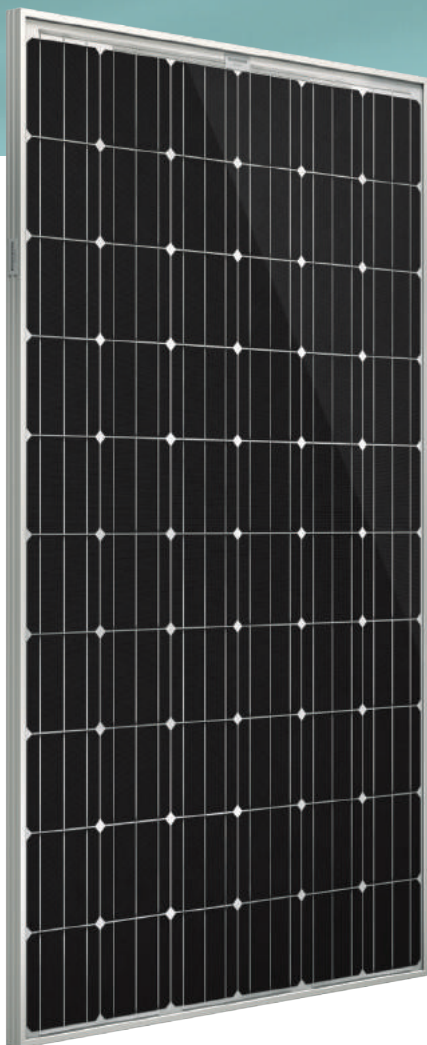


Powerful projects



P19

270 - 285 W



QUALITY SIGNED AND SEALED



60
cells

35 mm
frame

up to 17,3 %
efficiency



PID FREE

PID tested with excellent results
under the harshest conditions



CRAFTED WITH PASSION



25 YEARS LINEAR PERFORMANCE WARRANTY



CONSTANTLY HIGH CELL QUALITY
through strict quality examinations
by highresolution electroluminescence
and infraredmeasurements



10 YEARS PRODUCT WARRANTY



Made in Germany

aleo solar module P19

| ELECTRICAL DATA (STC) | | P19_270 | P19_275 | P19_280 | P19_285 |
|-----------------------|---------------|---------|---------|---------|---------|
| Rated power | P_{MPP} [W] | 270 | 275 | 280 | 285 |
| Rated voltage | U_{MPP} [V] | 30.9 | 31.1 | 31.2 | 31.3 |
| Rated current | I_{MPP} [A] | 8.70 | 8.83 | 8.97 | 9.10 |
| Open-circuit voltage | U_{OC} [V] | 38.9 | 39.1 | 39.2 | 39.2 |
| Short-circuit current | I_{SC} [A] | 9.56 | 9.62 | 9.67 | 9.73 |
| Efficiency | η [%] | 16.4 | 16.7 | 17.0 | 17.3 |

Electrical values measured under standard test conditions (STC): 1000 W/m²; 25°C; AM 1.5

| ELECTRICAL DATA (NOCT) | | P19_270 | P19_275 | P19_280 | P19_285 |
|------------------------|---------------|---------|---------|---------|---------|
| Power | P_{MPP} [W] | 197 | 200 | 205 | 208 |
| Voltage | U_{MPP} [V] | 28.2 | 28.2 | 28.4 | 28.4 |
| Current | I_{MPP} [A] | 7.00 | 7.10 | 7.21 | 7.33 |
| Open-circuit voltage | U_{OC} [V] | 35.7 | 35.9 | 36.1 | 36.1 |
| Short-circuit current | I_{SC} [A] | 7.73 | 7.78 | 7.82 | 7.87 |
| Efficiency | η [%] | 15.0 | 15.2 | 15.6 | 15.8 |

Electrical values measured under nominal operating conditions of cells: 800 W/m²; 20°C; AM 1.5; wind 1 m/s

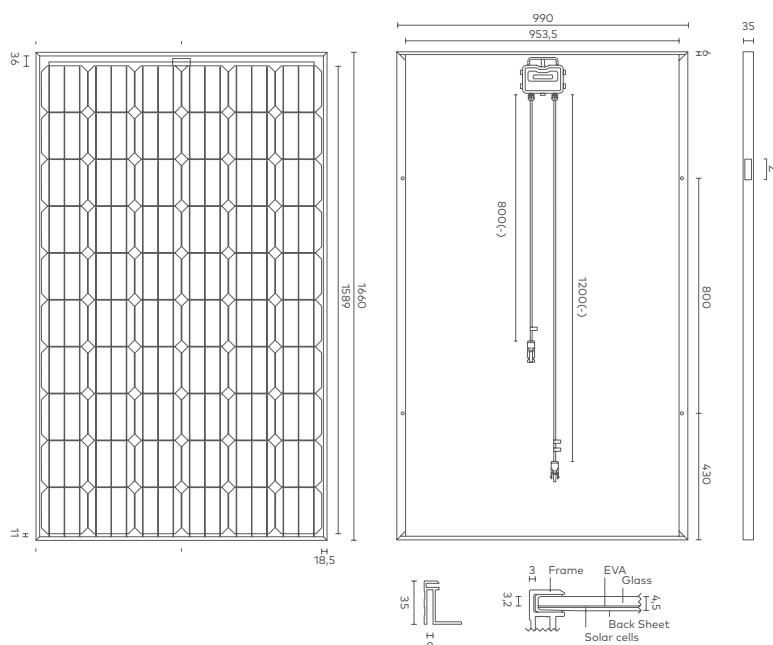
NOCT: 48°C (nominal operating cell temperature)

| TEMPERATURE COEFFICIENTS | | | |
|-----------------------------------|--------------------|-------|-------|
| Temperature coefficient I_{SC} | $\alpha (I_{SC})$ | [%/K] | +0,05 |
| Temperature coefficient U_{OC} | $\beta (U_{OC})$ | [%/K] | -0,29 |
| Temperature coefficient P_{MPP} | $\gamma (P_{MPP})$ | [%/K] | -0,40 |

| BASIC DATA JUNCTION BOX | |
|-------------------------|------------------------|
| Length x width x height | [mm] 148 x 123 x 27 |
| IP class | IP65 |
| Cable length | [mm] 1200 (+), 800 (-) |
| Connectors | PV-JM601 |
| Bypass diodes | 3 |

Measurement tolerance of PMPP under STC -3/+3% | Accuracy of other electrical values -10/+10%
Efficiency relating to gross module area

DIMENSIONS [MM]



| BASIC MODULE DATA | |
|-------------------------|----------------------|
| Length x width x height | [mm] 1660 x 990 x 35 |
| Weight | [kg] 19 |
| Number of cells | 60 |
| Cell size | [mm] 156.75 x 156.75 |
| Cell material | Monocrystalline Si |
| Front sheet | Solar glass (TSG) |
| Back sheet | Polymer sheet, white |
| Frame material | Al alloy, silver |

| CERTIFICATIONS AND WARRANTY | |
|-----------------------------------|---|
| Product Guarantee | 10 years |
| Power Guarantee | 25 years – Linear |
| Fire Resistance | Class C |
| Protection Against Electric Shock | II |
| Certifications | <ul style="list-style-type: none"> § IEC 61215, IEC 61730-1/-2 § IEC 62716 – Ammonia Resistance § IEC 61701 – Salt mist Resistance § IEC 62804 – PID Resistance § MCS 010; MCS 005 |

LOADS

| | | |
|---------------------------|--------------------|-------|
| Max. module pressure load | [Pa] | 5400* |
| Max. module suction load | [Pa] | 2400* |
| Max. system voltage | [V _{DC}] | 1000 |
| Reverse current load | I_R [A] | 20 |

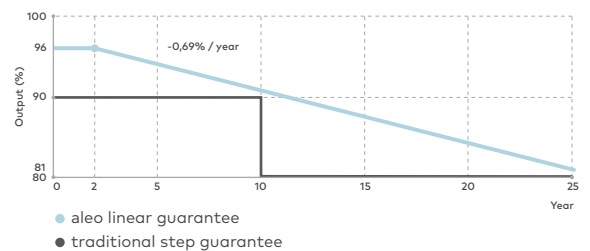
Mechanical load acc. to IEC/EN 61215

* Please observe the mounting conditions in the installation manual

ADDITIONAL ELECTRICAL DATA

| | | |
|--|----------|---------|
| Reduction of STC efficiency from 1000 W/m ² to 200 W/m ² | [%] rel. | 0 |
| Classification range (positive classification) | [W] | 0/+4,99 |

PERFORMANCE GUARANTEE



PLEASE CONTACT YOUR AUTHORISED ALEO DEALER