

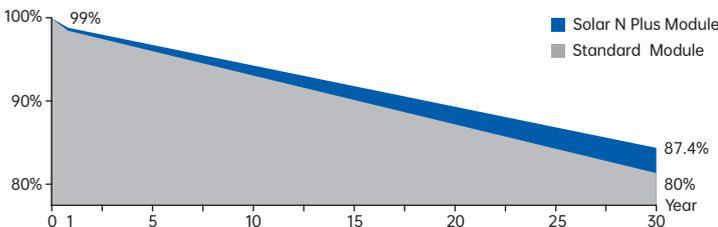
**SP-N16/144HG**

# TOPcon Bifacial 560-590W

-  **HIGHER EFFICIENCY**
-  **LOWER TEMPERATURE COEFFICIENT**
-  **LOW ATTENUATION, LONG WARRANTY**
-  **HIGHER BIFACIALITY**

## WARRANTY

-  **15 YEARS** Guarantee on product material and workmanship
-  **30 YEARS** Linear power output warranty



## INSURANCE



## CERTIFICATION



- ISO 9001: 2015/quality management system
- ISO 14001: 2015/environment management system
- ISO 45001: 2018/occupation health safety management system

# 560-590W SP-N16/144HG

## ELECTRICAL CHARACTERISTICS (STC)

|  |   |        |       |       |       |       |       |       |
|--|---|--------|-------|-------|-------|-------|-------|-------|
| Maximum Power (Pm)                       | W | 560    | 565   | 570   | 575   | 580   | 585   | 590   |
| Power Tolerance                          | W | 0 ~ +5 |       |       |       |       |       |       |
| Maximum Power Voltage (V <sub>m</sub> )  | V | 44.35  | 44.55 | 44.75 | 44.95 | 45.15 | 45.35 | 45.55 |
| Maximum Power Current (I <sub>m</sub> )  | A | 12.63  | 12.68 | 12.74 | 12.79 | 12.85 | 12.90 | 12.96 |
| Open Circuit Voltage (V <sub>oc</sub> )  | V | 51.8   | 52.0  | 52.2  | 52.4  | 52.6  | 52.8  | 53.0  |
| Short Circuit Current (I <sub>sc</sub> ) | A | 13.37  | 13.42 | 13.47 | 13.52 | 13.57 | 13.62 | 13.67 |
| Module Efficiency (η <sub>m</sub> )      | % | 21.7   | 21.9  | 22.1  | 22.3  | 22.5  | 22.7  | 22.8  |

STC:AM=1.5, irradiance=1000W/m<sup>2</sup>, module temperature=25°C

## ELECTRICAL CHARACTERISTICS (NMOT)

|  |   |       |       |       |       |       |       |       |
|--|---|-------|-------|-------|-------|-------|-------|-------|
| Maximum Power (Pm)                       | W | 430   | 433   | 437   | 441   | 445   | 449   | 453   |
| Maximum Power Voltage (V <sub>m</sub> )  | V | 41.18 | 41.36 | 41.54 | 41.72 | 41.90 | 42.08 | 42.26 |
| Maximum Power Current (I <sub>m</sub> )  | A | 10.42 | 10.47 | 10.52 | 10.57 | 10.62 | 10.67 | 10.72 |
| Open Circuit Voltage (V <sub>oc</sub> )  | V | 49.33 | 49.53 | 49.73 | 49.93 | 50.13 | 50.33 | 50.52 |
| Short Circuit Current (I <sub>sc</sub> ) | A | 10.81 | 10.86 | 10.91 | 10.96 | 11.01 | 11.06 | 11.11 |

NMOT: irradiance=800W/m<sup>2</sup>, environment temperature=20°C, wind speed=1m/s

## REAR SIDE POWER GAIN

|     |            |        |        |        |        |        |        |        |
|-----|------------|--------|--------|--------|--------|--------|--------|--------|
| 5%  | Max Power  | 588W   | 593W   | 599W   | 604W   | 609W   | 614W   | 620W   |
|     | Efficiency | 22.76% | 22.97% | 23.17% | 23.37% | 23.57% | 23.78% | 23.98% |
| 15% | Max Power  | 644W   | 650W   | 656W   | 661W   | 667W   | 673W   | 679W   |
|     | Efficiency | 24.93% | 25.15% | 25.37% | 25.60% | 25.82% | 26.04% | 26.27% |
| 25% | Max Power  | 700W   | 706W   | 713W   | 719W   | 725W   | 731W   | 738W   |
|     | Efficiency | 27.10% | 27.34% | 27.58% | 27.82% | 28.07% | 28.31% | 28.55% |

## MECHANICAL SPECIFICATIONS

|                            |  |
|----------------------------|--|
| External Dimension (L×W×H) | 2278×1134×30mm   |
| Weight                     | 32.5kg   |
| Number of Cells            | 144 (6×24)   |
| Front Glass                | 2.0mm AR-coating heat-strengthened glass                         |
| Rear Glass                 | 2.0mm heat-strengthened glass                                    |
| Frame                      | Glass fiber reinforced polyurethane composite frame, black color |
| Junction Box               | IP68   |
| Output Cables              | 4mm <sup>2</sup> , 300mm or customized length                    |
| Connector                  | MC4 Compatible   |

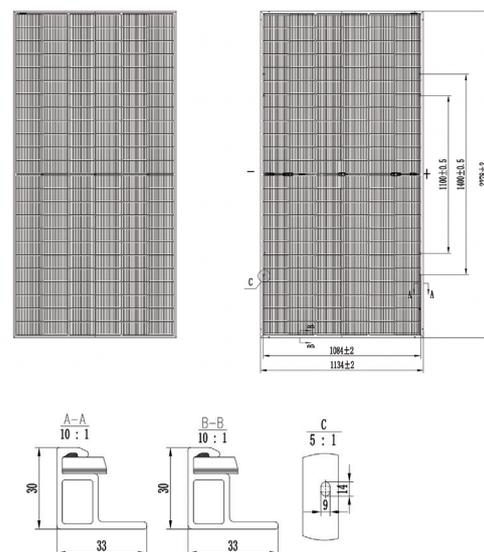
## APPLICATION CONDITIONS

|                            |                             |
|----------------------------|-----------------------------|
| Maximum System Voltage     | DC1500V (IEC)               |
| Maximum Series Fuse Rating | 25A                         |
| Operating Temperature      | -40°C ~ +85°C               |
| Mechanical Load            | 5400Pa/2400Pa               |
| Hail Test                  | 25mm diameter hail at 23m/s |
| Bifaciality                | 80±5%                       |
| Application Rating         | Class A                     |

## TEMP CHARACTERISTICS

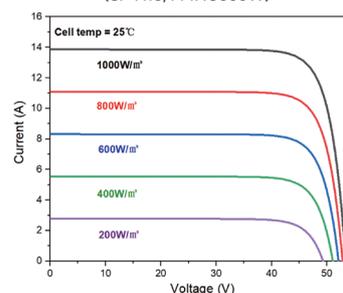
|   |           |
|---|-----------|
| Nominal Module Operating Temperature        | 42±2°C    |
| Temperature Coefficient of P <sub>max</sub> | -0.29%/°C |
| Temperature Coefficient of V <sub>oc</sub>  | -0.25%/°C |
| Temperature Coefficient of I <sub>sc</sub>  | 0.045%/°C |

## TECHNICAL DRAWING

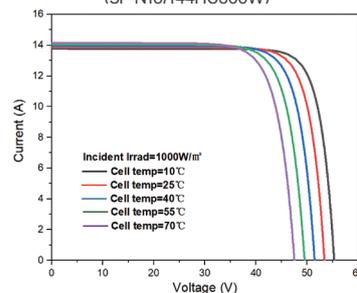


## I-V CURVE

I-V characteristics at different irradiance (SP-N16/144HG600W)



I-V characteristics at different temperatures (SP-N16/144HG600W)



## PACKING CONFIGURATION

|                      |                  |
|----------------------|------------------|
| Container            | 40'HC            |
| Pieces per Pallet    | 37 pcs           |
| Packaging box Size   | 2335×1145×1260mm |
| Pieces per Container | 740 pcs          |



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