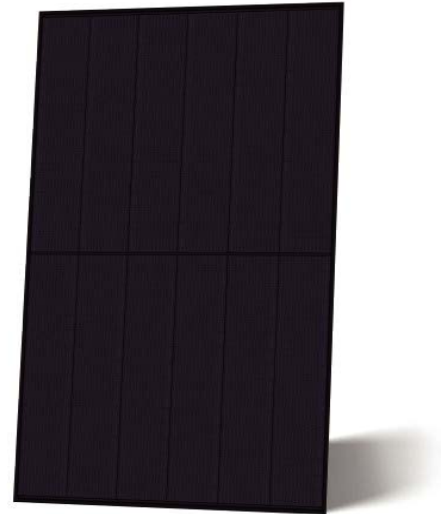


48QL6-DB

450-475 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.



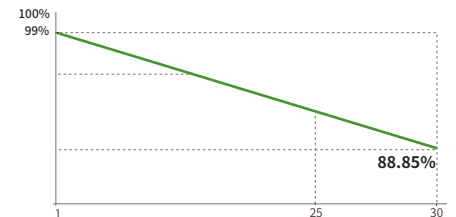
Proven Low Light Performance

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



Mechanical Load Enhanced

Certified to withstand:
5400 Pa front side max static test load
2400 Pa rear side max static test load



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

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



JKMxxxN-48QL6-DB (xxx=450-475, in steps of 5)

Mechanical Characteristics

Cell Type	N- type Mono-crystalline
No. of cells	192 (48×4)
Dimensions	1762×1134×30 mm
Weight	21.7 kg
Front Glass	1.6 mm, Anti-reflection Coating
Back Glass	1.6 mm, Heat Strengthened Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68 Rated
Protection Class	Class II
IEC Fire Type	Class C
Connector Type	PV-JK03M/xy,PV-JK03M2/xy (Jinko) ; PV-KST4-EVO2A/xy,PV-KBT4-EVO2A/xy (Staubli)
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]	450	455	460	465	470	475
Maximum Power Voltage - Vmp [V]	30.29	30.46	30.63	30.80	30.97	31.13
Maximum Power Current - Imp [A]	14.86	14.94	15.02	15.10	15.18	15.26
Open-circuit Voltage - Voc [V]	35.17	35.44	35.69	35.94	36.19	36.44
Short-circuit Current - Isc [A]	15.60	15.65	15.70	15.75	15.80	15.85
Module Efficiency STC [%]	22.52	22.77	23.02	23.27	23.52	23.77
Measurement Tolerance	STC: Pmax ± 3%, Voc ± 5%, Isc ± 5%					
Power Sorting	-5W ~ +15W					
Temperature Coefficient of Pmax	-0.26 %/°C					
Temperature Coefficient of Voc	-0.24 %/°C					
Temperature Coefficient of Isc	0.046 %/°C					

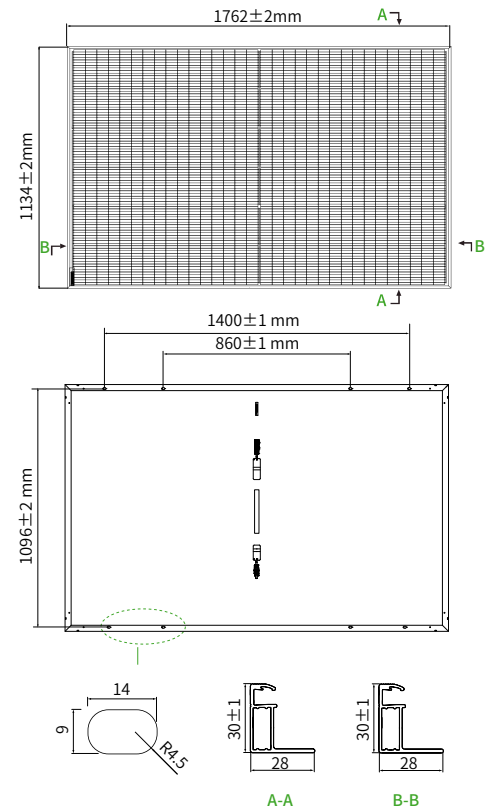
STC: Irradiance 1000W/m², Cell Temperature 25°C, AM=1.5

Application Conditions

Operating Temperature	-40°C to +70 °C*
Module [T98] max	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

