

OR10H450MNDB (FB)

OR Series – 450 W

108 cells
MONO M10 HALF | N-TYPE



TOPCon bifacial technology



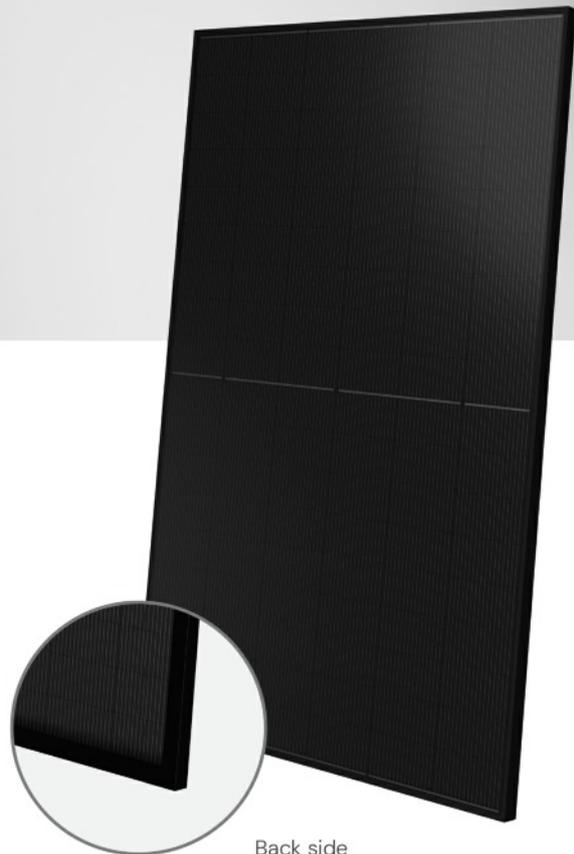
Anti-reflective double glass
Maximum efficiency and high performance



Compact and sturdy frame
Anchorable also on the short side ⁽⁵⁾



Module fire performance:
Class 1



Back side



30 years
Linear power warranty

25 years
Product warranty



QBE insurance
QBE Product Liability Insurance

QBE is a global leader in the insurance sector, offering comprehensive solutions for business risk management. With a worldwide network, it protects clients against a wide range of risks and provides flexible insurance solutions tailored to various industries, including the energy sector.



OR10H450MNDB (FB)

Electrical Characteristics (STC) ⁽¹⁾

Nominal Output (Pmax) ⁽²⁾	450 W
Sorting Tolerance	0/+5 W
Voltage at Pmax (Vmp)	33,25 V
Current at Pmax (Imp)	13,53 A
Open Circuit Voltage (Voc) ⁽²⁾	38,99 V
Short Circuit Current (Isc) ⁽²⁾	14,25 A
Maximum System Voltage	1500 V
Maximum Series Fuse Rating	30 A
Module Efficiency	23,04% 22,52%
Protection class against electric shock	Class II

1. STC: (Standard Test Condition) Irradiance 1000 W/m²; Module Temperature 25 °C; Air Mass 1.5

2. Pmax, Voc, Isc measurement tolerance: ±3%

Electrical Characteristics with rear side power gain

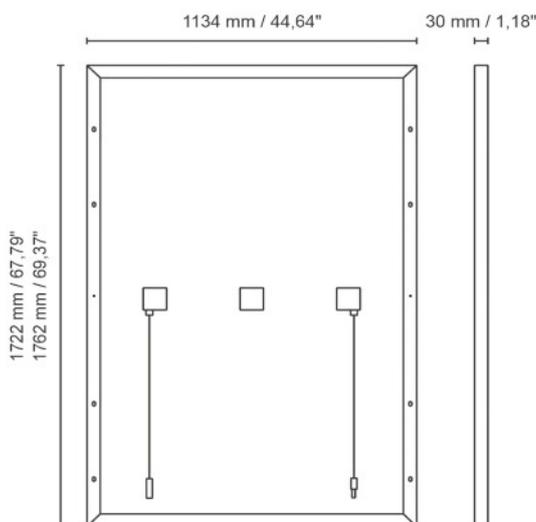
Pmax gain	5%	10%	15%	20%	25%
Nominal Output (Pmax)	472 W	495 W	517 W	540 W	562 W
Voltage at Pmax (Vmp)	33,25 V				
Current at Pmax (Imp)	14,21 A	14,88 A	15,56 A	16,24 A	16,91 A
Open Circuit Voltage (Voc)	38,99 V				
Short Circuit Current (Isc)	14,96 A	15,68 A	16,39 A	17,10 A	17,81 A

Mechanical Characteristics

Solar Cells	108 M10 HALF monocrystalline N-TYPE
Solar Cells Size	182 x 91 mm / 7,16 x 3,58"
Front Cover	2,0 mm / 0,08" thick, low iron tempered glass
Back Cover	2,0 mm / 0,08" thick, low iron tempered glass
Encapsulant	EVA / POE
Frame	Anodized aluminium alloy, double wall
Frame finishing	Black
Diodes	3 Bypass diodes serviceable
Junction Box	IP68 rated
Connector	MC4 or compatible connector
Cables Length	1100 mm / 43,30"
Cables Section	4,0 mm ² / 0,006 in ²
Dimensions	1722 x 1134 x 30 mm / 67,79 x 44,64 x 1,18" 1762 x 1134 x 30 mm / 69,37 x 44,64 x 1,18"
Weight	23,24 kg / 51,2 lbs – 23,77 kg / 52,4 lbs
Max Load (Test Load) – SF	5400 Pa – 1,5 ⁽⁵⁾

5. Consult the installation manual for the relative mounting configurations

Dimensions



Temperature Characteristics

NMOT ⁽³⁾	43±2 °C
Temperature Coefficient of Pmax	-0,29 %/°C
Temperature Coefficient of Voc	-0,25 %/°C
Temperature Coefficient of Isc	0,046 %/°C
Operating Temperature	-40 °C ~ +85 °C

3. NMOT: Nominal Module Operating Temperature: Irradiance 800 W/m²; Air 20 °C; Wind speed 1 m/s

Packaging ⁽⁴⁾

Pallet dimensions	Pieces per pallet – Weight
1750 x 1130 x 1265 mm / 68,9 x 44,5 x 49,8"	36 pcs – 864 kg / 1904,8 lbs
1750 x 1130 x 1265 mm / 68,9 x 44,5 x 49,8"	37 pcs – 888 kg / 1957,7 lbs
1780 x 1130 x 1265 mm / 70,1 x 44,5 x 49,8"	36 pcs – 883 kg / 1946,68 lbs

4. Pallets can be stacked up to two

Certifications

Fire Resistance Rating	Class of reaction to fire 1 (UNI 9177)
Product Certificate	IEC 61215-1, IEC 61215-1-1, IEC 61215-2, IEC 61730-1, IEC 61730-2

Current/Voltage Characteristics

