

OR10H590MNDB

OR Series – 590 W

144 cells

MONO M10 HALF | N-TYPE



TOPCon bifacial technology



Anti-reflective double glass

Maximum efficiency and high performance



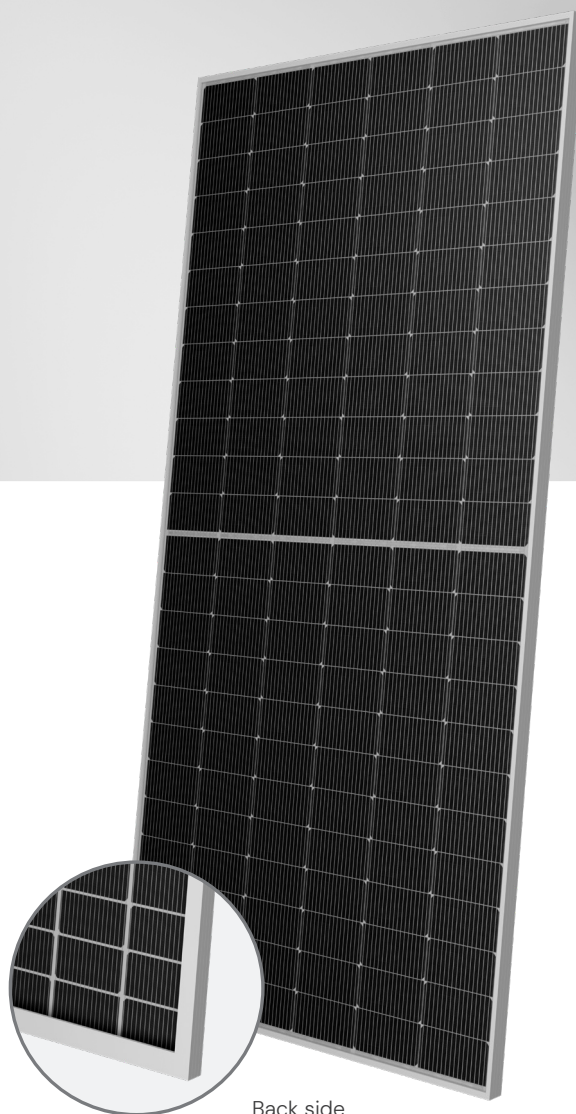
Compact and sturdy frame

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.

OR10H590MNDB

Electrical Characteristics (STC) ⁽¹⁾

Nominal Output (Pmax) ⁽²⁾	590 W
Sorting Tolerance	0/+5 W
Voltage at Pmax (Vmp)	44,32 V
Current at Pmax (Imp)	13,3 A
Open Circuit Voltage (Voc) ⁽²⁾	52,92 V
Short Circuit Current (Isc) ⁽²⁾	14,07 A
Maximum System Voltage	1500 V
Maximum Series Fuse Rating	30 A
Module Efficiency	22,84%
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)	619 W	648 W	678 W	707 W	737 W
Voltage at Pmax (Vmp)	44,32 V	44,32 V	44,32 V	44,32 V	44,32 V
Current at Pmax (Imp)	13,97 A	14,63 A	15,30 A	15,96 A	16,63 A
Open Circuit Voltage (Voc)	52,92 V	52,92 V	52,92 V	52,92 V	52,92 V
Short Circuit Current (Isc)	14,77 A	15,48 A	16,18 A	16,88 A	17,59 A

Mechanical Characteristics

Solar Cells	144 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	Silver
Diodes	3 Bypass diodes serviceable
Junction Box	IP68 rated
Connector	MC4 or compatible connector
Cables Length	1400 mm / 55,12"
Cables Section	4,0 mm ² / 0,006 in ²
Dimensions	2278 x 1134 x 30 mm / 89,69 x 44,65 x 1,18"
Weight	30 kg / 66,14 lbs
Max Load (Test Load) - SF	5400 Pa - 1,5 ⁽⁵⁾

5. Consult the installation manual for the relative mounting configurations

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

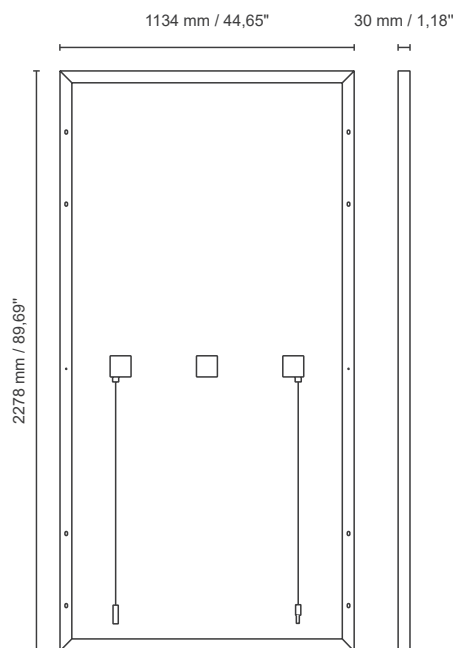
3. NMOT: Nominal Module Operating Temperature: Irradiance 800 W/m²; Air 20 °C; Wind speed 1 m/s

Packaging ⁽⁴⁾

Pallet dimensions	2300 x 1130 x 1265 mm / 90,6 x 44,5 x 49,8"
Pieces per pallet	36
Weight	1113 kg / 2453,75 lbs

4. Pallets can be stacked up to two

Dimensions



Current/Voltage Characteristics

