

# MBB PERC BIFACIAL MODULE

## 540W-545W-550W



- **MBB PERC BIFACIAL MODULE**  
High Performance Half-Cut Bifacial Cells With Transparent Backsheet Photovoltaic Modules

### ● KEY FEATURES

-  MBB 1/2 Cut Bifacial Cell Technology
-  Lower Risk Of HotSpot
-  Higher Power Output
-  High Snow (5400Pa) and Wind Loads (2400Pa)
-  Dual EI Inspection
-  Excellent Low Light Performance
-  Excellent PID Resistance

- **LINEAR HIGH PERFORMANCE GUARANTEED**

12 Years Product Warranty on **92.37%** of the Nominal Performance

25 Years Linear Power Output Warranty on **83.82%** of the Nominal Performance



According to Ifri-sol product and performance warranty

- **CERTIFICATIONS**

Management system TÜV-Certified  
 ISO 9001:2015: ID 011001317684  
 ISO 14001: 2015: ID 011041317684  
 ISO 45001:2018: ID 011131815622



## Electrical Specification

Module Type	Nominal Power P <sub>mpp</sub>	Nominal Voltage U <sub>mpp</sub>	Nominal Current I <sub>mpp</sub>	Open Circuit Voltage (U <sub>oc</sub> )	Short Circuit Current (I <sub>sc</sub> )	Module Conversion Efficiency
IF-HTM540-108	540 Wp	31.57 V	17.26 A	37.27 V	18.27 A	21.13 %
IF-HTM545-108	545 Wp	31.77 V	17.30 A	37.95 V	18.31 A	21.33 %
IF-HTM550-108	550 Wp	31.97 V	17.35 A	38.14 V	18.36 A	21.52 %

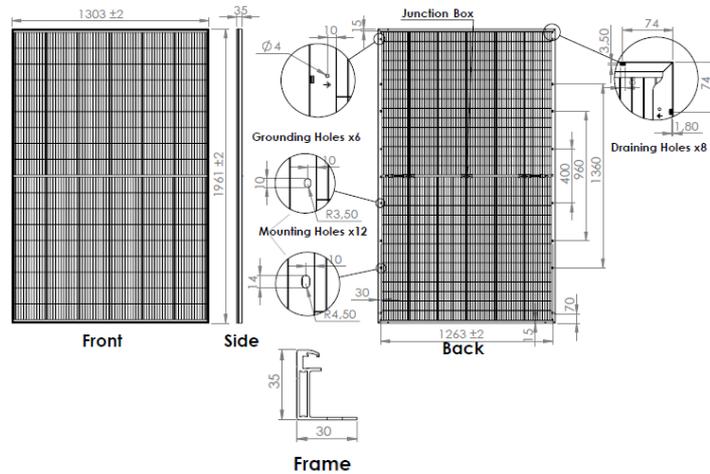
Electrical Data At STC (STANDARD TEST CONDITIONS): 1000W/m<sup>2</sup> Irradiance, 25°C Cell Temperature, AM1.5g Spectrum According to EN 60904-3. Manufacturing Tolerance (P<sub>max</sub>,V<sub>oc</sub>,I<sub>sc</sub>) : ±3%

## NMOT

Module Type	Nominal Power P <sub>mpp</sub>	Nominal Voltage U <sub>mpp</sub>	Nominal Current I <sub>mpp</sub>	Open Circuit Voltage (U <sub>oc</sub> )	Short Circuit Current (I <sub>sc</sub> )
IF-HTM540-108	412.84 Wp	29.27 V	14.10 A	35.04 V	14.98 A
IF-HTM545-108	416.57 Wp	29.45 V	14.14 A	35.22 V	15.01 A
IF-HTM550-108	420.69 Wp	29.64 V	14.19 A	35.40 V	15.05 A

Electrical Data At NMOT: 800W/m<sup>2</sup> Irradiance, 20°C Ambient Temperature, 1m/s Wind Speed. Manufacturing Tolerance (P<sub>max</sub>,V<sub>oc</sub>,I<sub>sc</sub>) : ±3%

## Technical drawing

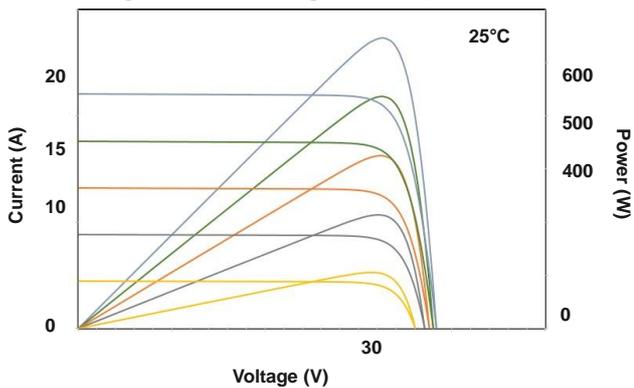


## Electrical Characteristics With Different Rear Side Power Gain (Reference to 550W front)

Irradiance Ration (Rear/Front)	5%	15%	25%
Rated Max Power (P <sub>max</sub> ) [W]	577.5	632.5	687.5
Open Circuit Voltage (U <sub>oc</sub> ) [V]	38.14	38.14	38.14
Max Power Voltage (U <sub>mpp</sub> ) [V]	31.97	31.97	31.97
Short Circuit Current (I <sub>sc</sub> ) [A]	19.28	21.11	21.95
Max Power Current(I <sub>mpp</sub> ) [A]	18.22	19.95	21.69

Rear side power gain: The additional gain from the rear side compared to the power of the front side at the standard test condition. It depends on mounting structure, height, tilt angle etc., and albedo of the ground.

## Current-Voltage/Power-Voltage Curves, IF-HTM550-108



## Power Connection

Junction Box	3xIP68 Junction Box With Bypass Diodes
Solar Cable	Length 350mm, 4mm <sup>2</sup> Prefabricated with Latching Type Connectors
Safety Class	Class II (According to IEC 61140)

## Temperature Coefficients

voltage U <sub>oc</sub> (β)	-0.26%/°C
Current I <sub>sc</sub> (α)	+0.04%/°C
Output Power(γ)	-0.35%/°C
NMOT	43±2°C

## Operating conditions

Maximum System Voltage	1500 VDC
Maximum Series Fuse	30 A
Operating Temperature Range	From -40°C to 85°C
Mechanical Load test (Front/Back)	5400Pa/2400Pa

## Design

Front Glass	3.2mm High transmission Low Iron Tempered Glass AR Coated
Encapsulant	Ethylene Vinyl Acetate (E.V.A)
Cell	MBB PERC Bifacial/210 mm X 105 mm -108 Pcs
Backside	Transparent Composite Film
Frame	35 mm Anodized Aluminum Alloy type 6005-2T6 (Silver/Black)

## Mechanical Specification

Dimensions (LxWxH)	1961mm x 1303mm x 35mm (±2 mm)
Weight	30.1 Kg

## Packaging specification

Dimensions (LxWxH)	1150 mm x 1444 mm x 1986 mm	Modules Qty per Carton	31	Modules Qty per Container 40' HC	527
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