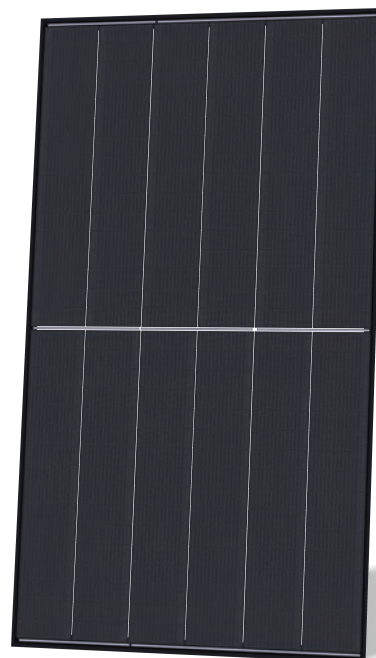


48QL6-BDV

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.



Optimized Heat Resistance

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



Industry Leading Warranty

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



Better Generation on Rear Side

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



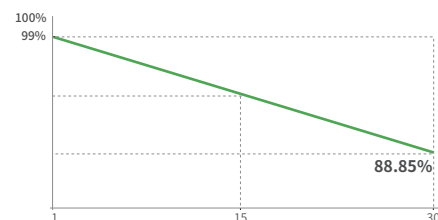
Proven Low Light Performance

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



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



JKM460-485N-48QL6-BDV-F1-EU

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 - P _{max} [Wp]	460	465	470	475	480	485
Maximum Power Voltage - V _{mp} [V]	30.71	30.88	31.05	31.21	31.38	31.54
Maximum Power Current - I _{mp} [A]	14.98	15.06	15.14	15.22	15.30	15.38
Open-circuit Voltage - V _{oc} [V]	35.71	35.96	36.21	36.46	36.71	36.96
Short-circuit Current - I _{sc} [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 P _{max}	-0.26 %/°C					
Temperature Coefficient of V _{oc}	-0.24 %/°C					
Temperature Coefficient of I _{sc}	0.046 %/°C					

STC: Irradiance 1000W/m², Cell Temperature 25°C, AM=1.5

Specifications (BNPI)

Maximum Power - P _{max} [Wp]	513	518	524	530	535	541
Maximum Power Voltage - V _{mp} [V]	30.71	30.88	31.05	31.21	31.38	31.54
Maximum Power Current - I _{mp} [A]	16.70	16.79	16.88	16.97	17.06	17.14
Open-circuit Voltage - V _{oc} [V]	35.71	35.96	36.21	36.46	36.71	39.96
Short-circuit Current - I _{sc} [A]	17.47	17.52	17.58	17.64	17.69	17.75

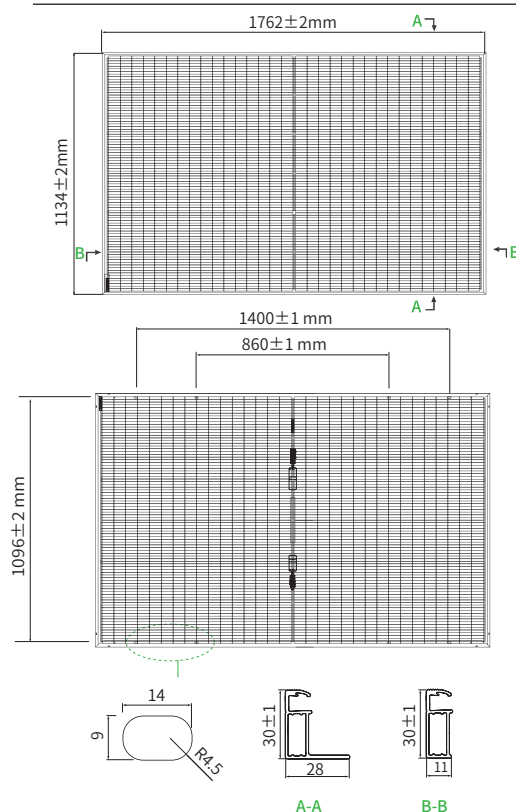
BNPI: Irradiance: front 1000W/m², rear 135W/m², Cell Temperature 25°C, AM=1.5

Application Conditions

Level T ₉₈ ≤ 70 °C	- 40 °C to + 70 °C*
Maximum System Voltage	1500 VDC (IEC)
Maximum Series Fuse Rating	30 A
Bifaciality Coefficients	φV _{oc} : 98±5 %, φI _{sc} : 85±5 %, φP _{max} : 85±5 %

*Short-term up to 85°C; higher operation requires IEC TS 61216 testing

Engineering Drawings



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

Electrical Performance

