

48QL6-DB

460-485 Watt

ALL BLACK MONO-FACIAL MODULE
WITH DUAL GLASS



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 achieved via advanced graphical patterning, busbar and multi-cell technology.



Proven Low Light Performance

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



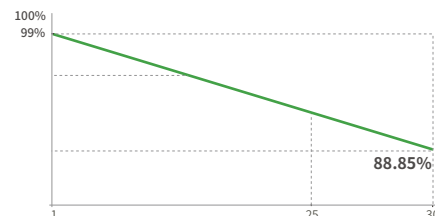
Mechanical Load Enhanced

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



Industry Leading Warranty

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



25 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-DB-F2-EN

48QL6-DB 460-485 Watt

Mechanical Characteristics

Cell Type	N- type Mono-crystalline
No. of cells	192 (48×4)
Dimensions	1762×1134×30 mm
Weight	24.4kg
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]	30.63	30.80	30.97	31.13	31.32	31.50
Maximum Power Current - I _{mp} [A]	15.02	15.10	15.18	15.26	15.33	15.40
Open-circuit Voltage - V _{oc} [V]	35.69	35.94	36.19	36.44	36.69	36.94
Short-circuit Current - I _{sc} [A]	15.70	15.75	15.80	15.85	15.89	15.94
Module Efficiency STC [%]	23.02	23.27	23.52	23.77	24.02	24.27
Power Tolerance	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					

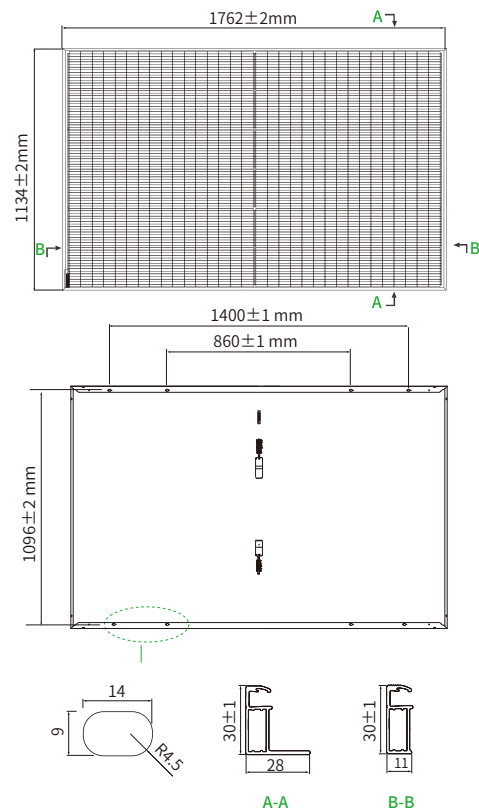
STC: Irradiance 1000W/m², Cell Temperature 25°C, AM=1.5

Application Conditions

Level T _{g8} ≤ 70 °C	- 40 °C to + 70 °C*
Maximum System Voltage	1500 VDC (IEC)
Maximum Series Fuse Rating	30 A

*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

