



High performance half-Cell photovoltaic modules

5BB PERC MONO CRYSTALLINE MODULE 310 - 320 WATT

25
YEARS

Warranty

Key features:



10 years manufacturer's warranty



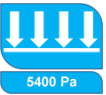
Positive power tolerance is Guaranteed (0 to 5 Wp)



Excellent low light performance



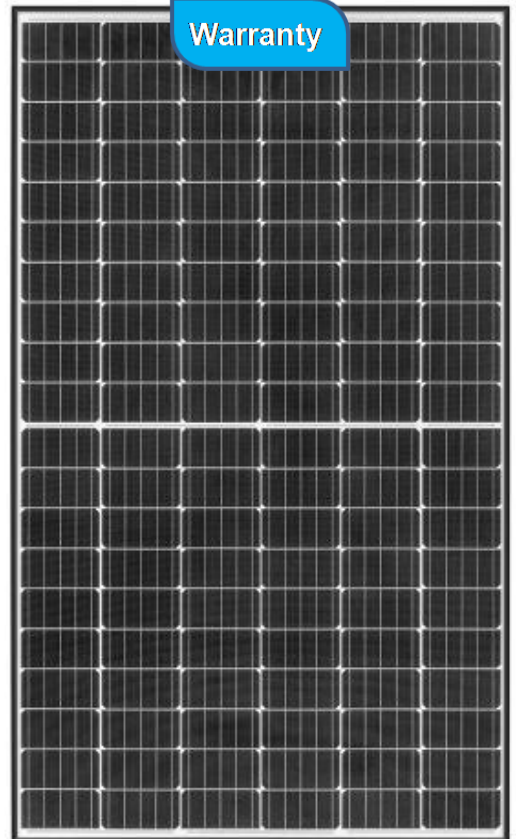
Excellent outstanding weather-resistance



Maximum 5400 Pa snow load



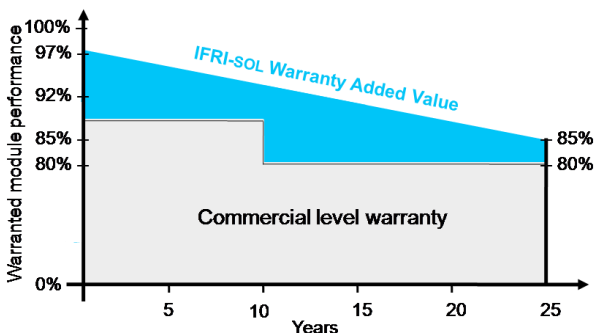
Maximum 2400 Pa wind load



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-HM310-60	310 Wp	32.79V	9.45A	39.61V	10.01A	18.60%
IF-HM315-60	315 Wp	33.08V	9.53A	39.92V	10.09A	18.90%
IF-HM320-60	320 Wp	33.35V	9.59A	40.21V	10.15A	19.20%

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-HM310-60	228.26 Wp	31.79V	7.01A	36.62V	8.02A
IF-HM315-60	232.04 Wp	32.07V	7.04A	36.94V	8.07A
IF-HM320-60	235.12Wp	32.32V	7.10A	37.17V	8.14A

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)	1680mm × 992mm × 35mm
Weight	19.5Kg

Temperature coefficients

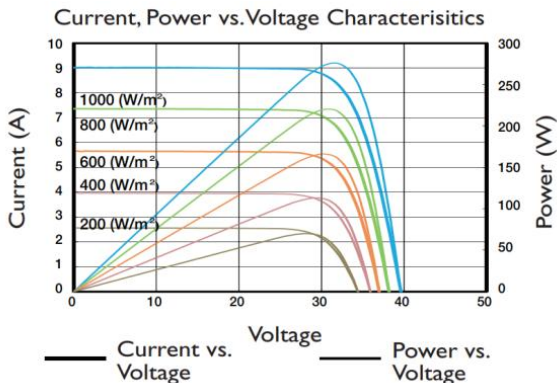
Voltage U _{oc}	-0.31%/°C
Current I _{sc}	+0.06%/°C
Output power	-0.38%/°C

Power connection

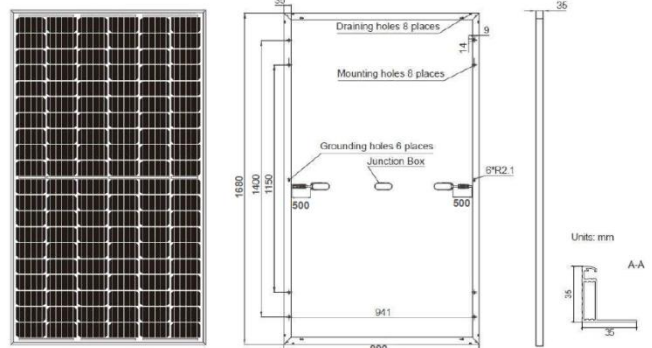
Junction box	IP67 junction box with 3 bypass diodes
Cable solar cable	Length 1000 mm , 4mm ² Prefabricated with MC4-combined plug
Applicaton class	Class A (according to IEC 61730)

Packaging specification

Dimensions (H×W×D)	1700mm × 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