



# 48HL4M-DV

450-475 Watt

MONO-FACIAL MODULE WITH DUAL GLASS

# N-type





### **N-type Technology**

N-type modules with Tunnel Oxide Passivating Contacts (TOPCon) technology offer lower LID/LeTID degradation and better low light performance.



# **Dual-Sided Power Generation**

Dual-sided power generation gain increases with backside exposure to light, significantly reducing LCOE.



## **SMBB Technology**

Better light trapping and current collection to improve module power output and reliability.



## **HOT 3.0 Technology**

N-type modules with JinkoSolar's HOT 3.0 technology offer better reliability and efficiency.



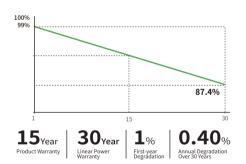
## Mechanical Load Enhanced

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



# **Anti-PID Guarantee**

Minimizes the chance of degradation caused by PID phenomena through optimization of cell production technology and material control.



- 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











JKM450-475N-48HL4M-DV-Z1-EN

# 48HL4M-DV 450-475 Watt

#### **Mechanical Characteristics**

N- type Mono-crystalline			
96 (48×2)			
1762×1134×30 mm			
24.0 kg			
2.0 mm, Anti-reflection Coating			
2.0 mm, Heat Strengthened Glass			
Anodized Aluminium Alloy			
IP68 Rated			
Class II			
Class C			
JK03M/JK03M2/Others*			
4.0 mm <sup>2</sup>			
(+): 400 mm , (-): 200 mm or Customized Length			

<sup>\*</sup> MC4 and MC4-EVO2 available upon request and subject to availability

### **Packaging Configuration**

Pallet Dimensions	1792×1140×1249 mm
Packing Detail	37 pcs/pallets, 74 pcs/stack,
(Two pallets = One stack)	962 pcs/ 40'HQ Container

### **Specifications (STC)**

Maximum Power - Pmax [Wp]	450	455	460	465	470	475	
Maximum Power Voltage - Vmp [V]	30.25	30.48	30.71	30.94	31.17	31.40	
Maximum Power Current - Imp [A]	14.88	14.93	14.98	15.03	15.08	15.13	
Open-circuit Voltage - Voc [V]	36.04	36.21	36.38	36.55	36.72	36.89	
Short-circuit Current - Isc [A]	15.81	15.86	15.91	15.96	16.01	16.06	
Module Efficiency STC [%]	22.52	22.77	23.02	23.27	23.52	23.77	
Power Tolerance	0 ~ + 3 %						
Temperature Coefficients of Pmax	-0.29 %/°C						
Temperature Coefficients of Voc	-0.25 %/°C						
Temperature Coefficients of Isc	0.045 %/°C						

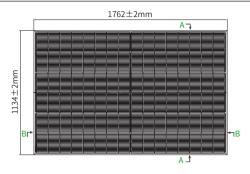
STC: Irradiance 1000W/m², Cell Temperature 25°C, AM=1.5  $\,$ 

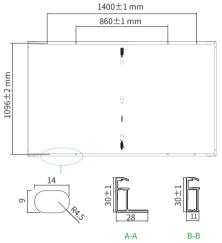
### **Application Conditions**

Operating Temperature	-40 °C ~ +70 °C
Maximum System Voltage	1500 VDC (IEC)
Maximum Series Fuse Rating	30 A

**Note:** Please read the safety and installation manual before using the product. We reserve the right of final interpretation. The specifications in this datasheet are subject to change without notice.

### **Engineering Drawings**





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

### **Electrical Performance**

