

51 QL6-BDV

495-520 Watt

85±5% Bifaciality

BIFACIAL MODULE



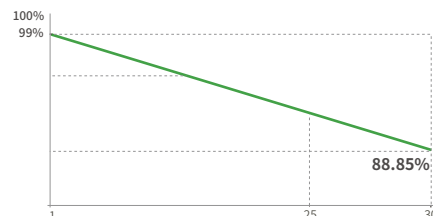
Higher Power on Front Side

Leading power class based on the enhanced N-type TOPCon platform, 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.

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



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:
5400 Pa front side max static test load
2400 Pa rear side max static test load



JKM495-520N-51QL6-BDV-F2-EN

51QL6-BDV 495-520 Watt

Mechanical Characteristics

Cell Type	N- type Mono-crystalline
No. of cells	204 (51×4)
Dimensions	1906×1134×30 mm
Weight	26.3 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	1981×1140×1249 mm
Packing Detail (Two pallets = One stack)	37 pcs/pallets, 74 pcs/stack, 888 pcs/ 40'HQ Container

Specifications (STC)

Maximum Power - Pmax [Wp]	495	500	505	510	515	520
Maximum Power Voltage - Vmp [V]	32.81	32.96	33.12	33.27	33.42	33.57
Maximum Power Current - Imp [A]	15.09	15.17	15.25	15.33	15.41	15.49
Open-circuit Voltage - Voc [V]	38.35	38.60	38.85	39.10	39.35	39.60
Short-circuit Current - Isc [A]	15.76	15.81	15.86	15.91	15.96	16.01
Module Efficiency STC [%]	22.90	23.13	23.36	23.60	23.83	24.06
Bifacial Factor	85 ± 5%					
Power Tolerance	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

Specifications (BNPI)

Maximum Power - Pmax [Wp]	552	557	563	569	574	580
Maximum Power Voltage - Vmp [V]	32.81	32.96	33.12	33.27	33.42	33.57
Maximum Power Current - Imp [A]	16.82	16.91	17.00	17.09	17.18	17.27
Open-circuit Voltage - Voc [V]	38.35	38.60	38.85	39.10	39.35	39.60
Short-circuit Current - Isc [A]	17.51	17.57	17.62	17.68	17.74	17.79

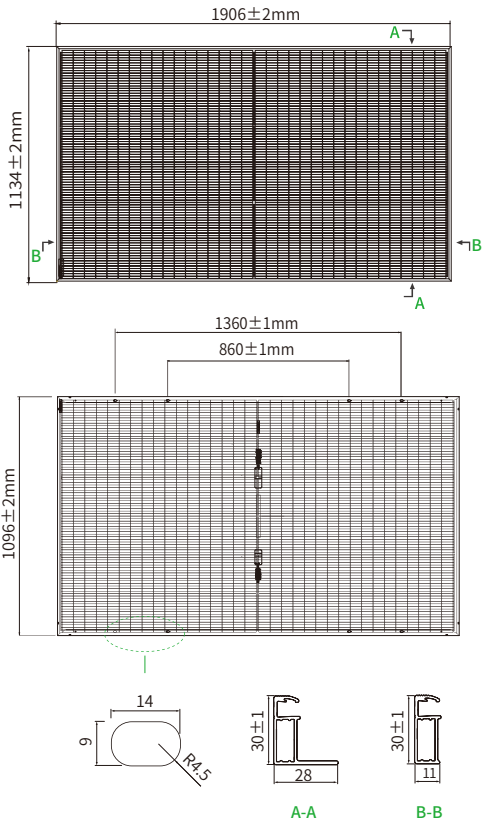
BNPI: Irradiance: front 1000W/m², rear 135W/m², Cell Temperature 25°C, AM=1.5

Application Conditions

Level T _{g8} ≤ 70 °C	- 40 °C to + 70 °C*
Maximum System Voltage	1500 VDC (IEC)
Maximum Series Fuse Rating	35 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

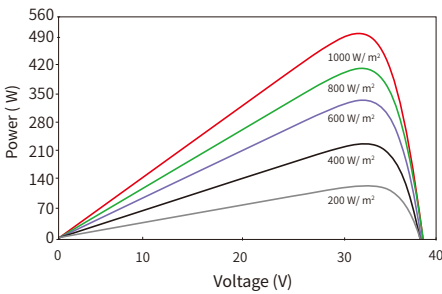
Engineering Drawings



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

Electrical Performance

Power-Voltage Curves (51QL6-BDV 505W)



Current-Voltage Curves (51QL6-BDV 505W)

