

OR10H440MNDB (BF)

TOPCon BIFACIAL

● HALF-CELL MODULE

The 108-cell Half Cut module from the Half Cell Line selection combines the high power production yield of half-cell technology with an excellent price-quality ratio. The half-cell configuration improves the electrical distribution within the panel to increase product performance. Moreover, this product utilizes **bifacial TOPCon technology**, which allows sunlight to be captured on both sides of the module, further enhancing overall efficiency.

The Half Cut selection of the Half Cell Line is suitable not only for industrial installations but also for residential and commercial ones.

30 YEAR LINEAR POWER WARRANTY
25 YEAR PRODUCT WARRANTY



TOPCon BIFACIAL TECHNOLOGY



ANTI-REFLECTIVE GLASS



QBE INSURANCE
Product Liability Insurance QBE

Cells



108 CELLS
MONO 16BB M10 HALF | N-TYPE

182 x 91 mm / 7.16 x 3.58"

Frame



COMPACT AND STURDY | 30 mm

ANCHORABLE ALSO ON
THE SHORT SIDE ⁽⁵⁾

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Electrical Characteristics (STC) ⁽¹⁾

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Nominal Output (Pmax) ⁽²⁾	440 W
Sorting Tolerance	0/+5 W
Voltage at Pmax (Vmp)	33.01 V
Current at Pmax (Imp)	13.33 A
Open Circuit Voltage (Voc) ⁽²⁾	38.71 V
Short Circuit Current (Isc) ⁽²⁾	14.13 A
Maximum System Voltage	1500 V
Maximum Series Fuse Rating	30 A
Module Efficiency	22.02% 22.53%
Protection class against electric shock	Class II

Electrical Characteristics with rear side power gain

Pmax gain	5%	10%	15%	20%	25%
Nominal Output (Pmax)	462 W	484 W	506 W	528 W	550 W
Voltage at Pmax (Vmp)	33.01 V	33.01 V	33.01 V	33.01 V	33.01 V
Current at Pmax (Imp)	14.00 A	14.66 A	15.33 A	16.00 A	16.66 A
Open Circuit Voltage (Voc)	38.71 V	38.71 V	38.71 V	38.71 V	38.71 V
Short Circuit Current (Isc)	14.84 A	15.54 A	16.25 A	16.96 A	17.66 A

Mechanical Characteristics

Solar Cells	108 M10 HALF monocrystalline N-TYPE
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 (Ethylene vinyl acetate)
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	1200 mm / 47.24"
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" 1722 x 1134 x 30 mm / 67.79 x 44.64 x 1.18"
Weight	23.1 Kg / 50.9 lbs 25.9 / 57.09 lbs
Max Load (Test Load) - SF	5400 Pa - 1.5 ⁽⁵⁾

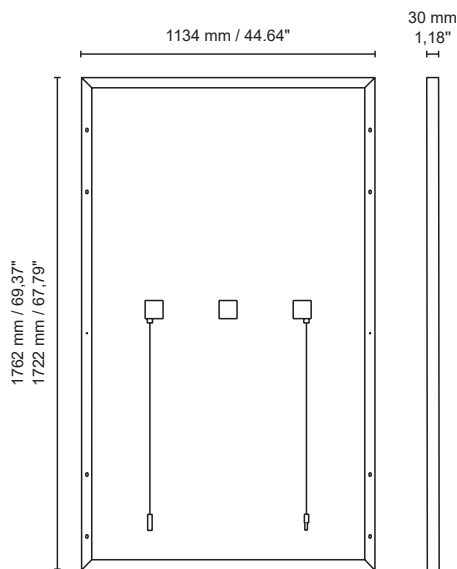
Temperature Characteristics

NMOT ⁽³⁾	43±2 °C
Temperature Coefficient of Pmax	-0.30 %/°C
Temperature Coefficient of Voc	-0.28 %/°C
Temperature Coefficient of Isc	0.04 %/°C
Operating Temperature	-40 °C - +85°C

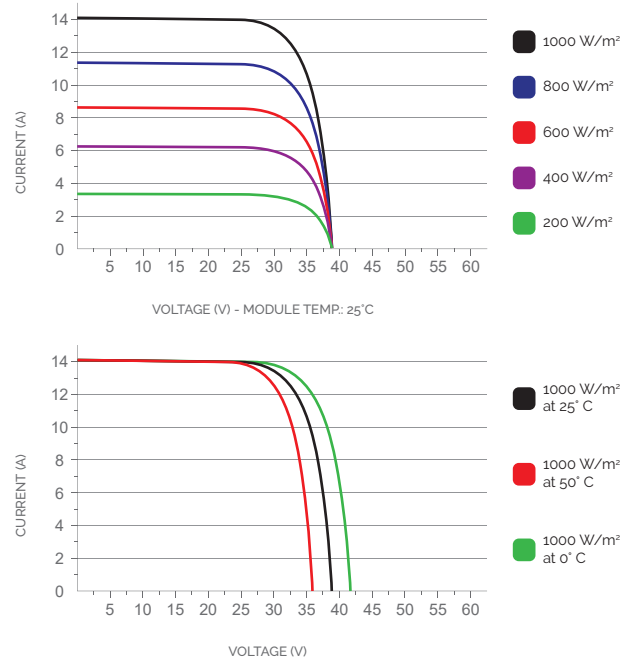
Packaging ⁽⁴⁾

Pallet dimensions	1785 x 1120 x 1275 mm / 70.28 x 44.09 x 50.20" 1765 x 1120 x 1275 mm / 69.49 x 44.09 x 50.20"
Pieces per pallet	36
Weight	926 kg / 2041.48 lbs 1027 kg / 2264.15 lbs

Dimensions



Current/Voltage Characteristics



1. STC: (Standard Test Condition) Irradiance 1000W/m², Module Temperature 25°C, Air Mass 1.5
 2. Pmax, Voc, Isc measurement tolerance: ±3%
 3. NMOT: Nominal Module Operating Temperature, Irradiance 800W/m², Air 20°C, Wind speed 1m/s
 4. Pallets can be stacked up to two
 5. Consult the installation manual for the relative mounting configurations