

BiMAX 6R

440-460W

SP460M-48H

N Type HJT Ultra Black
Bifacial Double-glass Solar Module



23.02%

Max. Module Efficiency

HJT 3.0 Technology

Combining gettering process and double-sided $\mu\text{c-Si}$ to maximize cell efficiency and module power.

Up to 90% Bifaciality

Natural symmetrical bifacial structure bringing more energy yield from the backside.

Sealing with PIB based sealant

Stronger water resistance, greater air impermeability to extend module lifespan.

Higher reliability

Industrial leading product and performance warranty, ensuring modules' consistent outstanding performance.

High customer value

Higher container space utilization effectively reduces the freight cost

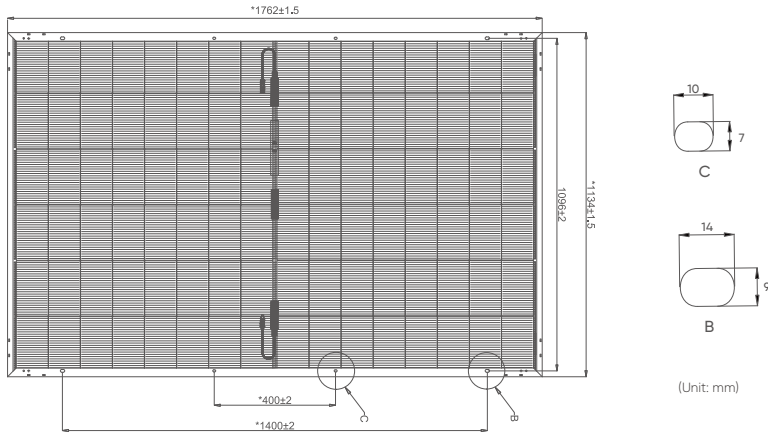
Quality Management System and Product Certification

IEC61215/61730, IEC62804(PID), IEC61701(Salt),
IEC62716 (Ammonia), IEC60068-2-68(Sand),
ISO 9001:2015/quality management system,
ISO 14001:2015/environmental management system,
ISO 45001:2018/occupation health safety management system,
ISO 50001:2011/energy management system,
IEC TS 62941-2016/PV industry quality management system.

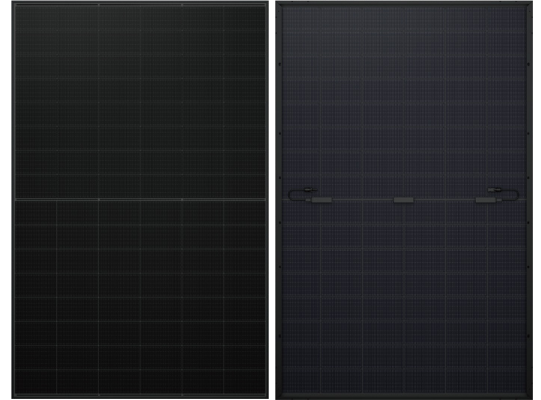
Quality Guarantee



Drawings



Product Image



Mechanical Characteristics

| | |
|----------------------|---|
| Solar Cells | HJT Mono 182×105mm |
| No. of Cells | 96 (6×16) |
| Dimensions | 1762 × 1134 × 30mm |
| Weight | 23.0kg |
| Glass Thickness | (F) 2.0mm anti-reflective solar glass (B) 2.0mm solar glass |
| Frame | Anodized aluminium alloy |
| Junction Box | IP68 |
| Output Cables | 4mm ² , 300mm in length, length can be customized / UV resistant |
| Connectors | MC4 original /MC4 compatible |
| Mechanical Load Test | 5400Pa |
| Packaging | 36pcs/box, 936pcs/40'HQ |

Operating Parameters

| | |
|------------------------------------|------------------|
| Operational Temperature | -40°C~+85°C |
| Power Output Tolerance | 0~3% |
| Voc and Isc Tolerance | ±3% |
| Maximum System Voltage | DC1500V (IEC/UL) |
| Maximum Series Fuse Rating | 30A |
| Nominal Operating Cell Temperature | 45±2°C |

Temperature Ratings (NOCT*)

| | |
|---------------------------------|------------|
| Temperature Coefficient of Isc | +0.040%/°C |
| Temperature Coefficient of Voc | -0.220%/°C |
| Temperature Coefficient of Pmax | -0.260%/°C |

Electrical Parameters (STC*)

| | | | | | |
|----------------------------------|-------|-------|-------|-------|-------|
| Module Type: SP460M-48H | 440 | 445 | 450 | 455 | 460 |
| Maximum Power (Pmax/W) | 440 | 445 | 450 | 455 | 460 |
| Open Circuit Voltage (Voc/V) | 36.68 | 36.95 | 37.22 | 37.47 | 37.72 |
| Short Circuit Current (Isc/A) | 15.26 | 15.30 | 15.36 | 15.41 | 15.45 |
| Voltage at Maximum Power (Vmp/V) | 30.43 | 30.66 | 30.88 | 31.10 | 31.30 |
| Current at Maximum Power (Imp/A) | 14.47 | 14.53 | 14.60 | 14.66 | 14.72 |
| Module Efficiency (%) | 22.02 | 22.27 | 22.52 | 22.77 | 23.02 |

*STC: Irradiance 1000 W/m², cell temperature 25 °C, AM-1.5. Tolerance of Pmax is within ±3%.

Electrical Parameters (BSTC)**

| | | | | | |
|----------------------------------|-------|-------|-------|-------|-------|
| Maximum Power (Pmax/W) | 490 | 495 | 500 | 505 | 510 |
| Open Circuit Voltage (Voc/V) | 36.68 | 36.95 | 37.22 | 37.47 | 37.72 |
| Short Circuit Current (Isc/A) | 17.01 | 17.05 | 17.12 | 17.17 | 17.22 |
| Voltage at Maximum Power (Vmp/V) | 30.43 | 30.66 | 30.88 | 31.10 | 31.30 |
| Current at Maximum Power (Imp/A) | 16.11 | 16.15 | 16.19 | 16.24 | 16.30 |

**BSTC: Front side irradiation 1000W/m², back side reflection irradiation 135W/m², AM=1.5, ambient temperature 25°C.