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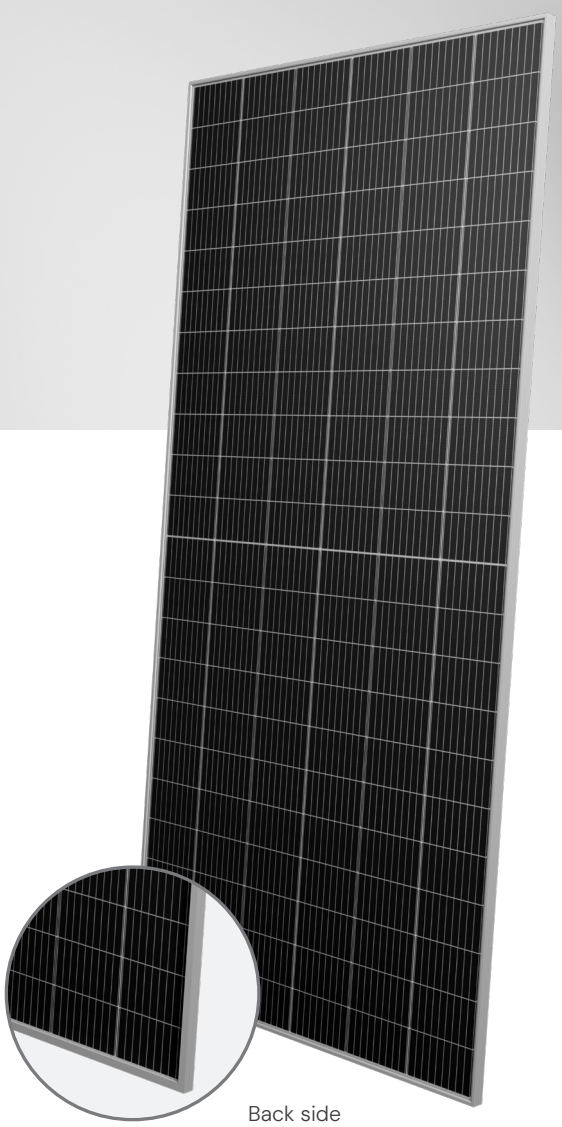
PEIMAR
ITALIAN PHOTOVOLTAIC MODULES

OR10E640MNDB

OR Series - 640 W

132 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)

RoHS compliance
(Restriction of Hazardous Substances Directive 2011/65/UE)

30 years
Linear power warranty

25 years
Product warranty

QBE

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.

It is important to point out, that all technical specifications, information and figures contained in this datasheet are estimated values.
Peimar reserves the right to change the technical specifications, information and figures contained in this document at any time without notice.

OR10E640MNDB

Electrical Characteristics (STC) [1]

Nominal Output (Pmax) [2]	640 W
Sorting Tolerance	0/+5 W
Voltage at Pmax (Vmp)	43,55 V
Current at Pmax (Imp)	14,67 A
Open Circuit Voltage (Voc) [2]	51,84 V
Short Circuit Current (Isc) [2]	15,48 A
Maximum System Voltage	1500 V
Maximum Series Fuse Rating	30 A
Module Efficiency	23,69%
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)	671 W	704 W	735 W	767 W	799 W
Voltage at Pmax (Vmp)	43,55 V	43,55 V	43,55 V	43,55 V	43,55 V
Current at Pmax (Imp)	15,40 A	16,14 A	16,87 A	17,60 A	18,34 A
Open Circuit Voltage (Voc)	51,84 V	51,84 V	51,84 V	51,84 V	51,84 V
Short Circuit Current (Isc)	16,25 A	17,03 A	17,80 A	18,58 A	19,35 A

Mechanical Characteristics

Solar Cells	132 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	Silver
Diodes	3 Bypass diodes
Junction Box	IP68 rated
Connector	MC4 or compatible connector
Cables Lenght	1400 mm / 55,12"
Cables Section	4,0 mm² / 0,006 in²
Dimensions	2382 x 1134 x 30 mm / 93,78 x 44,65 x 1,18"
Weight	32 kg / 70,55 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]

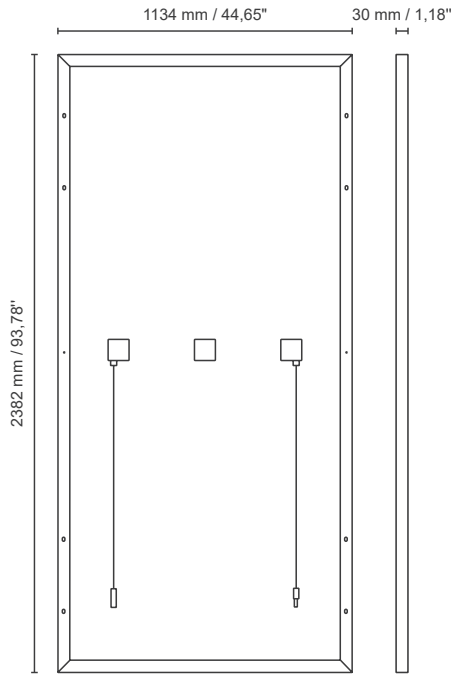
Pallet dimensions	Pieces per pallet - Weight
2395 x 1130 x 1265 mm / 94,29 x 44,49 x 49,80"	37 - 1215 kg / 2678,6 lbs

4. Pallets can be stacked up to two

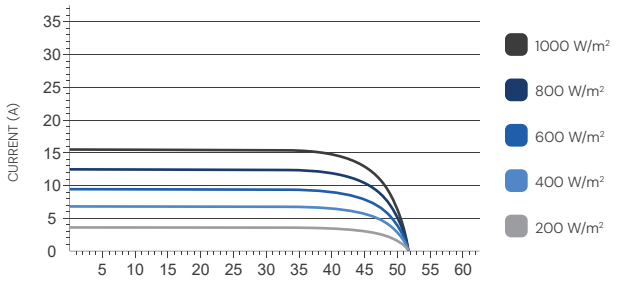
Certifications

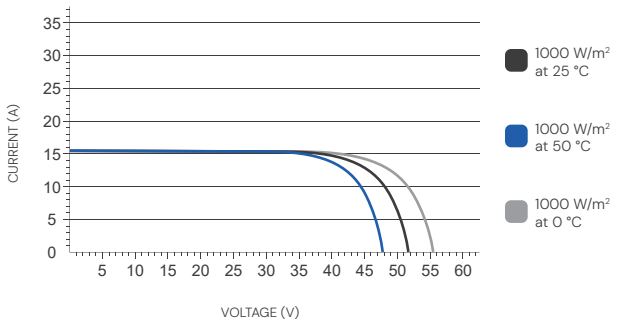
Reaction to fire	Class 1 (UNI 9177), B-s1, d0 (EN 13501-1), B_{ROOF}(t1) (EN 13501-5)
Product Certificate	IEC 61215-1, IEC 61215-1-1, IEC 61215-2, IEC 61730-1, IEC 61730-2
PID free	IEC 61215-2 MQT21
Salt mist	IEC 61701:2020
Ammonia	IEC 62716:2013
Dust and Sand	IEC 60068-2-68:1994
RoHS - Directive 2011/65/EU	EN 62321

Dimensions



Current/Voltage Characteristics





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