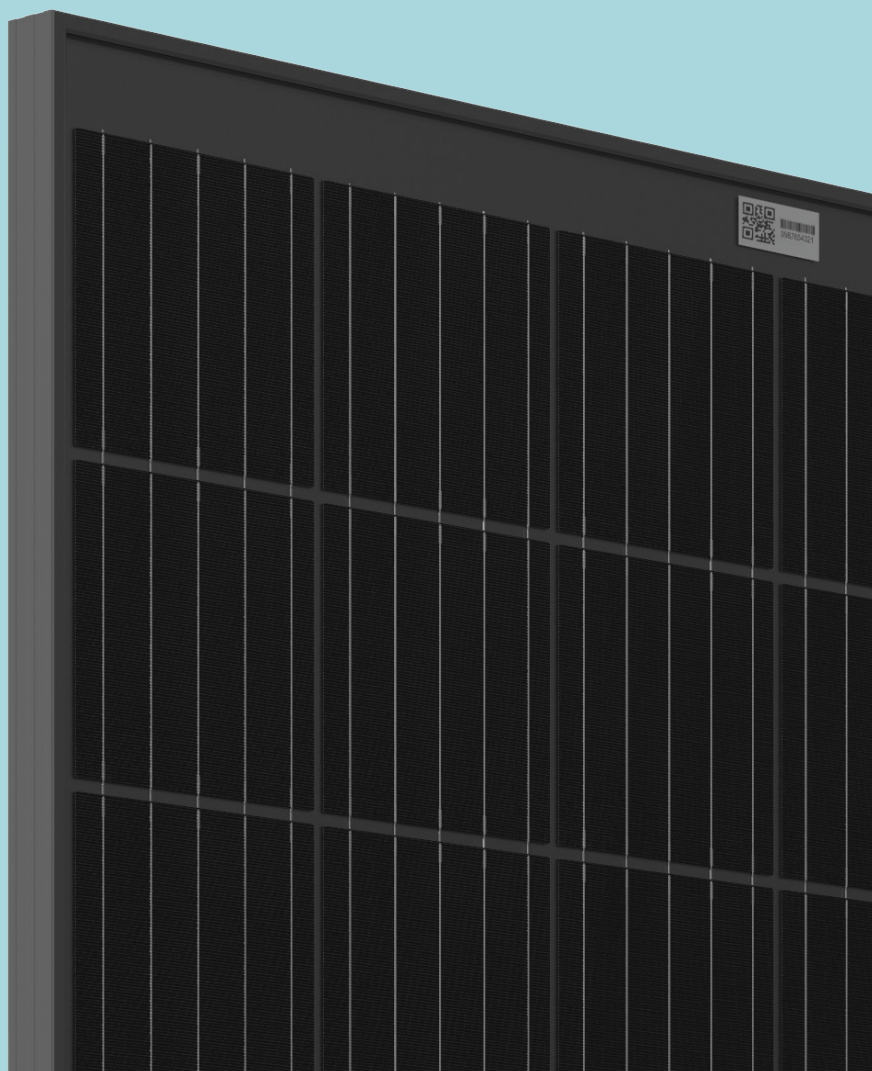


# X83 Anti-glare

## 315 W

 Made in  
**GERMANY**



### GERMAN ENGINEERING AND MANUFACTURING

Incorporated in 2001, aleo is recognized as one of the most trustworthy manufacturers of solar panels. We produce all our products in our certified production plant in Prenzlau, Germany.

### THE BEST GUARANTEE PACKAGE

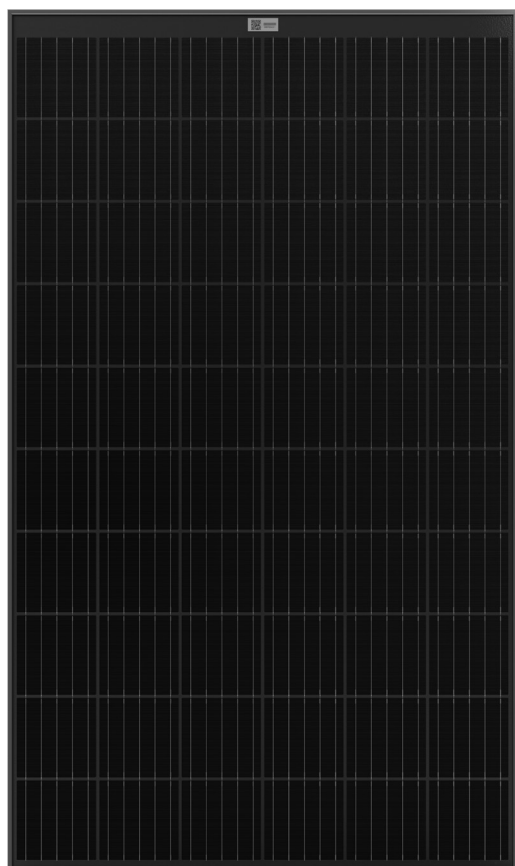
 25 Years Product Guarantee       25 Years linear Performance Guarantee

98% of nominal power guaranteed in the first two years

### ANTI-GLARE GLASS

#### + Perfect for applications near airports or freeways

- + Special glass structure and black design for minimal reflection
- + Luminance of the frontside under 18,000 cd/m<sup>2</sup>
- + Reduction of glare by a factor of 8 compared to modules with standard AR glass
- + Covered by independent BRDF measurements
- + Anti-Reflex-coating ensures optimal self-cleaning and higher yield



# aleo solar module X83 HE anti-glare

| ELECTRICAL DATA (STC) |               | X83L315 |
|-----------------------|---------------|---------|
| Rated power           | $P_{MPP}$ [W] | 315     |
| Rated voltage         | $V_{MPP}$ [V] | 32.4    |
| Rated current         | $I_{MPP}$ [A] | 9.73    |
| Open-circuit voltage  | $V_{OC}$ [V]  | 40.1    |
| Short-circuit current | $I_{SC}$ [A]  | 10.23   |
| Efficiency            | $\eta$ [%]    | 17.9    |

Electrical values measured under standard test conditions (STC): 1000 W/m<sup>2</sup>; 25 °C; AM 1.5

| ELECTRICAL DATA (NMOT) |               | X83L315 |
|------------------------|---------------|---------|
| Power                  | $P_{MPP}$ [W] | 233     |
| Voltage                | $V_{MPP}$ [V] | 30.0    |
| Current                | $I_{MPP}$ [A] | 7.76    |
| Open-circuit voltage   | $V_{OC}$ [V]  | 37.5    |
| Short-circuit current  | $I_{SC}$ [A]  | 8.24    |
| Efficiency             | $\eta$ [%]    | 16.6    |

Electrical values measured under nominal module operating temperature: 800 W/m<sup>2</sup>; 20 °C; AM 1.5; wind 1 m/s; Module temperature NMOT : 45.5 °C

| ELECTRICAL DATA (LOW IRRADIANCE) |               | X83L315 |
|----------------------------------|---------------|---------|
| Power                            | $P_{MPP}$ [W] | 61      |

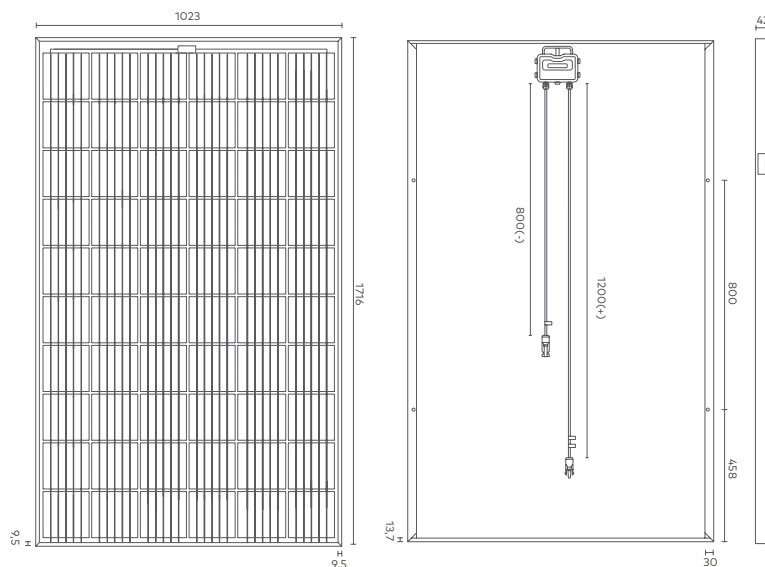
Electrical values measured under: 200 W/m<sup>2</sup>; 25 °C; AM 1.5

| TEMPERATURE COEFFICIENTS          |                    |       |       |
|-----------------------------------|--------------------|-------|-------|
| Temperature coefficient $I_{SC}$  | $\alpha (I_{SC})$  | [%/K] | +0.05 |
| Temperature coefficient $V_{OC}$  | $\beta (V_{OC})$   | [%/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                | IP67                   |
| Cable length            | [mm] 1200 (+), 800 (-) |
| Connectors              | Genuine MC4            |
| Bypass diodes           | 3                      |

| CLASSIFICATION                                 |     | X83L315 |
|--|-----|---------|
| Classification range (positive classification) | [W] | 0/+4.99 |

## DIMENSIONS [mm]



| BASIC MODULE DATA       |                          |
|-------------------------|--------------------------|
| Length x width x height | [mm] 1716 x 1023 x 42    |
| Weight                  | [kg] 19.5                |
| Number of cells         | 60                       |
| Cell size               | [mm] 158.75 x 158.75     |
| Cell material           | Monocrystalline Si, PERC |
| Number of bus bars      | 5                        |

|                |  |
|----------------|--|
| Front sheet    | 3.2 mm Solar glass (TSG), structured, minimal reflection |
| Back sheet     | Polymer sheet, black                                     |
| Frame material | Al alloy, black  |

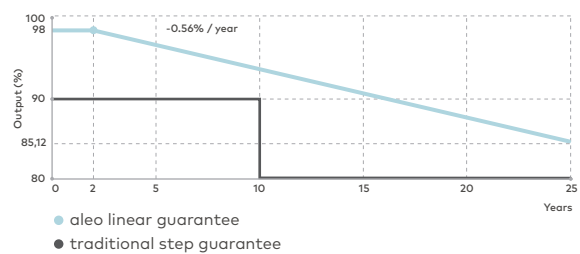
| CERTIFICATIONS AND GUARANTEES     |  |
|-----------------------------------|--|
| Product Guarantee                 | 25 years   |
| Power Guarantee                   | 25 years – Linear                                  |
| Fire Resistance                   | Class C  |
| Protection Against Electric Shock | II   |
| Certifications                    | IEC 61215, IEC 61730<br>IEC 62804 – PID Resistance |

| LOADS   |                    |                   |
|---|--------------------|-------------------|
| Max. module pressure load (Testload)                | [Pa]               | 8000 <sup>1</sup> |
| Max. module pressure load (Designload) <sup>2</sup> | [Pa]               | 5333 <sup>1</sup> |
| Max. module suction load (Testload)                 | [Pa]               | 5400 <sup>1</sup> |
| Max. module suction load (Designload) <sup>2</sup>  | [Pa]               | 3600 <sup>1</sup> |
| Max. system voltage                                 | [V <sub>DC</sub> ] | 1000              |
| Reverse current load                                | $I_R$ [A]          | 20                |

Mechanical load acc. to IEC/EN 61215:2016  
<sup>1</sup> Please observe the mounting conditions in the installation manual  
<sup>2</sup> Testload/ Safety factor 1.5 = Designload

Measurement tolerance of  $P_{MPP}$  under STC -3/+3 % |  
 Accuracy of other electrical values -10/+10 %  
 Efficiency relating to gross module area

## PERFORMANCE GUARANTEE



**PLEASE CONTACT YOUR AUTHORISED ALEO DEALER**

**ALEO SOLAR GMBH**  
 Marius-Eriksen-Straße 1  
 17291 PRENZLAU  
 GERMANY

**CONTACT**  
 +49 3984-8328-0  
 info@aleo-solar.de  
 www.aleo-solar.com

©aleo solar GmbH 07/2020

**aleo**