



# N-type i-TOPCon

BIFACIAL DUAL GLASS MONOCRYSTALLINE MODULE

TSM-NEG9M4C.26 280-300W

**300<sub>W</sub>** / MAXIMUM  
POWER OUTPUT

**18.3%** / MAXIMUM  
EFFICIENCY



## Our Most Versatile Replacement Module

- Drop-in replacement for legacy Trinasolar Honey and similar 60-cell modules, with compatibility across old and new inverters
- Enables reboosting with the latest N-type i-TOPCon technology while keeping existing mounting structures
- Certified to withstand 5400 Pa positive and 2400 Pa negative loads in extreme wind, snow, and weather conditions



## Space-Saving Design for Complex Scenarios

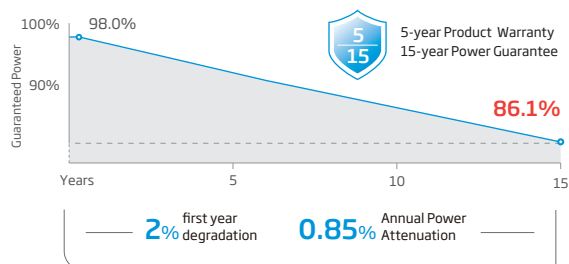
- Compact size (1.65 × 0.99 m) and low weight enable easy installation in tight or space-limited areas
- Ideal for complex rooftops with multiple angles, obstructions, or frequent shading
- Translucent design with around 20% transmittance suitable for light required environments



## Proven Reliability and High Energy Gain

- Excellent high-temperature performance with a low temperature coefficient of -0.29%/°C
- Certified under IEC standards and tested to rigorous internal quality protocols for safe, reliable operation in harsh conditions
- Higher bifaciality, with up to 10~20% additional power gain from back side depending on albedo

## Performance Warranty



\* Please refer to product warranty for details

## Comprehensive Products and System Certificates

IEC61215/IEC61730

ISO 9001: Quality Management System

ISO 14001: Environmental Management System

ISO14064: Greenhouse Gases Emissions Verification

OHSAS 18001: Occupational Health and Safety Management System



## ELECTRICAL DATA (STC)

|                                      |        |      |      |      |      |
|--------------------------------------|--------|------|------|------|------|
| Peak Power Watts- $P_{MAX}(W_p)^*$   | 280    | 285  | 290  | 295  | 300  |
| Power Selection (W)**                | 0 ~ +5 |      |      |      |      |
| Maximum Power Voltage- $V_{MPP}$ (V) | 33.0   | 33.4 | 33.8 | 34.2 | 34.6 |
| Maximum Power Current- $I_{MPP}$ (A) | 8.49   | 8.54 | 8.58 | 8.63 | 8.67 |
| Open Circuit Voltage- $V_{oc}$ (V)   | 39.8   | 40.0 | 40.2 | 40.5 | 40.9 |
| Short Circuit Current- $I_{sc}$ (A)  | 8.89   | 8.94 | 9.02 | 9.10 | 9.17 |
| Module Efficiency $\eta_m$ (%)       | 17.1   | 17.4 | 17.7 | 18.0 | 18.3 |

STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5. \*Measuring tolerance:  $\pm 3\%$ . \*\*Power selection up to: +3%.

## ELECTRICAL DATA (NOCT)

|                                      |      |      |      |      |      |
|--------------------------------------|------|------|------|------|------|
| Peak Power Watts- $P_{MAX}(W_p)$     | 215  | 218  | 222  | 224  | 228  |
| Maximum Power Voltage- $V_{MPP}$ (V) | 31.6 | 31.9 | 32.1 | 32.3 | 32.6 |
| Maximum Power Current- $I_{MPP}$ (A) | 6.79 | 6.84 | 6.90 | 6.95 | 7.00 |
| Open Circuit Voltage- $V_{oc}$ (V)   | 38.0 | 38.2 | 38.5 | 38.4 | 38.8 |
| Short Circuit Current- $I_{sc}$ (A)  | 7.17 | 7.22 | 7.29 | 7.33 | 7.39 |

NOCT: Irradiance at 800W/m<sup>2</sup>, Ambient Temperature 20°C, Wind Speed 1m/s.

## TEMPERATURE RATINGS

NOCT (Nominal Operating Cell Temperature) 43°C ( $\pm 2^\circ\text{C}$ )

Temperature Coefficient of  $P_{MAX}$  -0.29% /°C

Temperature Coefficient of  $V_{oc}$  -0.24% /°C

Temperature Coefficient of  $I_{sc}$  0.04% /°C

Due to different testing methods, the actual performances might differ from the declared specifications.

## APPLICATION CONDITIONS

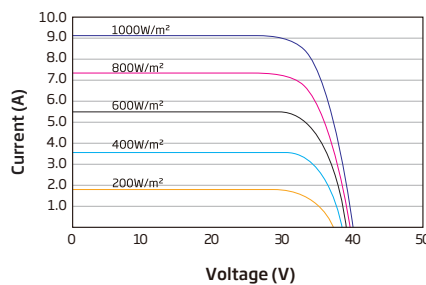
Operating Temperature -40~+70°C

Maximum System Voltage 1500V DC (IEC)

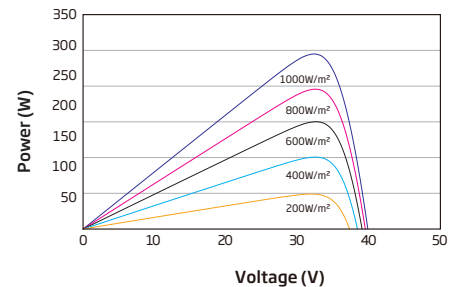
Max Series Fuse Rating 20A

## CURVES OF PV MODULE

I-V CURVES OF PV MODULE (295W)



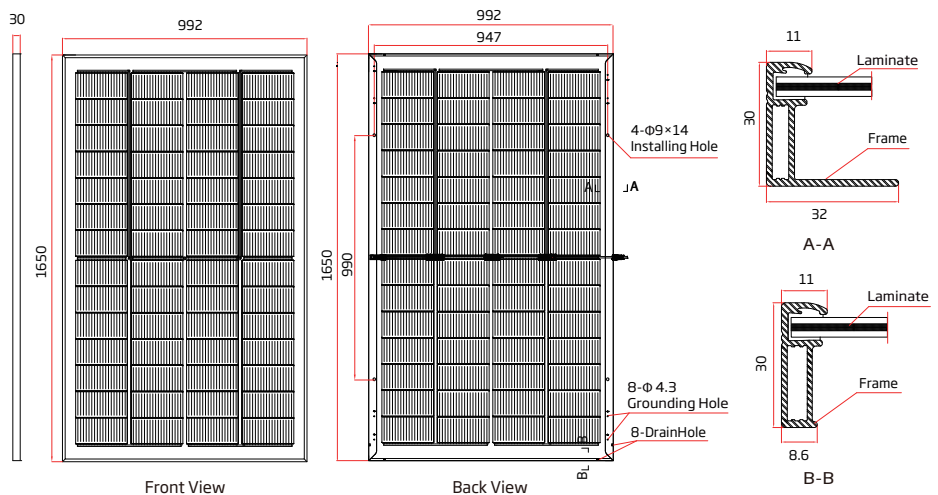
P-V CURVES OF PV MODULE (295W)



## MECHANICAL DATA

|                   |                                                                                                              |
|-------------------|--------------------------------------------------------------------------------------------------------------|
| Solar Cells       | N-type i-TOPCon Monocrystalline                                                                              |
| No. of cells      | 56 cells                                                                                                     |
| Module Dimensions | 1650×992×30 mm<br>(64.96×39.06×1.18 inches)                                                                  |
| Weight            | 21.0 kg (46.30 lb)                                                                                           |
| Front Glass       | 2.0 mm (0.08 inches),<br>AR Coating Strengthened Glass                                                       |
| Back Glass        | 2.0 mm (0.08 inches),<br>Heat Strengthened Glass                                                             |
| Frame             | 30mm(1.18 inches)<br>Anodized Aluminium Alloy                                                                |
| J-Box             | IP 68 rated                                                                                                  |
| Cables            | Photovoltaic Technology<br>Cable 4.0mm <sup>2</sup> (0.006 inches <sup>2</sup> )<br>Length can be customized |
| Connector         | MC4 EV02 / TS4 Plus / TS4*                                                                                   |
| Packaging         | Modules per box: 36 pieces<br>Modules per 40' container: 1008 pieces                                         |

\*Please refer to regional datasheet for specified connector.



www.trinasolar.com

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.  
© 2025 Trina Solar Co., Ltd. All rights reserved. Specifications included in this datasheet are subject to change without notice.  
The right of final interpretation belongs to Trina Solar Co., Ltd.  
Version number: TSM\_EN\_2025\_A\_E1