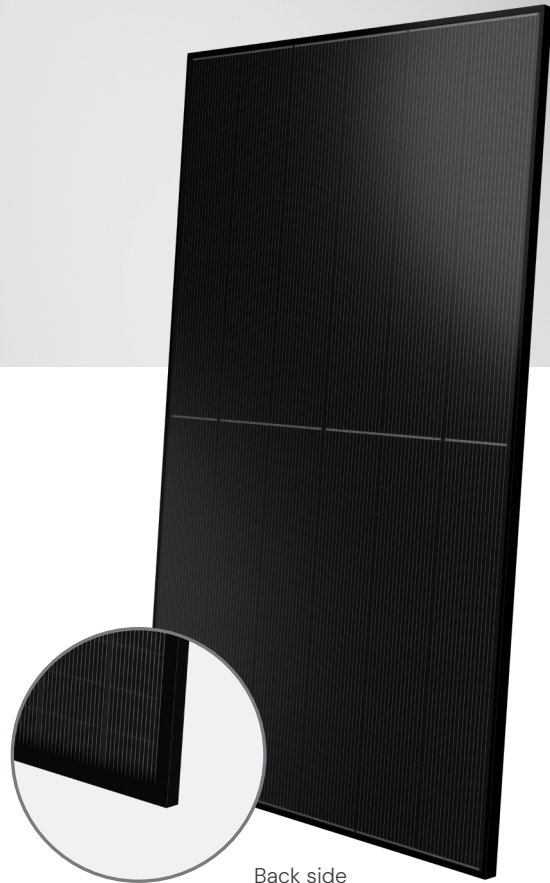


# OR10H510MNDB (FB)

OR Series – 510 W

120 cells  
MONO M10 HALF | N-TYPE



**Extra-EU module**  
Manufactured in our production factory



**TOPCon bifacial technology**



**Anti-reflective double glass**  
Maximum efficiency and high performance



**Compact and sturdy frame**  
Anchorable also on the short side <sup>(5)</sup>



**Class of reaction to fire**  
Class 1 (UNI 9177),  
B-s1, d0 (EN 13501-1)  
B<sub>ROOF</sub>(t1) (EN 13501-5)



**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.

# OR10H510MNDB (FB)

## Electrical Characteristics (STC) <sup>(1)</sup>

|  |          |
|--|----------|
| Nominal Output (Pmax) <sup>(2)</sup>       | 510 W    |
| Sorting Tolerance                          | 0/+5 W   |
| Voltage at Pmax (Vmp)                      | 37,19 V  |
| Current at Pmax (Imp)                      | 13,71 A  |
| Open Circuit Voltage (Voc) <sup>(2)</sup>  | 43,64 V  |
| Short Circuit Current (Isc) <sup>(2)</sup> | 14,43 A  |
| Maximum System Voltage                     | 1500 V   |
| Maximum Series Fuse Rating                 | 30 A     |
| Module Efficiency                          | 23,63%   |
| Protection class against electric shock    | Class II |

1. STC: (Standard Test Condition) Irradiance 1000 W/m<sup>2</sup>; 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)       | 535 W   | 561 W   | 586 W   | 612 W   | 637 W   |
| Voltage at Pmax (Vmp)       | 37,19 V | 37,19 V | 37,19 V | 37,19 V | 37,19 V |
| Current at Pmax (Imp)       | 14,40 A | 15,08 A | 15,77 A | 16,45 A | 17,14 A |
| Open Circuit Voltage (Voc)  | 43,64 V | 43,64 V | 43,64 V | 43,64 V | 43,64 V |
| Short Circuit Current (Isc) | 15,15 A | 15,87 A | 16,59 A | 17,32 A | 18,04 A |

## Mechanical Characteristics

|                           |   |
|---------------------------|---|
| Solar Cells               | 120 M10 HALF monocrystalline <b>N-TYPE</b>    |
| 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             | 1300 mm / 51,18"                              |
| Cables Section            | 4,0 mm <sup>2</sup> / 0,006 in <sup>2</sup>   |
| Dimensions                | 1903 x 1134 x 30 mm / 74,92 x 44,64 x 1,18"   |
| Weight                    | 25,7 kg / 56,66 lbs                           |
| Max Load (Test Load) - SF | 5400 Pa - 1,5 <sup>(5)</sup>                  |

5. Consult the installation manual for the relative mounting configurations

## Temperature Characteristics

|                                 |                 |
|---------------------------------|-----------------|
| NMOT <sup>(3)</sup>             | 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/m<sup>2</sup>; Air 20 °C; Wind speed 1 m/s

## Packaging <sup>(4)</sup>

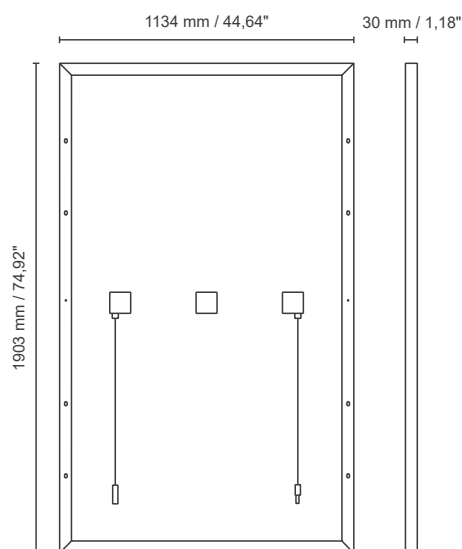
|                   |   |
|-------------------|---|
| Pallet dimensions | 1930 x 1130 x 1265 mm / 76,0 x 44,5 x 49,8" |
| Pieces per pallet | 37  |
| Weight            | 980 kg / 2160,53 lbs                        |

4. Pallets can be stacked up to two

## Certifications

|                     |   |
|---------------------|---|
| Reaction to fire    | Class 1 (UNI 9177), B-s1, d0 (EN 13501-1), B <sub>ROD</sub> (t1) (EN 13501-5) |
| Product Certificate | IEC 61215-1, IEC 61215-1-1, IEC 61215-2, IEC 61730-1, IEC 61730-2             |

## Dimensions



## Current/Voltage Characteristics

