solar module aleo s_18

Output classes 210 W - 230 W

The aleo S_18 solar module is characterized by the state-of-the-art processing of high grade components. 60 poly-crystalline silicon cells (6 inch+, 156 mm x 156 mm) in each module ensure excellent performance, even with limited solar irradiation. A tight output tolerance of +/- 3% and purely positive module classification (-0 W/+4.99 W) fulfill the highest standards.

The solar cells are embedded in EVA (ethylene-vinyl acetate), which is resistant to UV radiation. The frame consists of a torsionally rigid, corrosion-resistant aluminum alloy, giving the module stability and allowing it to be mounted in a variety of configurations.

The front panel of the module consists of thermally prestressed solar glass. As well as guaranteeing high light permeability, the glass also protects the solar cells from external weathering influences such as hail, snow and ice. A synthetic hybrid backsheet guarantees good insulation and long service life.

The junction box on the back is fitted with bypass diodes to prevent individual solar cells from overheating (hot-spot effect). Several solar modules can easily be connected in series by means of two pre-fitted solar cables with solar plugs.

aleo solar modules are certified according to UL 1703-3rd Ed. and ULC/ORD-C1703-01 (USA/Canada) standards, IEC/EN 61215 and IEC/EN 61730 (Europe/international) standards and fulfill the criteria for protection class II. The power guarantee is at least 90% up to 10 years, and at least 80% up to 25 years, subject to the terms and conditions of the limited warranty.

Please contact your qualified aleo dealer:

solar module aleo s_18

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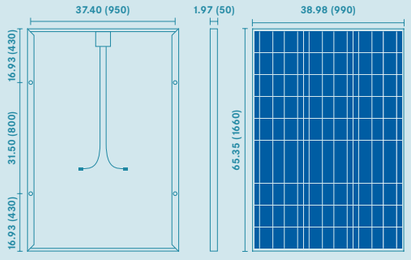
→ solar module aleo S_18 6 inch+ poly

Specifications	Output class 210 W	Output class 215 W	Output class 220 W	Output class 225 W	Output class 230 W
Description	aleo S_18 | 210	aleo S_18 | 215	aleo S_18 | 220	aleo S_18 | 225	aleo S_18 | 230
Data at STC[1]					
Rated output	P_{MAX} 210 W	P_{MAX} 215 W	P_{MAX} 220 W	P_{MAX} 225 W	P_{MAX} 230 W
Rated current	I_{MP} 7.41 A	I_{MP} 7.53 A	I_{MP} 7.65 A	I_{MP} 7.78 A	I_{MP} 7.90 A
Rated voltage	V_{MP} 28.4 V	V_{MP} 28.6 V	V_{MP} 28.7 V	V_{MP} 28.9 V	V_{MP} 29.1 V
Short-circuit current	I_{SC} 8.03 A	I_{SC} 8.13 A	I_{SC} 8.24 A	I_{SC} 8.34 A	I_{SC} 8.44 A
Open-circuit voltage	V_{OC} 35.9 V	V_{OC} 36.1 V	V_{OC} 36.3 V	V_{OC} 36.4 V	V_{OC} 36.6 V
Required area per unit output	A_P 84.28 ft²/kWp	A_P 82.24 ft²/kWp	A_P 80.41 ft²/kWp	A_P 78.58 ft²/kWp	A_P 76.96 ft²/kWp
Efficiency[3]	η(eta) 12.8%	η(eta) 13.1%	η(eta) 13.4%	η(eta) 13.7%	η(eta) 14.0%
Data at NOCT[2]					
Output	P_{MP} 151 W	P_{MP} 155 W	P_{MP} 158 W	P_{MP} 162 W	P_{MP} 165 W
Current	I_{MP} 5.74 A	I_{MP} 5.80 A	I_{MP} 5.86 A	I_{MP} 5.93 A	I_{MP} 5.99 A
Voltage	V_{MP} 26.3 V	V_{MP} 26.6 V	V_{MP} 27.0 V	V_{MP} 27.3 V	V_{MP} 27.6 V
Short-circuit current	I_{SC} 6.42 A	I_{SC} 6.47 A	I_{SC} 6.52 A	I_{SC} 6.57 A	I_{SC} 6.62 A
Open-circuit voltage	V_{OC} 33.0 V	V_{OC} 33.2 V	V_{OC} 33.3 V	V_{OC} 33.5 V	V_{OC} 33.7 V
Efficiency[3]	η(eta) 11.5%	η(eta) 11.8%	η(eta) 12.0%	η(eta) 12.3%	η(eta) 12.6%
Classification range	- 0 W/+ 4.99 W	- 0 W/+ 4.99 W	- 0 W/+ 4.99 W	- 0 W/+ 4.99 W	- 0 W/+ 4.99 W
Measurement accuracy P_{MAX}	- 3%/+ 3%	- 3%/+ 3%	- 3%/+ 3%	- 3%/+ 3%	- 3%/+ 3%
Max. system voltage (UL)	600 V DC	600 V DC	600 V DC	600 V DC	600 V DC
Design load (above roof)	40 lbs/ft²	40 lbs/ft²	40 lbs/ft²	40 lbs/ft²	40 lbs/ft²

[1] Electrical values under standard test conditions (STC): 1000 W/m²; 77°F (25°C); AM 1.5
[2] Electrical values under nominal operating cell temperature (NOCT): 800 W/m²; 68°F (20°C); AM 1.5
[3] For the module surface as a whole [17.69 ft² (1.6434 m²)]

Datasheet tolerances, except for rated output: +/- 10%

Dimensions: inch (mm)



Additional information

Temperature coefficients	α (I_{SC})	+ 0.04%/°C
	β (V_{OC})	– 0.34%/°C
	γ (P_{MP})	– 0.46%/°C
Certification	UL 1703-3rd Ed., ULC/ORD-C1703-01, IEC/EN 61215 and IEC/EN 61730	
Testing organization	CSA, VDE	
Module dimensions	65.35 x 38.98 x 1.97 inch (1660 x 990 x 50 mm)	
Power guarantee	10 years: 90%, 25 years: 80% (limited warranty, subject to further terms and conditions)	

Reduction in efficiency From 1,000 W/m² to 200 W/m²		< 6%
Weight		46.3 lbs (21 kg)
Reverse current load	I_R	15 A
NOCT		118.4 °F (48 °C)

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VDE Prüfinstitut