D30-xxx/MB, JAM78D30-xxx/MB/1500V, xxx=580 to 605 in steps of 5
JAM72D30-xxx/HB, JAM72D30-xxx/HB/1500V, xxx $=530$ to 560 in steps of 5
JAM78D40-xxx/MB, $x x x=580$ to 630 in steps of 5 JAM78D40-xxx/MB/1500V, xxx=580 to 630 in steps of 5 JAM72D40-xxx/MB, $x x x=540$ to 580 in steps of 5 JAM72D40-xxx/MB/1500V, xxx=540 to 580 in steps of 5 JAM66D40-xxx/MB, xxx=500 to 530 in steps of 5 JAM66D40-xxx/MB/1500V, xxx=500 to 530 in steps of 5 JAM60D40-xxx/MB, $x x x=455$ to 480 in steps of 5 JAM60D40-xxx/MB/1500V, $x x x=455$ to 480 in steps of 5 JAM54D40-xxx/MB, $x x x=405$ to 435 in steps of 5 JAM54D40-xxx/MB/1500V, $x x x=405$ to 435 in steps of 5 JAM78D40-xxx/GB, xxx=580 to 635 in steps of 5

## CERTIFICATE

No．Z2 0720920300 Rev． 23


#### Abstract

JAM78D40－xxx／GB／1500V，$x x x=580$ to 635 in steps of 5 JAM72D40－xxx／GB，xxx＝540 to 585 in steps of 5 JAM72D40－xxx／GB／1500V，$x x x=540$ to 585 in steps of 5 JAM66D40－xxx／GB，xxx＝ 500 to 535 in steps of 5 JAM66D40－xxx／GB／1500V，$x x x=500$ to 535 in steps of 5 JAM60D40－xxx／GB，xxx＝ 455 to 485 in steps of 5 JAM60D40－xxx／GB／1500V，xxx＝ 455 to 485 in steps of 5 JAM54D40－xxx／GB，xxx＝ 405 to 440 in steps of 5 JAM54D40－xxx／GB／1500V，xxx＝ 405 to 440 in steps of 5 JAM54D41－xxx／GB，$x x x=415$ to 435 in steps of 5 JAM54D41－xxx／GB／1500V，$x x x=415$ to 435 in steps of 5 JAM72S40－xxx／GR／1500V，$x x x=540$ to 575 in steps of 5 JAM66S40－xxx／GR／1500V，xxx＝495 to 525 in steps of 5 JAM60S40－xxx／GR／1500V，xxx＝450 to 480 in steps of 5 JAM54S40－xxx／GR／1500V，xxx＝405 to 430 in steps of 5 JAM72S41－xxx／GR／1500V，xxx＝540 to 570 in steps of 5 JAM66S41－xxx／GR／1500V，xxx＝495 to 525 in steps of 5 JAM60S41－xxx／GR／1500V，$x x x=450$ to 475 in steps of 5 JAM54S41－xxx／GR／1500V，xxx＝405 to 430 in steps of 5 JAM66D35－xxx／MB／1500V，JAM66D35－xxx／MB， xxx＝ 650 to 665 in steps of 5 ； JAM60D35－xxx／MB／1500V，JAM60D35－xxx／MB， xxx＝590 to 605 in steps of 5； JAM72D30－xxx／TB／1500V，JAM72D30－xxx／TB， xxx＝540 to 580 in steps of 5 ； JAM66S35－xxx／MR／1500V，$x x x=650$ to 670 in steps of 5； JAM60S35－xxx／MR／1500V，xxx＝ 590 to 610 in steps of 5 ； JAM72D40－xxx／LB，$x x x=575$ to 600 in steps of 5； JAM72D40－xxx／LB／1500V，xxx＝ 575 to 600 in steps of 5； JAM54D40－xxx／LB，$x x x=420$ to 450 in steps of 5； JAM54D40－xxx／LB／1500V，xxx＝ 420 to 450 in steps of 5 ； JAM54D41－xxx／LB，$x x x=420$ to 440 in steps of 5 ； JAM54D41－xxx／LB／1500V，$x x x=420$ to 440 in steps of 5； JAM72D42－xxx／LB，$x x x=605$ to 630 in steps of 5 JAM72D42－xxx／LB／1500V，$x x x=605$ to 630 in steps of 5 JAM72D30－xxx／LB，$x x x=555$ to 575 in steps of 5 JAM72D30－xxx／LB／1500V，xxx＝555 to 575 in steps of 5 JAM54D30－xxx／LB，$x x x=420$ to 430 in steps of 5 JAM54D30－xxx／LB／1500V，$x x x=420$ to 430 in steps of 5


Maximum System Voltage： 1000 or 1500 V DC JAM72S01－xxx／SC，$x x x=320$ to 365 in steps of 5 JAM60S01－xxx／SC，xxx＝265 to 305 in steps of 5 JAM60S01－xxx／PR，$x x x=285$ to 325 in steps of 5 JAM72S03－xxx／PR，$x x x=360$ to 395 in steps of 5 JAM60S03－xxx／PR，$x x x=300$ to 330 in steps of 5 JAM72S09－xxx／PR，$x x x=370$ to 405 in steps of 5 JAM60S09－xxx／PR，$x x x=310$ to 335 in steps of 5 JAM72S10－xxx／PR，$x x x=380$ to 410 in steps of 5 JAM60S10－xxx／PR，$x x x=315$ to 345 in steps of 5 JAM72S10－xxx／MR，$x x x=390$ to 430 in steps of 5 JAM60S10－xxx／MR，xxx＝325 to 355 in steps of 5 JAM78S10－xxx／MR，xxx＝435 to 465 in steps of 5 JAM66S10－xxx／MR，$x x x=345$ to 390 in steps of 5 JAM72S09－xxx／BP，$x x x=375$ to 385 in steps of 5 JAM60S09－xxx／BP，$x x x=315$ to 320 in steps of 5 JAM72S10－xxx／BP，$x x x=385$ to 400 in steps of 5 JAM60S10－xxx／BP，$x x x=320$ to 330 in steps of 5 JAM72S10－xxx／MB，$x x x=395$ to 415 in steps of 5 JAM60S10－xxx／MB，$x x x=330$ to 345 in steps of 5

## CERTIFICATE

No. Z2 0720920300 Rev. 23


#### Abstract

JAM72S20-xxx/MR, $x x x=430$ to 470 in steps of 5 JAM60S20-xxx/MR, xxx=355 to 390 in steps of 5 JAM78S10-xxx/MR-J, xxx=435 to 465 in steps of 5 JAM72S30-xxx/MR, xxx=510 to 555 in steps of 5 JAM66S30-xxx/MR, $x x x=470$ to 505 in steps of 5 JAM60S30-xxx/MR, xxx=435 to 460 in steps of 5 JAM60S21-xxx/MR, $x x x=355$ to 390 in steps of 5 JAM54S30-xxx/MR, $x x x=390$ to 425 in steps of 5 JAM68S11-xxx/PR(B), xxx=345 to 365 in steps of 5 JAM72S20-xxx/MB, xxx=450 to 465 in steps of 5 JAM60S20-xxx/MB, $x x x=375$ to 390 in steps of 5 JAM76S11-xxxPR(B), $x x x=395$ to 415 in steps of 5 JAM78S30-xxx/GR, xxx=575 to 610 in steps of 5 JAM72S30-xxx/GR, xxx=535 to 560 in steps of 5 JAM66S30-xxx/GR, xxx=500 to 510 in steps of 5 JAM60S30-xxx/GR, xxx=445 to 465 in steps of 5 JAM54S30-xxx/GR, xxx=400 to 420 in steps of 5 JAM78S31-xxx/GR, xxx=570 to 590 in steps of 5 JAM72S31-xxx/GR, xxx=525 to 545 in steps of 5 JAM66S31-xxx/GR, xxx=480 to 500 in steps of 5 JAM60S31-xxx/GR, xxx=435 to 450 in steps of 5 JAM54S31-xxx/GR, xxx=395 to 415 in steps of 5 JAM72S31-xxx/MR, $x x x=510$ to 545 in steps of 5 JAM66S31-xxx/MR, $x x x=470$ to 500 in steps of 5 JAM60S31-xxx/MR, xxx=425 to 450 in steps of 5 JAM54S31-xxx/MR, $x x x=385$ to 405 in steps of 5 JAM72S17-xxx/MR, xxx=390 to 430 in steps of 5 JAM60S17-xxx/MR, xxx=315 to 355 in steps of 5 JAM78S30-xxx/MR, $x x x=580$ to 605 in steps of 5 JAM72S17-xxx/GR, xxx=385 to 400 in steps of 5 JAM72S40-xxx/GR, xxx=540 to 575 in steps of 5 JAM66S40-xxx/GR, xxx=495 to 525 in steps of 5 JAM60S40-xxx/GR, xxx=450 to 480 in steps of 5 JAM54S40-xxx/GR, xxx=405 to 430 in steps of 5 JAM72S41-xxx/GR, xxx=540 to 570 in steps of 5 JAM66S41-xxx/GR, xxx=495 to 525 in steps of 5 JAM60S41-xxx/GR, xxx=450 to 475 in steps of 5 JAM54S41-xxx/GR, xxx=405 to 430 in steps of 5 JAM66S35-xxx/MR, xxx= 650 to 670 in steps of 5 JAM60S35-xxx/MR, $x x x=590$ to 610 in steps of 5 JAM72S30-xxx/LR, $x x x=555$ to 580 in steps of 5 JAM54S30-XXX/LR, $x x x=415$ to435in steps of 5 JAM54S31-XXX/LR, $x x x=415$ to 420 in steps of 5 xxx is standing for rated output power at STC


## CERTIFICATE

No．Z2 0720920300 Rev． 23

Parameters：

| Construction： | Framed or Frameless， with Junction box， cable and Connectors． |
| :---: | :---: |
| Fire Safety Class： | Class C or Class A according to UL790． |
| Safety Class： | Class II |
| Maximum System Voltage： | 1000 V DC or 1500V DC |
| PID Test Condition： | $\pm 1000$ V DC， $96 \mathrm{~h}, 60^{\circ} \mathrm{C}$ ， <br> $85 \%$ RH or $96 \mathrm{~h}, 85^{\circ} \mathrm{C}, 85 \% \mathrm{RH}$ |
| PID testing method accordin | g to IEC TS 62804－1：2015 |
| Production Facility（ies）： | 072092，079395，117043，095903，108746， 109998，112017，113943，114922， 001783 004170，113691，090968，119123，120210， 117684，114994，120736，115500，120016， 108093 |

## Tested according to：

IEC 61215－1（ed．1）
IEC 61215－1－1（ed．1）
IEC 61215－2（ed．1）
IEC 61730－1（ed．2）
IEC 61730－2（ed．2）
PPP 58042B：2015

## CERTIFICATE

No．Z2 0720920300 Rev． 23

Holder of Certificate：Shanghai JA Solar Technology Co．，Ltd．
No．118，Lane 3111
West Huancheng Road
Fengxian District
201401 Shanghai
PEOPLE＇S REPUBLIC OF CHINA

## Certification Mark：

Product：


Crystalline Silicon Terrestrial Photovoltaic（PV）Modules Mono－Crystalline Silicon Photovoltaic Module

The product was tested on a voluntary basis and complies with the essential requirements．The certification mark shown above can be affixed on the product．It is not permitted to alter the certification mark in any way．In addition，the certification holder must not transfer the certificate to third parties．This certificate is valid until the listed date，unless it is cancelled earlier．All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied．For details see：www．tuvsud．com／ps－cert

Test report no．：704061900211－23
Valid until：
2028－04－28

Date，2023－06－02

（ Zhulin Zhang ）

## CERTIFICATE

No．Z2 0720920300 Rev． 23

Model（s）：
Maximum System Voltage： 1000 V DC
JAM6（K）－72－xxx／PR，$x x x=345$ to 370 in steps of 5 JAM6（K）－60－xxx／PR，xxx＝285 to 310 in steps of 5 JAM6（K）－72－xxx／4BB，$x x x=320$ to 345 in steps of 5 JAM6（K）－60－xxx／4BB，xxx＝265 to 285 in steps of 5 JAM72S01－xxx／SC／1000V，xxx＝320 to 365 in steps of 5 JAM60S01－xxx／SC／1000V，$x x x=265$ to 305 in steps of 5 JAM72S01－xxx／PR／1000V，$x x x=345$ to 390 in steps of 5 JAM60S01－xxx／PR／1000V，$x x x=285$ to 325 in steps of 5 JAM72S03－xxx／PR／1000V，$x x x=360$ to 395 in steps of 5 JAM60S03－xxx／PR／1000V，$x x x=300$ to 330 in steps of 5 JAM72S09－xxx／PR／1000V，$x x x=370$ to 405 in steps of 5 JAM60S09－xxx／PR／1000V，$x x x=310$ to 335 in steps of 5 JAM72S09－xxx／BP／1000V，$x x x=375$ to 385 in steps of 5 JAM60S09－xxx／BP／1000V，$x x x=315$ to 320 in steps of 5 JAM72S10－xxx／PR／1000V，$x x x=380$ to 410 in steps of 5 JAM60S10－xxx／PR／1000V，$x x x=315$ to 345 in steps of 5 JAM72S10－xxx／BP／1000V，$x x x=385$ to 400 in steps of 5 JAM60S10－xxx／BP／1000V，$x x x=320$ to 330 in steps of 5 JAM72S10－xxx／MR／1000V，xxx＝390 to 430 in steps of 5 JAM60S10－xxx／MR／1000V，xxx＝325 to 355 in steps of 5 JAM78S10－xxx／MR／1000V，$x x x=435$ to 465 in steps of 5 JAM66S10－xxx／MR／1000V，$x x x=345$ to 390 in steps of 5 JAM72S17－xxx／MR／1000V，$x x x=390$ to 430 in steps of 5 JAM60S17－xxx／MR／1000V，$x x x=315$ to 355 in steps of 5 JAM72S10－xxx／MB／1000V，$x x x=395$ to 415 in steps of 5 JAM60S10－xxx／MB／1000V，xxx＝330 to 345 in steps of 5 JAM72S20－xxx／MR／1000V，$x x x=430$ to 470 in steps of 5 JAM60S20－xxx／MR／1000V，$x x x=355$ to 390 in steps of 5 JAM72S30－xxx／MR／1000V，$x x x=510$ to 555 in steps of 5 JAM66S30－xxx／MR／1000V，xxx＝470 to 505 in steps of 5 JAM60S30－xxx／MR／1000V，$x x x=435$ to 460 in steps of 5 JAM60S21－xxx／MR／1000V，$x x x=355$ to 390 in steps of 5 JAM54S30－xxx／MR／1000V，xxx＝390 to 425 in steps of 5 JAM72S20－xxx／MB／1000V，xxx＝450 to 465 in steps of 5 JAM60S20－xxx／MB／1000V，$x x x=375$ to 390 in steps of 5 JAM76S11－xxxPR（B）／1000V，xxx＝395 to 415 in steps of 5 JAM78S30－xxx／GR／1000V，$x x x=575$ to 610 in steps of 5 JAM72S30－xxx／GR／1000V，xxx＝535 to 560 in steps of 5 JAM66S30－xxx／GR／1000V，$x x x=500$ to 510 in steps of 5 JAM60S30－xxx／GR／1000V，xxx＝445 to 465 in steps of 5 JAM54S30－xxx／GR／1000V，$x x x=400$ to 420 in steps of 5 JAM78S31－xxx／GR／1000V，$x x x=570$ to 590 in steps of 5 JAM72S31－xxx／GR／1000V，xxx＝525 to 545 in steps of 5 JAM66S31－xxx／GR／1000V，$x x x=480$ to 500 in steps of 5 JAM60S31－xxx／GR／1000V，xxx＝435 to 450 in steps of 5 JAM54S31－xxx／GR／1000V，$x x x=395$ to 415 in steps of 5 JAM72S31－xxx／MR／1000V，$x x x=510$ to 545 in steps of 5 JAM66S31－xxx／MR／1000V，xxx＝470 to 500 in steps of 5 JAM60S31－xxx／MR／1000V，$x x x=425$ to 450 in steps of 5 JAM54S31－xxx／MR／1000V，xxx＝385 to 405 in steps of 5 JAM78S30－xxx／MR／1000V，xxx＝580 to 605 in steps of 5 JAM72S17－xxx／GR／1000V，$x x x=385$ to 400 in steps of 5 JAM72S40－xxx／GR／1000V，$x x x=540$ to 575 in steps of 5 JAM66S40－xxx／GR／1000V，xxx＝495 to 525 in steps of 5 JAM60S40－xxx／GR／1000V，xxx＝450 to 480 in steps of 5 JAM54S40－xxx／GR／1000V，$x x x=405$ to 430 in steps of 5 JAM72S41－xxx／GR／1000V，xxx＝540 to 570 in steps of 5 JAM66S41－xxx／GR／1000V，xxx＝495 to 525 in steps of 5 JAM60S41－xxx／GR／1000V，$x x x=450$ to 475 in steps of 5 JAM54S41－xxx／GR／1000V，$x x x=405$ to 430 in steps of 5 JAM66S35－xxx／MR／1000V，$x x x=650$ to 670 in steps of 5

## CERTIFICATE

No. Z2 0720920300 Rev. 23
JAM60S35-xxx/MR/1000V, $x x x=590$ to 610 in steps of 5 JAM72S30-xxx/LR/1000V,xxx=555 to 580 in steps of 5 JAM54S30-XXX/LR/1000Vxxx=415 to435in steps of 5 JAM54S31-XXX/LR/1000V.xxx=415 to 420 in steps of 5


#### Abstract

Maximum System Voltage: 1500 V DC JAM72D00-xxx/BP/1500V, xxx=330 to 385 in steps of 5 JAM72D00-xxx/BP, xxx=330 to 385 in steps of 5 JAM60D00-xxx/BP/1500V, $x x x=275$ to 320 in steps of 5 JAM60D00-xxx/BP, $\mathbf{x x x}=275$ to 320 in steps of 5 JAM72D00-xxx/PR/1500V, $x x x=340$ to 385 in steps of 5 JAM72D00-xxx/PR, $x x x=340$ to 385 in steps of 5 JAM60D00-xxx/PR/1500V, xxx=285 to 320 in steps of 5 JAM60D00-xxx/PR, xxx=285 to 320 in steps of 5 JAM72D09-xxx/BP/1500V, $x x x=360$ to 400 in steps of 5 JAM72D09-xxx/BP, $x x x=360$ to 400 in steps of 5 JAM60D09-xxx/BP/1500V, xxx=300 to 340 in steps of 5 JAM60D09-xxx/BP, $x x x=300$ to 340 in steps of 5 JAM72D10-xxx/MB/1500V, $x x x=385$ to 430 in steps of 5 JAM72D10-xxx/MB, $x x x=385$ to 430 in steps of 5 JAM60D10-xxx/MB/1500V, $x x x=320$ to 355 in steps of 5 JAM60D10-xxx/MB, $x x x=320$ to 355 in steps of 5 JAM72D10-xxx/BP/1500V, $x x x=385$ to 415 in steps of 5 JAM72D10-xxx/BP, $x x x=385$ to 415 in steps of 5 JAM60D10-xxx/BP/1500V, xxx=320 to 345 in steps of 5 JAM60D10-xxx/BP, $x x x=320$ to 345 in steps of 5 JAM66D10-xxx/MB, $x x x=360$ to 380 in steps of 5 JAM66D10-xxx/MB/1500V, $x x x=360$ to 380 in steps of 5 JAM78D10-xxx/MB, $x x x=435$ to 455 in steps of 5 JAM78D10-xxx/MB/1500V, xxx=435 to 455 in steps of 5 JAM72D20-xxx/MB, $x x x=430$ to 465 in steps of 5 JAM72D20-xxx/MB/1500V, xxx=430 to 465 in steps of 5 JAM60D20-xxx/MB, $x x x=355$ to 385 in steps of 5 JAM60D20-xxx/MB/1500V, $x x x=355$ to 385 in steps of 5 JAM6(K)-72-xxx/PR/1500V, $x x x=345$ to 370 in steps of 5 JAM6(K)-60-xxx/PR/1500V, $x x x=285$ to 310 in steps of 5 JAM6(K)-72-xxx/4BB/1500V, $x x x=320$ to 345 in steps of 5 JAM6(K)-60-xxx/4BB/1500V, xxx=265 to 285 in steps of 5 JAM72S01-xxx/SC/1500V, $x x x=320$ to 365 in steps of 5 JAM60S01-xxx/SC/1500V, xxx=265 to 305 in steps of 5 JAM72S01-xxx/PR, xxx=345 to 390 in steps of 5 JAM60S01-xxx/PR/1500V, $x x x=285$ to 325 in steps of 5 JAM72S03-xxx/PR/1500V, $x x x=360$ to 395 in steps of 5 JAM60S03-xxx/PR/1500V, $x x x=300$ to 330 in steps of 5 JAM72S09-xxx/PR/1500V, $x x x=370$ to 405 in steps of 5 JAM60S09-xxx/PR/1500V, $x x x=310$ to 335 in steps of 5 JAM72S10-xxx/PR/1500V, $x x x=380$ to 410 in steps of 5 JAM60S10-xxx/PR/1500V, $x x x=315$ to 345 in steps of 5 JAM78S10-xxx/MR/1500V, $x x x=435$ to 465 in steps of 5 JAM66S10-xxx/MR/1500V, xxx=345 to 390 in steps of 5 JAM72S09-xxx/BP/1500V, $x x x=375$ to 385 in steps of 5 JAM60S09-xxx/BP/1500V, $x x x=315$ to 320 in steps of 5 JAM72S10-xxx/BP/1500V, $x x x=385$ to 400 in steps of 5 JAM60S10-xxx/BP/1500V, $x x x=320$ to 330 in steps of 5 JAM72S10-xxx/MB/1500V, $x x x=395$ to 415 in steps of 5 JAM60S10-xxx/MB/1500V, $x x x=330$ to 345 in steps of 5 JAM72S20-xxx/MR/1500V, $x x x=430$ to 470 in steps of 5 JAM60S20-xxx/MR/1500V, $x x x=355$ to 390 in steps of 5 JAM72S30-xxx/MR/1500V, $x x x=510$ to 555 in steps of 5 JAM66S30-xxx/MR/1500V, xxx=470 to 505 in steps of 5 JAM60S30-xxx/MR/1500V, $x x x=435$ to 460 in steps of 5


## CERTIFICATE

No. Z2 0720920300 Rev. 23
JAM54S30-xxx/MR/1500V, $x x x=390$ to 425 in steps of 5 JAM60S21-xxx/MR/1500V, $x x x=355$ to 390 in steps of 5 JAM72D30-xxx/MB, $x x x=505$ to 555 in steps of 5 JAM72D30-xxx/MB/1500V, xxx=505 to 555 in steps of 5 JAM66D30-xxx/MB, xxx=465 to 505 in steps of 5 JAM66D30-xxx/MB/1500V, xxx=465 to 505 in steps of 5 JAM60D30-xxx/MB, $x x x=435$ to 460 in steps of 5 JAM60D30-xxx/MB/1500V, xxx=435 to 460 in steps of 5 JAM54D30-xxx/MB, xxx=390 to 415 in steps of 5 JAM54D30-xxx/MB/1500V, $x x x=390$ to 415 in steps of 5 JAM54D31-xxx/MB, $x x x=395$ to 400 in steps of 5 JAM54D31-xxx/MB/1500V, $x x x=395$ to 400 in steps of 5 JAM72S20-xxx/MB/1500V, xxx=450 to 465 in steps of 5 JAM60S20-xxx/MB/1500V, $x x x=375$ to 390 in steps of 5 JAM76S11-xxxPR(B)/1500V, $x x x=395$ to 415 in steps of 5 JAM78D30-xxx/GB, JAM78D30-xxx/GB/1500V, xxx=585 to 610 in steps of 5 JAM72D30-xxx/GB, JAM72D30-xxx/GB/1500V, xxx=540 to 560 in steps of 5 JAM66D30-xxx/GB, JAM66D30-xxx/GB/1500V, xxx=495 to 510 in steps of 5 JAM60D30-xxx/GB, JAM60D30-xxx/GB/1500V, $x x x=450$ to 465 in steps of 5 JAM54D30-xxx/GB, JAM54D30-xxx/GB/1500V, $x x x=405$ to 420 in steps of 5 JAM54D31-xxx/GB, JAM54D30-xxx/GB/1500V, $x x x=410$ to 420 in steps of 5
JAM78S30-xxx/GR/1500V, xxx=575 to 610 in steps of 5 JAM72S30-xxx/GR/1500V, $x x x=535$ to 560 in steps of 5 JAM66S30-xxx/GR/1500V, xxx=500 to 510 in steps of 5 JAM60S30-xxx/GR/1500V, xxx=445 to 465 in steps of 5 JAM54S30-xxx/GR/1500V, $x x x=400$ to 420 in steps of 5 JAM78S31-xxx/GR/1500V, $x x x=570$ to 590 in steps of 5 JAM72S31-xxx/GR/1500V, xxx=525 to 545 in steps of 5 JAM66S31-xxx/GR/1500V, xxx=480 to 500 in steps of 5 JAM60S31-xxx/GR/1500V, $x x x=435$ to 450 in steps of 5 JAM54S31-xxx/GR/1500V, xxx=395 to 415 in steps of 5 JAM72S10-xxx/MR/1500V, $x x x=390$ to 430 in steps of 5 JAM60S10-xxx/MR/1500V, $x x x=325$ to 355 in steps of 5 JAM72S17-xxx/MR/1500V, $x x x=390$ to 430 in steps of 5 JAM60S17-xxx/MR/1500V, $x x x=315$ to 355 in steps of 5 JAM72S31-xxx/MR/1500V, $x x x=510$ to 545 in steps of 5 JAM66S31-xxx/MR/1500V, $x x x=470$ to 500 in steps of 5 JAM60S31-xxx/MR/1500V, xxx=425 to 450 in steps of 5 JAM54S31-xxx/MR/1500V, $x x x=385$ to 405 in steps of 5 JAM78S30-xxx/MR/1500V, xxx=580 to 605 in steps of 5 JAM72S17-xxx/GR/1500V, $x x x=385$ to 400 in steps of 5 JAM78D30-xxx/MB, JAM78D30-xxx/MB/1500V, xxx=580 to 605 in steps of 5
JAM72D30-xxx/HB, JAM72D30-xxx/HB/1500V, xxx $=530$ to 560 in steps of 5
JAM78D40-xxx/MB, $x x x=580$ to 630 in steps of 5 JAM78D40-xxx/MB/1500V, xxx=580 to 630 in steps of 5 JAM72D40-xxx/MB, $x x x=540$ to 580 in steps of 5 JAM72D40-xxx/MB/1500V, xxx=540 to 580 in steps of 5 JAM66D40-xxx/MB, xxx=500 to 530 in steps of 5 JAM66D40-xxx/MB/1500V, xxx=500 to 530 in steps of 5 JAM60D40-xxx/MB, $x x x=455$ to 480 in steps of 5 JAM60D40-xxx/MB/1500V, $x x x=455$ to 480 in steps of 5 JAM54D40-xxx/MB, $x x x=405$ to 435 in steps of 5 JAM54D40-xxx/MB/1500V, $x x x=405$ to 435 in steps of 5 JAM78D40-xxx/GB, xxx=580 to 635 in steps of 5

## CERTIFICATE

No．Z2 0720920300 Rev． 23


#### Abstract

JAM78D40－xxx／GB／1500V，$x x x=580$ to 635 in steps of 5 JAM72D40－xxx／GB，xxx＝540 to 585 in steps of 5 JAM72D40－xxx／GB／1500V，$x x x=540$ to 585 in steps of 5 JAM66D40－xxx／GB，xxx＝ 500 to 535 in steps of 5 JAM66D40－xxx／GB／1500V，$x x x=500$ to 535 in steps of 5 JAM60D40－xxx／GB，xxx＝ 455 to 485 in steps of 5 JAM60D40－xxx／GB／1500V，xxx＝ 455 to 485 in steps of 5 JAM54D40－xxx／GB，xxx＝ 405 to 440 in steps of 5 JAM54D40－xxx／GB／1500V，xxx＝ 405 to 440 in steps of 5 JAM54D41－xxx／GB，$x x x=415$ to 435 in steps of 5 JAM54D41－xxx／GB／1500V，$x x x=415$ to 435 in steps of 5 JAM72S40－xxx／GR／1500V，$x x x=540$ to 575 in steps of 5 JAM66S40－xxx／GR／1500V，xxx＝495 to 525 in steps of 5 JAM60S40－xxx／GR／1500V，xxx＝450 to 480 in steps of 5 JAM54S40－xxx／GR／1500V，xxx＝405 to 430 in steps of 5 JAM72S41－xxx／GR／1500V，xxx＝540 to 570 in steps of 5 JAM66S41－xxx／GR／1500V，xxx＝495 to 525 in steps of 5 JAM60S41－xxx／GR／1500V，$x x x=450$ to 475 in steps of 5 JAM54S41－xxx／GR／1500V，xxx＝405 to 430 in steps of 5 JAM66D35－xxx／MB／1500V，JAM66D35－xxx／MB， xxx＝ 650 to 665 in steps of 5 ； JAM60D35－xxx／MB／1500V，JAM60D35－xxx／MB， xxx＝590 to 605 in steps of 5； JAM72D30－xxx／TB／1500V，JAM72D30－xxx／TB， xxx＝540 to 580 in steps of 5 ； JAM66S35－xxx／MR／1500V，$x x x=650$ to 670 in steps of 5； JAM60S35－xxx／MR／1500V，xxx＝ 590 to 610 in steps of 5 ； JAM72D40－xxx／LB，$x x x=575$ to 600 in steps of 5； JAM72D40－xxx／LB／1500V，xxx＝ 575 to 600 in steps of 5； JAM54D40－xxx／LB，$x x x=420$ to 450 in steps of 5； JAM54D40－xxx／LB／1500V，xxx＝ 420 to 450 in steps of 5 ； JAM54D41－xxx／LB，$x x x=420$ to 440 in steps of 5 ； JAM54D41－xxx／LB／1500V，$x x x=420$ to 440 in steps of 5； JAM72D42－xxx／LB，$x x x=605$ to 630 in steps of 5 JAM72D42－xxx／LB／1500V，$x x x=605$ to 630 in steps of 5 JAM72D30－xxx／LB，$x x x=555$ to 575 in steps of 5 JAM72D30－xxx／LB／1500V，xxx＝555 to 575 in steps of 5 JAM54D30－xxx／LB，$x x x=420$ to 430 in steps of 5 JAM54D30－xxx／LB／1500V，$x x x=420$ to 430 in steps of 5


Maximum System Voltage： 1000 or 1500 V DC JAM72S01－xxx／SC，$x x x=320$ to 365 in steps of 5 JAM60S01－xxx／SC，xxx＝265 to 305 in steps of 5 JAM60S01－xxx／PR，$x x x=285$ to 325 in steps of 5 JAM72S03－xxx／PR，$x x x=360$ to 395 in steps of 5 JAM60S03－xxx／PR，$x x x=300$ to 330 in steps of 5 JAM72S09－xxx／PR，$x x x=370$ to 405 in steps of 5 JAM60S09－xxx／PR，$x x x=310$ to 335 in steps of 5 JAM72S10－xxx／PR，$x x x=380$ to 410 in steps of 5 JAM60S10－xxx／PR，$x x x=315$ to 345 in steps of 5 JAM72S10－xxx／MR，$x x x=390$ to 430 in steps of 5 JAM60S10－xxx／MR，xxx＝325 to 355 in steps of 5 JAM78S10－xxx／MR，xxx＝435 to 465 in steps of 5 JAM66S10－xxx／MR，$x x x=345$ to 390 in steps of 5 JAM72S09－xxx／BP，$x x x=375$ to 385 in steps of 5 JAM60S09－xxx／BP，$x x x=315$ to 320 in steps of 5 JAM72S10－xxx／BP，$x x x=385$ to 400 in steps of 5 JAM60S10－xxx／BP，$x x x=320$ to 330 in steps of 5 JAM72S10－xxx／MB，$x x x=395$ to 415 in steps of 5 JAM60S10－xxx／MB，$x x x=330$ to 345 in steps of 5

## CERTIFICATE

No. Z2 0720920300 Rev. 23


#### Abstract

JAM72S20-xxx/MR, $x x x=430$ to 470 in steps of 5 JAM60S20-xxx/MR, xxx=355 to 390 in steps of 5 JAM78S10-xxx/MR-J, xxx=435 to 465 in steps of 5 JAM72S30-xxx/MR, xxx=510 to 555 in steps of 5 JAM66S30-xxx/MR, $x x x=470$ to 505 in steps of 5 JAM60S30-xxx/MR, xxx=435 to 460 in steps of 5 JAM60S21-xxx/MR, $x x x=355$ to 390 in steps of 5 JAM54S30-xxx/MR, $x x x=390$ to 425 in steps of 5 JAM68S11-xxx/PR(B), xxx=345 to 365 in steps of 5 JAM72S20-xxx/MB, xxx=450 to 465 in steps of 5 JAM60S20-xxx/MB, $x x x=375$ to 390 in steps of 5 JAM76S11-xxxPR(B), $x x x=395$ to 415 in steps of 5 JAM78S30-xxx/GR, xxx=575 to 610 in steps of 5 JAM72S30-xxx/GR, xxx=535 to 560 in steps of 5 JAM66S30-xxx/GR, xxx=500 to 510 in steps of 5 JAM60S30-xxx/GR, xxx=445 to 465 in steps of 5 JAM54S30-xxx/GR, xxx=400 to 420 in steps of 5 JAM78S31-xxx/GR, xxx=570 to 590 in steps of 5 JAM72S31-xxx/GR, xxx=525 to 545 in steps of 5 JAM66S31-xxx/GR, xxx=480 to 500 in steps of 5 JAM60S31-xxx/GR, xxx=435 to 450 in steps of 5 JAM54S31-xxx/GR, xxx=395 to 415 in steps of 5 JAM72S31-xxx/MR, $x x x=510$ to 545 in steps of 5 JAM66S31-xxx/MR, $x x x=470$ to 500 in steps of 5 JAM60S31-xxx/MR, xxx=425 to 450 in steps of 5 JAM54S31-xxx/MR, $x x x=385$ to 405 in steps of 5 JAM72S17-xxx/MR, xxx=390 to 430 in steps of 5 JAM60S17-xxx/MR, xxx=315 to 355 in steps of 5 JAM78S30-xxx/MR, $x x x=580$ to 605 in steps of 5 JAM72S17-xxx/GR, xxx=385 to 400 in steps of 5 JAM72S40-xxx/GR, xxx=540 to 575 in steps of 5 JAM66S40-xxx/GR, xxx=495 to 525 in steps of 5 JAM60S40-xxx/GR, xxx=450 to 480 in steps of 5 JAM54S40-xxx/GR, xxx=405 to 430 in steps of 5 JAM72S41-xxx/GR, xxx=540 to 570 in steps of 5 JAM66S41-xxx/GR, xxx=495 to 525 in steps of 5 JAM60S41-xxx/GR, xxx=450 to 475 in steps of 5 JAM54S41-xxx/GR, xxx=405 to 430 in steps of 5 JAM66S35-xxx/MR, xxx= 650 to 670 in steps of 5 JAM60S35-xxx/MR, $x x x=590$ to 610 in steps of 5 JAM72S30-xxx/LR, $x x x=555$ to 580 in steps of 5 JAM54S30-XXX/LR, $x x x=415$ to435in steps of 5 JAM54S31-XXX/LR, $x x x=415$ to 420 in steps of 5 xxx is standing for rated output power at STC


## CERTIFICATE

No．Z2 0720920300 Rev． 23

Parameters：

| Construction： | Framed or Frameless， with Junction box， cable and Connectors． |
| :---: | :---: |
| Fire Safety Class： | Class C or Class A according to UL790． |
| Safety Class： | Class II |
| Maximum System Voltage： | 1000 V DC or 1500V DC |
| PID Test Condition： | $\pm 1000$ V DC， $96 \mathrm{~h}, 60^{\circ} \mathrm{C}$ ， <br> $85 \%$ RH or $96 \mathrm{~h}, 85^{\circ} \mathrm{C}, 85 \% \mathrm{RH}$ |
| PID testing method accordin | g to IEC TS 62804－1：2015 |
| Production Facility（ies）： | 072092，079395，117043，095903，108746， 109998，112017，113943，114922， 001783 004170，113691，090968，119123，120210， 117684，114994，120736，115500，120016， 108093 |

## Tested according to：

IEC 61215－1（ed．1）
IEC 61215－1－1（ed．1）
IEC 61215－2（ed．1）
IEC 61730－1（ed．2）
IEC 61730－2（ed．2）
PPP 58042B：2015

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Applicant: Shanghai JA Solar Technology Co., Ltd.
No. 118, Lane 3111, West Huancheng
Address: Road, Fengxian District, 201401
Shanghai
Country: P. R. China

| Manufacturer: | Shanghai JA Solar Technology Co., Ltd. |
| :--- | :--- |
|  | No. 118, Lane 3111, West Huancheng |
| Address: | Road, Fengxian District, 201401 |
|  | Shanghai |
| Country: | P. R. China |

## Party Authorized To Apply Mark: Report Issuing Office:

 Control Number: 4001505Same as Manufacturer Intertek Testing Services Shanghai Limited

Authorized by:
 for L. Matthew Snyder, Certification Manager


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Intertek Testing Services NA Inc.
545 East Algonquin Road, Arlington Heights, IL 60005
Telephone 800-345-3851 or 847-439-5667 Fax 312-283-1672

| Standard(s): | Terrestrial Photovoltaic (PV) Modules - Design Qualification And Type Approval - Part 1: Test Requirements [UL 61215-1:2017 Ed. 1 ] |
| :---: | :---: |
|  | Terrestrial Photovoltaic (PV) Modules - Design Qualification And Type Approval - Part 1-1: Special Requirements For Testing Of Crystalline Silicon Photovoltaic (PV) Modules [UL 61215-1-1:2017 Ed. 1 ] |
|  | Terrestrial Photovoltaic (PV) Modules - Design Qualification And Type Approval - Part 2: Test Procedures [UL 61215-2:2017 Ed. 1 ] |
|  | Photovoltaic (PV) Module Safety Qualification - Part 1: Requirements For Construction [UL 61730-1:2017 Ed.1] |
|  | Photovoltaic (PV) Module Safety Qualification - Part 2: Requirements For Testing [UL 61730-2:2017 Ed.1] |
|  | Photovoltaic (PV) Module Safety Qualification - Part 1: Requirements for Construction [CSA C22.2\#617301:2019 Ed.2] |
|  | Photovoltaic (PV) Module Safety Qualification - Part 2: Requirements for Testing [CSA C22.2\#617302:2019 Ed.2] |
| Product: | Crystalline Silicon Photovoltaic modules |



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Applicant: Shanghai JA Solar Technology Co., Ltd.
Manufacturer: Hefei JA Solar Technology Co., Ltd.
No. 118, Lane 3111, West Huancheng
Address: Road, Fengxian District, 201401 Shanghai
Country: P. R. China

## Party Authorized To Apply Mark: <br> Report Issuing Office:

Control Number: 4005519
Same as Manufacturer Intertek Testing Services Shanghai Limited

## Authorized by:

No. 999, Changning Road, Hi-tech Zone,
Address: Hefei City, 230088, Anhui Province

Country: P. R. China


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Telephone 800-345-3851 or 847-439-5667 Fax 312-283-1672

| Standard(s): | Terrestrial Photovoltaic (PV) Modules - Design Qualification And Type Approval - Part 1: Test Requirements [UL 61215-1:2017 Ed. 1 ] |
| :---: | :---: |
|  | Terrestrial Photovoltaic (PV) Modules - Design Qualification And Type Approval - Part 1-1: Special Requirements For Testing Of Crystalline Silicon Photovoltaic (PV) Modules [UL 61215-1-1:2017 Ed.1] |
|  | Terrestrial Photovoltaic (PV) Modules - Design Qualification And Type Approval - Part 2: Test Procedures [UL 61215-2:2017 Ed. 1 ] |
|  | Photovoltaic (PV) Module Safety Qualification - Part 1: Requirements For Construction [UL 61730-1:2017 Ed.1] |
|  | Photovoltaic (PV) Module Safety Qualification - Part 2: Requirements For Testing [UL 61730-2:2017 Ed.1] |
|  | Photovoltaic (PV) Module Safety Qualification - Part 1: Requirements for Construction [CSA C22.2\#617301:2019 Ed.2] |
|  | Photovoltaic (PV) Module Safety Qualification - Part 2: Requirements for Testing [CSA C22.2\#617302:2019 Ed.2] |
| Product: | Crystalline Silicon Photovoltaic modules |



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Applicant: Shanghai JA Solar Technology Co., Ltd.
No. 118, Lane 3111, West Huancheng
Address: Road, Fengxian District, 201401
Shanghai
Country: P. R. China

## Party Authorized To Apply Mark: <br> Report Issuing Office:

Control Number: 5001344

Same as Manufacturer Intertek Testing Services Shanghai Limited

## Authorized by:

Manufacturer: VINA SOLAR TECHNOLOGY CO., LTD.

Address:
FACTORY E12, LOT CN-03, Van Trung Industrial park, Bac Giang

Vietnam
Country:


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Intertek Testing Services NA Inc.
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| Standard(s): | Terrestrial Photovoltaic (PV) Modules - Design Qualification And Type Approval - Part 1: Test Requirements [UL 61215-1:2017 Ed. 1 ] |
| :---: | :---: |
|  | Terrestrial Photovoltaic (PV) Modules - Design Qualification And Type Approval - Part 1-1: Special Requirements For Testing Of Crystalline Silicon Photovoltaic (PV) Modules [UL 61215-1-1:2017 Ed.1] |
|  | Terrestrial Photovoltaic (PV) Modules - Design Qualification And Type Approval - Part 2: Test Procedures [UL 61215-2:2017 Ed. 1 ] |
|  | Photovoltaic (PV) Module Safety Qualification - Part 1: Requirements For Construction [UL 61730-1:2017 Ed.1] |
|  | Photovoltaic (PV) Module Safety Qualification - Part 2: Requirements For Testing [UL 61730-2:2017 Ed.1] |
|  | Photovoltaic (PV) Module Safety Qualification - Part 1: Requirements for Construction [CSA C22.2\#617301:2019 Ed.2] |
|  | Photovoltaic (PV) Module Safety Qualification - Part 2: Requirements for Testing [CSA C22.2\#617302:2019 Ed.2] |
| Product: | Crystalline Silicon Photovoltaic modules |



This authorizes the application of the Certification Mark(s) shown below to the models described in the Product(s) Covered section when made in accordance with the conditions set forth in the Certification Agreement and Listing Report. This authorization also applies to multiple listee model(s) identified on the correlation page of the Listing Report.

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Applicant: Shanghai JA Solar Technology Co., Ltd.
No. 118, Lane 3111, West Huancheng
Address: Road, Fengxian District, 201401
Shanghai
Country: P. R. China

## Party Authorized To Apply Mark: Report Issuing Office:

Control Number: 5016163
Same as Manufacturer Intertek Testing Services Shanghai Limited

Authorized by:

| Manufacturer: | JA Solar (Xingtai) Co., Ltd. |
| :--- | :--- |
|  | No. 1688, Chang An Road, Xingtai |
| Address: | Economic Development Area, Xingtai |
|  | City, Hebei Province 054000 |
| Country: | P. R. China | . R. China

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5016163

for L. Matthew Snyder, Certification Manager


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Intertek Testing Services NA Inc.
545 East Algonquin Road, Arlington Heights, IL 60005
Telephone 800-345-3851 or 847-439-5667 Fax 312-283-1672

| Standard(s): | Terrestrial Photovoltaic (PV) Modules - Design Qualification And Type Approval - Part 1: Test Requirements [UL 61215-1:2017 Ed. 1 ] |
| :---: | :---: |
|  | Terrestrial Photovoltaic (PV) Modules - Design Qualification And Type Approval - Part 1-1: Special Requirements For Testing Of Crystalline Silicon Photovoltaic (PV) Modules [UL 61215-1-1:2017 Ed. 1 ] |
|  | Terrestrial Photovoltaic (PV) Modules - Design Qualification And Type Approval - Part 2: Test Procedures [UL 61215-2:2017 Ed. 1 ] |
|  | Photovoltaic (PV) Module Safety Qualification - Part 1: Requirements For Construction [UL 61730-1:2017 Ed.1] |
|  | Photovoltaic (PV) Module Safety Qualification - Part 2: Requirements For Testing [UL 61730-2:2017 Ed.1] |
|  | Photovoltaic (PV) Module Safety Qualification - Part 1: Requirements for Construction [CSA C22.2\#617301:2019 Ed.2] |
|  | Photovoltaic (PV) Module Safety Qualification - Part 2: Requirements for Testing [CSA C22.2\#617302:2019 Ed.2] |
| Product: | Crystalline Silicon Photovoltaic modules |



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Applicant: Shanghai JA Solar Technology Co., Ltd.
No.118, Lane 3111, West Huancheng
Address: Road, Fengxian District, 201401
Shanghai
Country: P. R. China

## Party Authorized To Apply Mark: Report Issuing Office:

 Control Number: 5019625Same as Manufacturer Intertek Testing Services Shanghai Limited

Authorized by:

| Manufacturer: | JA Solar New Energy Yangzhou Co., Ltd. |
| :--- | :--- |
|  | No.1, Jianhua Road, Economic |
| Address: | Development Zone, 225000 Yangzhou <br> City, Jiangsu Province |
| Country: | P. R. China | .R. China

$\qquad$
 for L. Matthew Snyder, Certification Manager


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Intertek Testing Services NA Inc.
545 East Algonquin Road, Arlington Heights, IL 60005
Telephone 800-345-3851 or 847-439-5667 Fax 312-283-1672

| Standard(s): | Terrestrial Photovoltaic (PV) Modules - Design Qualification And Type Approval - Part 1: Test Requirements [UL 61215-1:2017 Ed. 1 ] |
| :---: | :---: |
|  | Terrestrial Photovoltaic (PV) Modules - Design Qualification And Type Approval - Part 1-1: Special Requirements For Testing Of Crystalline Silicon Photovoltaic (PV) Modules [UL 61215-1-1:2017 Ed. 1 ] |
|  | Terrestrial Photovoltaic (PV) Modules - Design Qualification And Type Approval - Part 2: Test Procedures [UL 61215-2:2017 Ed. 1 ] |
|  | Photovoltaic (PV) Module Safety Qualification - Part 1: Requirements For Construction [UL 61730-1:2017 Ed.1] |
|  | Photovoltaic (PV) Module Safety Qualification - Part 2: Requirements For Testing [UL 61730-2:2017 Ed.1] |
|  | Photovoltaic (PV) Module Safety Qualification - Part 1: Requirements for Construction [CSA C22.2\#617301:2019 Ed.2] |
|  | Photovoltaic (PV) Module Safety Qualification - Part 2: Requirements for Testing [CSA C22.2\#617302:2019 Ed.2] |
| Product: | Crystalline Silicon Photovoltaic modules |



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Applicant: Shanghai JA Solar Technology Co., Ltd.
No. 118, Lane 3111, West Huancheng
Address: Road, Fengxian District, 201401 Shanghai
Country: P. R. China

## Party Authorized To Apply Mark: Report Issuing Office:

Control Number: 5020726


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Intertek Testing Services NA Inc.
545 East Algonquin Road, Arlington Heights, IL 60005
Telephone 800-345-3851 or 847-439-5667 Fax 312-283-1672

| Standard(s): | Terrestrial Photovoltaic (PV) Modules - Design Qualification And Type Approval - Part 1: Test Requirements [UL 61215-1:2017 Ed. 1 ] |
| :---: | :---: |
|  | Terrestrial Photovoltaic (PV) Modules - Design Qualification And Type Approval - Part 1-1: Special Requirements For Testing Of Crystalline Silicon Photovoltaic (PV) Modules [UL 61215-1-1:2017 Ed.1] |
|  | Terrestrial Photovoltaic (PV) Modules - Design Qualification And Type Approval - Part 2: Test Procedures [UL 61215-2:2017 Ed. 1 ] |
|  | Photovoltaic (PV) Module Safety Qualification - Part 1: Requirements For Construction [UL 61730-1:2017 Ed.1] |
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|  | Photovoltaic (PV) Module Safety Qualification - Part 1: Requirements for Construction [CSA C22.2\#617301:2019 Ed.2] |
|  | Photovoltaic (PV) Module Safety Qualification - Part 2: Requirements for Testing [CSA C22.2\#617302:2019 Ed.2] |
| Product: | Crystalline Silicon Photovoltaic modules |



This authorizes the application of the Certification Mark(s) shown below to the models described in the Product(s) Covered section when made in accordance with the conditions set forth in the Certification Agreement and Listing Report. This authorization also applies to multiple listee model(s) identified on the correlation page of the Listing Report.

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Applicant: Shanghai JA Solar Technology Co., Ltd.
Manufacturer:
No. 118, Lane 3111, West Huancheng
Address: Road, Fengxian District, 201401
Shanghai
Country: P. R. China
Party Authorized To Apply Mark: Report Issuing Office:

Same as Manufacturer Intertek Testing Services Shanghai Limited

Address:
Country: Control Number: 5020189

Authorized by:
JA SOLAR VIET NAM COMPANY
LIMITED.
Lot G, Quang Chau industrial zone,
Quang Chau commune, Viet Yen dist,
Bac Giang Province
Viet Nam Quang Chau commune, Viet Yen dist, Bac Giang Province
Viet Nam

for L. Matthew Snyder, Certification Manager


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Intertek Testing Services NA Inc.
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Telephone 800-345-3851 or 847-439-5667 Fax 312-283-1672

| Standard(s): | Terrestrial Photovoltaic (PV) Modules - Design Qualification And Type Approval - Part 1: Test Requirements [UL 61215-1:2017 Ed. 1 ] |
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|  | Terrestrial Photovoltaic (PV) Modules - Design Qualification And Type Approval - Part 2: Test Procedures [UL 61215-2:2017 Ed. 1 ] |
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|  | Photovoltaic (PV) Module Safety Qualification - Part 1: Requirements for Construction [CSA C22.2\#617301:2019 Ed.2] |
|  | Photovoltaic (PV) Module Safety Qualification - Part 2: Requirements for Testing [CSA C22.2\#617302:2019 Ed.2] |
| Product: | Crystalline Silicon Photovoltaic modules |



## CERTIFICATE

No．Z2 0720920295 Rev． 63

Holder of Certificate：Shanghai JA Solar Technology Co．，Ltd．
No．118，Lane 3111
West Huancheng Road
Fengxian District
201401 Shanghai
PEOPLE＇S REPUBLIC OF CHINA

## Certification Mark：



Product：
Crystalline Silicon Terrestrial Photovoltaic（PV）Modules Mono－Crystalline Silicon Photovoltaic Module

The product was tested on a voluntary basis and complies with the essential requirements．The
certification mark shown above can be affixed on the product．It is not permitted to alter the
cetrification mark in any way．In addition，the certification holder must not transfer the certificate to
third parties．This certificate is valid until the listed date，unless it is cancelled earlier．All applicable
requirements of the testing and certification regulations of TÜV SÜD Group have to be complied．For
details see：www．tuvsud．com／ps－cert
Test report no．：$\quad 704061604115-78$

Valid until：
2028－07－30

Date，2023－08－01

（ Zhulin Zhang ）

1500 V DC Maximum System Voltage，Double Glass Modules： JAM72D00－xxx／BP／1500V，JAM72D00－xxx／BP，xxx＝ 330 to 385 in steps of 5； JAM60D00－xxx／BP／1500V，JAM60D00－xxx／BP，$x x x=275$ to 320 in steps of 5； JAM60D00－xxx／PR／1500V，JAM60D00－xxx／PR，xxx＝ 285 to 320 in steps of 5； JAM72D00－xxx／PR／1500V，JAM72D00－xxx／PR，xxx＝ 340 to 385 in steps of 5； JAM60D00－xxx／MB／1500V，JAM60D00－xxx／MB，$x x x=310$ to 315 in steps of 5； JAM72D00－xxx／MB／1500V，JAM72D00－xxx／MB，$x x x=370$ to 380 in steps of 5 JAM72D09－xxx／BP／1500V，JAM72D09－xxx／BP，$x x x=360$ to 400 in steps of 5； JAM60D09－xxx／BP／1500V，JAM60D09－xxx／BP，$x x x=300$ to 340 in steps of 5； JAM72D10－xxx／MB／1500V，JAM72D10－xxx／MB，xxx＝ 385 to 430 in steps of 5； JAM60D10－xxx／MB／1500V，JAM60D10－xxx／MB，$x x x=320$ to 355 in steps of 5； JAM72D10－xxx／BP／1500V，JAM72D10－xxx／BP，xxx＝ 385 to 415 in steps of 5； JAM60D10－xxx／BP／1500V，JAM60D10－xxx／BP，$x x x=320$ to 345 in steps of 5； JAM66D10－xxx／MB／1500V，JAM66D10－xxx／MB，$x x x=360$ to 380 in steps of 5； JAM78D10－xxx／MB／1500V，JAM78D10－xxx／MB，xxx＝ 435 to 455 in steps of 5； JAM72D20－xxx／MB／1500V，JAM72D20－xxx／MB，xxx＝ 430 to 465 in steps of 5； JAM60D20－xxx／MB／1500V，JAM60D20－xxx／MB，$x x x=355$ to 385 in steps of 5； JAM72D10－xxx／TB／1500V，JAM72D10－xxx／TB，$x x x=400$ to 420 in steps of 5； JAM60D10－xxx／TB／1500V，JAM60D10－xxx／TB，$x x x=335$ to 350 in steps of 5； JAM78D30－xxx／MB／1500V，JAM78D30－xxx／MB，xxx＝ 580 to 605 in steps of 5； JAM72D30－xxx／MB／1500V，JAM72D30－xxx／MB，$x x x=505$ to 555 in steps of 5； JAM72D30－xxx／MB／F／1500V，JAM72D30－xxx／MB／F，
xxx＝505 to 555 in steps of 5；
JAM66D30－xxx／MB／1500V，JAM66D30－xxx／MB，$x x x=465$ to 505 in steps of 5； JAM66D30－xxx／MB／F／1500V，JAM66D30－xxx／MB／F，
xxx＝465 to 505 in steps of 5 ；
JAM60D30－xxx／MB／1500V，JAM60D30－xxx／MB，$x x x=435$ to 460 in steps of 5； JAM54D30－xxx／MB／1500V，JAM54D30－xxx／MB，$x x x=390$ to 415 in steps of 5； JAM54D31－xxx／MB／1500V，JAM54D31－xxx／MB，$x x x=395$ to 400 in steps of 5； JAM50D40－xxx／MB／1500V，JAM50D40－xxx／MB，$x x x=485$ to 500 in steps of 5； JAM78D30－xxx／GB／1500V，JAM78D30－xxx／GB，$x x x=585$ to 610 in steps of 5； JAM72D30－xxx／GB／1500V，JAM72D30－xxx／GB，xxx＝ 540 to 560 in steps of 5； JAM66D30－xxx／GB／1500V，JAM66D30－xxx／GB，xxx＝ 495 to 510 in steps of 5； JAM60D30－xxx／GB／1500V，JAM60D30－xxx／GB，$x x x=450$ to 470 in steps of 5； JAM54D30－xxx／GB／1500V，JAM54D30－xxx／GB，$x x x=405$ to 420 in steps of 5； JAM54D31－xxx／GB／1500V，JAM54D31－xxx／GB，xxx＝ 410 to 420 in steps of 5； JAM72D30－xxx／HB／1500V，JAM72D30－xxx／HB，$x x x=530$ to 560 in steps of 5； JAM78D40－xxx／MB／1500V，JAM78D40－xxx／MB，xxx＝ 580 to 630 in steps of 5； JAM72D40－xxx／MB／1500V，JAM72D40－xxx／MB，$x x x=540$ to 585 in steps of 5； JAM66D40－xxx／MB／1500V，JAM66D40－xxx／MB，xxx＝ 500 to 535 in steps of 5； JAM60D40－xxx／MB／1500V，JAM60D40－xxx／MB，xxx＝ 455 to 485 in steps of 5； JAM54D40－xxx／MB／1500V，JAM54D40－xxx／MB，$x x x=405$ to 440 in steps of 5 JAM78D40－xxx／GB／1500V，JAM78D40－xxx／GB，xxx＝ 580 to 635 in steps of 5； JAM72D40－xxx／GB／1500V，JAM72D40－xxx／GB，xxx＝ 540 to 585 in steps of 5； JAM66D40－xxx／GB／1500V，JAM66D40－xxx／GB，xxx＝ 500 to 535 in steps of 5； JAM60D40－xxx／GB／1500V，JAM60D40－xxx／GB，xxx＝ 455 to 485 in steps of 5； JAM54D40－xxx／GB／1500V，JAM54D40－xxx／GB，xxx＝ 405 to 440 in steps of 5； JAM54D41－xxx／GB／1500V，JAM54D41－xxx／GB，$x x x=415$ to 435 in steps of 5； JAM66D35－xxx／MB／1500V，JAM66D35－xxx／MB，xxx＝ 650 to 665 in steps of 5； JAM60D35－xxx／MB／1500V，JAM60D35－xxx／MB，xxx＝ 590 to 605 in steps of 5； JAM72D30－xxx／TB／1500V，JAM72D30－xxx／TB，xxx＝ 540 to 580 in steps of 5； JAM72D40－xxx／LB／1500V，JAM72D40－xxx／LB，$x x x=575$ to 600 in steps of 5 ； JAM54D40－xxx／LB／1500V，JAM54D40－xxx／LB，xxx＝ 420 to 450 in steps of 5； JAM54D41－xxx／LB／1500V，JAM54D41－xxx／LB，$x x x=420$ to 440 in steps of 5； JAM72D42－xxx／LB／1500V，JAM72D42－xxx／LB，$x x x=605$ to 630 in steps of 5； JAM54D42－xxx／LB／1500V，JAM54D42－xxx／LB，$x x x=455$ to 470 in steps of 5； JAM72D30－xxx／LB／1500V，JAM72D30－xxx／LB，$x x x=555$ to 575 in steps of 5； JAM54D30－xxx／LB／1500V，JAM54D30－xxx／LB，$x x x=420$ to 430 in steps of 5； JAM66D45－xxx／LB／1500V，JAM66D45－xxx／LB，xxx＝ 585 to 605 in steps of 5 ；

1000 V DC Maximum System Voltage，Single Glass Modules：
JAM6（K）－72－xxx／PR，xxx＝ 345 to 370 in steps of 5；
JAM6（K）－60－xxx／PR，xxx＝ 285 to 310 in steps of 5；
JAM6（K）－72－xxx／4BB，$x x x=320$ to 345 in steps of 5；
JAM6（K）－60－xxx／4BB，xxx＝ 265 to 285 in steps of 5；
JAM72S01－xxx／SC／1000V，xxx＝ 320 to 365 in steps of 5；
JAM60S01－xxx／SC／1000V，xxx＝ 265 to 305 in steps of 5；
JAM72S01－xxx／PR／1000V，xxx＝ 345 to 390 in steps of 5；
JAM60S01－xxx／PR／1000V，xxx＝ 285 to 325 in steps of 5；
JAM72S01－xxx／MR／1000V，xxx＝ 365 to 385 in steps of 5 ；
Page 2 of 6

## CERTIFICATE

No. Z2 0720920295 Rev. 63


#### Abstract

JAM60S01-xxx/MR/1000V, $x x x=305$ to 320 in steps of 5; JAM72S03-xxx/PR/1000V, xxx= 360 to 395 in steps of 5; JAM60S03-xxx/PR/1000V, $x x x=300$ to 330 in steps of 5; JAM72S09-xxx/PR/1000V, xxx= 370 to 405 in steps of 5; JAM60S09-xxx/PR/1000V, xxx= 310 to 335 in steps of 5; JAM72S10-xxx/PR/1000V, $x x x=380$ to 410 in steps of 5; JAM60S10-xxx/PR/1000V, $x x x=315$ to 345 in steps of 5; JAM72S10-xxx/MR/1000V, xxx= 390 to 430 in steps of 5; JAM60S10-xxx/MR/1000V, xxx= 325 to 355 in steps of 5 ; JAM60S10-xxx/MR-L/1000V, xxx= 325 to 355 in steps of 5; JAM78S10-xxx/MR/1000V, xxx= 435 to 465 in steps of 5; JAM66S10-xxx/MR/1000V, xxx= 345 to 390 in steps of 5; JAM72S09-xxx/BP/1000V, $x x x=375$ to 385 in steps of 5; JAM60S09-xxx/BP/1000V, $x x x=315$ to 320 in steps of 5; JAM72S10-xxx/BP/1000V, xxx= 385 to 400 in steps of 5; JAM60S10-xxx/BP/1000V, $x x x=320$ to 330 in steps of 5. JAM72S02-xxx/PR/1000V, $x x x=345$ to 390 in steps of 5 ; JAM60S02-xxx/PR/1000V, $x x x=285$ to 325 in steps of 5; JAM72S02-xxx/SC/1000V, xxx= 320 to 365 in steps of 5; JAM60S02-xxx/SC/1000V, xxx= 265 to 305 in steps of 5; JAM72S02-xxx/MR/1000V, xxx= 365 to 385 in steps of 5; JAM60S02-xxx/MR/1000V, xxx= 305 to 320 in steps of 5; JAM72S08-xxx/PR/1000V, $x x x=360$ to 395 in steps of 5; JAM60S08-xxx/PR/1000V, $x x x=300$ to 330 in steps of 5; JAM72S12-xxx/PR/1000V, xxx= 365 to 385 in steps of 5; JAM60S12-xxx/PR/1000V, $x x x=305$ to 330 in steps of 5; JAM72S17-xxx/PR/1000V, $x x x=380$ to 390 in steps of 5 ; JAM60S17-xxx/PR/1000V, $x x x=315$ to 325 in steps of 5; JAM72S17-xxx/MR/1000V, xxx= 390 to 430 in steps of 5; JAM60S17-xxx/MR/1000V, $x x x=315$ to 355 in steps of 5 ; JAM72S10-xxx/MB/1000V, xxx= 395 to 415 in steps of 5 ; JAM60S10-xxx/MB/1000V, $x x x=330$ to 345 in steps of 5 ; JAM72S20-xxx/MR/1000V, xxx= 430 to 470 in steps of 5; JAM60S20-xxx/MR/1000V, xxx= 355 to 390 in steps of 5; JAM78S30-xxx/MR/1000V, xxx= 580 to 605 in steps of 5 ; JAM72S30-xxx/MR/1000V, xxx=510 to 555 in steps of 5; JAM66S30-xxx/MR/1000V, $x x x=470$ to 505 in steps of 5; JAM60S30-xxx/MR/1000V, xxx=435 to 460 in steps of 5; JAM54S30-xxx/MR/1000V, $x x x=390$ to 425 in steps of 5; JAM60S21-xxx/MR/1000V, xxx= 355 to 390 in steps of 5; JAM50S40-xxx/MR/1000V, xxx= 490 to 500 in steps of 5; JAM72S20-xxx/MB/1000V, xxx= 450 to 465 in steps of 5; JAM60S20-xxx/MB/1000V, xxx= 375 to 390 in steps of 5; JAM72S31-xxx/MR/1000V, xxx= 510 to 545 in steps of 5 ; JAM66S31-xxx/MR/1000V, xxx= 470 to 500 in steps of 5; JAM60S31-xxx/MR/1000V, xxx= 425 to 450 in steps of 5 ; JAM54S31-xxx/MR/1000V, $x x x=385$ to 405 in steps of 5 ; JAM76S11-xxx/PR(B)/1000V, xxx= 395 to 415 in steps of 5; JAM78S30-xxx/GR/1000V, xxx= 575 to 610 in steps of 5 ; JAM72S30-xxx/GR/1000V, xxx= 535 to 560 in steps of 5 ; JAM66S30-xxx/GR/1000V, xxx= 500 to 510 in steps of 5; JAM60S30-xxx/GR/1000V, $x x x=445$ to 470 in steps of 5; JAM54S30-xxx/GR/1000V, xxx= 400 to 420 in steps of 5; JAM78S31-xxx/GR/1000V, xxx= 570 to 590 in steps of 5; JAM72S31-xxx/GR/1000V, xxx= 525 to 545 in steps of 5; JAM66S31-xxx/GR/1000V, xxx= 480 to 500 in steps of 5; JAM60S31-xxx/GR/1000V, $x x x=430$ to 450 in steps of 5; JAM54S31-xxx/GR/1000V, $x x x=395$ to 415 in steps of 5; JAM72S17-xxx/GR/1000V, xxx= 385 to 400 in steps of 5; JAM72S40-xxx/GR/1000V, xxx= 540 to 575 in steps of 5 ; JAM66S40-xxx/GR/1000V, xxx= 495 to 525 in steps of 5; JAM60S40-xxx/GR/1000V, $x x x=450$ to 480 in steps of 5; JAM54S40-xxx/GR/1000V, xxx= 405 to 430 in steps of 5; JAM72S41-xxx/GR/1000V, xxx= 540 to 570 in steps of 5; JAM66S41-xxx/GR/1000V, xxx= 495 to 525 in steps of 5; JAM60S41-xxx/GR/1000V, xxx= 450 to 475 in steps of 5; JAM54S41-xxx/GR/1000V, xxx= 405 to 430 in steps of 5; JAM66S35-xxx/MR/1000V, xxx= 650 to 670 in steps of 5; JAM60S35-xxx/MR/1000V, $x x x=590$ to 610 in steps of 5 ; JAM72S30-xxx/LR/1000V, xxx= 555 to 580 in steps of 5;


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JAM54S30-xxx/LR/1000V, xxx= 415 to 435 in steps of 5 JAM54S31-xxx/LR/1000V, $x x x=415$ to 420 in steps of 5;
1000 V DC or 1500 V DC Maximum System Voltage, Single Glass Modules:
JAM72S01-xxx/SC, $x x x=320$ to 365 in steps of 5; JAM60S01-xxx/SC, xxx= 265 to 305 in steps of 5; JAM60S01-xxx/PR, xxx= 285 to 325 in steps of 5; JAM72S01-xxx/MR, xxx= 365 to 385 in steps of 5; JAM60S01-xxx/MR, $x x x=305$ to 320 in steps of 5; JAM72S03-xxx/PR, $x x x=360$ to 395 in steps of 5; JAM60S03-xxx/PR, xxx= 300 to 330 in steps of 5; JAM72S09-xxx/PR, $x x x=370$ to 405 in steps of 5; JAM60S09-xxx/PR, $x x x=310$ to 335 in steps of 5; JAM72S10-xxx/PR, $x x x=380$ to 410 in steps of 5; JAM60S10-xxx/PR, $x x x=315$ to 345 in steps of 5; JAM72S10-xxx/MR, $x x x=390$ to 430 in steps of 5 ; JAM60S10-xxx/MR, xxx= 325 to 355 in steps of 5; JAM60S10-xxx/MR-L, xxx= 325 to 355 in steps of 5; JAM78S10-xxx/MR, xxx= 435 to 465 in steps of 5; JAM66S10-xxx/MR, $x x x=345$ to 390 in steps of 5; JAM72S09-xxx/BP, $x x x=375$ to 385 in steps of 5; JAM60S09-xxx/BP, $x x x=315$ to 320 in steps of 5; JAM72S10-xxx/BP, $x x x=385$ to 400 in steps of 5; JAM60S10-xxx/BP, xxx= 320 to 330 in steps of 5; JAM72S02-xxx/PR, $x x x=345$ to 390 in steps of 5; JAM60S02-xxx/PR, xxx= 285 to 325 in steps of 5; JAM72S02-xxx/SC, $x x x=320$ to 365 in steps of 5; JAM60S02-xxx/SC, xxx= 265 to 305 in steps of 5; JAM72S02-xxx/MR, xxx= 365 to 385 in steps of 5; JAM60S02-xxx/MR, $x x x=305$ to 320 in steps of 5; JAM72S08-xxx/PR, $x x x=360$ to 395 in steps of 5; JAM60S08-xxx/PR, $x x x=300$ to 330 in steps of 5; JAM72S12-xxx/PR, xxx= 365 to 385 in steps of 5; JAM60S12-xxx/PR, $x x x=305$ to 330 in steps of 5; JAM72S17-xxx/PR, $x x x=380$ to 390 in steps of 5; JAM60S17-xxx/PR, $x x x=315$ to 325 in steps of 5; JAM72S17-xxx/MR, xxx= 390 to 430 in steps of 5; JAM60S17-xxx/MR, $x x x=315$ to 355 in steps of 5; JAM72S10-xxx/MB, $x x x=395$ to 415 in steps of 5; JAM60S10-xxx/MB, $x x x=330$ to 345 in steps of 5; JAM72S20-xxx/MR, $x x x=430$ to 470 in steps of 5; JAM60S20-xxx/MR, xxx= 355 to 390 in steps of 5; JAM78S10-xxx/MR-J, xxx= 435 to 465 in steps of 5 ; JAM78S30-xxx/MR, xxx= 580 to 605 in steps of 5; JAM72S30-xxx/MR, $x x x=510$ to 555 in steps of 5; JAM66S30-xxx/MR, $x x x=470$ to 505 in steps of 5 ; JAM60S30-xxx/MR, $x x x=435$ to 460 in steps of 5 ; JAM54S30-xxx/MR, $x x x=390$ to 425 in steps of 5; JAM60S21-xxx/MR, $x x x=355$ to 390 in steps of 5; JAM50S40-xxx/MR, $x x x=490$ to 500 in steps of 5; JAM72S20-xxx/MB, $x x x=450$ to 465 in steps of 5; JAM60S20-xxx/MB, xxx= 375 to 390 in steps of 5; JAM68S11-xxx/PR, $x x x=355$ to 365 in steps of 5; JAM68S11-xxx/PR(B), xxx= 345 to 365 in steps of 5; JAM72S31-xxx/MR, xxx= 510 to 545 in steps of 5; JAM66S31-xxx/MR, $x x x=470$ to 500 in steps of 5; JAM60S31-xxx/MR, xxx= 425 to 450 in steps of 5; JAM54S31-xxx/MR, xxx= 385 to 405 in steps of 5; JAM76S11-xxx/PR(B), xxx= 395 to 415 in steps of 5; JAM78S30-xxx/GR, xxx= 575 to 610 in steps of 5 ; JAM72S30-xxx/GR, xxx= 535 to 560 in steps of 5; JAM66S30-xxx/GR, xxx= 500 to 510 in steps of 5; JAM60S30-xxx/GR, xxx= 445 to 470 in steps of 5; JAM54S30-xxx/GR, xxx= 400 to 420 in steps of 5; JAM78S31-xxx/GR, xxx= 570 to 590 in steps of 5; JAM72S31-xxx/GR, xxx= 525 to 545 in steps of 5; JAM66S31-xxx/GR, xxx= 480 to 500 in steps of 5; JAM60S31-xxx/GR, xxx= 435 to 450 in steps of 5; JAM54S31-xxx/GR, xxx= 395 to 415 in steps of 5;

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JAM72S17-xxx/GR, $x x x=385$ to 400 in steps of 5; JAM72S40-xxx/GR, xxx= 540 to 575 in steps of 5; JAM66S40-xxx/GR, xxx= 495 to 525 in steps of 5; JAM60S40-xxx/GR, xxx= 450 to 480 in steps of 5; JAM54S40-xxx/GR, xxx= 405 to 430 in steps of 5; JAM72S41-xxx/GR, xxx= 540 to 570 in steps of 5; JAM66S41-xxx/GR, $x x x=495$ to 525 in steps of 5; JAM60S41-xxx/GR, xxx= 450 to 475 in steps of 5; JAM54S41-xxx/GR, xxx= 405 to 430 in steps of 5; JAM66S35-xxx/MR, $x x x=650$ to 670 in steps of 5 ; JAM60S35-xxx/MR, $x x x=590$ to 610 in steps of 5; JAM72S30-xxx/LR, $x x x=555$ to 580 in steps of 5; JAM54S30-xxx/LR, xxx= 415 to 435 in steps of 5; JAM54S31-xxx/LR, $x x x=415$ to 420 in steps of 5;


1500 V DC Maximum System Voltage, Single Glass Modules: JAM6(K)-72-xxx/PR/1500V, $x x x=345$ to 370 in steps of 5; JAM6(K)-60-xxx/PR/1500V, $x x x=285$ to 310 in steps of 5; JAM6(K)-72-xxx/4BB/1500V, $x x x=320$ to 345 in steps of 5; JAM6(K)-60-xxx/4BB/1500V, xxx= 265 to 285 in steps of 5; JAM72S01-xxx/SC/1500V, xxx= 320 to 365 in steps of 5; JAM60S01-xxx/SC/1500V, xxx= 265 to 305 in steps of 5; JAM72S01-xxx/PR, xxx= 345 to 390 in steps of 5; JAM60S01-xxx/PR/1500V, xxx= 285 to 325 in steps of 5; JAM72S01-xxx/MR/1500V, xxx= 365 to 385 in steps of 5; JAM60S01-xxx/MR/1500V, xxx= 305 to 320 in steps of 5; JAM72S03-xxx/PR/1500V, $x x x=360$ to 395 in steps of 5; JAM60S03-xxx/PR/1500V, $x x x=300$ to 330 in steps of 5; JAM72S09-xxx/PR/1500V, $x x x=370$ to 405 in steps of 5; JAM60S09-xxx/PR/1500V, $x x x=310$ to 335 in steps of 5; JAM72S10-xxx/PR/1500V, xxx= 380 to 410 in steps of 5; JAM60S10-xxx/PR/1500V, xxx= 315 to 345 in steps of 5; JAM72S10-xxx/MR/1500V, xxx= 390 to 430 in steps of 5; JAM60S10-xxx/MR/1500V, xxx= 325 to 355 in steps of 5 ; JAM60S10-xxx/MR-L/1500V, xxx= 325 to 355 in steps of 5; JAM78S10-xxx/MR/1500V, xxx= 435 to 465 in steps of 5; JAM66S10-xxx/MR/1500V, xxx= 345 to 390 in steps of 5 ; JAM72S09-xxx/BP/1500V, $x x x=375$ to 385 in steps of 5; JAM60S09-xxx/BP/1500V, $x x x=315$ to 320 in steps of 5; JAM72S10-xxx/BP/1500V, xxx= 385 to 400 in steps of 5; JAM60S10-xxx/BP/1500V, xxx= 320 to 330 in steps of 5; JAM72S02-xxx/PR/1500V, xxx= 345 to 390 in steps of 5; JAM60S02-xxx/PR/1500V, xxx= 285 to 325 in steps of 5; JAM72S02-xxx/SC/1500V, xxx= 320 to 365 in steps of 5; JAM60S02-xxx/SC/1500V, xxx= 265 to 305 in steps of 5; JAM72S02-xxx/MR/1500V, xxx= 365 to 385 in steps of 5; JAM60S02-xxx/MR/1500V, xxx= 305 to 320 in steps of 5 ; JAM72S08-xxx/PR/1500V, xxx= 360 to 395 in steps of 5; JAM60S08-xxx/PR/1500V, $x x x=300$ to 330 in steps of 5; JAM72S12-xxx/PR/1500V, xxx= 365 to 385 in steps of 5; JAM60S12-xxx/PR/1500V, xxx= 305 to 330 in steps of 5; JAM72S17-xxx/PR/1500V, $x x x=380$ to 390 in steps of 5; JAM60S17-xxx/PR/1500V, $x x x=315$ to 325 in steps of 5; JAM72S17-xxx/MR/1500V, xxx= 390 to 430 in steps of 5; JAM60S17-xxx/MR/1500V, xxx= 315 to 355 in steps of 5; JAM72S10-xxx/MB/1500V, xxx= 395 to 415 in steps of 5; JAM60S10-xxx/MB/1500V, xxx= 330 to 345 in steps of 5; JAM72S20-xxx/MR/1500V, xxx= 430 to 470 in steps of 5; JAM60S20-xxx/MR/1500V, xxx= 355 to 390 in steps of 5 ; JAM78S30-xxx/MR/1500V, xxx= 580 to 605 in steps of 5; JAM72S30-xxx/MR/1500V, $x x x=510$ to 555 in steps of 5; JAM66S30-xxx/MR/1500V, xxx=470 to 505 in steps of 5; JAM60S30-xxx/MR/1500V, $x x x=435$ to 460 in steps of 5; JAM54S30-xxx/MR/1500V, xxx= 390 to 425 in steps of 5; JAM60S21-xxx/MR/1500V, xxx= 355 to 390 in steps of 5; JAM50S40-xxx/MR/1500V, xxx= 490 to 500 in steps of 5; JAM72S20-xxx/MB/1500V, xxx= 450 to 465 in steps of 5; JAM60S20-xxx/MB/1500V, xxx= 375 to 390 in steps of 5; JAM72S31-xxx/MR/1500V, xxx= 510 to 545 in steps of 5 ; JAM66S31-xxx/MR/1500V, xxx= 470 to 500 in steps of 5;

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JAM60S31-xxx/MR/1500V, xxx= 425 to 450 in steps of 5; JAM54S31-xxx/MR/1500V, xxx= 385 to 405 in steps of 5; JAM76S11-xxx/PR(B)/1500V, xxx= 395 to 415 in steps of 5; JAM78S30-xxx/GR/1500V, xxx= 575 to 610 in steps of 5; JAM72S30-xxx/GR/1500V, xxx= 535 to 560 in steps of 5; JAM66S30-xxx/GR/1500V, xxx= 500 to 510 in steps of 5; JAM60S30-xxx/GR/1500V, xxx= 445 to 470 in steps of 5; JAM54S30-xxx/GR/1500V, xxx= 400 to 420 in steps of 5; JAM78S31-xxx/GR/1500V, $x x x=570$ to 590 in steps of 5; JAM72S31-xxx/GR/1500V, xxx= 525 to 545 in steps of 5; JAM66S31-xxx/GR/1500V, xxx= 480 to 500 in steps of 5; JAM60S31-xxx/GR/1500V, $x x x=435$ to 450 in steps of 5; JAM54S31-xxx/GR/1500V, xxx= 395 to 415 in steps of 5; JAM72S17-xxx/GR/1500V, $x x x=385$ to 400 in steps of 5; JAM72S40-xxx/GR/1500V, xxx= 540 to 575 in steps of 5; JAM66S40-xxx/GR/1500V, xxx= 495 to 525 in steps of 5; JAM60S40-xxx/GR/1500V, $x x x=450$ to 480 in steps of 5 ; JAM54S40-xxx/GR/1500V, xxx= 405 to 430 in steps of 5; JAM72S41-xxx/GR/1500V, xxx= 540 to 570 in steps of 5; JAM66S41-xxx/GR/1500V, xxx= 495 to 525 in steps of 5; JAM60S41-xxx/GR/1500V, xxx= 450 to 475 in steps of 5; JAM54S41-xxx/GR/1500V, $x x x=405$ to 430 in steps of 5; JAM66S35-xxx/MR/1500V, xxx= 650 to 670 in steps of 5; JAM60S35-xxx/MR/1500V, $x x x=590$ to 610 in steps of 5; JAM72S30-xxx/LR/1500V, xxx= 555 to 580 in steps of 5; JAM54S30-xxx/LR/1500V, $x x x=415$ to 435 in steps of 5 ; JAM54S31-xxx/LR/1500V, $x x x=415$ to 420 in steps of 5; xxx is standing for rated output power at STC


Parameters:

Tested according to:

Construction:
Test Laboratory:

Safety Class:
Maximum System Voltage:
Fire Safety Class:
Production Facility(ies):

Framed or Frameless, with Junction box, Cable and Connectors. Yangzhou Opto-Electrical Products Testing Institute No. 10 West Kaifa Road, Yangzhou 225009 Jiangsu, P. R. China Class II
1500 V DC or 1000 V DC
Class C according to UL790. 079395, 095903, 090968, 108746, 072092, 109998, 112017, 113943, 114922, 001783, 004170, 113691, 117043, 119123, 120210, 117684, 114994, 120736, 115500, 120016, 108093, 121678.


[^0]:    Certification Body
    Consumer Products

