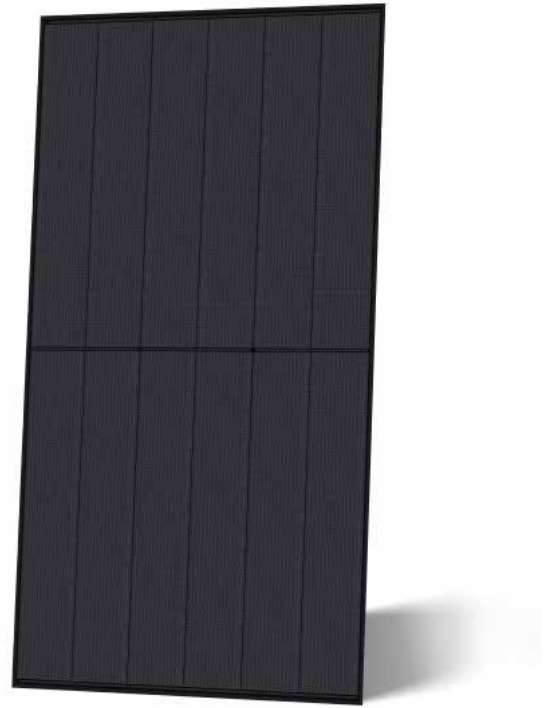


# 51QL6-DB

490-515 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.



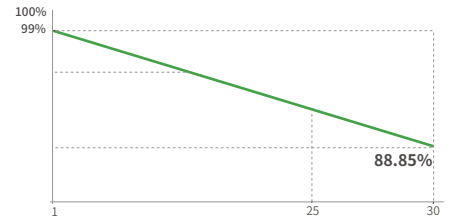
## Industry Leading Warranty

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



**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



JKM490-515N-51QL6-DB-F2-OC

# 51QL6-DB 490-515 Watt

## Mechanical Characteristics

Cell Type	N- type Mono-crystalline
No. of cells	204 (51×4)
Dimensions	1906×1134×30 mm
Weight	23.0 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-03M2/xy (Jinko) ; PV-KST4-EVO2A/xy,PV-KBT4-EVO2A/xy (Staubli)
Output Cables (Including Connector)	≥4.0 mm <sup>2</sup> (+): 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]	490	495	500	505	510	515
Maximum Power Voltage - Vmp [V]	32.63	32.79	32.94	33.10	33.25	33.40
Maximum Power Current - Imp [A]	15.02	15.10	15.18	15.26	15.34	15.42
Open-circuit Voltage - Voc [V]	37.97	38.22	38.47	38.72	38.96	39.21
Short-circuit Current - Isc [A]	15.80	15.85	15.90	15.95	16.00	16.05
Module Efficiency STC [%]	22.67	22.90	23.13	23.36	23.60	23.83
Power Measurement Tolerance	± 3%					
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					

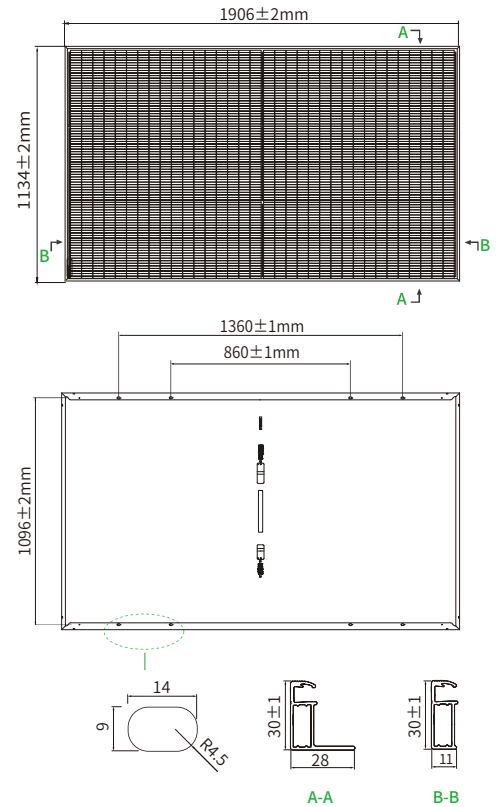
STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, AM=1.5

## Application Conditions

Level T <sub>98</sub> ≤ 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

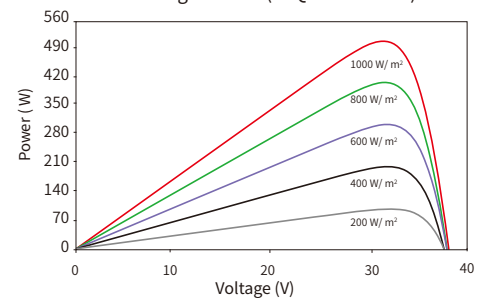
## Engineering Drawings



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

## Electrical Performance

Power-Voltage Curves (51QL6-DB 500W)



Current-Voltage Curves (51QL6-DB 500W)

