



N-type i-TOPCon

ANTI-DUST BACKSHEET MONOCRYSTALLINE MODULE

TSM-NE19R.70 595-625W

625_W / MAXIMUM
POWER OUTPUT

23.1% / MAXIMUM
EFFICIENCY



Optimized for installation with low angle

- Patented frame design, reduce dust accumulation, boosting electricity output
- Accelerated sliding of snow, increased duration of power generation
- Designed for C&I color steel roof and low inclination mounting



High customer value

- Standardized module size with flagship module power, 30w higher compared with conventional technology
- Low Voltage design with higher string power, effectively reducing BOS (Balance of System) and LCOE (Levelized Cost of Energy) by 1%~5%
- Higher container space utilization effectively reduces the freight cost



High power up to 625W

- Up to 23.1% module efficiency, on 210 innovative platform
- Patented i-TOPCon technology with continuous efficiency improvement including contact resistance reduction, rear reflection enhancement and edge quality repairment



High reliability

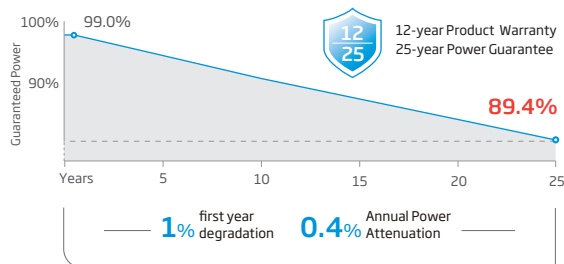
- Minimized micro-cracks with innovative non-destructive cutting technology and high-density packaging
- Reduced risks of hot-spot with half-cut technology
- Certified high resistance against salt, ammonia, sand, PID, LID, LeTID
- Sustainable in harsh environments and extreme weather conditions



High energy yield

- Excellent low irradiation performance, validated by 3rd party
- Lower temperature coefficient (-0.29%/C)

Performance Warranty



* Please refer to product warranty for details

Comprehensive Products and System Certificates

IEC61215/IEC61730/IEC61701/IEC62716

ISO 9001: Quality Management System

ISO 14001: Environmental Management System

ISO14064: Greenhouse Gases Emissions Verification

ISO45001: Occupational Health and Safety Management System



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

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ELECTRICAL DATA (STC)

Peak Power Watts- $P_{MAX}(W_p)^*$	595	600	605	610	615	620	625
Power Tolerance- $P_{MAX}(W_p)$	0 ~ +3%						
Maximum Power Voltage- V_{MPP} (V)	40.0	40.3	40.5	40.8	41.1	41.4	41.6
Maximum Power Current- I_{MPP} (A)	14.89	14.91	14.94	14.96	14.98	14.99	15.00
Open Circuit Voltage- V_{oc} (V)	48.1	48.4	48.7	49.0	49.3	49.6	49.8
Short Circuit Current- I_{sc} (A)	15.76	15.80	15.83	15.86	15.89	15.91	15.93
Module Efficiency η_m (%)	22.0	22.2	22.4	22.6	22.8	23.0	23.1

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

ELECTRICAL DATA (NOCT)

Peak Power Watts- $P_{MAX}(W_p)$	454	459	462	466	470	474	477
Maximum Power Voltage- V_{MPP} (V)	37.6	37.9	38.1	38.3	38.6	38.8	39.0
Maximum Power Current- I_{MPP} (A)	12.07	12.11	12.13	12.16	12.19	12.20	12.21
Open Circuit Voltage- V_{oc} (V)	45.7	46.0	46.2	46.5	46.8	47.1	47.3
Short Circuit Current- I_{sc} (A)	12.69	12.73	12.75	12.78	12.80	12.82	12.84

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

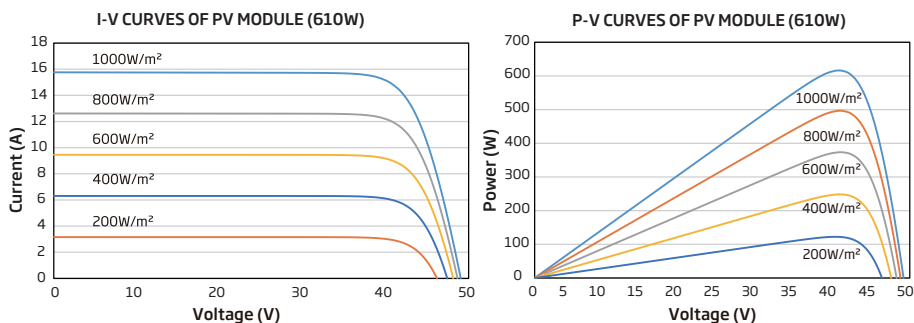
TEMPERATURE RATINGS

NOCT (Nominal Operating Cell Temperature)	43°C (±2°C)
Temperature Coefficient of P_{MAX}	-0.29% /°C
Temperature Coefficient of V_{oc}	-0.24% /°C
Temperature Coefficient of I_{sc}	0.04% /°C

MAXIMUM RATINGS

Operational Temperature	-40~+85°C
Maximum System Voltage	1500V DC (IEC)
Max Series Fuse Rating	30A

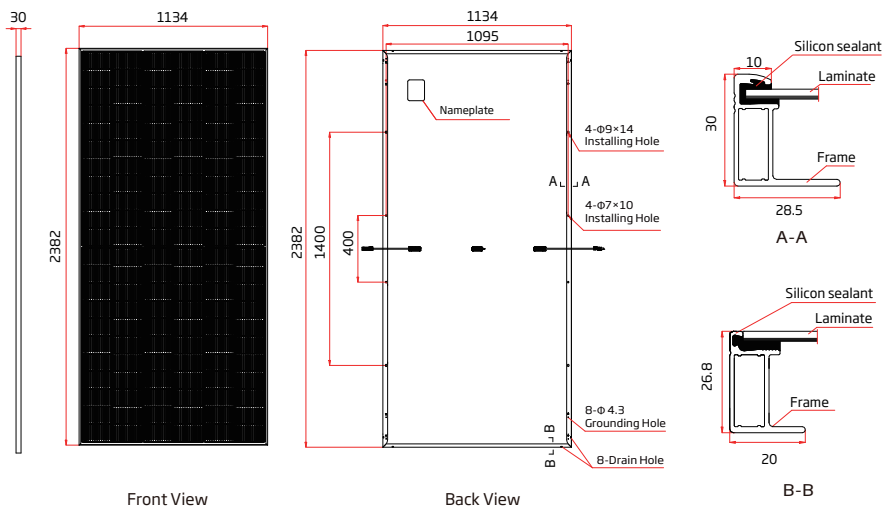
CURVES OF PV MODULE



MECHANICAL DATA

Solar Cells	N-type i-TOPCon Monocrystalline
No. of cells	132 cells
Module Dimensions	2382×1134×30 mm (93.78×44.65×1.18 inches)
Weight	27.7 kg (61.07 lb)
Front Glass	3.2mm (0.13 inches), AR Coated Tempered Glass
Backsheet	White
Frame	30mm (1.18 inches) Anodized Aluminium Alloy
J-Box	IP 68 rated
Cables	Photovoltaic Technology Cable 4.0mm ² (0.006 inches ²) Portrait: 350/280 mm (13.78/11.02 inches) Length can be customized
Connector	MC4 EV02 / TS4 Plus / TS4*
Packaging	Modules per box: 36 pieces Modules per 40' container: 720 pieces

*Please refer to regional datasheet for specified connector.



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