








# MBB PERC BIFACIAL MODULE

## 500W-505W-510W



- **MBB PERC BIFACIAL MODULE**  
High Performance Half-Cut 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)
-  Triple EL Inspection
-  Excellent Low Light Performance
-  Excellent PID Resistance

### ● LINEAR HIGH PERFORMANCE GUARANTEED

12 Years Product Warranty on **91.95%** of the Nominal Performance

25 Years Linear Power Output Warranty on **84.80%** 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-HTM500-100	500Wp	29.05 V	17.22 A	35.18 V	18.10 A	20.99%
IF-HTM505-100	505 Wp	29.30 V	17.26 A	35.40 V	18.13 A	21.20%
IF-HTM510-100	510 Wp	29.52 V	17.28 A	35.65 V	18.15 A	21.41%

Electrical Data At STC (STANDARD TEST CONDITIONS): 1000W/m<sup>2</sup> Irradiance, 25°C Cell Temperature, AM1.5 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-HTM500-100	373.78 Wp	27.13 V	13.77 A	32.95 V	14.48 A
IF-HTM505-100	377.87 Wp	27.36 V	13.80 A	33.05 V	14.50 A
IF-HTM510-100	381.21 Wp	27.57 V	13.82 A	33.47 V	14.52 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%

### 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 105mm - 100Pcs
Backside	Transparent Composite Film
Frame	35 mm Anodized Aluminum Alloy Type 6005-T6 (Silver/Black)

### Temperature Coefficients

voltage U <sub>oc</sub> (β)	-0.26%/°C
Current I <sub>sc</sub> (α)	+0.05%/°C
Output Power(γ)	-0.34%/°C
NMOT	43±2°C

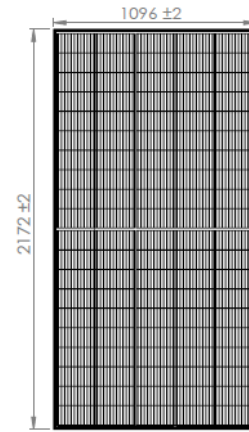
### Operating conditions

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

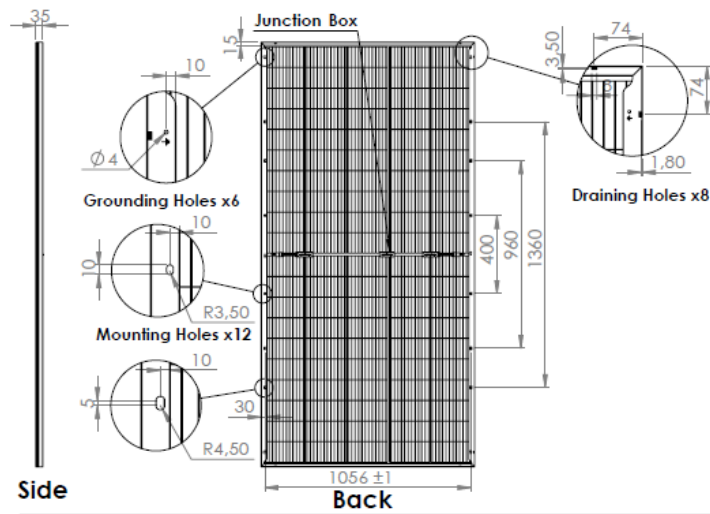
### Power Connection

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)

### Technical drawing



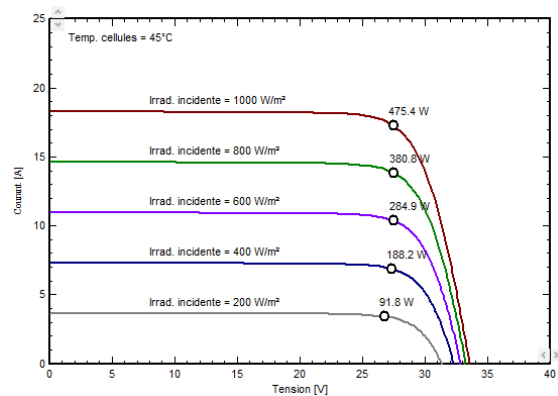
Front



Side

Back

### Current-Voltage/Power-Voltage Curves, IF-HTM510-100



### Mechanical Specification

Dimensions (LxWxH)	2173mm x 1096 mm x 35 mm (±2mm)
Weight	27 Kg

### Packaging specification

Dimensions (LxWxH)	2200mm x 1150mm x 1236mm	Modules Qty per Carton	31	Modules Qty per Container 40' HC	620
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