



# TS-M12/132H

## Monocrystalline Module

### 655W-675W



**675W**  
Maximum Power Output

**21.7%**  
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

 <p>High quality silicon wafers guarantee high power module output and excellent cost-effectiveness, making it an ideal choice for large power plants</p>	 <p>Selected packaging materials and strict process plans to ensure component PID resistance</p>	 <p>Lower oxygen and carbon content leads to lower LID</p>
 <p>Adapt to harsh outdoor environments through weather resistance tests such as sand and dust, salt spray, and ammonia gas</p>	 <p>The design of series and parallel connection reduces the series resistance <math>R_s</math> of components, reduces internal electrical performance losses, and improves the power generation capacity of the system end</p>	 <p>Our company has concluded a reinsurance agreement with Ariel Re - Lloyd's syndicate 1910. Please see <a href="http://verification.arielre-cleanenergy.com">http://verification.arielre-cleanenergy.com</a></p>

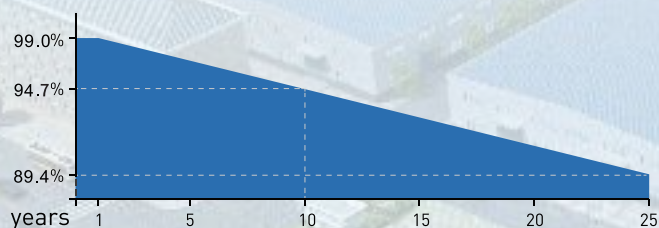
### Deliver Reliable Performance Over Time

- 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

### GARANTIENT<sup>1</sup>

- 12 years product warranty
- 25 years performance warranty

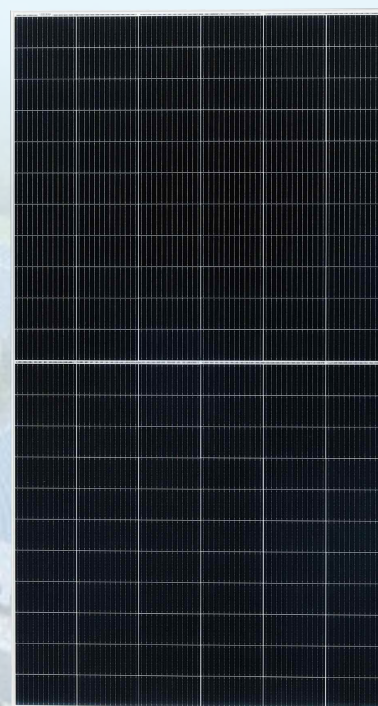
### Linear Performance Warranty



12 Years Product Warranty 25 Years Linear Power Warranty

\* Please refer to standard warranty for details

### Product Certification



# TS-M12/132H

## Monocrystalline Module

### 655W-675W

#### Electrical Specification [ STC\* ]

Maximum Power	P <sub>max</sub> [W]	655	660	665	670	675
Maximum Power Voltage	V <sub>mp</sub> [V]	37.60	37.80	38.00	38.20	38.40
Maximum Power Current	I <sub>mp</sub> [A]	17.42	17.46	17.50	17.54	17.58
Open Circuit Voltage	V <sub>oc</sub> [V]	45.40	45.60	45.80	46.00	46.20
Short Circuit Current	I <sub>sc</sub> [A]	18.50	18.55	18.60	18.65	18.70
Module Efficiency	[%]	21.00	21.20	21.40	21.50	21.70
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	P <sub>max</sub> [W]	496	500	504	509	513
Maximum Power Voltage	V <sub>mp</sub> [V]	35.1	35.3	35.5	35.7	35.9
Maximum Power Current	I <sub>mp</sub> [A]	14.13	14.18	14.22	14.27	14.31
Open Circuit Voltage	V <sub>oc</sub> [V]	42.8	43.0	43.2	43.4	43.6
Short Circuit Current	I <sub>sc</sub> [A]	14.88	14.92	14.96	15.00	15.04

\* 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	3.2 high transparency, anti reflection coated tempered glass
Back Side Glass	white
Frame	Anodized alumina
J-Box	Protection level 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 ]	43 ± 2
Temperature Coefficient of I <sub>sc</sub>	+0.040%/°C
Temperature Coefficient of V <sub>oc</sub>	-0.250%/°C
Temperature Coefficient of P <sub>MAX</sub>	-0.340%/°C

#### Temperature Ratings

Operational Temperature	- 40~+85
Maximum System Voltage	1500V DC-[H]
Max Series Fuse Rating	25A

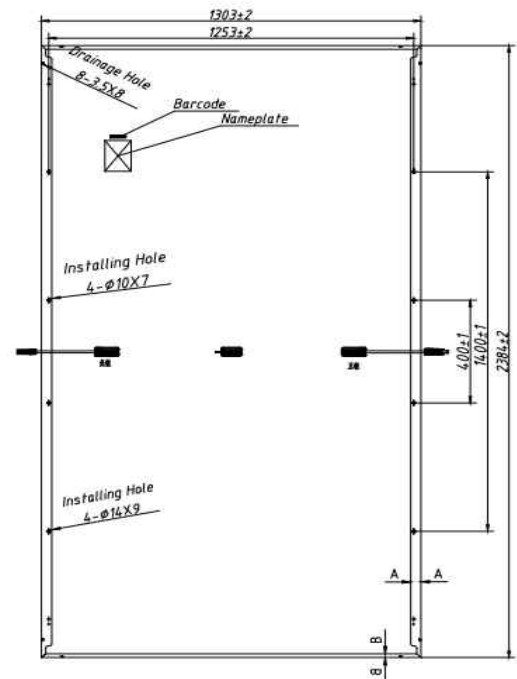
#### Packaging Configuration

Module per box	31 pieces
Module per 17.5 flatcar	775 pieces
Module per 40 container	558 pieces

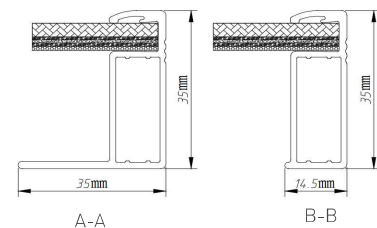
#### Optional

Connector	Original MC
Cable length	1200mm
Frame	Black
Backboard	Black

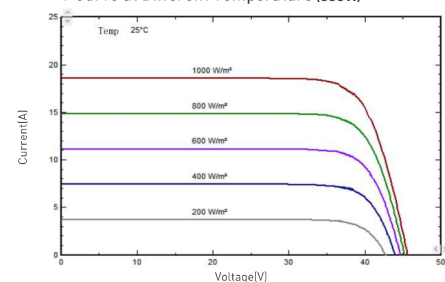
#### Module Dimension



Back View



I-V Curve at Different Temperature (660W)



I-V/P-V Curve at Different Irradiation (660W)

