

CERTIFICATE

Issued to:
Applicant:
Chint New Energy Technology Co., Ltd.
No. 1 Jisheng Road, Jianshan New Zone
314415 Haining City Zhejiang, China

Licensee:
Chint New Energy Technology Co., Ltd.
No. 1 Jisheng Road, Jianshan New Zone
314415 Haining City Zhejiang, China

Product : PV Module Shipping Unit
Trade name(s) : ASTRONERGY
Type(s)/model(s) : CHSMP-1, CHSMP-10, CHSMP-11, CHSMP-2, CHSMP-3, CHSMP-4,
CHSMP-5, CHSMP-6, CHSMP-7, CHSMP-8 and CHSMP-9

The product and any acceptable variation thereto as specified in the Annex to this certificate and the documents therein referred to.

DEKRA hereby declares that the above-mentioned product has been certified on the basis of:

- a type test according to IEC 62759-1:2015
- an inspection of the factory location according to CENELEC Operational Document CIG 021
- a DEKRA certification agreement with the number 6062183

DEKRA hereby grants the right to use the DEKRA Seal certification mark.

DEKRA hereby grants the right to use the DEKRA Seal certification mark with the following content:

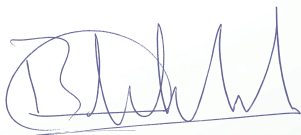
Category : Photovoltaic
Keyword 1 : Transportation Stress
Keyword 2 : Periodic Factory Inspection

The DEKRA Seal certification mark may be applied to the product as specified in this certificate for the duration and under the conditions of the DEKRA Seal certification agreement.

This certificate is issued on 28 March 2023 and expires at the latest on 7 July 2025.

Certificate number: 31-119826 REV.3

DEKRA Certification B.V.



B.T.M. Holtus
Managing Director



C. Lin
Certification Manager

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SPECIFICATION OF THE CERTIFIED PRODUCT**Product data**

Product	: PV Module Shipping Unit
Trade name(s)	: ASTRONERGY
Type(s)/model(s)	: CHSMP-1, CHSMP-10, CHSMP-11, CHSMP-2, CHSMP-3, CHSMP-4, CHSMP-5, CHSMP-6, CHSMP-7, CHSMP-8 and CHSMP-9

Product data – type CHSMP-1

Main parts	: Plywood; 7 layers paper (fence); 5 layers paper (cover); PET
Dimension of carton box	: Internal 2028mmx1112mmx995mm External 2037mmx1121mmx1003mm
Gross weight (Shipping unit with PV modules)	: 737.6kg
Net weight (Shipping unit without PV modules)	: 37kg
Number of PV modules	: 31pcs
Placement of PV modules	: Placed in vertical
Dimension of PV module	: 2018mm x 1002mm x 35mm
Suitable PV modules	: CHSM72M-HC-xxx; xxx=385-420, in steps of 5, 144 cells; CHSM72M(BL)-HC-xxx; xxx=385-420, in steps of 5, 144 cells

Product data – type CHSMP-10

Main parts	: Plywood; 5 layers paper (fence); 3 layers paper (cover); PET
Dimension of carton box	: Internal size: 2308mmx1095mmx1239mm External size: 2308x1115x1239mm
Gross weight (Shipping unit with PV modules)	: 893kg
Net weight (Shipping unit without PV modules)	: 59.1kg
Number of PV modules	: 31pcs
Placement of PV modules	: Placed in vertical
Dimension of PV module	: 2278mmx1134mmx35mm
Suitable PV modules	: CHSM72M-HC-xxx (xxx=520-570, in steps of 5, 144 cells) CHSM72M/LV-HC-xxx (xxx=520-570, in steps of 5, 144 cells) CHSM72M(BLH)-HC-xxx (xxx=520-545, in steps of 5, 144 cells) CHSM72M(BL)-HC-xxx (xxx=520-545, in steps of 5, 144 cells) CHSM72N(BLH)-HC-xxx (xxx=545-580, in steps of 5, 144 cells) CHSM72N(BL)-HC-xxx (xxx=545-580, in steps of 5, 144 cells) CHSM72N-HC-xxx (xxx=540-580, in steps of 5, 144cells) CHSM72N/LV-HC-xxx (xxx=540-580, in steps of 5, 144cells)

Product data – type CHSMP-11

Main parts	: Plywood; 5 layers paper (fence); 5 layers paper (cover); PET
Dimension of carton box	: Internal size: 1744mmx1090mmx1247mm External size: 1744mmx1115mmx1247mm
Gross weight (Shipping unit with PV modules)	: 822kg
Net weight (Shipping unit without PV modules)	: 44.4kg
Number of PV modules	: 36pcs
Placement of PV modules	: Placed in vertical
Dimension of PV module	: 1722mmx1134mmx30mm

Suitable PV modules : CHSM54M-HC-xxx (xxx=390-425, in steps of 5, 108 cells)
CHSM54M/LV-HC-xxx (xxx=390-425, in steps of 5, 108 cells)
CHSM54M(BLH)-HC-xxx (xxx=390-405, in steps of 5, 108 cells)
CHSM54M(BL)-HC-xxx (xxx=390-405, in steps of 5, 108 cells)
CHSM54N-HC-xxx (xxx=405-435, in steps of 5, 108cells)
CHSM54N/LV-HC-xxx (xxx=405-435, in steps of 5, 108cells)
CHSM54N(BLH)-HC-xxx (xxx=410-435, in steps of 5, 108 cells)
CHSM54N(BL)-HC-xxx (xxx=410-435, in steps of 5, 108 cells)

Product data – type CHSMP-2

Main parts : Plywood; 7 layers paper (fence); 5 layers paper (cover); PET
Dimension of carton box : Internal 1704mmx1112mmx995mm
External 1713mmx1121mmx1003mm
Gross weight (Shipping unit with PV modules) : 624.1kg
Net weight (Shipping unit without PV modules) : 32kg
Number of PV modules : 31pcs
Placement of PV modules : Placed in vertical
Dimension of PV module : 1692mmx1002mm x35mm
Suitable PV modules : CHSM60M-HC-xxx; xxx=320-350, in steps of 5, 120 cells;
CHSM60M(BL)-HC-xxx; xxx=320-350, in steps of 5, 120 cells

Product data – type CHSMP-3

Main parts : Plywood; 7 layers paper (fence); 5 layers paper (cover); PET
Dimension of carton box : Internal 2100mmx1112mmx1030mm;
External 2109mmx1121mmx1038mm
Gross weight (Shipping unit with PV modules) : 768.5kg
Net weight (Shipping unit without PV modules) : 40kg
Number of PV modules : 31pcs
Placement of PV modules : Placed in vertical
Dimension of PV module : 2094mm x1038mmx35mm
Suitable PV modules : CHSM72M-HC-xxx; xxx=425-455, in steps of 5, 144 cells;
CHSM72M(BL)-HC-xxx; xxx=425-455 in steps of 5, 144 cells
CHSM72M(BLH)-HC-xxx; xxx=425-455, in steps of 5, 144 cells

Product data – type CHSMP-4

Main parts : Plywood; 7 layers paper (fence); 5 layers paper (cover); PET
Dimension of carton box : Internal 1763mmx1112mmx1030mm
External 1772mmx1121mmx1038mm
Gross weight (Shipping unit with PV modules) : 646.8kg
Net weight (Shipping unit without PV modules) : 26.8kg
Number of PV modules : 31pcs
Placement of PV modules : Placed in vertical
Dimension of PV module : 1755mm x 1038mm x 35mm
Suitable PV modules : CHSM60M-HC-xxx; xxx=355-380, in steps of 5, 120 cells;
CHSM60M(BL)-HC-xxx; xxx=355-370, in steps of 5, 120 cells

Product data – type CHSMP-5

Main parts	: Plywood; Galvanized steel sheet SGCC; 5 layers paper (fence); 5 layers paper (cover); PET
Dimension of carton box	: Internal 2272mmx1111mmx1125mm External 2280mmx1120mmx1125mm
Gross weight (Shipping unit with PV modules)	: 882.2kg
Net weight (Shipping unit without PV modules)	: 39kg
Number of PV modules	: 31pcs
Placement of PV modules	: Placed in vertical
Dimension of PV module	: 2256mm x 1133mm x 35mm
Suitable PV modules	: CHSM72M-HC-xxx; xxx=520-570, in steps of 5, 144 cells; CHSM72M/LV-HC-xxx; xxx=520-570, in steps of 5, 144 cells CHSM72M(BLH)-HC-xxx; xxx=520-545, in steps of 5, 144 cells CHSM72M(BL)-HC-xxx; xxx=520-545, in steps of 5, 144 cells

Product data – type CHSMP-6

Main parts	: Plywood; Galvanized steel sheet SGCC; 5 layers paper (fence); 5 layers paper (cover); PET
Dimension of carton box	: Internal 2083mmx1110mmx1125mm External 2091mmx1118mmx1125mm
Gross weight (Shipping unit with PV modules)	: 817.1kg
Net weight (Shipping unit without PV modules)	: 39kg
Number of PV modules	: 31pcs
Placement of PV modules	: Placed in vertical
Dimension of PV module	: 2073mm x 1133mm x 35mm
Suitable PV modules	: CHSM66M-HC-xxx; xxx=480-520, in steps of 5, 132 cells; CHSM66M/LV-HC-xxx; xxx=480-520, in steps of 5, 132 cells

Product data – type CHSMP-7

Main parts	: Plywood; 3 layers paper (fence); 3 layers paper (cover); PET
Dimension of carton box	: Internal size: 1305mmx1095mmx2495mm External size: 1340mmx1140mmx2495mm
Gross weight (Shipping unit with PV modules)	: 1126kg
Net weight (Shipping unit without PV modules)	: 19.3kg
Number of PV modules	: 31pcs
Placement of PV modules	: Placed in vertical
Dimension of PV module	: 2384mmx1303mmx35mm
Suitable PV modules	: CHSM66M-HC-xxx (xxx=645-675, in steps of 5, 132 cells) CHSM66M/LV-HC-xxx (xxx=645-675, in steps of 5, 132 cells) CHSM66N-HC-xxx (xxx=655-690, in steps of 5, 132 cells) CHSM66N/LV-HC-xxx (xxx=655-690, in steps of 5, 132 cells)

Product data – type CHSMP-8

Main parts	: Plywood; 3 layers paper (fence); 3 layers paper (cover); PET
Dimension of carton box	: Internal size: 1305mmx1095mmx2285mm External size: 1340mmx1140mmx2285mm
Gross weight (Shipping unit with PV modules)	: 1007kg

Net weight (Shipping unit without PV modules) : 46kg
Number of PV modules : 31pcs
Placement of PV modules : Placed in vertical
Dimension of PV module : 2172mmx1303mmx35mm
Suitable PV modules : CHSM60M-HC-xxx (xxx=590-610, in steps of 5, 120 cells)
CHSM60M/LV-HC-xxx (xxx=590-610, in steps of 5, 120 cells)
CHSM60N-HC-xxx (xxx=595-625, in steps of 5, 120cells)
CHSM60N/LV-HC-xxx (xxx=595-625, in steps of 5, 120cells)

Product data – type CHSMP-9

Main parts : Plywood; 5 layers paper (fence); 5 layers paper (cover); PET
Dimension of carton box : Internal size: 1718x1115x1246mm
External size: 1730x1115x1246mm
Gross weight (Shipping unit with PV modules) : 817kg
Net weight (Shipping unit without PV modules) : 39.4kg
Number of PV modules : 36pcs
Placement of PV modules : Placed in vertical
Dimension of PV module : 1708mmx1133mmx30mm
Suitable PV modules : CHSM54M-HC-xxx (xxx=390-425, in steps of 5, 108 cells)
CHSM54M/LV-HC-xxx (xxx=390-425, in steps of 5, 108 cells)
CHSM54M(BLH)-HC-xxx (xxx=390-405, in steps of 5, 108 cells)
CHSM54M(BL)-HC-xxx (xxx=390-405, in steps of 5, 108 cells)

TESTS**Test requirements**

IEC 62759-1:2015

Test result

The test results are laid down in DEKRA test file 610733000.

Additional information

This certificate is only refer to the tested shipping unit not to the PV module.

This certificate replaces certificate No. 31-119826 REV.2 which we hereby declare invalid.

The list of components is laid down in test report 6107330C.53.

Conclusion

The examination proved that all requirements were met.

Factory locations

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Unique Identifier

