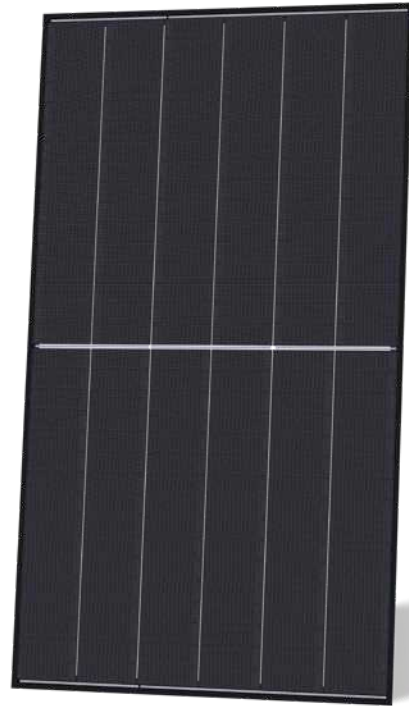


48QL6-BDV

460-485 Watt

85 ± 5% Bifaciality

BIFACIAL MODULE



Higher Power on Front Side

Leading power class based on the enhanced N-type TOPCon platform, achieved through cutting-edge technology and an optimized layout that captures more sunlight.



Better Generation on Rear Side

Enabling industry-leading bifaciality in TOPCon cells through an improved structure that enhances light absorption and trapping.



Optimized Heat Resistance

Optimized temperature coefficient via advanced graphical patterning, busbar and multi-cells technology.



Proven Low Light Performance

Enhanced cell structure ensures superior module performance under low-light conditions.



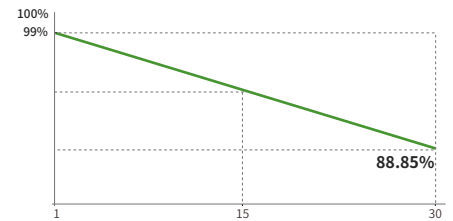
Industry Leading Warranty

Advanced metallization and iterated module encapsulation deliver superior resistance to PID, LID / LeTID, and UV degradation.



Mechanical Load Enhanced

Certified to withstand:
6000 Pa front side max static test load
4000 Pa rear side max static test load



15 Year Product Warranty | **30 Year** Linear Power Warranty | **1%** First-year Degradation | **0.35%** Annual Degradation Over 30 Years

- IEC61215:2021 / IEC61730:2023
- IEC61701 / IEC62716 / IEC60068 / IEC62804
- ISO9001:2015: Quality Management System
- ISO14001:2015: Environment Management System
- ISO45001:2018: Occupational health and safety management systems



48QL6-BDV 460-485 Watt

Mechanical Characteristics

| | |
|--|--|
| Cell Type | N- type Mono-crystalline |
| No. of cells | 192 (48×4) |
| Dimensions | 1762×1134×30 mm |
| Weight | 24.4 kg |
| Front Glass | 2.0 mm, Anti-reflection Coating |
| Back Glass | 2.0 mm, Heat Strengthened Glass |
| Frame | Anodized Aluminium Alloy |
| Junction Box | IP68 Rated |
| Protection Class | Class II |
| IEC Fire Type | Class C |
| Connector Type | JK03M/JK03M2/Others* |
| Output Cables (Including Connector) | ≥4.0 mm ² (+): 600 mm , (-): 400 mm or Customized Length |

* MC4-EVO2 available upon request and subject to availability

Packaging Configuration

| | |
|---|---|
| Pallet Dimensions | 1792×1140×1249 mm |
| Packing Detail (Two pallets = One stack) | 37 pcs/pallets, 74 pcs/stack, 962 pcs/ 40'HQ Container |

Specifications (STC)

| | | | | | | |
|---------------------------------|------------|-------|-------|-------|-------|-------|
| Maximum Power - Pmax [Wp]* | 460 | 465 | 470 | 475 | 480 | 485 |
| Maximum Power Voltage - Vmp [V] | 30.71 | 30.88 | 31.05 | 31.21 | 31.38 | 31.54 |
| Maximum Power Current - Imp [A] | 14.98 | 15.06 | 15.14 | 15.22 | 15.30 | 15.38 |
| Open-circuit Voltage - Voc [V] | 35.71 | 35.96 | 36.21 | 36.46 | 36.71 | 36.96 |
| Short-circuit Current - Isc [A] | 15.67 | 15.72 | 15.77 | 15.82 | 15.87 | 15.92 |
| Module Efficiency STC [%] | 23.02 | 23.27 | 23.52 | 23.77 | 24.02 | 24.27 |
| Bifacial Factor | 85 ± 5% | | | | | |
| Power Sorting | 0 ~ + 3 % | | | | | |
| Temperature Coefficient of Pmax | -0.26 %/°C | | | | | |
| Temperature Coefficient of Voc | -0.24 %/°C | | | | | |
| Temperature Coefficient of Isc | 0.046 %/°C | | | | | |

STC: Irradiance 1000W/m², Cell Temperature 25°C, AM=1.5. *Power measurement tolerance: ±3%

Specifications (BNPI)

| | | | | | | |
|---------------------------------|-------|-------|-------|-------|-------|-------|
| Maximum Power - Pmax [Wp]* | 513 | 518 | 524 | 530 | 535 | 541 |
| Maximum Power Voltage - Vmp [V] | 30.71 | 30.88 | 31.05 | 31.21 | 31.38 | 31.54 |
| Maximum Power Current - Imp [A] | 16.70 | 16.79 | 16.88 | 16.97 | 17.06 | 17.14 |
| Open-circuit Voltage - Voc [V] | 35.71 | 35.96 | 36.21 | 36.46 | 36.71 | 39.96 |
| Short-circuit Current - Isc [A] | 17.47 | 17.52 | 17.58 | 17.64 | 17.69 | 17.75 |

BNPI: Irradiance: front 1000W/m², rear 135W/m², Cell Temperature 25°C, AM=1.5

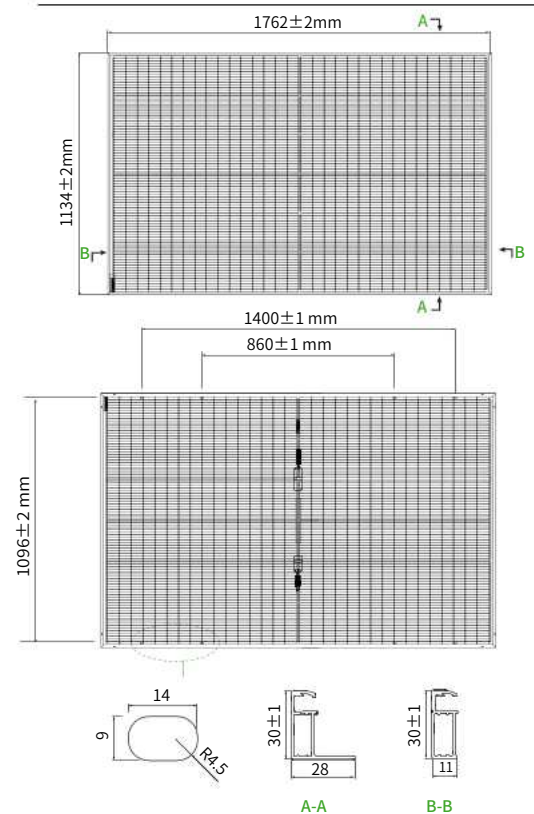
*Power measurement tolerance: ±3%

Application Conditions

| | |
|-------------------------------|---|
| Level T ₉₈ ≤ 70 °C | - 40 °C to + 70 °C* |
| Maximum System Voltage | 1500 V DC (IEC) |
| Maximum Series Fuse Rating | 30 A |
| Bifaciality Coefficients | φVoc: 98 ± 5 %, φIsc: 85 ± 5 %, φPmax: 85 ± 5 % |

*Short-term up to 85°C; higher operation requires IEC TS 63126 testing

Engineering Drawings



*Note: For specific dimensions and tolerance ranges, please refer to the corresponding detailed module drawings.

Electrical Performance

