



# **5BB MONO CRYSTALLINE** MODULE 36 Cells185W -190W

We represent the leading figure in the field of renewable energy in the local market and constantly expanding on the african, asian and european conti-

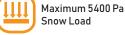
With two production units in Tunisia relying on German technology and processes for modules production We are in a constant challenge to keep up with the demand of the market by an R&D team who is willing to respond to all existing trends in the solar technology sector.

We will have to cover the entire surface of the Earth in solar cells if we want to continue to grow our energy usage.

Jeff Bezos

### **Key Features**











Positive Power Tolerance Guaranteed (0-5Wp)



Maximum 2400 Pa Wind Load



**Outstanding Weather** Resistance



**Comprehensive Certificates** 

-IEC 61215 . IEC 61730 :2016

-ISO 9001:2015 Quality Management Systems

-ISO 14001: 2015 Environmental Management Systems

-OHSAS 18001: 2007 Occupational Health and Safety Management Systems

-BS OHAS 18001: 2007 design manufacturing and sales of photovoltaic Modules

-UL 1703 Certified Product

# **Warranty Graphic**



## **High Linear Performance** Guarantee

10 year Manufacturer Guarantee on 92% of the Nominal performance

25 year Manufacturer Guarantee on 80.7% of the Nominal performance

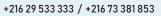


















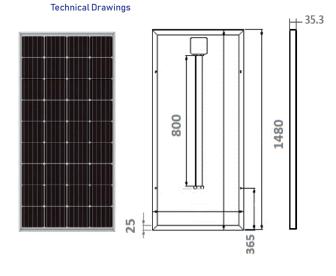








# Current-Voltage/Power-Voltage Curves,IF-M190-36 25°C 100 25°C 100 Voltage (V) 1000 W/m² — 800 W/m² — 400 W/m² — 200 W/m²



Electrical Specificat	tion					
Module Type	Nominal Power Pmpp	Nominal Voltage Umpp	Nominal Current Impp	Open CircuitVoltage Uoc	Short Circuit Current Isc	Module Conversion Efficiency
IF-M185-36	185 wp	19.69 V	9.44A	24.18 V	9.90A	18.54 %
IF-M190-36	190 wp	20.09 V	9.56A	24.48 V	10.05 A	19.04 %

 $Electrical \, Data \, at \, STC \, (STANDARD \, TEST \, CONDITIONS): \\ 1000W/m^2 \, Irradiance, \\ 25^{\circ}C \, Cell \, Temperature, \\ AM1.5g \, Spectrum \, According \, to \, EN \, 60904-3, \\ 1000W/m^2 \, Irradiance, \\ 1000W/m^2 \, Irradiance$ 

NMOT					
Module Type	Nominal Power Pmpp	Nominal Voltage Umpp	Nominal Current Impp	Open Circuit Voltage Uoc	Short Circuit Current Isc
IF-M185-36	136.21 wp	18.10 V	7.54 A	22.28 V	7.92 A
IF-M190-36	139.90 wp	18.47 V	7.63 A	21.56 V	8.04 A

 $Electrical\ Data\ at\ NMOT: 800W/m^2\ Irradiance, 20°C\ Ambient\ Temperature, 1m/s\ Power\ Measurement\ Tolerance: +/-3\%, 1000M/m^2\ Ambient\ Temperature, 1m/s\ Power\ Measurement\ Tolerance: +/-3\%, 1000M/m^2\ Model Mode$ 

Design	
Front Glass	3.2mm High Transmittance and White Glass
Encapsulant	Ethylene Vinyl Acetate (E.V.A)
Cell	5BB Monocrystalline High Efficiency/ 36pcs
Backside	Composite Film(white, black,)
Frame	35.3mm AnodizedAluminum(Silver/Black)

Dimensions (H x W x D)	1480mm ×674mm ×35.3mm
Weight	12.5Kg

Power Connection	
Junction Box	IP67 Junction Box with 2 Bypass Diodes
Cable Solar Cable	Length 800 mm, 4mm <sup>2</sup> Prefabricated with MC4-Combined Plug
Application Class	Class II (according to IEC 61730)

Limit Values	
Maximum System Voltage	1000VDC
Maximum Series FuseRating	12A
Limiting Reverse Current	12A
NMOT	45±2°C
OperatingTemperature	From -40°C to85°C
MaximumLoad	2400N/m²
Temprature Coefficients	
Voltage Uoc	-0.30%/°C
Current ISC	+0.06%/°C
Output Power	-0.38% /°C
Packaging Specifications	
Dimensions (HxWxD)	1500mm ×1120mm ×800mm
Module Quantity per carton	31
Module Qty per carton 20 in	651
Module per container 40 in HC	1395













Mechanical Specification