METAWOLF SOLAR

BlackLux Clear 2.0

MW-SP445-2RB96DFT-**20**

N-Type HJT
0BB Clear Mesh Double Glass

445W Power

22.3% Efficiency

30 Yrs PRODUCT WARRANTY

30 Yrs LINEAR POWER WARRANTY



Exceeds the requirements of hail resistance 4 (HW4) confirmed by TÜV Süd

2 X2 mm Glass Front and Back

- Better hail resistance with 45 mm ice ball at 110 km/h vs IEC Standard: 25 mm ice ball at 83 km/h
  vs IEC Standard: 25 mm ice ball at 83 km/h
- Higher snow load and wind load resistance with tested up to 6336 pa (Front) and 5530 pa (Rear)
  vs IEC Standard: 5400 pa (Front) and 2400 pa (Rear)
- Zero Busbar. Less Shading, More Power. Less Soldering Stress, Less Cracks.

HJT Technology

Combining gettering process and double-sided µc-Si to maximize cell efficiency and module power.

Butyl Edge Sealing

- Zero water ingress → zero corrosion
- Superb durability for a longer lifespan

Up to 95% Bifaciality

vs PERC: 70%.
vs TOPCon: 80%

Electrical Characteristics (STC*)

Module Type	MW-SP445-2RB96DFT-20
Maximum Power (Pmax)	445W
Module Efficiency	22.3%
Maximum Power Voltage (Vmp)	30.72V
Maximum Power Current (Imp)	14.49A
Open Circuit Voltage (Voc)	36.62V
Short Circuit Current (Isc)	15.42A

STC: AM1.5, 1000W/m², 25°C.

BNPI

Maximum Power (Pmax)	499W
Voltage at Pmax (Vmp)	30.83V
Current at Pmax (Imp)	16.19A
Open Circuit Voltage (Voc)	36.75V
Short Circuit Current (Isc)	17.29A

BNPI: AM1.5, 1000W/m², 135W/m², 25°C.

NOCT

Maximum Power (Pmax)	340W
Voltage at Pmax (Vmp)	29.34V
Current at Pmax (Imp)	11.58A
Open Circuit Voltage (Voc)	34.95V
Short Circuit Current (Isc)	12.32A

NOCT: AM1.5, 800W/m², 20°C, 1m/s.

Temperature Coefficients

Temperature Coefficient of Pmax	-0.24% / °C
Temperature Coefficient of Voc	-0.22% / °C
Temperature Coefficient of Isc	+0.04% / °C

Operating Conditions

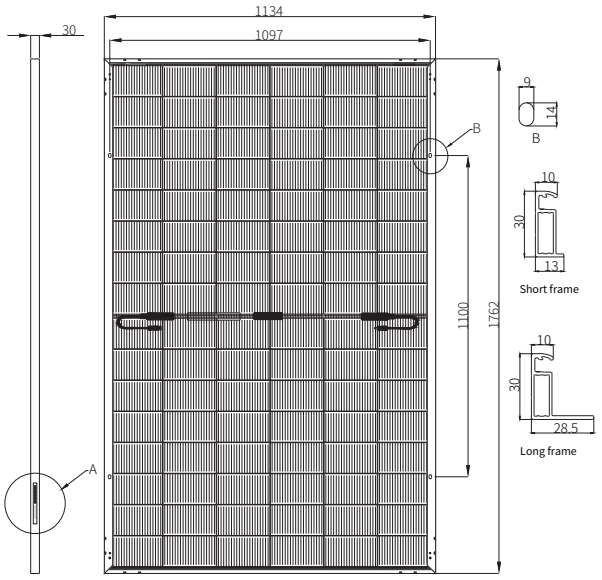
Nominal Operating Cell Temp.	44±2°C
Operating Temperature	-40~+85°C
Maximum System Voltage	DC1500V (IEC)
Maximum Series Fuse Rating	30A
Tolerance of Pmax	0 ~ +3%
Power Selection	0 ~ +5W
Bifaciality	>90% ± 5%

Shipping Configurations

Container Size	40' HQ
Pallets Per Container	26
Modules Per Pallet (pcs)	36
Modules Per Container (pcs)	936

Engineering Drawings

Unit: mm

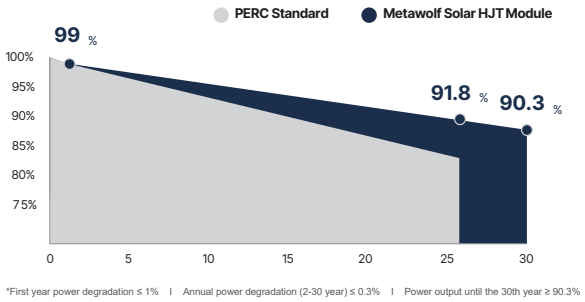


Mechanical Characteristics

Cell Type	HJT
Cell Connection	96 (6×16)
Module Dimension	1,762×1,134×30 mm
Weight	24.7 kg
Junction Box	IP68
Output Cable	4mm², 1,250mm in length, length can be customized / UV resistant
Connectors Type	MC4 original
Frame	Anodised aluminum alloy(Black)
Front Load	5,400Pa
Rear Load	2,400Pa
Glass Thickness	Double glass, 2.0mm

Safety & Warranty

Safety Class	Class II
Product Warranty	30 yrs Workmanship (For Rooftop Installation)*
Performance Warranty	30 yrs Linear Warranty*



*First year power degradation ≤ 1% I Annual power degradation (2-30 year) ≤ 0.3% I Power output until the 30th year ≥ 90.3%

* The module recycling should be carried out by the professional institutions at the end of module life cycle
* Copyright@2023 Specifications are subject to change without further notification

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