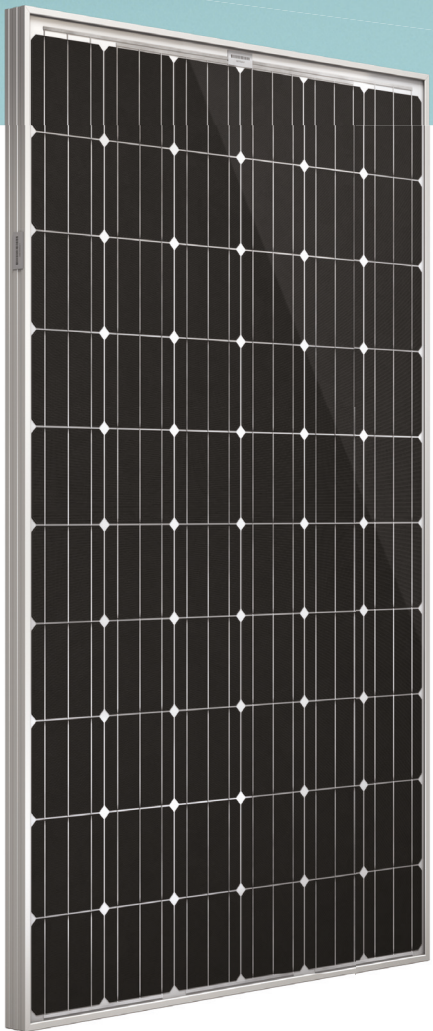




aleo

More Power.
Endless possibilities.



S19
280-295 W

QUALITY SIGNED AND SEALED



Up to
18.0%
efficiency

98% of nominal
power guaranteed
the first two years

Up to +5%
more yield
over conventional
technologies*



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 high resolution electroluminescence
and infrared measurements



12 YEARS PRODUCT WARRANTY

* results following a one-year field study realized
independently by the Politecnico Milano



Made in Germany

aleo solar module S19

ELECTRICAL DATA (STC)		S19_280	S19_285	S19_290	S19_295
Rated power	P_{MPP} [W]	280	285	290	295
Rated voltage	U_{MPP} [V]	31.2	31.3	31.3	31.3
Rated current	I_{MPP} [A]	8.97	9.10	9.25	9.42
Open-circuit voltage	U_{OC} [V]	39.2	39.2	39.3	39.3
Short-circuit current	I_{SC} [A]	9.67	9.73	9.80	9.87
Efficiency	η [%]	17.0	17.3	17.6	18.0

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

ELECTRICAL DATA (NOCT)		S19_280	S19_285	S19_290	S19_295
Power	P_{MPP} [W]	205	208	212	215
Voltage	U_{MPP} [V]	28.4	28.4	28.4	28.4
Current	I_{MPP} [A]	7.21	7.33	7.45	7.59
Open-circuit voltage	U_{OC} [V]	36.1	36.1	36.2	36.2
Short-circuit current	I_{SC} [A]	7.82	7.87	7.93	7.99
Efficiency	η [%]	15.6	15.8	16.1	16.4

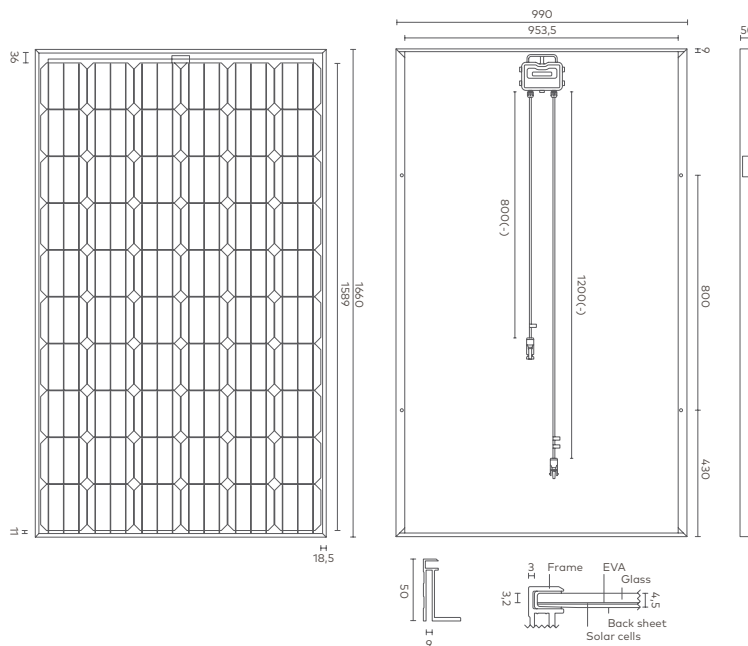
Electrical values measured under nominal operating conditions of cells: 800 W/m²; 20°C; AM 1.5; wind 1 m/s
NOCT: 48°C (nominal operating cell temperature)

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	IP67
Cable length	[mm] 1200 (+), 800 (-)
Connectors	MC4
Bypass diodes	3

Measurement tolerance of P_{MPP} 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 50
Weight	[kg]	20
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	12 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

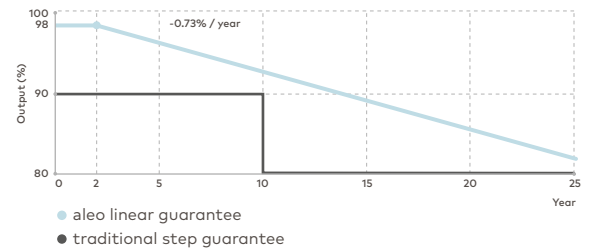
LOADS		
Max. module pressure load	[Pa]	5400*
Max. module suction load	[Pa]	5400*
Max. system voltage	[V _{DC}]	1000
Reverse current load	I_R [A]	20

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.	< 2
Classification range (positive classification)	[W]	0/+4.99

PERFORMANCE GUARANTEE



PLEASE CONTACT YOUR AUTHORISED ALEO DEALER