

OR10E460MNDB (FB)

OR Series – 460 W

96 cells
MONO M10 | N-TYPE



Extra-EU module

Manufactured in our production factory



TOPCon bifacial technology



Anti-reflective double glass

Maximum efficiency and high performance



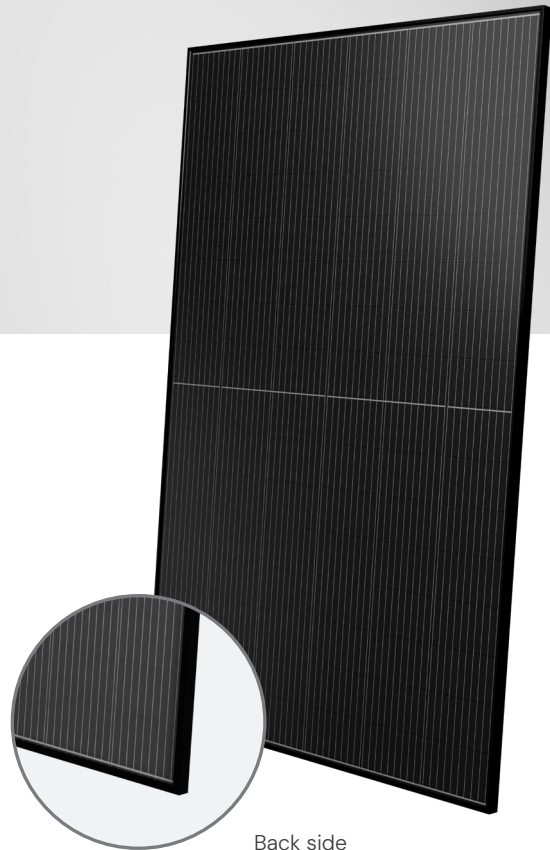
Compact and sturdy frame

Anchorable also on the short side ⁽⁵⁾



Class of reaction to fire

Class 1 (UNI 9177),
B-s1, d0 (EN 13501-1)
B_{ROOF}(t1) (EN 13501-5)



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.

OR10E460MNDB (FB)

Electrical Characteristics (STC) ⁽¹⁾

Nominal Output (P _{max}) ⁽²⁾	460 W
Sorting Tolerance	0/+5 W
Voltage at P _{max} (V _{mp})	31,57 V
Current at P _{max} (I _{mp})	14,57 A
Open Circuit Voltage (V _{oc}) ⁽²⁾	37,58 V
Short Circuit Current (I _{sc}) ⁽²⁾	15,30 A
Maximum System Voltage	1500 V
Maximum Series Fuse Rating	30 A
Module Efficiency	23,02%
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. P_{max}, V_{oc}, I_{sc} measurement tolerance: ±3%

Electrical Characteristics with rear side power gain

P _{max} gain	5%	10%	15%	20%	25%
Nominal Output (P _{max})	483 W	506 W	529 W	552 W	575 W
Voltage at P _{max} (V _{mp})	31,57 V	31,57 V	31,57 V	31,57 V	31,57 V
Current at P _{max} (I _{mp})	15,30 A	16,03 A	16,76 A	17,48 A	18,21 A
Open Circuit Voltage (V _{oc})	37,58 V	37,58 V	37,58 V	37,58 V	37,58 V
Short Circuit Current (I _{sc})	16,07 A	16,83 A	17,60 A	18,36 A	19,13 A

Mechanical Characteristics

Solar Cells	96 M10 CUT monocrystalline N-TYPE
Solar Cells Size	182,2 x 105 mm / 7,17 x 4,13"
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	1762 x 1134 x 30 mm / 69,37 x 44,64 x 1,18"
Weight	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

Temperature Characteristics

NMOT ⁽³⁾	43±2 °C
Temperature Coefficient of P _{max}	-0,29 %/°C
Temperature Coefficient of V _{oc}	-0,25 %/°C
Temperature Coefficient of I _{sc}	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⁾

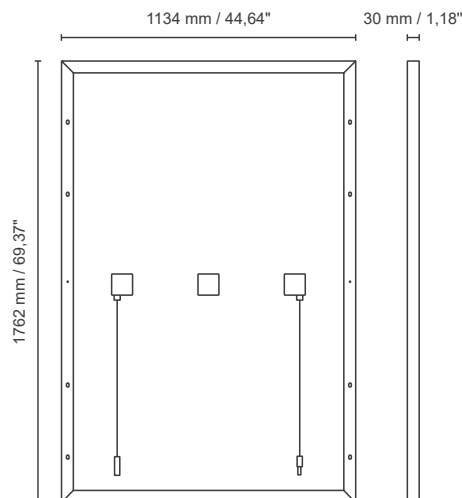
Pallet dimensions	Pieces per pallet - Weight
1790 x 1130 x 1265 mm / 70,1 x 44,5 x 49,8"	37 - 908 kg / 2001,79 lbs

4. Pallets can be stacked up to two

Certifications

Reaction to fire	Class I (UNI 9177), B-s1, d0 (EN 13501-1), B _{ROOF} (t1) (EN 13501-5)
Product Certificate	IEC 61215-1, IEC 61215-1-1, IEC 61215-2, IEC 61730-1, IEC 61730-2
PID free	IEC 61215-2 MQT21
Salt mist	IEC 61701:2020
Ammonia	IEC 62716:2013
Dust and Sand	IEC 60068-2-68:1994

Dimensions



Current/Voltage Characteristics

