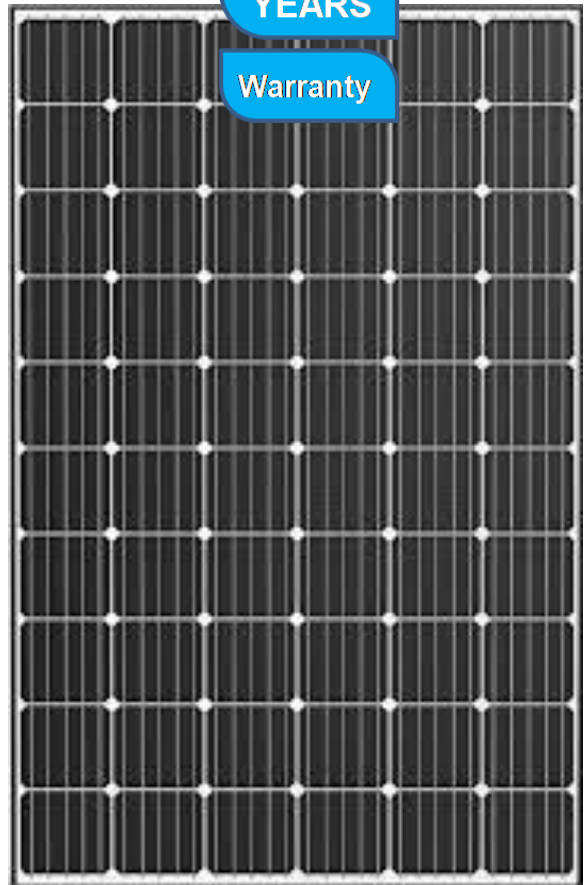





High performance photovoltaic modules


5BB PERC MONO CRYSTALLINE MODULE 310 - 320 WATT


25
YEARS
Warranty




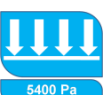
Key features:


- 

10 years manufacturer's warranty
- 

Positive power tolerance is Guaranteed (0 to 5 Wp)
- 

Excellent low light performance
- 

Excellent outstanding weather-resistance
- 

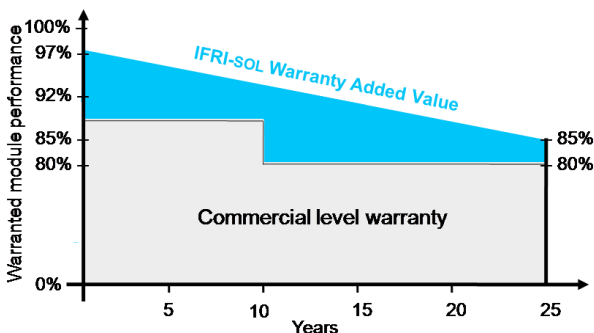
Maximum 5400 Pa snow load
- 

Maximum 2400 Pa wind load

Linear high performance guarantee

10 years manufacturer's guarantee on 92 % of the nominal performance¹

25 years manufacturer's guarantee on 85 % of the nominal performance¹



Management system TÜV-Certified
DIN ISO 9001:2008
ID 9102077424

¹According to the IFRI-SOL Product and Performance Guarantee

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-M310-60	310 Wp	32.82V	9.44A	40.31V	9.90A	18.95%
IF-M315-60	315 Wp	33.16V	9.51A	40.52V	9.97A	19.25%
IF-M320-60	320 Wp	33.49V	9.56A	40.80V	10.05A	19.56%

Electrical data at STC (STANDARD TEST CONDITIONS): 1000W/m² irradiance, 25°C cell temperature, AM1.5g spectrum according to EN 60904-3,

NOCT

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-M310-60	228.26 Wp	30.18V	7.54A	37.15V	7.92A
IF-M315-60	232.04 Wp	30.41V	7.61A	37.34V	7.98A
IF-M320-60	235.12Wp	30.70V	7.66A	37.62V	8.05A

Electrical under nominal operation cell temperature, 800W/m² irradiance, 20°C cell temperature, AM1.5g spectrum according to EN 60904-3, wind speed 1 m/s

Design

Front glass	3.2mm high transmittance and white glass
Encapsulant	Ethylene Vinyl Acetate (E.V.A)
Cell	5BB PERC monocrystalline high efficiency / 60 pcs
Backside	Composite film (white, black, ...)
Frame	35mm anodized aluminum (Silver/Black)

Limit values

System voltage	1500VDC
NOCT	45±2°C
Rated current	16A
Operating temperature	From -40°C to 85°C
Maximum load	2400N/m ²

Mechanical specification

Dimensions (H×W×D)	1649mm × 992mm × 35mm
Weight	19Kg

Temperature coefficients

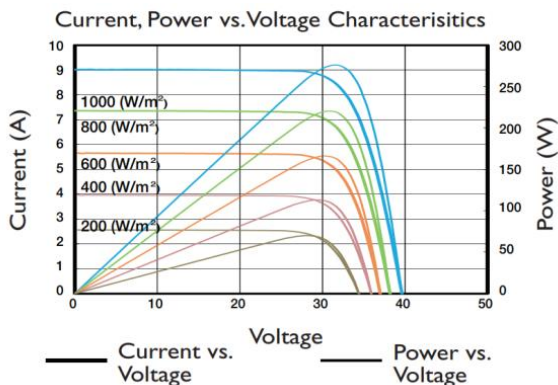
Voltage U _{oc}	-0.31%/°C
Current I _{sc}	+0.06%/°C
Output power	-0.38%/°C

Power connection

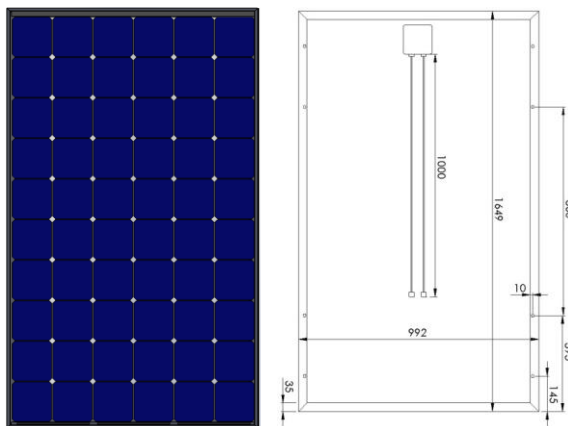
Junction box	IP67 junction box with 3 bypass diodes
Cable solar cable	Length 1000 mm , 4mm ² Prefabricated with MC4-combined plug
Applicaton class	Class A (according to IEC 61730)

Packaging specification

Dimensions (H×W×D)	1660mm × 1110mm × 1160mm
Modules Qty per carton	31
Modules Qty per container 20"	372
Modules Qty per container 40" HC	938



Drawings



Dimensions are in mm