



High Performance Half-Cut Cell Photovoltaic Modules

5BB PERC MONO CRYSTALLINE MODULE
400W-405W-410W

Key Features:



Half Cell Technology



Lower The Risk Of Hot Spot



Higher Power Output



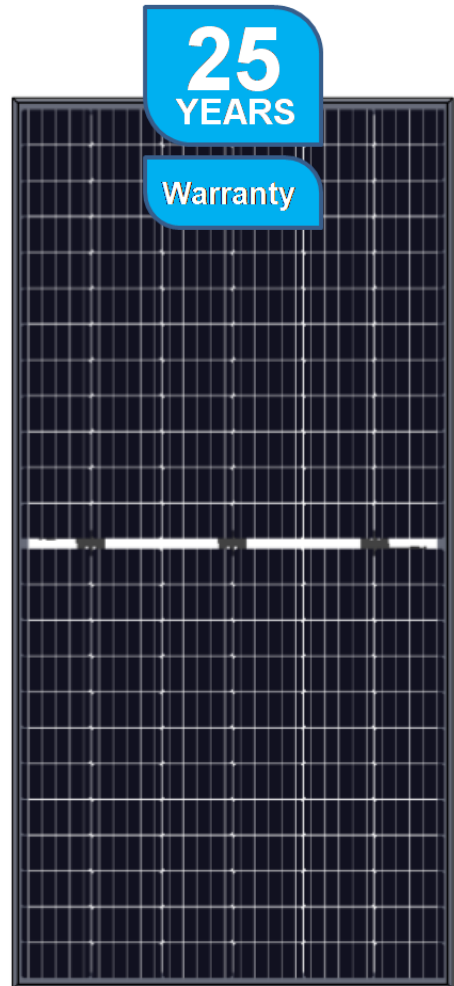
Excellent Loading Capability



Dual EL Inspection



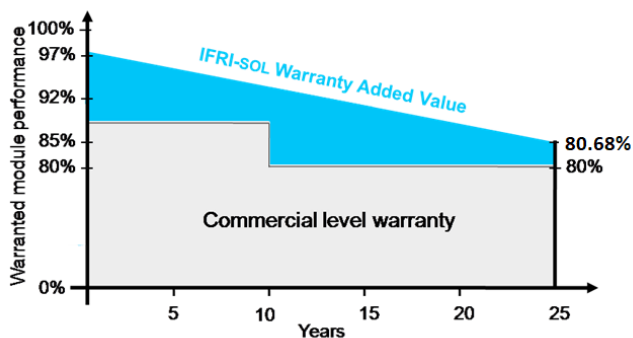
Excellent Low Light Performance



Linear High Performance Guaranteed

10 Years Product Warranty on 90.88% of the Nominal Performance¹

25 Years Linear Power Output Warranty on 80.68% of the Nominal Performance¹



Certifications

- Management system TÜV-Certified
- ISO 9001:2015: ID 011001317684
- ISO 14001: 2015: ID 011041317684
- BS OHSAS 18001:2007: ID 011131317684



¹According to the IFRI-SOL Product and Performance Warranty

Electrical Specification

Module Type	Nominal Power P _{mpp}	Nominal Voltage U _{mpp}	Nominal Current I _{mpp}	Open Circuit Voltage U _{oc}	Short Circuit Current I _{sc}	Module Conversion Efficiency
IF-HM400-144	400Wp	40.36V	9.91A	48.59V	10.39A	19.54%
IF-HM405-144	405Wp	40.49V	10.01A	48.73V	10.49A	19.78%
IF-HM410-144	410Wp	40.92V	10.06A	49.51V	10.55A	20.03%

Electrical Data At STC (STANDARD TEST CONDITIONS): 1000W/m² Irradiance, 25°C Cell Temperature, AM1.5g Spectrum According to EN 60904-3.

NMOT

Module Type	Nominal Power P _{mpp}	Nominal Voltage U _{mpp}	Nominal Current I _{mpp}	Open Circuit Voltage U _{oc}	Short Circuit Current I _{sc}
IF-HM400-144	302.14Wp	38.05V	7.94A	45.53V	8.41A
IF-HM405-144	306.81Wp	38.16V	8.04A	45.61V	8.51A
IF-HM410-144	310.12Wp	38.38V	8.08A	46.57V	8.56A

Electrical Data At NMOT: 800W/m² Irradiance, 20°C Ambient Temperature, 1m/s Wind Speed.

Design

Front Glass	3.2mm High Transmission Low Iron Tempered Glass, AR Coated
Encapsulant	Ethylene Vinyl Acetate (E.V.A)
Cell	5BB PERC Mono-Crystalline /158.75 ×79.375mm/ 144 Pcs
Backside	Composite Film (White, Black, ...)
Frame	35mm Anodized Aluminum (Silver/Black)

Limit Values

System Voltage	1500VDC
NMOT	45±2°C
Rated Current	16A
Limiting Reverse Current	16A
Operating Temperature	From -40°C to 85°C
Maximum Load	2400N/m ²

Mechanical Specification

Dimensions (H×W ×D)	2025mm×1011mm ×35mm
Weight	24Kg

Temperature Coefficients

Voltage U _{oc}	-0.2586%/°C
Current I _{sc}	+0.031%/°C
Output Power	-0.3755%/°C

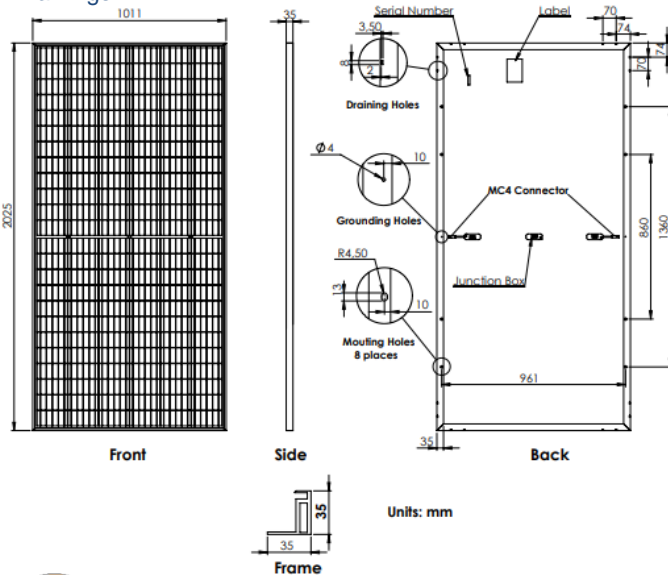
Power Connection

Junction Box	3×IP68 Junction Box With Bypass Diodes
Solar Cable	Length 300mm , 4mm ² Prefabricated with MC4-Combined Plug
PV Module Classification	Class II (According to IEC 61730)

Packaging specification

Dimensions (H×W ×D)	2050mm ×1120mm×1170mm
Modules Qty per Carton	31
Modules Qty per Container 20'	310
Modules Qty per Container 40' HC	737

Drawings



Current-Voltage/Power-Voltage Curves, IF-HM405-144

