



# SOLAR PLUS

SP-M10/108HG

# CYGNUS

## PERC Monofacial

# 395-415W

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

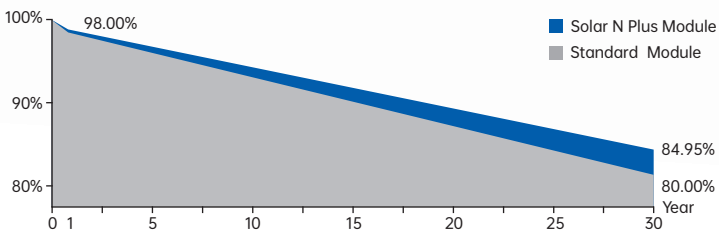
### WARRANTY



Guarantee on product material and workmanship



Linear power output warranty



### CERTIFICATION



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

# 395-415W

## SP-M10/108HG

### ELECTRICAL CHARACTERISTICS (STC)

|                             |   |       |       |       |       |       |
|-----------------------------|---|-------|-------|-------|-------|-------|
| Maximum Power (Pm)          | W | 395   | 400   | 405   | 410   | 415   |
| Power Tolerance             | W |       |       | 0~+5  |       |       |
| Maximum Power Voltage (Vm)  | V | 30.60 | 30.80 | 31.00 | 31.20 | 31.40 |
| Maximum Power Current (Im)  | A | 12.91 | 12.99 | 13.07 | 13.15 | 13.23 |
| Open Circuit Voltage (Voc)  | V | 36.60 | 36.80 | 37.00 | 37.20 | 37.40 |
| Short Circuit Current (Isc) | A | 13.77 | 13.85 | 13.93 | 14.01 | 14.09 |
| Module Efficiency (ηm)      | % | 20.20 | 20.50 | 20.70 | 21.00 | 21.30 |

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

### ELECTRICAL CHARACTERISTICS (NMOT)

|                             |   |       |       |       |       |       |
|-----------------------------|---|-------|-------|-------|-------|-------|
| Maximum Power (Pm)          | W | 294   | 298   | 301   | 305   | 309   |
| Maximum Power Voltage (Vm)  | V | 28.54 | 28.74 | 28.94 | 29.14 | 29.34 |
| Maximum Power Current (Im)  | A | 10.28 | 10.36 | 10.44 | 10.52 | 10.60 |
| Open Circuit Voltage (Voc)  | V | 34.53 | 34.73 | 34.93 | 35.13 | 35.33 |
| Short Circuit Current (Isc) | A | 11.27 | 11.35 | 11.43 | 11.51 | 11.59 |

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

### REAR SIDE POWER GAIN

|     |            |        |        |        |        |        |
|-----|------------|--------|--------|--------|--------|--------|
| 5%  | Max Power  | 415W   | 420W   | 425W   | 431W   | 436W   |
|     | Efficiency | 21.24% | 21.51% | 21.78% | 22.05% | 22.31% |
| 15% | Max Power  | 454W   | 460W   | 466W   | 472W   | 477W   |
|     | Efficiency | 23.26% | 23.56% | 23.85% | 24.15% | 24.44% |
| 25% | Max Power  | 494W   | 500W   | 506W   | 513W   | 519W   |
|     | Efficiency | 25.28% | 25.60% | 25.93% | 26.25% | 26.57% |

### MECHANICAL SPECIFICATIONS

|                            |   |
|----------------------------|---|
| External Dimension (L×W×H) | 1722×1134×30mm                                  |
| Weight                     | 24.1kg  |
| Solar Cells                | 108 (6×18)/10BB Mono/182×91mm                   |
| 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              | 4.0mm <sup>2</sup> , 300mm or customized length |
| Connector                  | MC4 Compatible                                  |

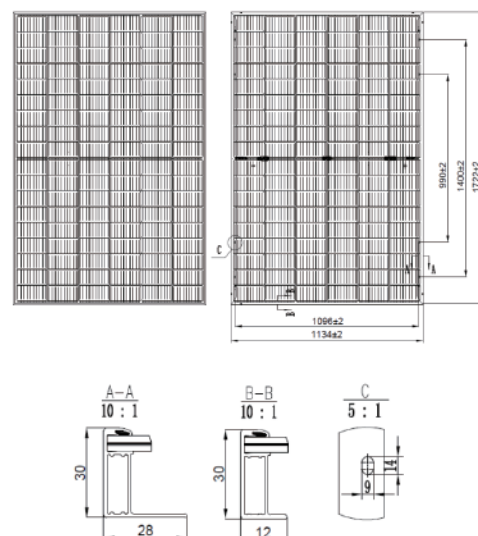
### APPLICATION CONDITIONS

|                            |                             |
|----------------------------|-----------------------------|
| 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                | 70±5%                       |
| Application Rating         | Class A                     |

### TEMP CHARACTERISTICS

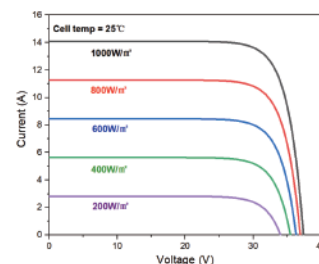
|                                      |            |
|--------------------------------------|------------|
| Nominal Module Operating Temperature | 45±2°C     |
| Temperature Coefficient of Pmax      | -0.35%/°C  |
| Temperature Coefficient of Voc       | -0.28%/°C  |
| Temperature Coefficient of ISC       | +0.050%/°C |

### TECHNICAL DRAWING

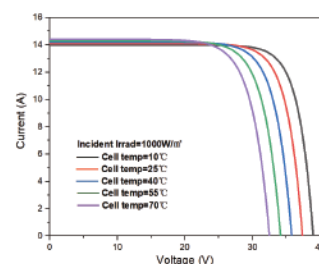


### I-V CURVE

I-V characteristics at different irradiance (SP-M10/108HG415W)



I-V characteristics at different temperatures (SP-M10/108HG415W)



### PACKING CONFIGURATION

|                      |                  |
|----------------------|------------------|
| Container            | 40'HC            |
| Pieces per Pallet    | 36 pcs           |
| Packaging box Size   | 1750×1140×1290mm |
| Pieces per Container | 936 pcs          |



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