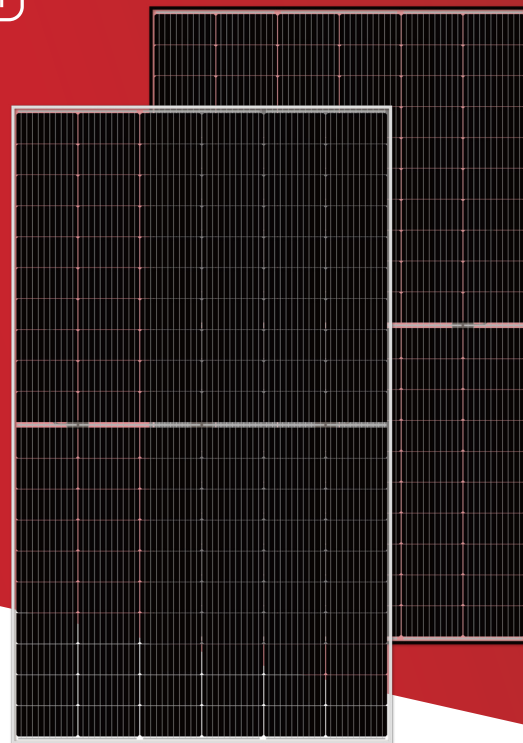


Zosma™ S Pro

445-465W

High Efficiency Bifacial Dual Glass Mono Module



Bifacial technology enables additional energy harvesting from rear side (up to 30%)



Excellent low irradiance performance



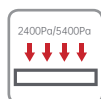
Better light trapping and current collection to improve module power output and reliability



Industry-leading, lowest thermal coefficient



Optimized electrical design and lower operating current for reduced hot spot loss and better temperature



2400Pa/5400Pa

Certified to withstand 2400 Pa of wind load and 5400 Pa of snow load



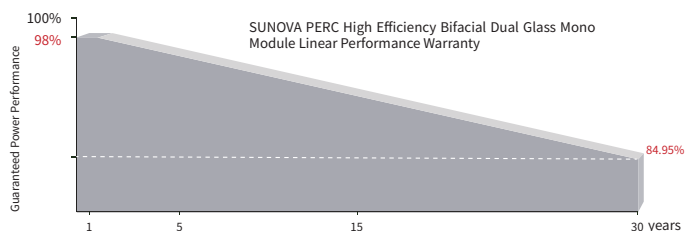
100% triple EL test, which greatly reduces the hidden cracks rate

PERFORMANCE INSURANCE



* Optional performance warranty insurance. Please contact our local sales representatives for more information.

LINEAR PERFORMANCE WARRANTY



15 years

Product quality & process guarantee

30 years

Linear power guarantee

0.45 %

Annual degradation over 30 years

COMPREHENSIVE CERTIFICATES



IEC61215/IEC61730/IEC61701/IEC62716/
IEC62804/IEC60068/UL61730

ISO 9001: Quality Management System

ISO 14001: Environmental Management System Standard

ISO 45001: International Occupational Health and Safety Assessment System Standard

SA 8000: 2014 Social Accountability Management System

* Different markets have different certification requirements. Also, the products are under rapid innovation. Please confirm the certification status with regional sales representatives.

ELECTRICAL CHARACTERISTICS

| Model of modules | SS-BG445-60MDH | | SS-BG450-60MDH | | SS-BG455-60MDH | | SS-BG460-60MDH | | SS-BG465-60MDH | |
|--------------------------------------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|
| | STC | NOCT | STC | NOCT | STC | NOCT | STC | NOCT | STC | NOCT |
| Maximum power — P_{mp} (W) | 445 | 332 | 450 | 336 | 455 | 339 | 460 | 343 | 465 | 346 |
| Open-circuit voltage — V_{oc} (V) | 41.27 | 38.96 | 41.46 | 39.14 | 41.65 | 39.32 | 41.78 | 39.44 | 41.92 | 39.57 |
| Short-circuit current — I_{sc} (A) | 13.42 | 10.84 | 13.47 | 10.88 | 13.54 | 10.94 | 13.63 | 11.01 | 13.73 | 11.09 |
| Maximum power voltage — V_{mp} (V) | 34.46 | 32.26 | 34.62 | 32.41 | 34.78 | 32.56 | 34.89 | 32.66 | 35.02 | 32.78 |
| Maximum power current — I_{mp} (A) | 12.92 | 10.28 | 13.01 | 10.35 | 13.09 | 10.42 | 13.19 | 10.50 | 13.28 | 10.57 |
| Module efficiency — η_m (%) | 20.62 | | 20.85 | | 21.08 | | 21.32 | | 21.55 | |

STC (Standard Testing Conditions): Irradiance 1000W/m², Cell Temperature 25 °C, Spectra at AM1.5

NOCT (Nominal Operating Cell Temperature): Irradiance 800W/m², Ambient Temperature 20°C, Spectra at AM1.5, Wind at 1m/s

ELECTRICAL CHARACTERISTICS WITH DIFFERENT POWER BIN (REFERENCE TO 13.5% IRRADIANCE RATIO)

| | | | | | |
|--|-------|-------|-------|-------|-------|
| Peak Power (P_{max}) (W) | 487 | 493 | 498 | 504 | 509 |
| Open Circuit Voltage (V_{oc}) (V) | 41.27 | 41.46 | 41.65 | 41.78 | 41.94 |
| Short Circuit Current (I_{sc}) (A) | 14.69 | 14.74 | 14.82 | 14.87 | 14.95 |
| Maximum power voltage — V_{mp} (V) | 34.46 | 34.62 | 34.78 | 34.89 | 35.04 |
| Maximum power current — I_{mp} (A) | 14.14 | 14.24 | 14.33 | 14.44 | 14.52 |

STRUCTURAL CHARACTERISTICS

| | |
|-----------------------|--|
| Module size (L*W*H) | 1903 x 1134 x 30 mm |
| Weight | 26.3 kg |
| Cell | 120 cells, PERC Monocrystalline |
| Front Glass | 2.0mm, Anti-Reflection Coating |
| Back Glass | 2.0mm, Heat Strengthened Glass |
| Frame | Anodized aluminum alloy (Silver/Black) |
| Junction box | IP68, 3 bypass diodes |
| Output wire | 4.0 mm ² |
| Wire length | 300mm/1200mm/customized |
| Connector | MC4 Compatible |
| Packing Specification | 36 pcs/Pallet; 864 pcs/40'HQ |

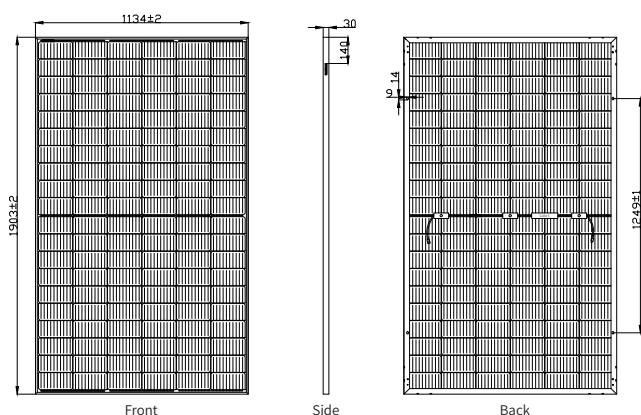
OPERATING PARAMETERS

| | |
|------------------------------------|-------------------|
| Power selection (W) | (0,+5) |
| Maximum system voltage (V) | 1500 |
| Maximum rated fuse current (A) | 30 |
| Current operating temperature (°C) | -40~+85 °C |
| Mechanical load | 5400 Pa / 2400 Pa |

TEMPERATURE RATINGS

| | |
|---------------------------------------|------------|
| Temperature coefficient (P_{max}) | -0.33 %/°C |
| Temperature coefficient (V_{oc}) | -0.26 %/°C |
| Temperature coefficient (I_{sc}) | +0.06 %/°C |
| Nominal operating cell temperature | 43±2 °C |

MODULE DIMENSIONS (MM)



* The unmarked tolerance is ±1 mm
Length shown in mm

