

## SF-60P

## MORE BRIGHT FUTURE FROM

## SUNFUTURE

### POLY 270W 275W 280W 290W 300W 305W



#### Higher Durability

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



#### High Power Density

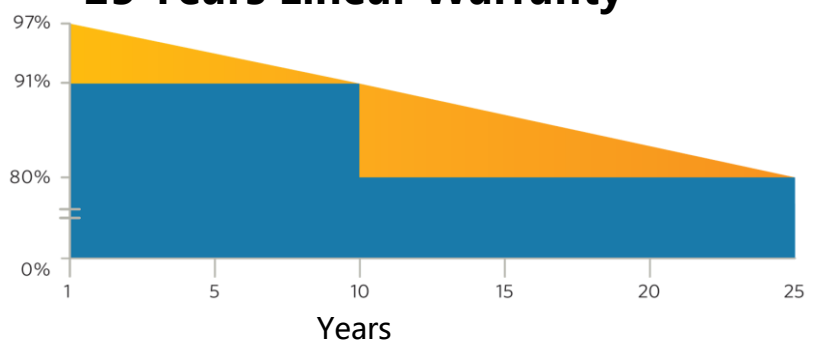
High conversion efficiency and more power output per square meter, by lower series resistance and improved light harvesting.



#### 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.

### 25 Years Linear Warranty



SF's Linear Performance Warranty

Industry Standard Warranty

**20.44%**

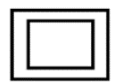
CELL EFFICIENCY

**12 YEAR**

PRODUCT WARRANTY

**0-5W**

POWER TOLERANCE



## ELECTRICAL PERFORMANCE

### Electrical parameters at Standard Test Conditions (STC)

Module type	SF***-60P							
Power output	$P_{max}$	W	270	275	280	290	300	305
Module efficiency	$\eta_m$	%	16.60	16.90	17.21	17.83	18.48	18.97
Voltage at $P_{max}$	$V_{mp}$	V	31.50	31.80	32.10	32.30	32.35	32.40
Current at $P_{max}$	$I_{mp}$	A	8.57	8.65	8.72	8.98	9.27	9.41
Open-circuit voltage	$V_{oc}$	V	37.80	38.16	38.52	38.76	39.00	39.23
Short-circuit current	$I_{sc}$	A	9.00	9.08	9.16	9.43	9.69	9.71

STC: 1000W/m<sup>2</sup> irradiance, 25° C cell temperature, AM1.5g spectrum according to EN 60904-3.

Average relative efficiency reduction of 3.0% at 200W/m<sup>2</sup> according to EN 60904-1.

### Electrical parameters at Nominal Operating Cell Temperature (NOCT)

Power output	$P_{max}$	W	199.2	202.8	206.5	213.9	221.3	225.0
Voltage at $P_{max}$	$V_{mp}$	V	29.02	29.29	29.57	29.75	29.80	29.85
Current at $P_{max}$	$I_{mp}$	A	6.86	6.92	6.98	7.18	7.42	7.53
Open-circuit voltage	$V_{oc}$	V	35.21	35.54	35.88	36.10	36.33	36.54
Short-circuit current	$I_{sc}$	A	7.20	7.26	7.33	7.54	7.75	7.77

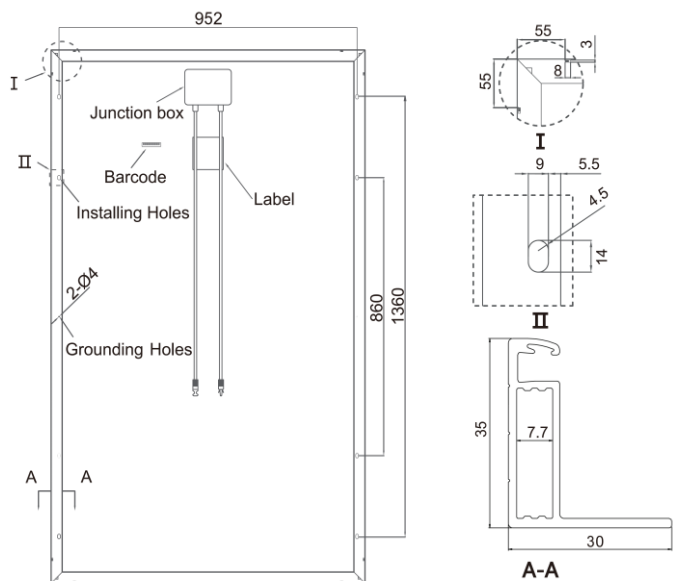
NOCT: open-circuit module operation temperature at 800W/m<sup>2</sup> irradiance, 20°C ambient temperature, 1m/s wind speed.

## THERMAL CHARACTERISTICS

Nominal operating cell temperature (NOCT)	$45^{\circ}\text{C} \pm 2$
Temperature coefficient of $P_{max}$	-0.408%/°C
Temperature coefficient of $V_{oc}$	-0.292%/°C
Temperature coefficient of $I_{sc}$	+0.045%/°C

## OPERATING CONDITIONS & DIMENSION

Max. system voltage	1500V <sub>DC</sub>
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)	1640×992×35/40
Weight	17.5kg
Frame colour	Silver/Black



**Back View**

Unit: mm