



# TS-M12/132H

## Monofacial Module

650W-670W



**670W**

Maximum Power Output

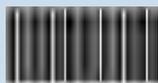
**21.5%**

Maximum Module Efficiency

**0~+3%**

Power Output Guarantee

### P-Type



12BB(210mm)

- FIRE CLASS A**

Maximum fire protection through double glazing according to the highest safety requirements

- REINSURANCE COVERAGE**

Taoistic is reinsured for 25 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>

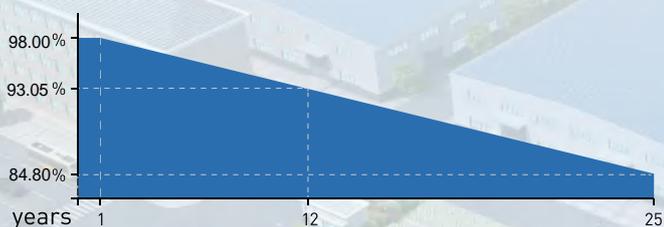
### Deliver Reliable Performance Over Time

- 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
- 25 years performance warranty

### Linear Performance Warranty



12 Years Product Warranty 25 Years Linear Power Warranty

\* Please refer to standard warranty for details

### Product Certification



# TS-M12/132H

## Monocrystalline Module

### 650W-670W

#### Electrical Specification{ STC\*}

Maximum Power	Pmax{ W}	650	655	660	665	670
Maximum Power Voltage	Vmp{ V}	37.40	37.60	37.80	38.00	38.20
Maximum Power Current	Imp{ A}	17.38	17.42	17.46	17.50	17.54
Open Circuit Voltage	Voc{ V}	45.20	45.40	45.60	45.80	46.00
Short Circuit Current	Isc{ A}	18.46	18.50	18.55	18.60	18.65
Module Efficiency	{ %}	20.8	21.0	21.2	21.4	21.5
Power Output Tolerance	{ W}			0~+3%		

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

#### Electrical Specification{ NOCT\*}

Maximum Power	Pmax{ W}	492	496	500	504	509
Maximum Power Voltage	Vmp{ V}	34.9	35.1	35.3	35.5	35.7
Maximum Power Current	Imp{ A}	14.08	14.13	14.18	14.22	14.27
Open Circuit Voltage	Voc{ V}	42.6	42.8	43.0	43.2	43.4
Short Circuit Current	Isc{ A}	14.84	14.88	14.92	14.96	15.00

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

#### Mechanical Data

Number of Cells	132 pieces [6 × 22]
Dimensions of Module L*W*H{ mm}	2384 × 1303 × 35mm
Weight{ kg}	Approx 35.7 kg
Front Side Glass	3.2mm , Anti-reflection coating glass
Backsheet	White
Frame	Anodized Aluminium
J-Box	IP68
Cable	4.0mm <sup>2</sup> , 300mm
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	+0.048%/
Temperature Coefficient of Voc	-0.270%/
Temperature Coefficient of P <sub>MAX</sub>	-0.350%/

#### Temperature Ratings

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

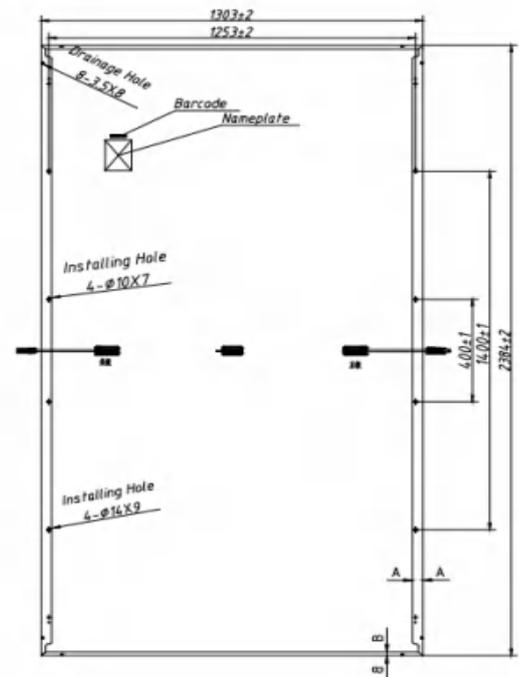
#### Packaging Configuration

Module per box	31 pieces
Module per 40 container	558 pieces

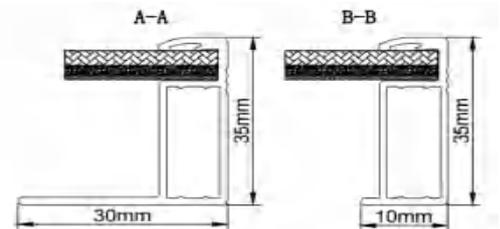
#### Optional

Connector	Original MC
Cable length	1200mm
Frame	Black
Backsheet	Black

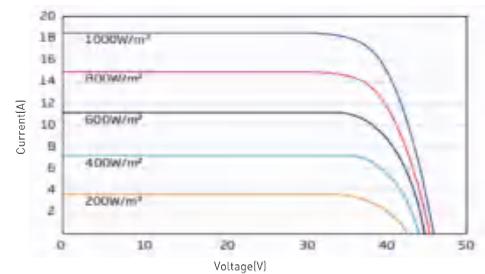
#### Module Dimension



Back View



I-V Curve at Different Temperature (655W)



I-V/P-V Curve at Different Irradiation (655W)

