



# N-type i-TOPCon

BACKSHEET MONOCRYSTALLINE MODULE

TSM-NE21 695-725W

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

**23.3%** / MAXIMUM  
EFFICIENCY



## High customer value

- Suitable for all scenario, including residential, C&I and utility applications
- Standardized module size with higher container space utilization, leading to significantly lower freight cost
- Low Voltage design with higher string power, effectively reducing BOS (Balance of System) and LCOE (Levelized Cost of Energy) by 2%~6%, compared with conventional technology



## High power up to 725W

- Up to 23.3% 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

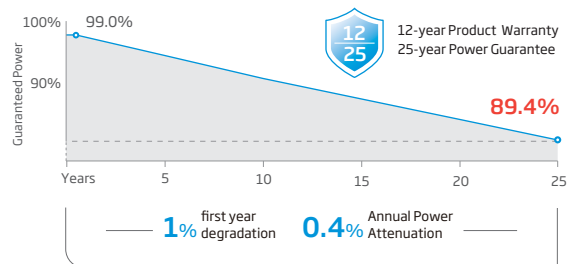
- Minimized micro-cracks with innovative non-destructive cutting technology, high-density packaging
- Reduced risks of hot-spot with half-cut technology
- Certified high resistance against salt, ammonia, sand, PID, LID, LeTID
- Sustainable in harsh environments and extreme weather conditions



## 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



## ELECTRICAL DATA (STC)

Peak Power Watts- $P_{MAX}(W_p)^*$	695	700	705	710	715	720	725
Power Selection (W)**	0 ~ +5						
Maximum Power Voltage- $V_{MPP}$ (V)	40.3	40.5	40.7	40.9	41.1	41.3	41.5
Maximum Power Current- $I_{MPP}$ (A)	17.25	17.29	17.33	17.36	17.40	17.44	17.47
Open Circuit Voltage- $V_{oc}$ (V)	48.3	48.6	48.8	49.0	49.2	49.4	49.5
Short Circuit Current- $I_{sc}$ (A)	18.28	18.32	18.36	18.40	18.44	18.48	18.49
Module Efficiency $\eta_m$ (%)	22.4	22.5	22.7	22.9	23.0	23.2	23.3

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- $P_{MAX}(W_p)$	531	534	540	543	547	551	554
Maximum Power Voltage- $V_{MPP}$ (V)	37.9	38.0	38.3	38.5	38.7	38.8	39.1
Maximum Power Current- $I_{MPP}$ (A)	14.00	14.04	14.08	14.12	14.14	14.18	14.19
Open Circuit Voltage- $V_{oc}$ (V)	45.9	46.1	46.3	46.5	46.7	46.9	47.0
Short Circuit Current- $I_{sc}$ (A)	14.72	14.76	14.80	14.83	14.86	14.89	14.90

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

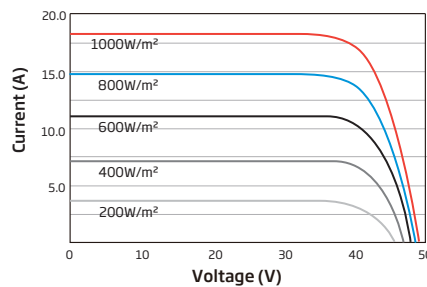
Operating Temperature -40~+70°C

Maximum System Voltage 1500V DC (IEC)

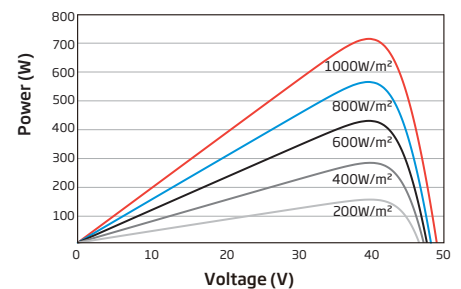
Max Series Fuse Rating 30A

## CURVES OF PV MODULE

I-V CURVES OF PV MODULE (715W)

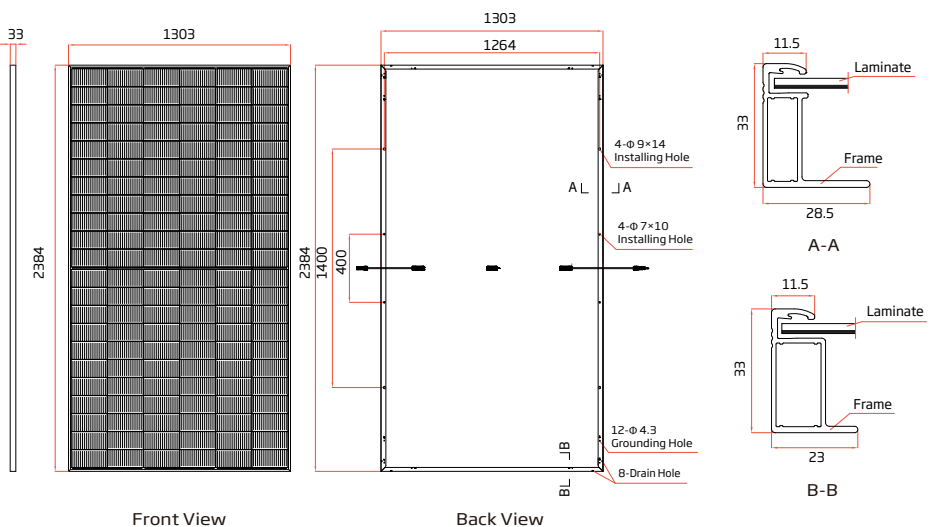


P-V CURVES OF PV MODULE (715W)



## MECHANICAL DATA

Solar Cells	N-type i-TOPCon Monocrystalline
No. of cells	132 cells
Module Dimensions	2384×1303×33mm (93.86×51.30×1.30 inches)
Weight	32.9 kg (72.5 lb)
Front Glass	3.2mm (0.13inches), AR Coating Tempered Glass
Backsheet	White
Frame	33mm (1.30 inches) Anodized Aluminium Alloy
J-Box	IP 68 rated
Cables	Photovoltaic Technology Cable 4.0mm <sup>2</sup> (0.006 inches <sup>2</sup> ) Portrait: 370/230 mm (14.57/9.06 inches) Length can be customized
Connector	TS4 Plus / TS4
Packaging	Modules per box: 33pieces Modules per 40' container: 594 pieces



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