



aleo

More Power.
Endless possibilities.



X59 HE

300 - 310 W



QUALITY SIGNED AND SEALED



7500 Pa

pressure load

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 X59 HE

ELECTRICAL DATA (STC)		X59L300	X59L305	X59L310
Rated power	P_{MPP} [W]	300	305	310
Rated voltage	V_{MPP} [V]	31.2	31.4	31.7
Rated current	I_{MPP} [A]	9.63	9.72	9.82
Open-circuit voltage	V_{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)		X59L300	X59L305	X59L310
Power	P_{MPP} [W]	220	224	228
Voltage	V_{MPP} [V]	28.5	28.5	28.6
Current	I_{MPP} [A]	7.72	7.86	7.93
Open-circuit voltage	V_{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

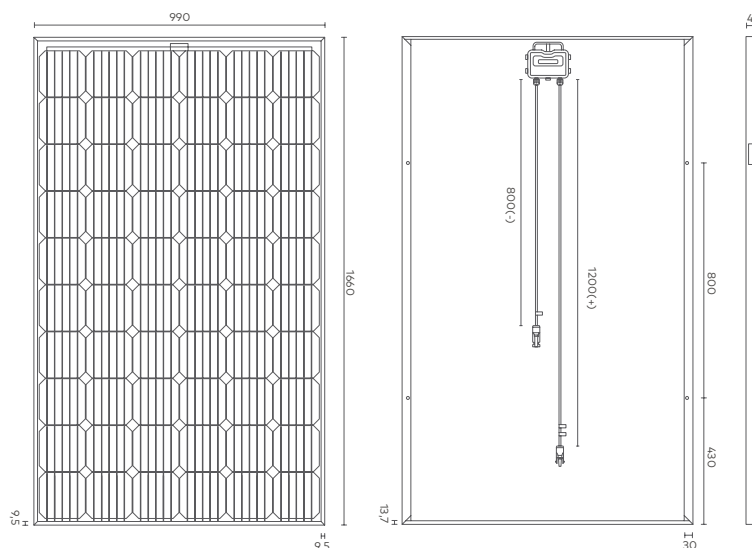
Electrical values measured under nominal operating conditions of cells: 800 W/m²; 20°C; AM 1.5; wind 1 m/s
NOCT: 48°C (nominal operating cell temperature)

TEMPERATURE COEFFICIENTS			
Temperature coefficient I_{SC}	$\alpha (I_{SC})$	[%/K]	+0.05
Temperature coefficient U_{OC}	$\beta (V_{OC})$	[%/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	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 42
Weight	[kg]	19
Number of cells		60
Cell size	[mm]	156.75 x 156.75
Cell material		Monocrystalline Si
Number of bus bars		5
Front sheet		Solar glass (TSG)
Back sheet		Polymer sheet, white
Frame material		Al alloy, black

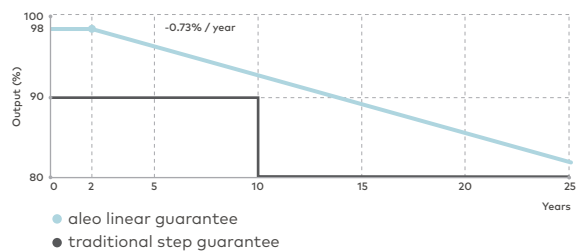
CERTIFICATIONS AND WARRANTY	
Product Guarantee	12 years, optional 25 years
Power Guarantee	25 years – Linear
Fire Resistance	Class C
Protection Against Electric Shock	II
Certifications	IEC 61215, IEC 61730-1/-2
	IEC 62716 – Ammonia Resistance
	IEC 61701 – Salt mist Resistance
	IEC 62804 – PID Resistance
	MCS 010; MCS 005

LOADS			
Max. module pressure load	[Pa]	7500*	
Max. module suction load	[Pa]	2400*	
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	

GARANTIEVERLAUF



PLEASE CONTACT YOUR AUTHORISED ALEO DEALER