Strong Wind Protection

Severe Hail Protection

Heavy Snow Protection

Superior Fire Protection

Preliminary

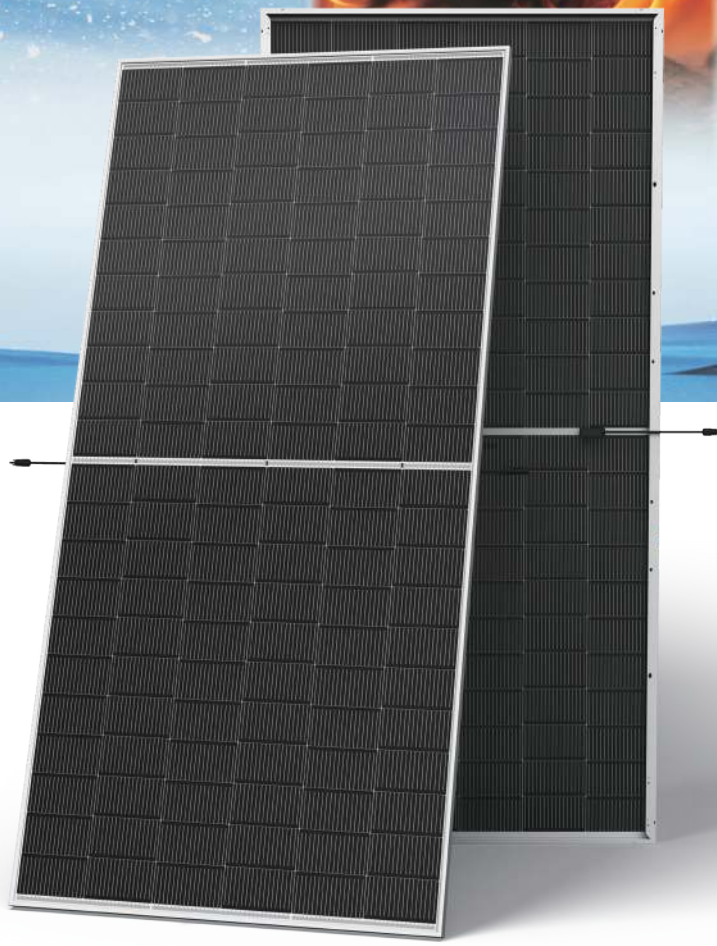
Vertex N

TOPCon

Shield

TSM-NED19RC.20

595-620W



Key Features

Passed IEC 55mm width hail certificate at a speed of 33.9m/s
Reduction of over 50% potential cost caused by hail damage*

Mechanical load with fixed mounting installation: +7000/-4000Pa
Mechanical load with tracking installation: +3600/-3000Pa

Passed IEC 61730-2 Class A+A fire rating certification
Passed EN13501-1 Class B certification (FIGRA 19W/s)
Passed UL61730 Type 30 fire resistance certification

Uneven snow load capacity up to 6600Pa

*Please get in contact with Trinasolar technical team for more details on the VDE PRE/PML/AAL report.

Better bankability, more profit

- Highly reliable products reduce insurance costs and reduce payout risk
- High power of up to 620W and 23.0% module efficiency, on 210 innovation platform
- Low voltage design with higher string power, effectively reducing BOS and LCOE
- High Bifaciality & excellent low-irradiation performance, improved electricity generation per Watt

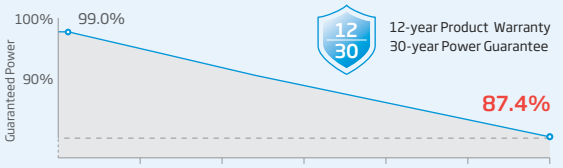
High reliability, resist the extremes

- Passed salt, ammonia, dust, PID, LID, LeTID certificate

Diversified scenarios adaption

- Support diversified installation methods, suitable for various application scenarios
- Typical module format design, better compatibility with trackers
- Excellent compatibility with existing mainstream inverters

Performance Warranty



* Please refer to product warranty for details

Comprehensive Products and System Certificates

IEC61215/IEC61730/IEC61701/IEC62716/UL61730
ISO 9001: Quality Management System
ISO 14001: Environmental Management System
ISO14064: Greenhouse Gases Emissions Verification
ISO45001: Occupational Health and Safety Management System

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Version number: TSM_NA_EN_2025_PA5

Trinasolar

Vertex N

N-type TOPCon BIFACIAL DUAL GLASS MONOCRYSTALLINE MODULE

Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Peak Power Watts-PMAX(Wp)*	595	454	600	458	605	462	610	465	615	469	620	473
Power Selection (W)**	0 ~ +5											
Maximum Power Voltage-VMPP (V)	39.28	37.10	39.43	37.30	39.57	37.40	39.79	37.60	39.97	37.80	40.24	37.90
Maximum Power Current-IMPP (A)	15.15	12.24	15.22	12.29	15.29	12.33	15.33	12.38	15.39	12.43	15.41	12.47
Open Circuit Voltage-VOC (V)	47.49	45.10	47.69	45.30	47.89	45.50	48.09	45.70	48.29	45.90	48.50	46.10
Short Circuit Current-ISC (A)	15.96	12.86	16.02	12.91	16.08	12.96	16.14	13.00	16.20	13.05	16.26	13.10
Module Efficiency η m (%)	22.0		22.2		22.4		22.6		22.8		23.0	

STC: Irradiance 1000W/m2, Cell Temperature 25°C, Air Mass AM1.5. NOCT: Irradiance at 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s. *Measuring tolerance: ±3%. **Power selection up to: +3%.

Backside Power Gain	5%	10%	5%	10%	5%	10%	5%	10%	5%	10%	5%	10%
Peak Power Watts-PMAX(Wp)	625	655	630	660	635	666	641	671	646	677	651	682
Maximum Power Voltage-VMPP (V)	39.28	39.28	39.43	39.43	39.57	39.57	39.79	39.79	39.97	39.97	40.24	40.24
Maximum Power Current-IMPP (A)	15.91	16.67	15.98	16.74	16.05	16.82	16.10	16.86	16.16	16.93	16.18	16.95
Open Circuit Voltage-VOC (V)	47.49	47.49	47.69	47.69	47.89	47.89	48.09	48.09	48.29	48.29	48.50	48.50
Short Circuit Current-ISC (A)	16.76	17.56	16.82	17.62	16.88	17.69	16.95	17.75	17.01	17.82	17.07	17.89

Power Bifaciality:80±5%.

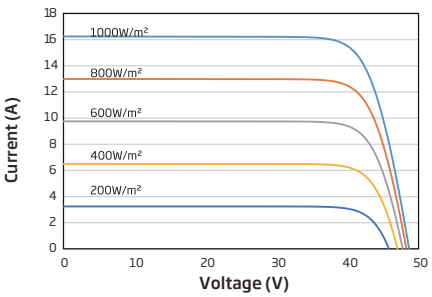
Preliminary

NOCT(Nominal Operating Cell Temperature)	43℃ (±2℃)
Temperature Coefficient of PMAX	- 0.29% /℃
Temperature Coefficient of VOC	- 0.24% /℃
Temperature Coefficient of ISC	0.04% /℃

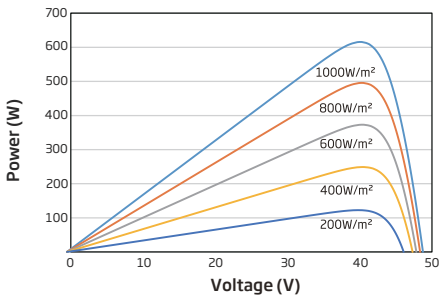
Due to different testing methods, the actual performances might differ from the declared specifications.

Operational Temperature	-40~+85℃
Maximum System Voltage	1500V DC (IEC) 1500V DC (UL)
Max Series Fuse Rating	35A

I-V CURVES OF PV MODULE (615W)

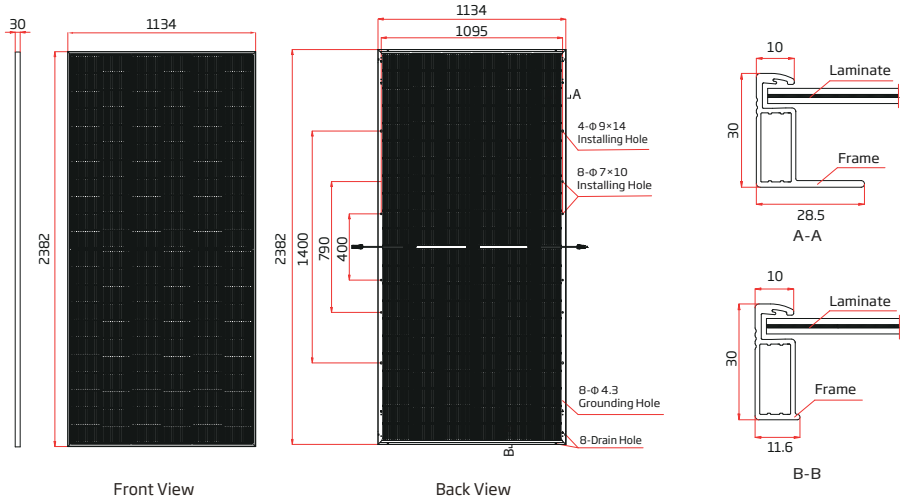


P-V CURVES OF PV MODULE (615W)



Solar Cells	N-type TOPCon Monocrystalline
No. of cells	132 cells
Module Dimensions	2382×1134×30 mm (93.78×44.65×1.18 inches)
Weight	39.7 kg (87.5 lb)
Front Glass	AR Coating Heat Strengthened Glass
Back Glass	Heat Strengthened Glass
Frame	30mm(1.18 inches) Anodized Aluminium Alloy
J-Box	IP 68 rated
Cables	Photovoltaic Technology Cable 4.0mm² (0.006 inches²) Portrait: 200/320 mm(7.87/12.60 inches) Length can be customized
Connector	MC4 EVO2 / TS4 Plus / TS4*
Fire Type	Type 30 or Class A
Packaging	Modules per box: 36 pieces Modules per 40'/53' container: 432 pieces

*Please refer to regional datasheet for specified connector.



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