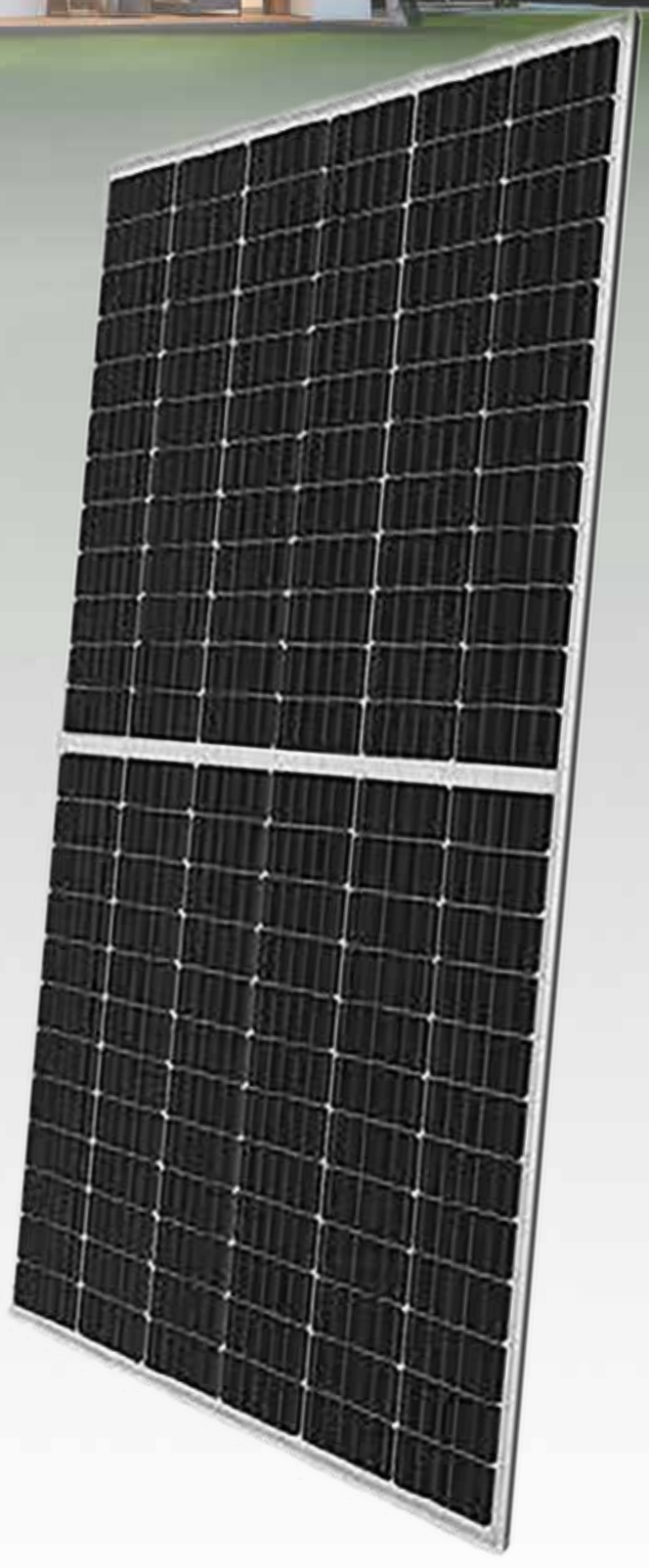
# 570 Wp - 590 Wp
# N-TYPE TOPCON 16BB
## BIFACIAL(GLASS TO GLASS)



30 YEARS — Linear Performance warranty*

15 YEARS — Product warranty on materials and workmanship

### PRODUCT | KEY FEATURES

- AR Coated Tempered Glass
  Anti-Reflective Modules Surface
- Excellent Module Efficiency with N-type
  topcon cells through 100% Automation
- Positive Power Tolerance with Current Binning
  to Prevent Mismatch Losses
- IP68 Junction Box for Long Term Endurance

### PRODUCT CERTIFICATE

- IS 14286, IEC: 61215, 61730, 62804, 61583, 61701, 62716
- Quality Management System : ISO 9001:2015
- Environment Management System : ISO 14001: 2015
- Occupational Health and Safety : ISO 45001:2018

c UL us | CE | IECEE CB Scheme | IS 14286 | Ariel Re

# TECHNICAL DATA

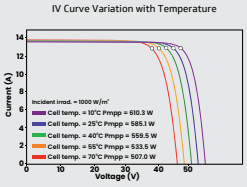
## ELECTRICAL PERFORMANCE [NOTE: POWER TOLERANCE: 0 ~ +4.99 W. POWER MEASUREMENT UNCERTAINTY: < ±3%. AVERAGE VALUE OF NOCT: 45.08 ± 2 °C]

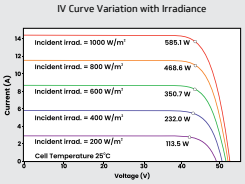
| ELECTRICAL CHARACTERISTICS* | RS570144TGC | | RS575144TGC | | RS580144TGC | | RS585144TGC | | RS590144TGC | |
|---|---|---|---|---|---|---|---|---|---|---|
| | STC | NOCT | STC | NOCT | STC | NOCT | STC | NOCT | STC | NOCT |
| Peak Power Watts (Pmax) | 570 W | 427 W | 575 W | 431 W | 580 W | 435 W | 585 W | 439 W | 590 W | 443 W |
| Maximum Power Voltage (Vmp) | 44.37 V | 41.67 V | 44.56 V | 41.85 V | 44.75 V | 42.03 V | 44.94 V | 42.2 V | 45.12 V | 42.37 V |
| Maximum Power Current (Imp) | 12.85 A | 10.26 A | 12.91 A | 10.31 A | 12.97 A | 10.35 A | 13.02 A | 10.41 A | 13.08 A | 10.45 A |
| Open-circuit voltage (Voc) | 52.39 V | 49.40 V | 52.60 V | 49.59 V | 52.80 V | 49.79 V | 53.01 V | 49.98 V | 53.21 V | 50.18 V |
| Short-circuit current (Isc) (A) | 13.54 A | 10.91 A | 13.59 A | 10.95 A | 13.65 A | 11.00 A | 13.71 A | 11.04 A | 13.76 A | 11.09A |
| Module Efficiency STC (%) | 22.08 % | | 22.28 % | | 22.47 % | | 22.67 % | | 22.86 % | |

## BIFACIAL OUTPUT – BACKSIDE POWER GAIN @ STC* [Bifaciality Factor: 80% ± 10%]

BIFACIAL OUTPUT – BACKSIDE POWER GAIN @ STC* [Bifaciality Factor: 80% ± 10%]

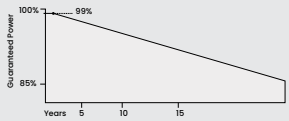
| | | | | | | |
|---|---|---|---|---|---|---|
| 5% | Nominal Maximum Power (Pmax) | 599 W | 604 W | 609 W | 614 W | 620 W |
| | Module Short Circuit Current / Efficiency | 14.21 A / 23.21 % | 14.27 A / 23.40 % | 14.33 A / 23.60 % | 14.39 A / 23.79 % | 14.45 A / 24.00 % |
| 10% | Nominal Maximum Power (Pmax) | 627 W | 633 W | 638 W | 644 W | 649 |
| | Module Short Circuit Current / Efficiency | 14.89 A / 24.29 % | 14.95 A / 24.53 % | 15.02 A / 24.72 % | 15.08 A / 24.95 % | 15.14 A / 25.14 % |
| 25% | Nominal Maximum Power (Pmax) | 713 W | 719 W | 725 W | 731 W | 738 W |
| | Module Short Circuit Current / Efficiency | 16.92 A / 27.63 % | 16.99 A / 27.86 % | 17.06 A / 28.09 % | 17.13 A / 28.32 % | 17.20 A / 28.57 % |



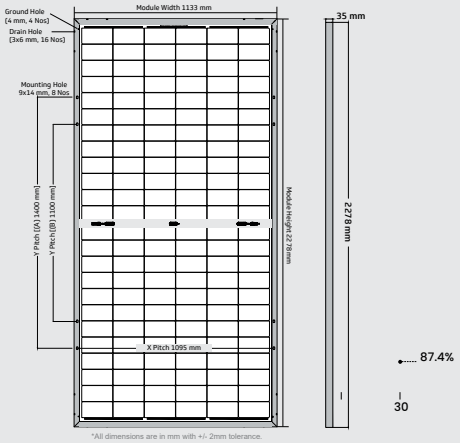




IV Curves for Front-Side Illumination of 585 Wp Panel

**LINEAR PERFORMANCE WARRANTY**




**BACK VIEW** **SIDE VIEW**




## MECHANICAL SPECIFICATIONS

| | |
|---|---|
| Dimensions (L x W x T in mm) | 2278 x 1133 x 35 |
| Weight(kg) | 33 |
| Cell type / No Of Cell | 144 N-type Topcon cells |
| Frame | Anodized Aluminum Alloy (6005, Temper T6, silver colour) |
| Front Cover | Low Iron semi-Tempered AR coated Glass (2 mm thick ) |
| Encapsulate | PID resistant and UV resistant Polymeric Film |
| Back Cover | Low Iron semi-Tempered Glass (2 mm thick) |
| Junction Box | 30A Split Junction Box (3 nos. with individual Bypass Diode) – Weatherproof (IP68) |
| Bypass Diode | 50 A, 45 V, 200 °C max. junction temperature |
| Cable | 4 sq. mm, 300 mm length (Customised cable length available on request) |
| Connectors | MC4 compatible (MC4 original available on request) |
| Application Class Rating | Class A |
| Safety Class Rating | Class II |
| Mechanical Load Test (as per IEC & UL) | 5400 Pa-Front; 2400 Pa-Back |
| Mounting Holes Pitch (Y)-mm | [A] 1400, [B] 1100 |
| Mounting Holes Pitch (X)-mm | 1095 |

## MAXIMUM OPERATION SPECIFICATION

| | |
|---|---|
| Operating Temperature: | -40°C to + 85°C |
| Maximum System Voltage: | 1500V |
| Maximum Series Fuse Rating: | 30A |

## TEMPERATURE SPECIFICATION

| | |
|---|---|
| Current α (Isc): | -0.0297%/Ċ |
| Voltage ß (Voc): | -0.2470%/Ċ |
| Power ϒ (Pmax): | -0.3303%/Ċ |

## STACKING STANDARD

| | 19FT | 32FT |
|---|---|---|
| No. of Modules | 192 | 486 |
| No. of Pallets | 8 | 18 |
| Modules per Pallets/Weight | 24 Nos/730 Kg | 27 Nos/820 Kg |
| Pallet dimension | 2320*1000*1275 | 2320*1130*1275 |

**Caution**: : Please read safety and installation instructions before using the product. *Warranty: Linear performancewarranty for 30 years, with degradation up to 1% in 1st year and 0.4 %/year from year 2 to year 30. Please read warranty documents thoroughly. Disclaimer: Specifications included in the datasheet are subject to change without prior notice owing to continuous innovation in the Product Development and R&D Activities. V-Guard Industries LTD. reserves the right to make any adjustment to the information described here. Dataset contained in this specification do not form a representative of a single module data. @T&C Apply

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