



IFRI-SOL
 customized electricity
 WWW.ifrisol.solar

High Performance Full Cell Photovoltaic Modules

5BB MONO PERC CRYSTALLINE MODULE
395W-400W-405W-410W

Key Features:

-  High Efficiency Mono Perc Solar Cells
-  Higher Power Output
-  High Snow (5400Pa) and Wind Loads (2400Pa)
-  Excellent Outstanding Weather-Resistance
-  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

- IEC 61215, IEC 61730: **ID 1111220240**
 - IEC 61701:2011, EN 61701:2012: **ID 1111223964**
 - IEC 62716:2013, EN 62716:2013: **ID 1111223965**
 - IS 14286 / IEC 61215, IS/IEC 61730 - 1&2: **R- 41151432**
- Management system TÜV-Certified**
- ISO 9001:2015: **ID 011001317684**
 - ISO 14001: 2015: **ID 011041317684**
 - ISO 45001: 2018: **ID 011131815622**



¹According to the IFRI-SOL Product and Performance Warranty

Electrical Specification

Module Type	Nominal Power Pmpp	Nominal Voltage Umpv	Nominal Current Impv	Open Circuit Voltage (Uoc)	Short Circuit Current (Isc)	Module Conversion Efficiency
IF-M395-72	395Wp	40.89V	9.66A	48.84V	10.16A	19.94%
IF-M400-72	400Wp	41.29V	9.69A	49.24V	10.18A	20.19%
IF-M405-72	405Wp	41.69V	9.72A	49.64V	10.20A	20.44%
IF-M410-72	410Wp	42.09V	9.75A	50.04V	10.22A	20.70%

Electrical Data At STC (STANDARD TEST CONDITIONS): 1000W/m² 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 Umpv	Nominal Current Impv	Open Circuit Voltage (Uoc)	Short Circuit Current (Isc)
IF-M395-72	289.50Wp	37.70V	7.68A	45.10V	8.23A
IF-M400-72	293.30Wp	38.10V	7.70A	45.50V	8.25A
IF-M405-72	297.10Wp	38.50V	7.72A	45.90V	8.27A
IF-M410-72	301.10Wp	38.90V	7.74A	46.30V	8.29A

Electrical Data At NMOT: 800W/m² 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	5BB PERC Mono-Crystalline /158.75 ×158.75mm/ 72 Pcs
Backside	Composite Film (White, Black, ...)
Frame	35mm Anodized Aluminum (Silver/Black)

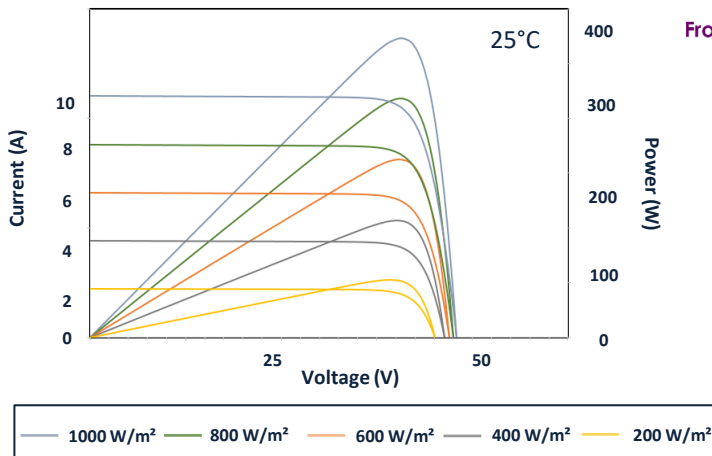
Power Connection

Junction Box	IP68 Junction Box With 3 Bypass Diodes
Solar Cable	Length 1200 mm , 4mm ² Prefabricated with Latching Type Connectors
Safety Class	Class II (According to IEC 61140)

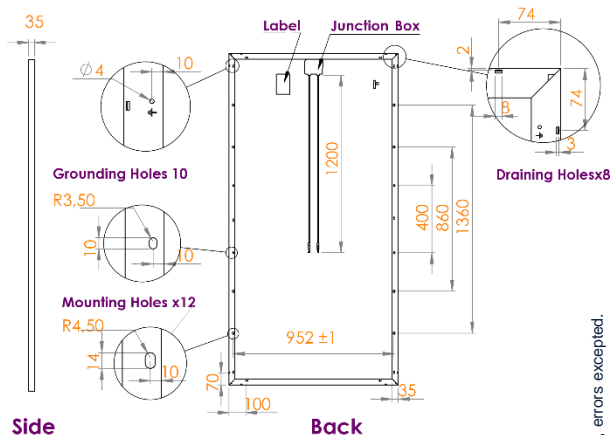
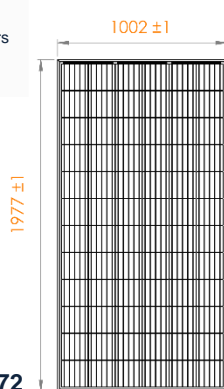
Packaging specification

Dimensions (L*W *H)	2002mm ×1150mm×1145 mm
Modules Qty per Carton	31
Modules Qty per Container 20"	310
Modules Qty per Container 40" HC	737

Current-Voltage/Power-Voltage Curves,IF-M395-72



Drawings



Mechanical Specification

Dimensions (L*W *H)	1977mm×1002mm ×35mm (±1mm)
Weight	23.5Kg

Performance at low irradiance :

Outstanding performance at low irradiance, with an average relative efficiency of 96.48% from irradiances, between 1000 W/m² and 200 W/m² (AM 1.5, 25°C).

Temperature Coefficients

Voltage Uoc (β)	-0.30%/°C
Current Isc (α)	+0.06%/°C
Output Power (γ)	-0.38%/°C
NMOT	45±2°C

Operating conditions

Maximum System Voltage	1500VDC
Maximum Series Fuse	20A
Operating Temperature Range	From -40°C to 85°C
Mechanical Load Test (Front/back)	5400Pa/2400Pa