Vertex S+ G3

Preliminary

N-type i-TOPCon Ultra

DUAL GLASS MONOCRYSTALLINE MODULE



TSM-NEG9RP.28Z **465-485W**

485W / MAXIMUM POWER OUTPUT

24.3% / MAXIMUM EFFICIENCY

Exceptional power & efficiency

- Up to 485 W output and 24.3% efficiency, powered by advanced N type i-TOPCon Ultra cell technology

Maximised system value for C&I systems

- Low-voltage, high-current architecture for maximum string lengths, simplifying system design and reducing BOS costs

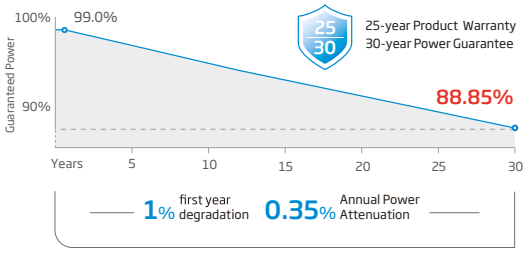
Long-term value with flexible deployment

- Low annual degradation backed by up to 30 year power warranty and 25 year product warranty
- Mechanical performance up to 5400 Pa positive load and 4000 Pa negative load

Improved appearance & seamless frontside design

- No cell gaps for improved aesthetics, for diverse installations and flexible system deployment for both C&I and residential applications

Performance Warranty



* Please refer to product warranty for details

Comprehensive Products and System Certificates

ISO 9001: Quality Management System
ISO 14001: Environmental Management System
ISO14064: Greenhouse Gases Emissions Verification
ISO45001: Occupational Health and Safety Management System

*For ground-mounted installation, please consult Trinasolar sales team.

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.
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Version number: TSM_EN_2026_PA3

Trinasolar

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N-type i-TOPCon Ultra DUAL GLASS MONOCRYSTALLINE MODULE

ELECTRICAL DATA (STC)

Peak Power Watts-PMAX(Wp)*	465	470	475	480	485
Power Selection (W)**			0 ~ +5		
Maximum Power Voltage-VMPP (V)	31.20	31.50	31.80	32.00	32.30
Maximum Power Current-IMPP (A)	14.91	14.93	14.96	15.00	15.04
Open Circuit Voltage-VOC (V)	37.10	37.30	37.50	37.70	37.90
Short Circuit Current-ISC (A)	15.96	15.99	16.02	16.05	16.08
Module Efficiency η m (%)	23.3	23.5	23.8	24.0	24.3

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5. *Measuring tolerance: ±3%. **Power selection up to: +3%.

ELECTRICAL DATA (NOCT)

Peak Power Watts-PMAX(Wp)	353	357	361	364	368
Maximum Power Voltage-VMPP (V)	29.20	29.40	29.60	29.80	30.00
Maximum Power Current-IMPP (A)	12.11	12.16	12.20	12.23	12.27
Open Circuit Voltage-VOC (V)	35.20	35.40	35.60	35.80	36.00
Short Circuit Current-ISC (A)	12.83	12.85	12.88	12.90	12.93

NOCT: Irradiance at 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s.

TEMPERATURE RATINGS

NOCT (Nominal Operating Cell Temperature)	43°C (±2°C)
Temperature Coefficient of PMAX	- 0.26% /°C
Temperature Coefficient of VOC	- 0.24% /°C
Temperature Coefficient of ISC	0.04% /°C

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

APPLICATION CONDITIONS

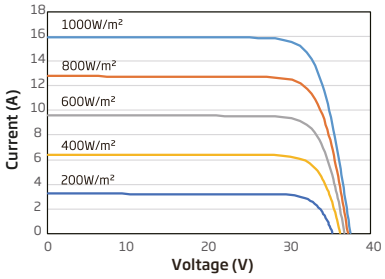
Operating Temperature	-40~+70°C
Maximum System Voltage	1500V DC (IEC)
Max Series Fuse Rating	30A

*PV module 98th percentile operating temperature: 70°C

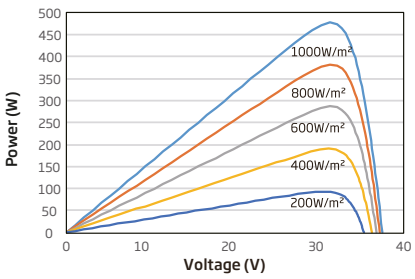
CURVES OF PV MODULE

Preliminary

I-V CURVES OF PV MODULE (475W)



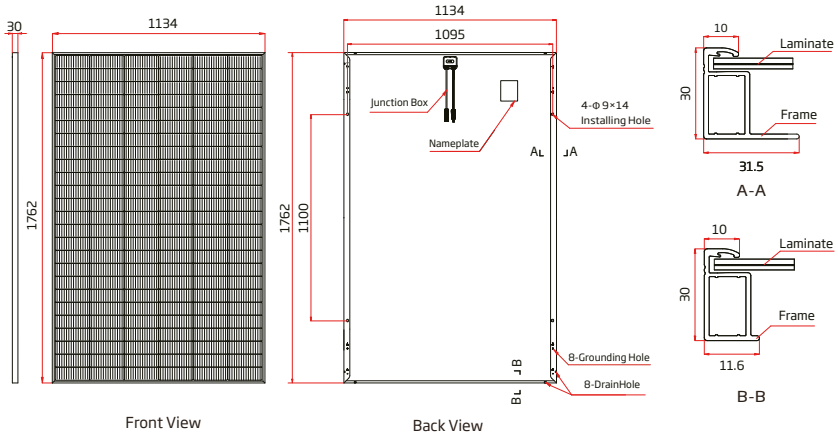
P-V CURVES OF PV MODULE (475W)



MECHANICAL DATA

Solar Cells	N-type i-TOPCon Monocrystalline
No. of cells	150 cells
Module Dimensions	1762×1134×30 mm (69.37×44.65×1.18 inches)
Weight	21.1 kg (46.52lb)
Front Glass	1.6 mm (0.06 inches) AR Coating Heat Strengthened Glass
Back Glass	1.6 mm (0.06 inches), Heat Strengthened Glass
Frame	30mm(1.18 inches) Anodized Aluminium Alloy, Black
J-Box	IP 68 rated
Cables	Photovoltaic Technology Cable 6.0mm² (0.009 inches²) Landscape :1100/1100 mm(43.31/43.31 inches) Length can be customized
Connector	TS4 Plus / TS4 / MC4 EVO2*
Packaging	Modules per box: 36 pieces Modules per 40' container: 936pieces

*The connector names listed are general names; specific types are subject to the certification documents.



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