



# TS-M12/132G

## Monocrystalline Module

### 675W-695W

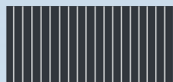


**695W**  
Maximum Power Output

**22.50%**  
Maximum Module Efficiency

**0~+3%**  
Power Output Guarantee

### N-Type



18BB(210mm)

- FIRE CLASS A**  
Maximum fire protection through double glazing according to the highest safety requirements
- REINSURANCE COVERAGE**  
Taoistic is reinsured for 30 years of performance guarantee



High quality silicon wafers guarantee high power module output and excellent cost-effectiveness, making it an ideal choice for large power plants



Selected packaging materials and strict process plans to ensure component PID resistance



Lower oxygen and carbon content leads to lower LID



Adapt to harsh outdoor environments through weather resistance tests such as sand and dust, salt spray, and ammonia gas



The design of series and parallel connection reduces the series resistance  $R_s$  of components, reduces internal electrical performance losses, and improves the power generation capacity of the system end



Our company has concluded a reinsurance agreement with Ariel Re - Lloyd's syndicate 1910. Please see <http://verification.arielre-cleanenergy.com>

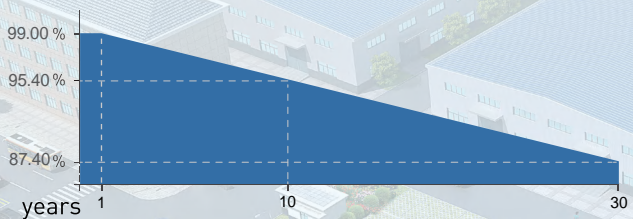
### Deliver Reliable Performance Over Time

- manufacturer of crystalline silicon photovoltaic modules
- Fully automatic facility and world-class technology
- Rigorous quality control to meet the highest standard: ISO9001:2015, ISO14001: 2015 and ISO45001:2008
- Tested for harsh environments (salt mist, ammonia corrosion and sand blowing test: IEC 61701, IEC 62716)
- Long term reliability tests
- 2x100% EL inspection ensuring defect-free modules
- Fire class1 certificate for ITALY

### WARRANTY

- 12 years product warranty
- 30 years performance warranty

### Linear Performance Warranty



12 Years Product Warranty 30 Years Linear Power Warranty

\* Please refer to standard warranty for details

### Product Certification



# TS-M12/132G

## Monocrystalline Module

### 675W-695W

#### Electrical Specification [ STC\* ]

		675	680	685	690	695
Maximum Power	Pmax[W]	675	680	685	690	695
Maximum Power Voltage	Vmp[V]	39.00	39.20	39.40	39.60	39.80
Maximum Power Current	Imp[A]	17.31	17.35	17.39	17.43	17.47
Open Circuit Voltage	Voc[V]	46.90	47.10	47.30	47.50	47.70
Short Circuit Current	Isc[A]	18.24	18.29	18.34	18.39	18.44
Module Efficiency	[%]	21.70	21.90	22.10	22.30	22.50
Power Output Tolerance	[W]			0~+3%		

\* Irradiance 1000W/m<sup>2</sup>, Module Temperature 25°C, Air Mass 1.5

#### Electrical Specification [ NOCT\* ]

		510	514	518	522	524
Maximum Power	Pmax[W]	510	514	518	522	524
Maximum Power Voltage	Vmp[V]	36.9	37.1	37.2	37.4	37.6
Maximum Power Current	Imp[A]	13.84	13.88	13.91	13.94	13.97
Open Circuit Voltage	Voc[V]	44.4	44.6	44.8	45.0	45.2
Short Circuit Current	Isc[A]	14.71	14.75	14.79	14.83	14.87

\* Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C, Wind Speed 1m/s

#### Mechanical Data

Number of Cells	132pieces [6 × 22]
Dimensions of Module L*W*H [mm]	2384 × 1303 × 35mm
Weight [kg]	Approx 38.7 kg
Front Side Glass	2.0 , Anti-reflection coating glass
Back Side Glass	2.0 , Hightransparency solar glass
Frame	Anodized aluminium
J-Box	Protectionlevel IP68
Cable	4.0mm <sup>2</sup> ,3000mm
Number of diodes	3
Wind/Snow Load	2400 Pa/5400 pa*
Connector	MC4 compatible or MC compatible

\* For more details please check the installation manual

#### Temperature Ratings

Nominal Operating Cell Temperature [ NOCT ]	44 ± 2
Temperature Coefficient of Isc	+0.046%/
Temperature Coefficient of Voc	- 0.250%/
Temperature Coefficient of P <sub>MAX</sub>	- 0.300%/

#### Temperature Ratings

Operational Temperature	- 40~+85
Maximum System Voltage	1500V DC-[H]
Max Series Fuse Rating	35A

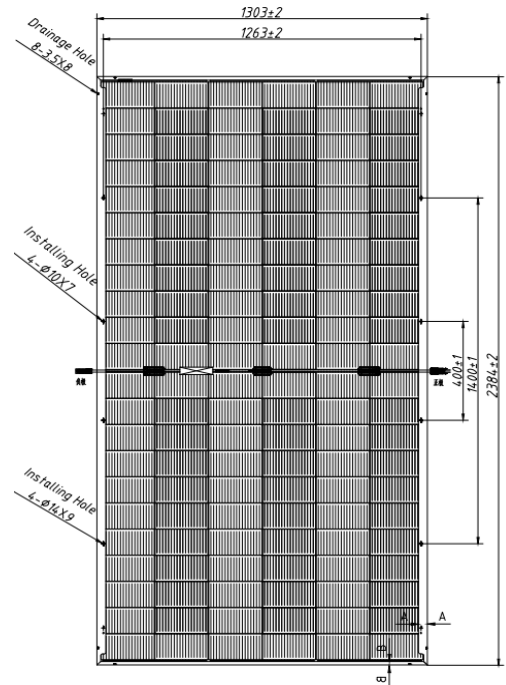
#### Packaging Configuration

Module per box	31 pieces
Module per 17.5 flatcar	713 pieces
Module per 40 container	558 pieces

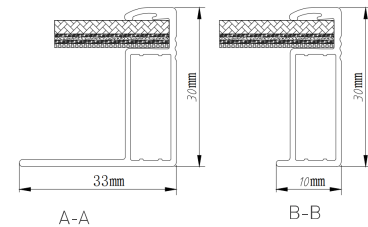
#### Optional

Connector	Original MC
Cable length	1200mm
Frame	Black
Glass	Black

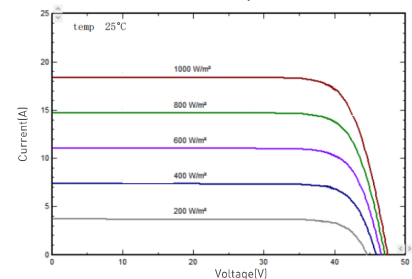
#### Module Dimension



#### Back View



#### I-V Curve at Different Temperature (690W)



#### I-V/P-V Curve at Different Irradiation (690W)

