

SEAB60T

DUAL GLASS MODULE | BIFACIAL CELLS

Almaden[®]
Morocco

18.84%
EFFICIENCY*

270-310W
OUTPUT POWER

60
CELLS

*for 310W panel

MAIN PARAMETERS

19.6KG
WEIGHT

5MM
THICKNESS

1662 x 990MM
DIMENSIONS

KEY FEATURES

30 YEARS
EXTENDED WARRANTY
12 years product warranty on workmanship & materials, 30 years warranty on linear power output.

PID FREE
Guaranteed free of PID (potential induced degradation).

ULTRA LIGHT & ULTRA THIN
No frame, no back sheet. 2mm thermally tempered glass exclusively used as front and back protection material.

EASY CLEANING
Frameless design, no dust trapped on the edge. The nano coating which is applied during the anti-reflection treatment process ensures a surface where dirt particles roll off.

FIRE RESISTANT
Class A fire protection. Glass-glass design helps to save module from damages caused by arc and hot spots, eliminating potential dangers of fire.

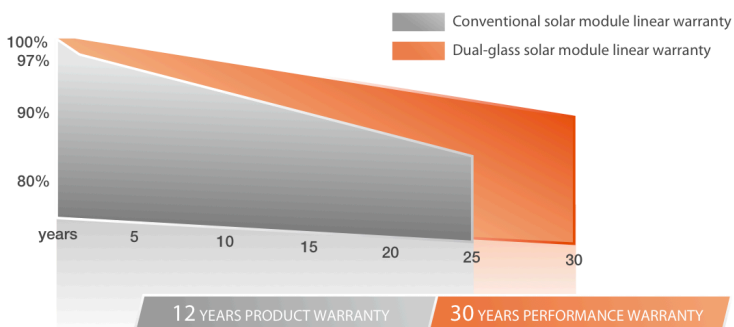
FREE OF MICRO CRACKS
Fully symmetrical structure to prevent micro cracks. No micro cracks under harsh transportation, complicated handling and installation conditions, and during lifetime of module operation.

OUTSTANDING PERFORMANCE
Certified to withstand high wind loads of 2400Pa and snow loads of 5400Pa.

+30% YIELD
INCREASED POWER GENERATION
Power generated on both sides, up to 30% yield increase.



LINEAR WARRANTY



PACKAGING CONFIGURATION

| | |
|---------------------------|------------|
| Modules per box | 38 pieces |
| Modules per 20' container | 456 pieces |
| Modules per 40' container | 988 pieces |

* Declaration:

The technical specifications in this document may be slightly biased and Almaden does not guarantee its complete accuracy. Due to continuous technological innovation and product optimization, Almaden reserves the right to adjust the specification in this document at any time without prior notice. When signing a contract, the client should obtain the latest product datasheet as part of a binding contract.



Version: AM-JAN-21

ELECTRICAL SPECIFICATION (STC)

| Rated Power (Pmpp) | 270 W | 275 W | 280 W | 285 W | 290 W | 295 W | 300 W | 305 W | 310 W |
|---------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Power Output Tolerance (W) | 0-+5 | | | | | | | | |
| Rated Current (Imp) (A) | 9.08 | 9.11 | 9.14 | 9.17 | 9.2 | 9.23 | 9.26 | 9.32 | 9.44 |
| Rated Voltage (Vmp) (V) | 29.9 | 30.31 | 30.71 | 31.13 | 31.55 | 31.97 | 32.4 | 32.73 | 32.84 |
| Short Circuit Current (Isc) (A) | 9.38 | 9.43 | 9.49 | 9.55 | 9.61 | 9.67 | 9.73 | 9.78 | 9.94 |
| Open Circuit Voltage (Voc) (V) | 39.39 | 39.47 | 39.55 | 39.63 | 39.71 | 39.79 | 39.87 | 39.92 | 39.98 |
| Efficiency | 16.48% | 16.76% | 17.05% | 17.34% | 17.63% | 17.93% | 18.23% | 18.54% | 18.84% |

MECHANICAL SPECIFICATION

| | |
|-----------------------|------------------------------------|
| Cell Type | Bifacial cells |
| Cell Dimension (mm) | 156.75 x 156.75 |
| Module Dimension (mm) | 1662±2 x 990±2 x 5 (without J-Box) |
| Weight Size | 19.6 kg |
| Front Glass | 2mm thermally tempered AR glass |
| Encapsulant | POE |
| Back Glass | 2mm thermally tempered glass |
| Junction box | IP68 (three bypass diodes) |
| Cable | 4mm ² |
| Connector | MC4 / MC4 equivalent |

BIFACIAL OUTPUT-REAR SIDE POWER GAIN

| | Maximum Power (Pmax) | 284 W | 289 W | 294 W | 299 W | 305 W | 310 W | 315 W | 320 W | 326 W |
|-----|-----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 5% | Module Efficiency STC | 17.23% | 17.55% | 17.87% | 18.19% | 18.51% | 18.83% | 19.14% | 19.46% | 19.78% |
| | Maximum Power (Pmax) | 311 W | 316 W | 322 W | 328 W | 334 W | 339 W | 345 W | 351 W | 357 W |
| 15% | Module Efficiency STC | 18.87% | 19.22% | 19.57% | 19.92% | 20.27% | 20.62% | 20.97% | 21.32% | 21.67% |
| | Maximum Power (Pmax) | 338 W | 344 W | 350 W | 356 W | 363 W | 369 W | 375 W | 381 W | 388 W |
| 25% | Module Efficiency STC | 20.51% | 20.89% | 21.27% | 21.65% | 22.03% | 22.41% | 22.79% | 23.17% | 23.55% |

TEMPERATURE COEFFICIENT

| | |
|--|-----------|
| NOCT (Normal Operating Cell Temperature) | 45±2°C |
| Temperature Coefficient of Isc (α) | 0.06%/°C |
| Temperature Coefficient of Voc (β) | -0.3%/°C |
| Temperature Coefficient of Pmpp (γ) | -0.39%/°C |

ELECTRICAL DATA (NOCT)

| | | | | | | | | | |
|---------------------------------|--------|--------|--------|--------|-------|--------|--------|--------|--------|
| Maximum Power (Pmax) (W) | 202.12 | 205.94 | 209.76 | 213.58 | 217.4 | 221.22 | 225.04 | 228.43 | 232.01 |
| Maximum Power Current (Imp) (A) | 6.81 | 6.9 | 7.0 | 7.08 | 7.17 | 7.26 | 7.35 | 7.39 | 7.45 |
| Maximum Power Voltage (Vmp) (V) | 29.66 | 29.82 | 29.98 | 30.14 | 30.3 | 30.46 | 30.62 | 30.9 | 31.13 |
| Short Circuit Current (Isc) (A) | 7.39 | 7.46 | 7.53 | 7.6 | 7.67 | 7.74 | 7.81 | 7.85 | 7.91 |
| Open Circuit Voltage (Voc) (V) | 36.78 | 36.86 | 36.94 | 37.02 | 37.1 | 37.18 | 37.26 | 37.4 | 37.47 |

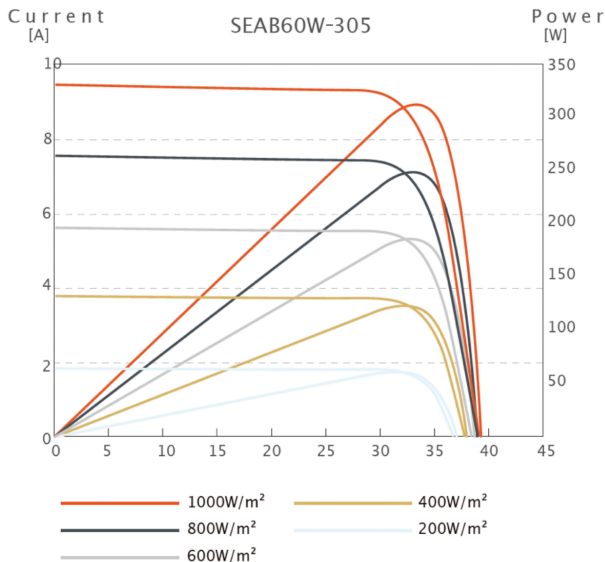
NOCT : Irradiance at 800W/m², Ambient Temperature 20 , Wind Speed 1m/s.

OPERATING CONDITIONS

| | |
|----------------------------|----------------|
| Bifaciality* | 70%±5% |
| Operational Temperature | -40-+85°C |
| Maximum Static Load | 3600Pa |
| Maximum Wind Load | 1600Pa |
| Maximum System Voltage | IEC:1000/1500V |
| Maximum Series Fuse Rating | 20A |

STC : Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5. *Bifaciality=Pmax,rear/Rated Pmax,front

I-V & P-V CURVE



DIMENSIONS

