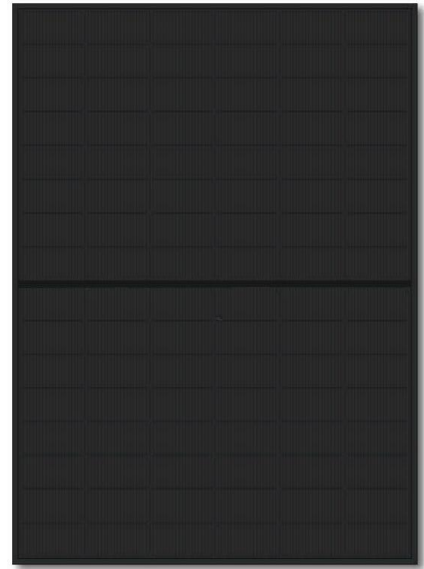


# HS-48TBB 435~455-S7

22.8%

Maximum module efficiency



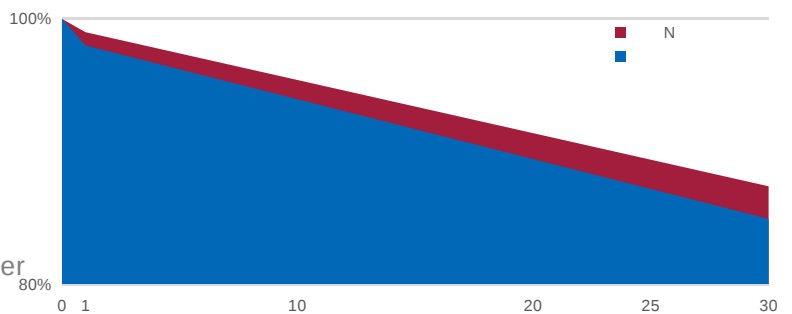
|  |  |
|--|--|
|  |  |
|  |  |
|  |  |
|  |  |

12

- 12-year product warranty
- 1% 1st-year power degradation

30

- 30-year linear power warranty
- 0.4% annual power degradation



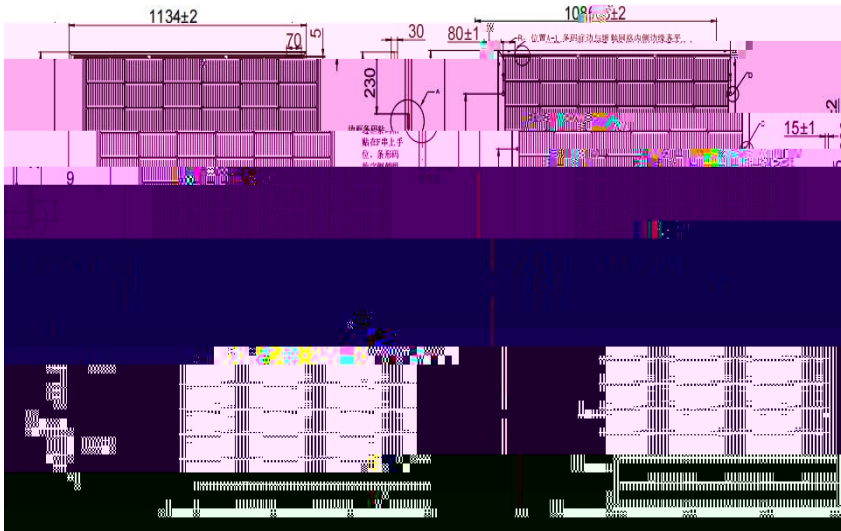
IEC61215(2016), IEC61730(2016)

ISO9001:2015: Quality Management System (QMS)

ISO14001:2015: Environmental Management System

ISO45001:2018:Occupational Health and Safety Management System





## Mechanical Parameters

|                     |                                                 |
|---------------------|-------------------------------------------------|
| Cell type           | N-type Monocrystalline solar cells              |
| Number of half cell | 96 (6×16)                                       |
| Dimensions          | 1762×1134×30mm                                  |
| Weight              | 20.9kg                                          |
| Front Glass         | 1.6mm anti-reflective coating glass             |
| Back Glass          | 1.6mm Heat-strengthened glass                   |
| Frame               | Anodized aluminum alloy                         |
| Junction box        | IP68                                            |
| Output cable        | 4.0mm <sup>2</sup> ; + 400/-200mm or customised |
| Size of each pallet | 1778×1140×1250mm                                |

## Electrical performance parameters

Module Type

HS-48TBB 435-455-S7

| Test Condition                                        |        | STC   | NOCT  | STC   | NOCT  | STC            | NOCT  | STC   | NOCT  | STC   | NOCT         |
|-------------------------------------------------------|--------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|--------------|
| Maximum Power                                         | Pmax/W | 435   | 355   | 440   | 359   | 445            | 363   | 450   | 368   | 455   | 372          |
| Optimum Operating Voltage                             | Vmp/V  | 29.45 | 29.32 | 29.58 |       | 29.71          | 29.69 | 29.84 | 29.86 | 29.97 | 30.03        |
| Optimum Operating Current                             | Imp/A  | 14.77 | 12.10 | 14.87 | 12.17 | 14.98          | 12.24 | 15.08 | 12.31 | 15.18 | 12.38        |
| Open Circuit Voltage                                  | Voc/V  | 34.71 | 34.81 |       | 34.98 | 35.05          | 35.15 | 35.22 | 35.32 | 35.39 | 35.49        |
| Short Circuit Current                                 | Isc/A  | 15.88 | 12.68 | 15.96 | 12.74 | 16.04          | 12.80 | 16.12 | 12.86 | 16.20 | <u>12.92</u> |
| Module Efficiency                                     | %      | 21.8% |       | 22.0% |       | 22.3%          |       | 22.5% |       | 22.8% |              |
| Operating Temperature Range (°C)                      |        |       |       |       |       | -40°C ~ +85°C  |       |       |       |       |              |
| Maximum System Voltage                                |        |       |       |       |       | 1500V DC (IEC) |       |       |       |       |              |
| Maximum Rated Fuse Current                            |        |       |       |       |       | 25A            |       |       |       |       |              |
| Power Tolerance                                       |        |       |       |       |       | 0 ~ +5W        |       |       |       |       |              |
| Temperature Coefficient of peak power Pmax            |        |       |       |       |       | -0.29%/°C      |       |       |       |       |              |
| Temperature Coefficient of open circuit voltage(Voc)  |        |       |       |       |       | -0.25%/°C      |       |       |       |       |              |
| Temperature Coefficient of short-circuit current(Isc) |        |       |       |       |       | 0.043%/°C      |       |       |       |       |              |
| Nominal Operating Temperature of cell NOTC            |        |       |       |       |       | 45±2°C         |       |       |       |       |              |
| Bifaciality(BiFi)                                     |        |       |       |       |       | 80±5%          |       |       |       |       |              |

## Parameters of bifacial power generation (Backside Power Gain)

|     |                      |       |       |       |       |       |
|-----|----------------------|-------|-------|-------|-------|-------|
| 5%  | Maximum power(Pmax)  | 457Wp | 462Wp | 467Wp | 473Wp | 478Wp |
|     | Module efficiency(%) | 22.9% | 23.1% | 23.4% | 23.6% | 23.9% |
| 10% | Maximum power(Pmax)  | 479Wp | 484Wp | 490Wp | 495Wp | 501Wp |
|     | Module efficiency(%) | 23.9% | 24.2% | 24.5% | 24.8% | 25.0% |
| 15% | Maximum power(Pmax)  | 500Wp | 506Wp | 512Wp | 518Wp | 523Wp |
|     | Module efficiency(%) | 25.0% | 25.3% | 25.6% | 25.9% | 26.2% |