








# MBB PERC MONOFACIAL MODULE

## 500W-505W-510W



- **MBB PERC MONOFACIAL MODULE**  
High Performance Half-Cut Cells  
With White 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 Pmpp	Nominal Voltage Umpp	Nominal Current Impp	Open Circuit Voltage (Uoc)	Short Circuit Current (Isc)	Module Conversion Efficiency
IF-HWM500-132	500 Wp	38.42 V	13.05 A	45.80 V	13.93 A	21.23%
IF-HWM505-132	505 Wp	38.59 V	13.13 A	46.09 V	14.01 A	21.44%
IF-HWM510-132	510 Wp	38.76 V	13.21 A	46.38 V	14.09 A	21.65%

**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 (Pmax,Voc,Isc) : ±3%**

**NMOT**

Module Type	Nominal Power Pmpp	Nominal Voltage Umpp	Nominal Current Impp	Open Circuit Voltage (Uoc)	Short Circuit Current (Isc)
IF-HWM500-132	373.9 Wp	35.81 V	10.42 A	43.17 V	11.24 A
IF-HWM505-132	379.1 Wp	36.06 V	10.47 A	43.40 V	11.31 A
IF-HWM510-132	379.1 Wp	36.15 V	10.58 A	43.75 V	11.40 A

**Electrical Data At NMOT: 800W/m<sup>2</sup> Irradiance, 20°C Ambient Temperature, 1m/s Wind Speed. Manufacturing Tolerance (Pmax,Voc,Isc) : ±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 /182 mm X 91mm - 132Pcs
Backside	White or Black Composite Film
Frame	35 mm Anodized Aluminum Alloy Type 6063-T6 (Silver/Black)

**Temperature Coefficients**

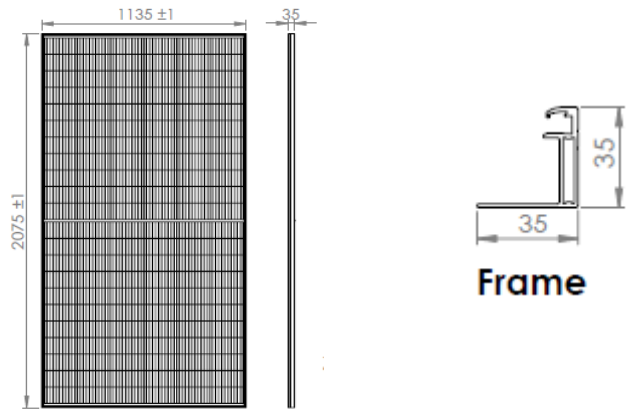
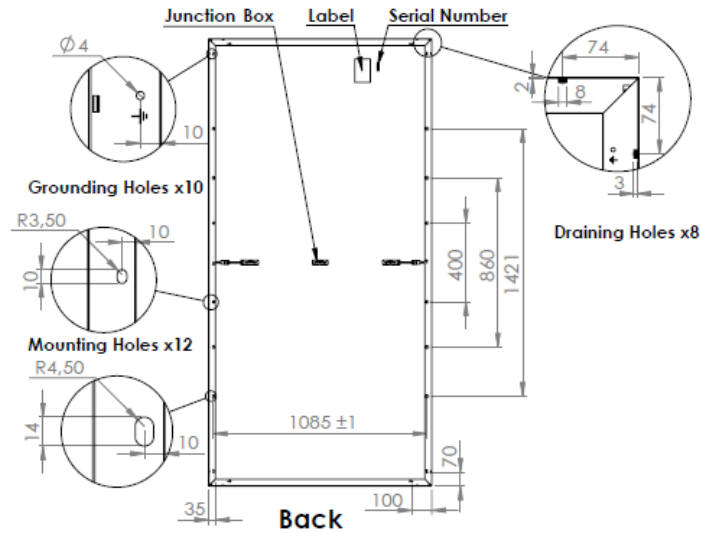
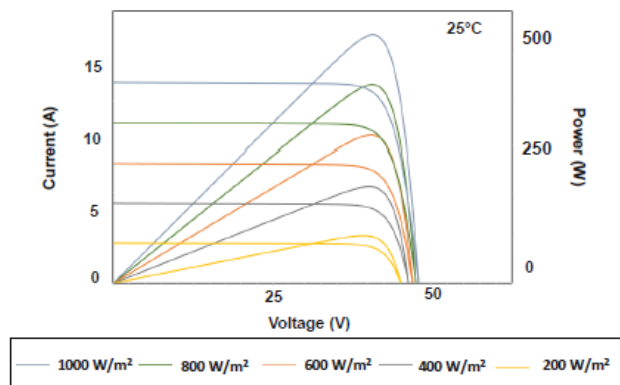
voltage Uoc (β)	-0.26%/°C
Current Isc(α)	+0.05%/°C
Output Power(γ)	-0.35%/°C
NMOT	43±2°C

**Operating conditions**

Maximum System Voltage	1500 VDC
Maximum Series Fuse	25 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 300mm, 4mm <sup>2</sup> Prefabricated with Latching Type Connectors
Safety Class	Class II (According to IEC 61140)

**Technical drawing**

**Current-Voltage/Power-Voltage Curves, IF-HWM500-132**

**Mechanical Specification**

Dimensions (LxWxH)	2075mm x 1135 mm x 35 mm (±2mm)
Weight	25.5 Kg

**Packaging specification**

Dimensions (LxWxH)	2100mm x 1150mm x 1265mm	Modules Qty per Carton	31	Modules Qty per Container 40' HC	682
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