

# aleo

## More powerful elegance.



### S79

280-290 W



QUALITY SIGNED AND SEALED

All black  
finishing

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 S79

ELECTRICAL DATA (STC)		S79_280	S79_285	S79_290
Rated power	$P_{MPP}$ [W]	280	285	290
Rated voltage	$U_{MPP}$ [V]	31.2	31.3	31.3
Rated current	$I_{MPP}$ [A]	8.97	9.10	9.25
Open-circuit voltage	$U_{OC}$ [V]	39.2	39.2	39.3
Short-circuit current	$I_{SC}$ [A]	9.67	9.73	9.80
Efficiency	$\eta$ [%]	17.0	17.3	17.6

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

ELECTRICAL DATA (NOCT)		S79_280	S79_285	S79_290
Power	$P_{MPP}$ [W]	204	207	211
Voltage	$U_{MPP}$ [V]	28.2	28.3	28.3
Current	$I_{MPP}$ [A]	7.21	7.33	7.45
Open-circuit voltage	$U_{OC}$ [V]	35.9	36.0	36.0
Short-circuit current	$I_{SC}$ [A]	7.83	7.88	7.93
Efficiency	$\eta$ [%]	15.5	15.7	16.0

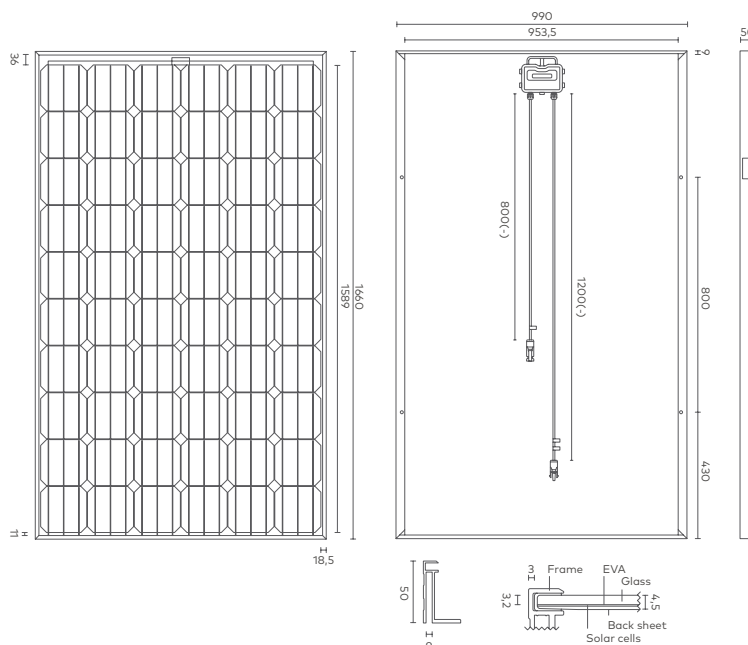
Electrical values measured under nominal operating conditions of cells: 800 W/m<sup>2</sup>; 20°C; AM 1.5; wind 1 m/s  
NOCT: 49°C (nominal operating cell temperature)

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, black
Frame material		Al alloy, black

CERTIFICATIONS AND WARRANTY	
Product Guarantee	12 years
Power Guarantee	25 years – Linear
Fire Resistance	Class C
Protection Against Electric Shock	II
Certifications	§ 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 <sub>DC</sub> ]	1000
Reverse current load	$I_R$ [A]	20

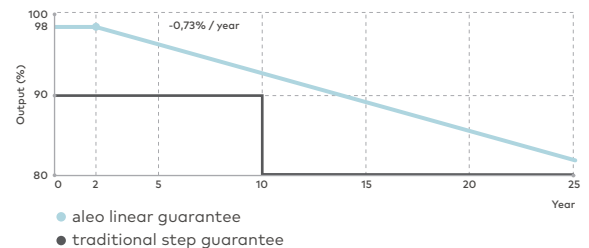
Mechanical load acc. to IEC/EN 61215

\* Please observe the mounting conditions in the installation manual

## ADDITIONAL ELECTRICAL DATA

Reduction of STC efficiency from 1000 W/m <sup>2</sup> to 200 W/m <sup>2</sup>	[%] rel.	< 2
Classification range (positive classification)	[W]	0/+4.99

## PERFORMANCE GUARANTEE



## PLEASE CONTACT YOUR AUTHORISED ALEO DEALER