

TOPCon 182 Full Black Bifacial Solar Module

High Efficiency

Higher module conversion efficiency benefit from half cell structure (low resistance characteristic).



Multi busbar technology

Better light utilization and current collection capabilities, effectively improving product power output and reliability.



Longer service life

Excellent double-sided warranty promises a 30-year power warranty of 0.45% linear power attenuation.



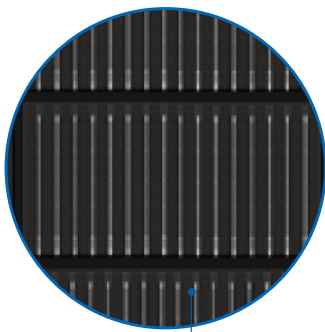
Severe Weather Resilience

Certified to withstand: Wind load (2400 pascal) and snow load (5400 pascal).



Double-sided power generation

The double-sided power generation gain increases with the light received on the back side, up to 25%, which significantly reduces the LCOE.

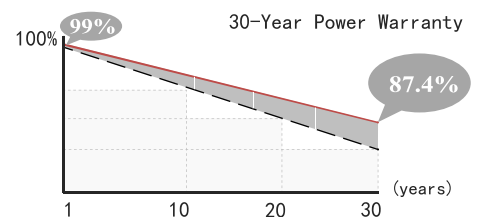


• Double-sided cell technology

12-year Warranty for Materials and Processing



30-year Warranty for Extra Linear Power Output



IEC61215, IEC61730, IEC61701, IEC62716, IEC62804

ISO 9001:2015: ISO Quality Management System

ISO 14001: 2015: ISO Environment Management System

ISO 45001: 2018: ISO Occupational Health and Safety Management Systems

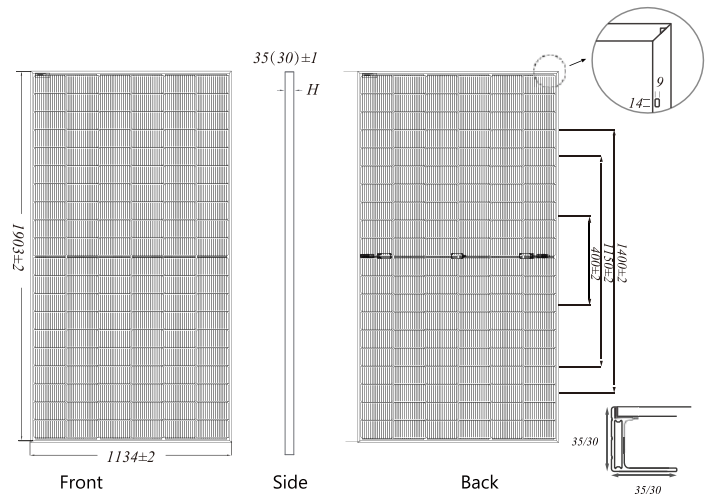


460-475W

STM460-475/120-S5SB

Full Black Half-Cut Cell High Efficiency Bifacial PV Module

| | |
|-------------------|--------------------------------------|
| Weight | Dimension(LxWxT) |
| 24.0kg±3% | 1903x1134x35(30)mm |
| Cells Type | Packaging(pcs/40HQ container) |
| TOPCon 182-16BB | 31/744pcs 37/888pcs |



Remark: customized frame color and cable length available upon request

MECHANICAL SPECIFICATION

| | |
|--------------------------|-------------------------|
| Cell | N-type mono-crystalline |
| No.of cells | 120(6x20) |
| Cable Length | 300mm(+)/300mm(-) |
| Cable Cross Section Size | 4mm ² (IEC) |
| Junction Box | IP68,3 diodes |
| Connector | MC4 Compatible |

OPERATING PARAMETERS

| | |
|--------------------------|--------------------------------|
| Maximum System Voltage | 1500VDC |
| Operating Temperature | -40 C ~ +85 C |
| Maximum Series Fuse | 25A |
| Maximum StaticLoad,Front | 5400Pa(112lb/ft ²) |
| Maximum StaticLoad,Back | 2400Pa(50lb/ft ²) |
| Safety Class | Class II |

ELECTRICAL CHARACTERISTICS

STC:AM1.5 1000W/m² 25 C NOCT:AM1.5 800W/m² 20 C 1m/s Test uncertainty for Pmax ±3%

| Module Type | STM460/120-S5SB | | STM465/120-S5SB | | STM470/120-S5SB | | STM475/120-S5SB | |
|---------------------------------|-----------------|-------|-----------------|-------|-----------------|-------|-----------------|-------|
| | STC | NOCT | STC | NOCT | STC | NOCT | STC | NOCT |
| Testing Condition | STC | NOCT | STC | NOCT | STC | NOCT | STC | NOCT |
| Maximum Power(Pmax/W) | 460 | 346 | 465 | 350 | 470 | 353 | 475 | 357 |
| Open Circuit Voltage(Voc/V) | 42.05 | 39.93 | 42.22 | 40.09 | 42.38 | 40.25 | 42.54 | 40.40 |
| Short Circuit Current(Isc/A) | 13.99 | 11.29 | 14.07 | 11.35 | 14.15 | 11.42 | 14.23 | 11.48 |
| Voltage at Maximum Power(Vmp/V) | 34.72 | 32.62 | 34.89 | 32.78 | 35.05 | 32.95 | 35.21 | 33.11 |
| Current at Maximum Power(Imp/A) | 13.25 | 10.60 | 13.33 | 10.66 | 13.41 | 10.72 | 13.49 | 10.78 |
| Module Efficiency(%) | 21.32 | | 21.55 | | 21.78 | | 22.01 | |

POWER OUTPUT OF THE FRONT AND REAR SIDE

(REFERENCEDSPECIFICALLY TO 540WP FRONT)

| | | | | | |
|-----------------------|--------|--------|--------|--------|--------|
| Power Gain (%) | 5% | 10% | 15% | 20% | 25% |
| Maximum Power(Pmax/W) | 572 | 600 | 627 | 654 | 681 |
| Pmax Gain(%) | 22.07% | 23.16% | 24.20% | 25.24% | 25.28% |

TEMPERATURE RATINGS

| | |
|---|------------|
| Normal Operating Cell Temperature(NOCT) | 45±2 C |
| Temperature Coefficient of Isc | +0.045%/ C |
| Temperature Coefficient of Voc | -0.275%/ C |
| Temperature Coefficient of Pmax | -0.350%/ C |

I-V CURVE(STM460-475/120-S5SB)

