

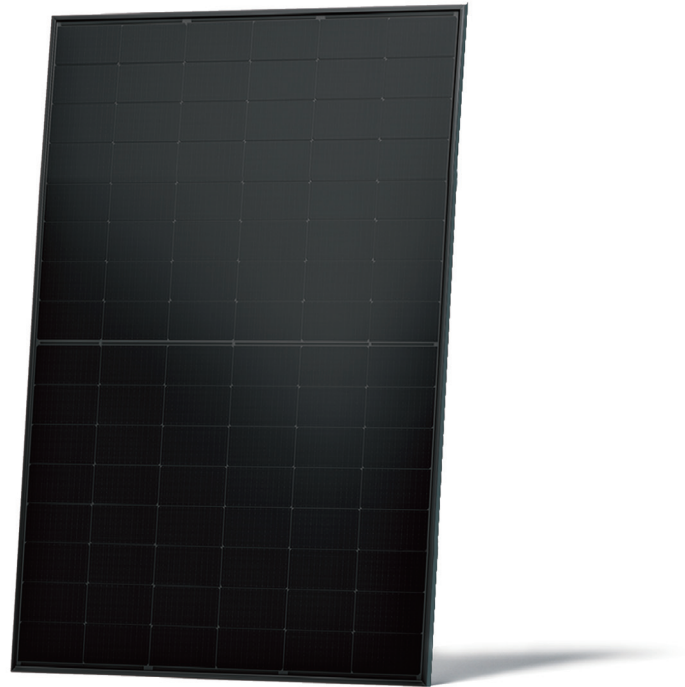
TIGER Neo

48HL4M-DB

440-465 Watt

ALL BLACK MONO-FACIAL MODULE WITH DUAL GLASS

N-type



HOT 3.0 Technology

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

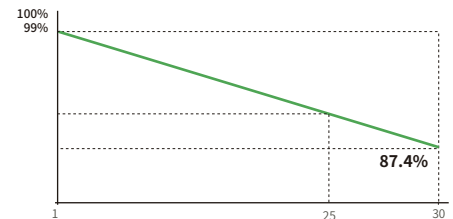


Mechanical Load Enhanced

Certified to withstand:

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	0.40 % Annual Degradation Over 30 Years
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- IEC61215:2021 / IEC61730:2023
- ISO9001:2015: Quality Management System
- ISO14001:2015: Environment Management System
- ISO45001:2018: Occupational health and safety management systems



48HL4M-DB 440-465 Watt

Mechanical Characteristics

Cell Type	N- type Mono-crystalline
No. of cells	96 (48×2)
Dimensions	1762×1134×30 mm
Weight	20.0 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 ² (+): 400 mm , (-): 200 mm or Customized Length

* MC4 and 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)

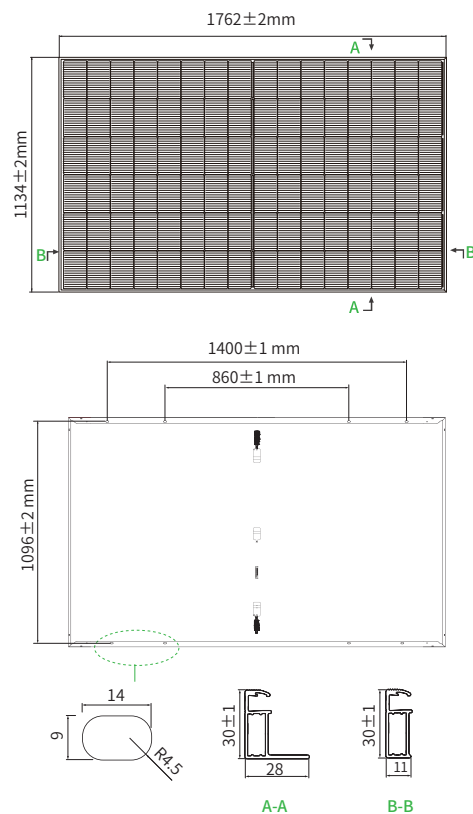
Maximum Power - Pmax [Wp]	440	445	450	455	460	465
Maximum Power Voltage - Vmp [V]	29.77	30.01	30.25	30.48	30.71	30.94
Maximum Power Current - Imp [A]	14.78	14.83	14.88	14.93	14.98	15.03
Open-circuit Voltage - Voc [V]	35.68	35.86	36.04	36.21	36.38	36.55
Short-circuit Current - Isc [A]	15.66	15.71	15.76	15.81	15.86	15.91
Module Efficiency STC [%]	22.02	22.27	22.52	22.77	23.02	23.27
Power Measurement Tolerance	± 3%					
Power Sorting	-5W ~ +15W					
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

Engineering Drawings



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

Electrical Performance

