



SP-N16/144HG

SIRIUS

TOPcon Bifacial

570-590W



HIGHER EFFICIENCY



LOWER TEMPERATURE COEFFICIENT



LOW ATTENUATION, LONG WARRANTY



HIGHER BIFACIALITY

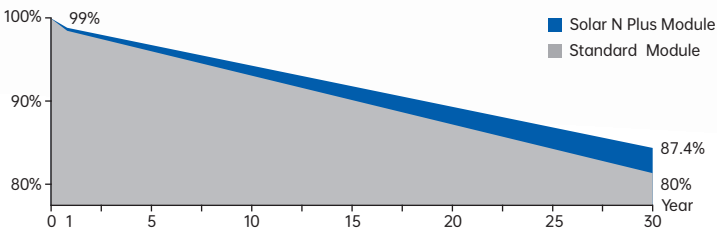
WARRANTY



15 YEARS Guarantee on product material and workmanship



30 YEARS Linear power output warranty



INSURANCE



中国平安 PINGAN

CERTIFICATION



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

570-590W SP-N16/144HG

ELECTRICAL CHARACTERISTICS (STC)

| | | | | | | |
|-----------------------------|---|--------|-------|-------|-------|-------|
| Maximum Power (Pm) | W | 570 | 575 | 580 | 585 | 590 |
| Power Tolerance | W | 0 ~ +5 | | | | |
| Maximum Power Voltage (Vm) | V | 44.81 | 44.97 | 45.13 | 45.29 | 45.45 |
| Maximum Power Current (Im) | A | 12.74 | 12.80 | 12.86 | 12.92 | 12.98 |
| Open Circuit Voltage (Voc) | V | 52.2 | 52.4 | 52.6 | 52.8 | 53.0 |
| Short Circuit Current (Isc) | A | 13.51 | 13.58 | 13.65 | 13.72 | 13.79 |
| Module Efficiency (ηm) | % | 22.1 | 22.3 | 22.5 | 22.7 | 22.8 |

STC:AM=1.5, irradiance=1000W/m², module temperature=25°C

ELECTRICAL CHARACTERISTICS (NMOT)

| | | | | | | |
|-----------------------------|---|-------|-------|-------|-------|-------|
| Maximum Power (Pm) | W | 430 | 433 | 437 | 441 | 445 |
| Maximum Power Voltage (Vm) | V | 41.66 | 41.84 | 42.02 | 42.20 | 42.38 |
| Maximum Power Current (Im) | A | 10.30 | 10.35 | 10.40 | 10.45 | 10.50 |
| Open Circuit Voltage (Voc) | V | 49.5 | 49.7 | 49.9 | 50.1 | 50.3 |
| Short Circuit Current (Isc) | A | 10.94 | 10.99 | 11.04 | 11.09 | 11.14 |

NMOT: irradiance=800W/m², environment temperature=20°C, wind speed=1m/s

REAR SIDE POWER GAIN

| | | | | | | |
|-----|------------|--------|--------|--------|--------|--------|
| 5% | Max Power | 599W | 604W | 609W | 614W | 620W |
| | Efficiency | 23.17% | 23.37% | 23.57% | 23.78% | 23.98% |
| 15% | Max Power | 656W | 661W | 667W | 673W | 679W |
| | Efficiency | 25.37% | 25.60% | 25.82% | 26.04% | 26.27% |
| 25% | Max Power | 713W | 719W | 725W | 731W | 738W |
| | Efficiency | 27.58% | 27.82% | 28.07% | 28.31% | 28.55% |

MECHANICAL SPECIFICATIONS

| | |
|----------------------------|---|
| External Dimension (L×W×H) | 2278×1134×30mm |
| Weight | 32.0kg |
| Number of Cells | 144 (6×24) |
| Front Glass | 2.0mm AR-coating heat-strengthened glass |
| Rear Glass | 2.0mm heat-strengthened glass |
| Frame | Anodized aluminum alloy, silver color |
| Junction Box | IP68 |
| Output Cables | 4mm ² , 300mm or customized length |
| Connector | MC4 Compatible |

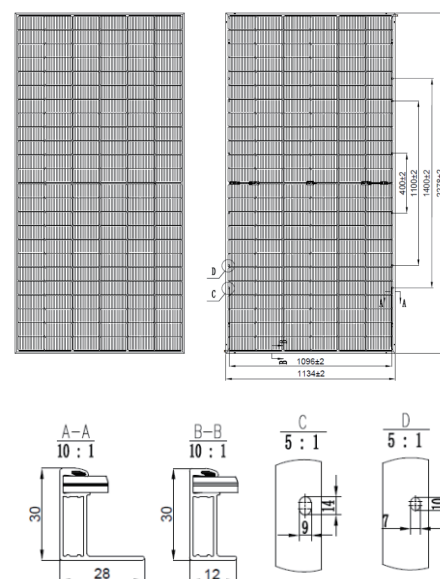
APPLICATION CONDITIONS

| | |
|----------------------------|-----------------------------|
| 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

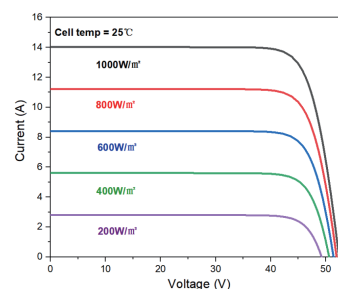
| | |
|--------------------------------------|-----------|
| Nominal Module Operating Temperature | 42±2°C |
| Temperature Coefficient of Pmax | -0.29%/°C |
| Temperature Coefficient of Voc | -0.25%/°C |
| Temperature Coefficient of ISC | 0.045%/°C |

TECHNICAL DRAWING

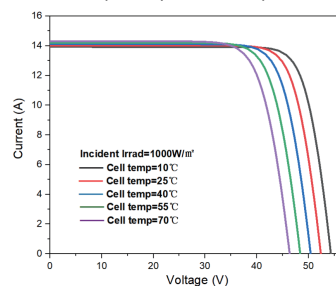


I-V CURVE

I-V characteristics at different irradiance (SP-N16/144HG590W)



I-V characteristics at different temperatures (SP-N16/144HG590W)



PACKING CONFIGURATION

| | |
|----------------------|------------------|
| Container | 40'HC |
| Pieces per Pallet | 36 pcs |
| Packaging box Size | 2335×1145×1260mm |
| Pieces per Container | 720 pcs |



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