

CERTIFICATE

TÜV NORD CERT GmbH
herewith declares that

DualSun SAS
2 rue Marc Donadille
13013 Marseille
FRANCE

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: 2024-11-26

Valid until: 2029-07-03

Certification program:

P12-VA-01 Rev. 17 09.20

Certification fundamental(s):

IEC 61215-1:2021 / EN IEC 61215-1:2021;
IEC 61215-1-1:2021 / EN IEC 61215-1-1:2021;
IEC 61215-2:2021 / EN IEC 61215-2:2021;
IEC 61730-1:2023;
IEC 61730-2:2023.

Registered No.:

44 780 24 406749 - 447

Manufacturer and factory(-ies):

See Annex 1

Test Report No.:

492013478.001

File No.:

PVP10138/24P



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Essen, 2024-11-26

Please also pay attention to the information stated overleaf.

Description of product(s):

Module types:	PV Modules with 182mm Half-cut Mono n-type Bifacial Solar Cells: 156 cells: DSxxx-156M10T-01 (xxx=610-635, in steps of 5) 144 cells: DSxxx-144M10T-01 (xxx=545-590, in steps of 5) 108 cells: DSxxx-108M10T-01 (xxx=415-445, in steps of 5) 156 cells: DSxxx-156M10T-02 (xxx=610-635, in steps of 5) 144 cells: DSxxx-144M10T-02 (xxx=545-590, in steps of 5) 108 cells: DSxxx-108M10T-02 (xxx=415-445, in steps of 5) Remark: xxx indicates rated output power generated from front side only at STC.
Maximum system voltage:	1500V
Maximum overcurrent protection rating:	30A
Electrical protection class:	Class II
Pollution degree:	1
98th percentile module operating temperature (T ₉₈)	70°C
Design load (positive / negative):	3600Pa / 1600Pa
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)

Module types:	PV Modules with 182.2mm*183.75mm Half-cut Mono n-type Bifacial Solar Cells: 156 cells: DSxxx-156M10T-03 (xxx=610-645, in steps of 5) 144 cells: DSxxx-144M10T-03 (xxx=570-600, in steps of 5) 108 cells: DSxxx-108M10T-03 (xxx=420-450, in steps of 5) 156 cells: DSxxx-156M10T-09 (xxx=610-645, in steps of 5) 144 cells: DSxxx-144M10T-09 (xxx=570-600, in steps of 5) 108 cells: DSxxx-108M10T-09 (xxx=420-450, in steps of 5) Remark: xxx indicates rated output power generated from front side only at STC.
Maximum system voltage:	1500V
Maximum overcurrent protection rating:	30A
Electrical protection class:	Class II
Pollution degree:	1



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98th percentile module operating temperature (T_{98}) 70°C
Design load (positive / negative): 3600Pa / 1600Pa
Safety factors: 1.5
Fire safety class: Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)

Module types: **PV Modules with 182.2mm*186.7mm and 182.2mm*187.5mm Half-cut Mono n-type Bifacial Solar Cells:**
120 cells: DSxxx-120M10T-03 (xxx=480-510, in steps of 5)
108 cells: DSxxx-108M10RT-03 (xxx=430-460, in steps of 5)
120 cells: DSxxx-120M10T-04 (xxx=480-510, in steps of 5)
108 cells: DSxxx-108M10RT-04 (xxx=430-460, in steps of 5)
Remark: xxx indicates rated output power generated from front side only at STC.

Maximum system voltage: 1500V
Maximum overcurrent protection rating: 30A
Electrical protection class: Class II
Pollution degree: 1
98th percentile module operating temperature (T_{98}) 70°C
Design load (positive / negative): 3600Pa / 1600Pa
Safety factors: 1.5
Fire safety class: Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)

Module types: **PV Modules with 182.2mm*191.6mm Half-cut Mono n-type Bifacial Solar Cells:**
144 cells: DSxxx-144M10RT-05 (xxx=595-625, in steps of 5)
120 cells: DSxxx-120M10T-05 (xxx=495-520, in steps of 5)
108 cells: DSxxx-108M10RT-05 (xxx=445-470, in steps of 5)
144 cells: DSxxx-144M10RT-06 (xxx=595-625, in steps of 5)
120 cells: DSxxx-120M10T-06 (xxx=495-520, in steps of 5)
108 cells: DSxxx-108M10RT-06 (xxx=445-470, in steps of 5)
Remark: xxx indicates rated output power generated from front side only at STC.

Maximum system voltage: 1500V
Maximum overcurrent protection rating: 30A



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Electrical protection class:	Class II
Pollution degree:	1
98th percentile module operating temperature (T_{98})	70°C
Design load (positive / negative):	3600Pa / 1600Pa
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)

Module types: **PV Modules with 182mm*210mm Half-cut Mono n-type Bifacial Solar Cells:**

132 cells: DSxxx-132M10RT-07 (xxx=595-625, in steps of 5)

120 cells: DSxxx-120M10T-07 (xxx=540-570, in steps of 5)

108 cells: DSxxx-108M10RT-07 (xxx=485-515, in steps of 5)

96 cells: DSxxx-96M10RT-07 (xxx=430-455, in steps of 5)

132 cells: DSxxx-132M10RT-08 (xxx=595-625, in steps of 5)

120 cells: DSxxx-120M10T-08 (xxx=540-570, in steps of 5)

108 cells: DSxxx-108M10RT-08 (xxx=485-515, in steps of 5)

96 cells: DSxxx-96M10RT-08 (xxx=430-455, in steps of 5)

Remark: xxx indicates rated output power generated from front side only at STC.

Maximum system voltage:	1500V
Maximum overcurrent protection rating:	35A
Electrical protection class:	Class II
Pollution degree:	1
98th percentile module operating temperature (T_{98})	70°C
Design load (positive / negative):	3600Pa / 1600Pa
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)

Remark:

For detailed product information, please refer to CDF (Constructional Data Form) attached to test report with same file no.



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