



# TS-M12/132H

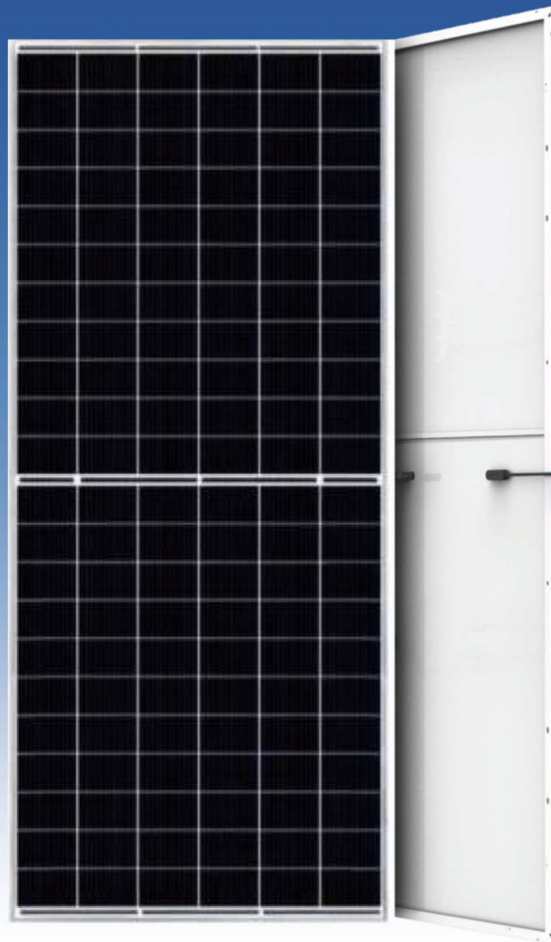
## Monocrystalline Module

655-675W

### Cell Type



12BB(210mm)



**675W**  
Maximum Power Output

**21.7%**  
Maximum Module Efficiency

**0~+5W**  
Power Output Guarantee



Ideal choice for large scale ground installation



Special cutting and soldering technology leads to low hotspot risk



Optimized system performance due to module level current sorting

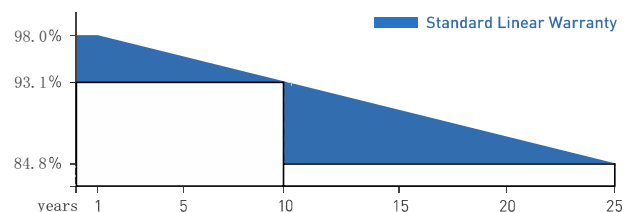


Highly transparent self-cleaning glass brings additional yield and easy maintenance

### 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 OHSAS: 45001:2018
- 2x100% EL inspection ensuring defect-free modules

### 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

### 655-675W

#### Electrical Specification (STC\*)

| Module                 |                      | TS-M12/132H-655W | TS-M12/132H-660W | TS-M12/132H-665W | TS-M12/132H-670W | TS-M12/132H-675W |
|------------------------|----------------------|------------------|------------------|------------------|------------------|------------------|
| 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      | (%)                  | 21.0             | 21.2             | 21.4             | 21.5             | 21.7             |
| Power Output Tolerance | (W)                  | 0~+5             |                  |                  |                  |                  |
| Measurement Tolerance  | (%)                  | ±3               |                  |                  |                  |                  |

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

#### Electrical Specification (NOCT\*)

| Module                |                      | TS-M12/132H-655W | TS-M12/132H-660W | TS-M12/132H-665W | TS-M12/132H-670W | TS-M12/132H-675W |
|-----------------------|----------------------|------------------|------------------|------------------|------------------|------------------|
| Maximum Power         | P <sub>max</sub> (W) | 496              | 500              | 504              | 509              | 513              |
| Maximum Power Voltage | V <sub>mp</sub> (V)  | 35.10            | 35.30            | 35.50            | 35.70            | 35.90            |
| 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)  | 42.80            | 43.00            | 43.20            | 43.40            | 43.60            |
| 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 Cells (6×22)                                                                                                    |
| Dimensions of Module L*W*H (mm) | 2385×1303×35mm [93.85×51.29×1.38 inches]                                                                            |
| Weight (kg)                     | 35.7 kg                                                                                                             |
| Glass                           | High transparency solar glass 3.2mm (0.13 inches)                                                                   |
| Backsheet                       | White                                                                                                               |
| Frame                           | Silver, anodized aluminium alloy                                                                                    |
| J-Box                           | IP68 Rated                                                                                                          |
| Cable                           | 4.0mm <sup>2</sup> (0.006 inches <sup>2</sup> ), 300mm (11.8 inches)                                                |
| Number of diodes                | 3                                                                                                                   |
| Wind/ Snow Load                 | Maximum static load (front): 3600Pa, safety factor 1.5<br>Maximum static load (back): 1600 Pa, safety factor 1.5    |
| Connector                       | PV-H4, manufactured by Ningbo huayu Photovoltaic Technology Co., Ltd.<br>Z4S-abcde, manufactured by Zerun Co., Ltd. |

\* For more details please check the installation manual

#### Temperature Ratings

|                                             |            |
|---------------------------------------------|------------|
| Nominal Operating Cell Temperature [NOCT]   | 43±2°C     |
| 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 |

#### Packaging Configuration

|                          |            |
|--------------------------|------------|
| Module per box           | 31 pieces  |
| Module per 40' container | 558 pieces |

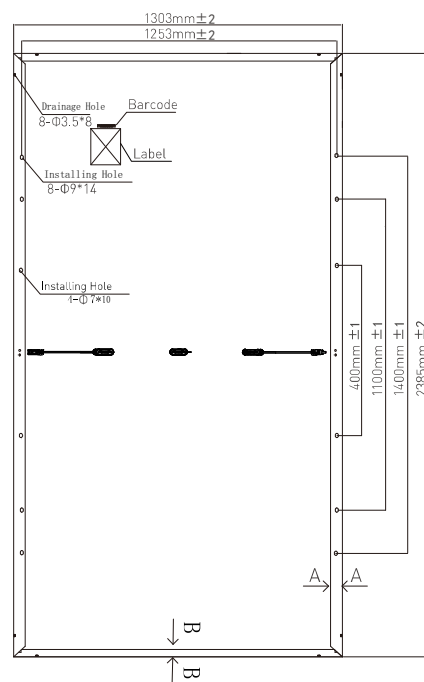
#### Maximum Ratings

|                         |               |
|-------------------------|---------------|
| Operational Temperature | -40~+85°C     |
| Maximum System Voltage  | 1500V DC -(H) |
| Max Series Fuse Rating  | 35A           |

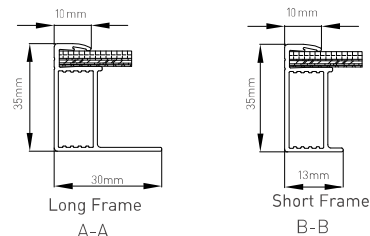
#### Other information

|                                   |               |
|-----------------------------------|---------------|
| Country of Manufacture            | Made in China |
| Fire Safety Class based on UL 790 | Class C       |

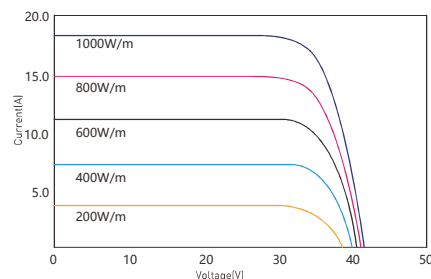
#### Module Dimension



#### Back View



#### I-V Curve at Different Temperature (645W )



#### P-V Curve at Different Irradiation (645W )

