

9BB HALF CELL MONO

430W-450W

144 CELL

9-BUSBAR MONO PERC

430W-450W

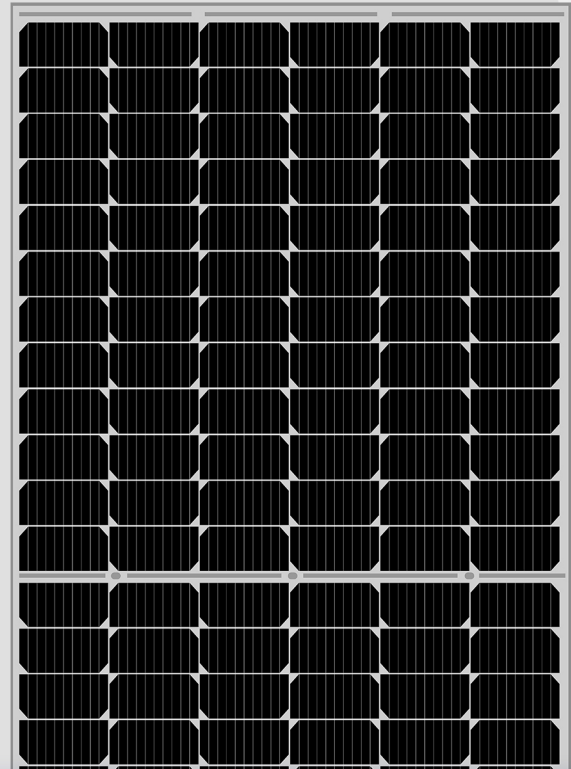
POWER OUTPUT RANGE

20.7%

MAXIMUM EFFICIENCY

0 to +5W

POSITIVE POWER TOLERANCE



Higher Output of Power

Effectively reduce the unit cost of PV solar system by watt



Optimize the temperature coefficient

Improve the performance under the condition of shadow and low temperature coefficient



Reduce the shadow loss on the power output

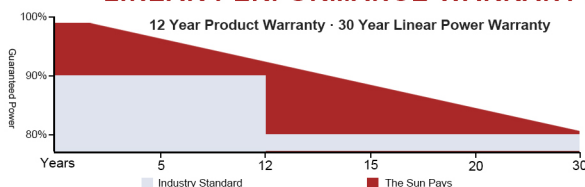
Effectively reduce the risk of heat spot on high efficiency



Stronger the physical property

Optimize the property of power generating and reliability of the system

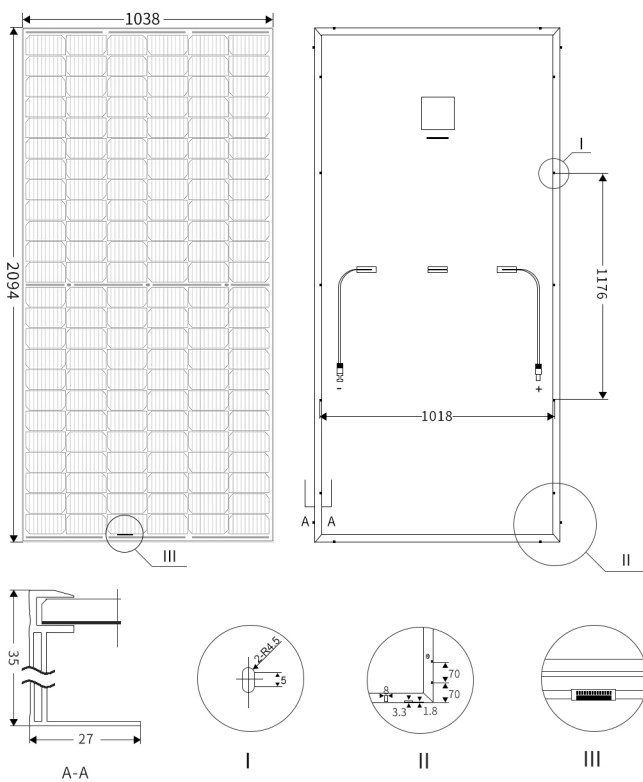
LINEAR PERFORMANCE WARRANTY



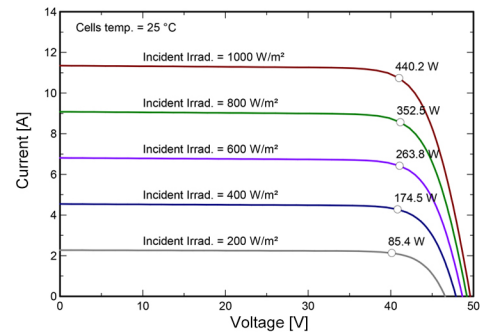
| Module Type | | SPHC-430MBB | | SPHC-435MBB | | SPHC-440MBB | | SPHC-445MBB | | SPHC-450MBB | |
|-----------------------|--------------|-------------|-------|-------------|-------|-------------|-------|-------------|-------|-------------|-------|
| Test Environment | | STC | NOCT | STC | NOCT | STC | NOCT | STC | NOCT | STC | NOCT |
| Maximum Power | $P_{MAX}(W)$ | 430 | 318.3 | 435 | 322 | 440 | 325.8 | 445 | 329.8 | 450 | 333.2 |
| Maximum Power Voltage | $V_{MPP}(V)$ | 40.59 | 37.48 | 40.79 | 37.68 | 40.99 | 37.88 | 41.19 | 38.07 | 41.39 | 38.26 |
| Maximum Power Current | $I_{MPP}(A)$ | 10.6 | 8.48 | 10.67 | 8.54 | 10.74 | 8.59 | 10.81 | 8.64 | 10.88 | 8.7 |
| Open Circuit Voltage | $V_{oc}(V)$ | 49.22 | 45.88 | 49.42 | 46.08 | 49.62 | 46.28 | 49.86 | 46.52 | 50.1 | 46.76 |
| Short Circuit Current | $I_{sc}(A)$ | 11.21 | 9 | 11.28 | 9.06 | 11.35 | 9.11 | 11.41 | 9.16 | 11.48 | 9.22 |
| Tolerance | (W) | 0 - +5 | | 0 - +5 | | 0 - +5 | | 0 - +5 | | 0 - +5 | |
| Module Efficiency | (%) | 19.8 | | 20.0 | | 20.2 | | 20.5 | | 20.7 | |

STC: Irradiance 1000 W/m², Cell Temperature 25°C, Air Mass AM1.5 according to EN 60904-3.
Average efficiency reduction of 4.5% at 200W/m² according to EN 60904-1
NOCT: Irradiance at 800 W/m², Ambient Temperature 20°C, Wind Speed 1m/s.

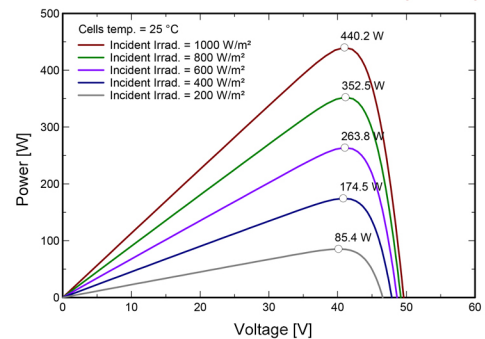
DIMENSIONS OF PV MODULE



I-V CURVES OF PV MODULE (440W)



P-V CURVES OF PV MODULE (440W)



MECHANICAL DATA

| | |
|-------------------|--|
| Solar Cells | 9BB Mono PERC 166 x 83mm |
| Cell Orientation | 144 cells (6 x 24) |
| Module Dimensions | 2094 x 1038 x 35mm |
| Weight | 23.5kg |
| Glass | High Transparency, Anti-Reflective, AR Coated and Heat Tempered Solar Glass -3.2mm |
| Backsheet | White |
| Frame | Silver Anodized Aluminium Alloy (Black Available) |
| J-Box | IP 68 rated |
| Cables | Photovoltaic Technology cable 4.0mm ² , 1200mm |
| Connector | MC4 Compatible |

TEMPERATURE RATINGS

| | |
|---|------------|
| Nominal Operating Cell Temperature (NOCT) | 45±2°C |
| Temperature Coefficient of P_{MAX} | -0.36%/°C |
| Temperature Coefficient of V_{oc} | -0.28%/°C |
| Temperature Coefficient of I_{sc} | +0.048%/°C |

MAXIMUM RATING

| | |
|-------------------------|--------------|
| Operational Temperature | -40 to +85°C |
| Maximum System Voltage | 1500V DC |
| Max Series Fuse Rating | 20A |
| Mechanical Load | 5400pa |
| Wind Load | 2400pa |

PACKING CONFIGURATION

Modules per box: 30 pieces

Modules per 40' container: 704 pieces