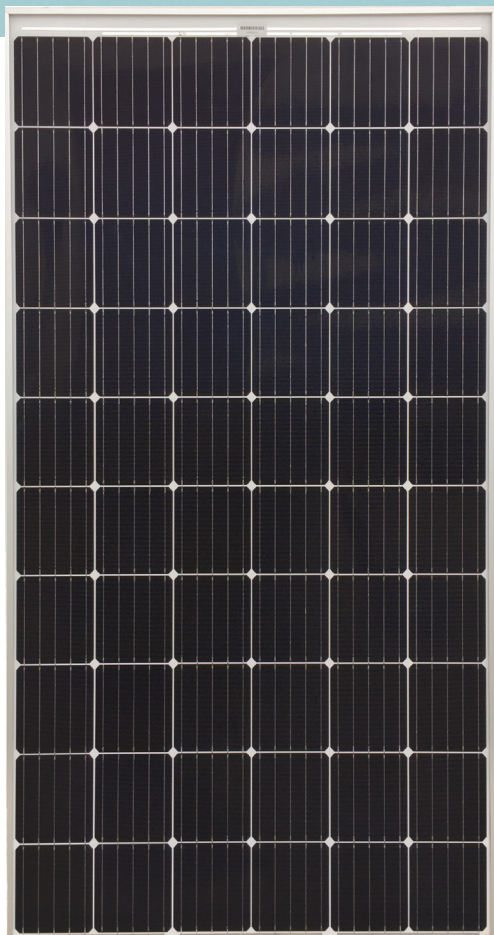




aleo

More Power.
Endless possibilities.



S19 HE

300-310 W

QUALITY SIGNED AND SEALED



Up to
18.9%
efficiency

25 year
Product Guarantee
optional available

98% of nominal
power guaranteed
the first two years



PID FREE
PID tested with excellent results
under the harshest conditions



CRAFTED WITH PASSION



**12 YEARS PRODUCT GUARANTEE
UPGRADEABLE TO 25 YEARS AS A
PREMIUM OPTION**



CONSTANTLY HIGH CELL QUALITY
through strict quality examinations
by high resolution electroluminescence
and infrared measurements



**25 YEARS LINEAR PERFORMANCE
WARRANTY**



Made in Germany

aleo solar module S19 HE

ELECTRICAL DATA (STC)		S19_300	S19_305	S19_310
Rated power	P_{MPP} [W]	300	305	310
Rated voltage	U_{MPP} [V]	31.2	31.4	31.7
Rated current	I_{MPP} [A]	9.63	9.72	9.80
Open-circuit voltage	U_{OC} [V]	39.4	39.6	39.7
Short-circuit current	I_{SC} [A]	9.97	10.06	10.12
Efficiency	η [%]	18.3	18.6	18.9

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

ELECTRICAL DATA (NOCT)		S19_300	S19_305	S19_310
Power	P_{MPP} [W]	220	224	228
Voltage	U_{MPP} [V]	28.5	28.5	28.6
Current	I_{MPP} [A]	7.72	7.86	7.93
Open-circuit voltage	U_{OC} [V]	36.3	36.4	36.4
Short-circuit current	I_{SC} [A]	8.07	8.15	8.23
Efficiency	η [%]	16.7	17.0	17.3

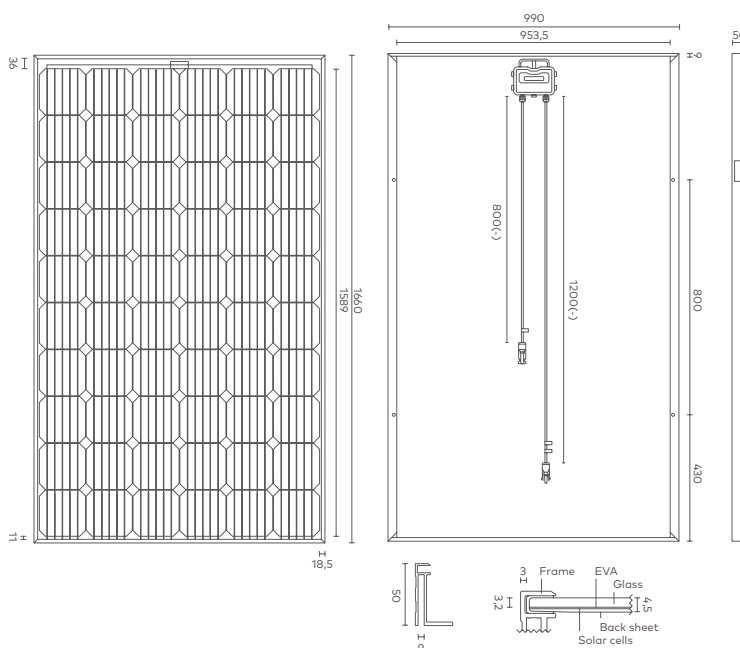
Electrical values measured under nominal operating conditions of cells: 800 W/m²; 20°C; AM 1.5; wind 1 m/s
NOCT: 48°C (nominal operating cell temperature)

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
Number of bus bars		3 / 4 / 5
Front sheet		Solar glass (TSG)
Back sheet		Polymer sheet, white
Frame material		Al alloy, silver

CERTIFICATIONS AND WARRANTY	
Product Guarantee	12 years, optional 25 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

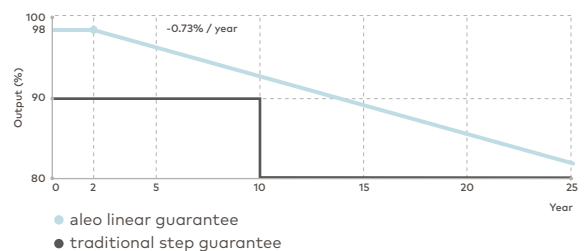
LOADS		
Max. module pressure load	[Pa]	5400*
Max. module suction load	[Pa]	5400*
Max. system voltage	[V _{DC}]	1000
Reverse current load	I_R [A]	20

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