

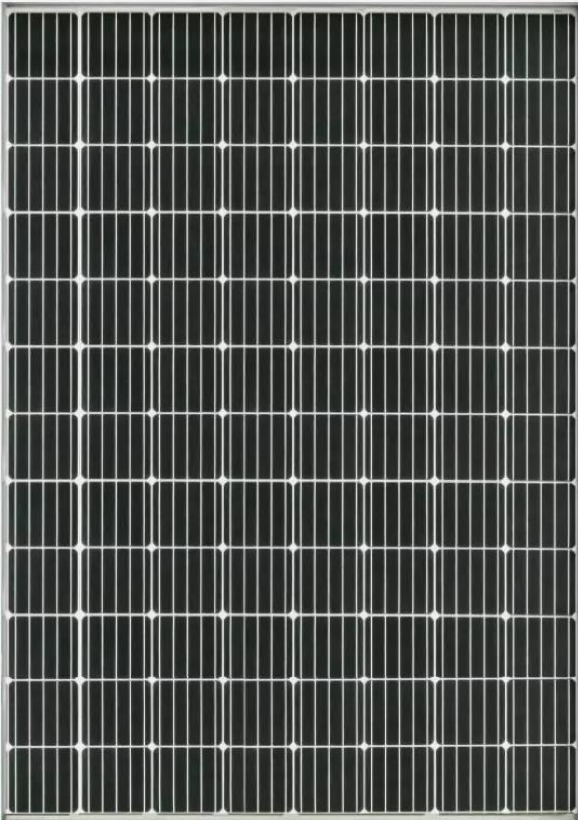
SUNFUTURE



MORE BRIGHT FUTURE FROM

SF-96PERC

SUNFUTURE



PERC MONO 480W 490W 500W 510W 515W 520W



Higher Durability

The multi-busbar design can decrease the risk of the cell micro-cracks and fingers broken.



High Power Density

High conversion efficiency and more power output per square meter, by lower series resistance and improved light harvesting.



PID Resistant

Tested in accordance to the IEC 62804 standard, SF modules have demonstrated resistance against PID (Potential Induced Degradation), which translates to security for the investment.

22.71%

CELL EFFICIENCY

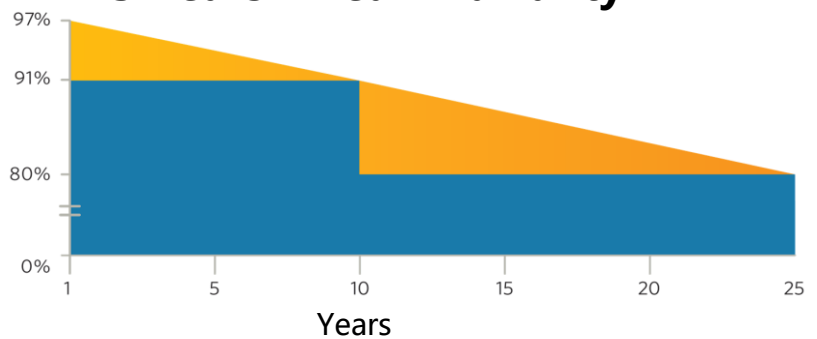
12 YEAR

PRODUCT WARRANTY

0-5W

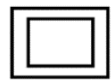
POWER TOLERANCE

25 Years Linear Warranty



SF's Linear Performance Warranty

Industry Standard Warranty



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More bright future from Sunfuture

20201101V11

ELECTRICAL PERFORMANCE

Electrical parameters at Standard Test Conditions (STC)

| Module type | SF***-96PERC | | | | | | | |
|-----------------------|--------------|---|-------|-------|-------|-------|-------|-------|
| Power output | P_{max} | W | 480 | 490 | 500 | 510 | 515 | 520 |
| Module efficiency | η_m | % | 18.92 | 19.32 | 19.71 | 20.10 | 20.30 | 20.50 |
| Voltage at P_{max} | V_{mp} | V | 48.70 | 48.90 | 49.10 | 49.30 | 49.30 | 49.50 |
| Current at P_{max} | I_{mp} | A | 9.86 | 10.02 | 10.18 | 10.34 | 10.45 | 10.51 |
| Open-circuit voltage | V_{oc} | V | 58.44 | 58.68 | 58.92 | 59.16 | 59.16 | 59.40 |
| Short-circuit current | I_{sc} | A | 10.35 | 10.52 | 10.69 | 10.86 | 10.97 | 11.03 |

STC: 1000W/m² irradiance, 25° C cell temperature, AM1.5g spectrum according to EN 60904-3.

Average relative efficiency reduction of 3.0% at 200W/m² according to EN 60904-1.

Electrical parameters at Nominal Operating Cell Temperature (NOCT)

| | | | | | | | | |
|-----------------------|-----------|---|-------|-------|-------|-------|-------|-------|
| Power output | P_{max} | W | 354.0 | 361.4 | 368.8 | 376.2 | 379.9 | 383.6 |
| Voltage at P_{max} | V_{mp} | V | 44.86 | 45.05 | 45.23 | 45.42 | 45.42 | 45.60 |
| Current at P_{max} | I_{mp} | A | 7.89 | 8.02 | 8.15 | 8.28 | 8.36 | 8.40 |
| Open-circuit voltage | V_{oc} | V | 54.44 | 54.66 | 54.88 | 55.11 | 55.11 | 55.33 |
| Short-circuit current | I_{sc} | A | 8.28 | 8.42 | 8.55 | 8.69 | 8.78 | 8.82 |

NOCT: open-circuit module operation temperature at 800W/m² irradiance, 20°C ambient temperature, 1m/s wind speed.

THERMAL CHARACTERISTICS

| | |
|---|------------|
| Nominal operating cell temperature (NOCT) | 45°C ± 2 |
| Temperature coefficient of P_{max} | -0.41%/°C |
| Temperature coefficient of V_{oc} | -0.33%/°C |
| Temperature coefficient of I_{sc} | +0.059%/°C |

OPERATING CONDITIONS & DIMENSION

| | |
|--------------------------------------|---------------------|
| Max. system voltage | 1500V _{DC} |
| Max. series fuse rating | 15A |
| Operating temperature range | -40°C to 85°C |
| Max. static load, front (e.g., snow) | 5400Pa |
| Max. static load, back (e.g., wind) | 2400Pa |
| Dimension(mm) | 1956×1310×40 |
| Weight | 27.5kg |
| Frame colour | Silver/Black |

