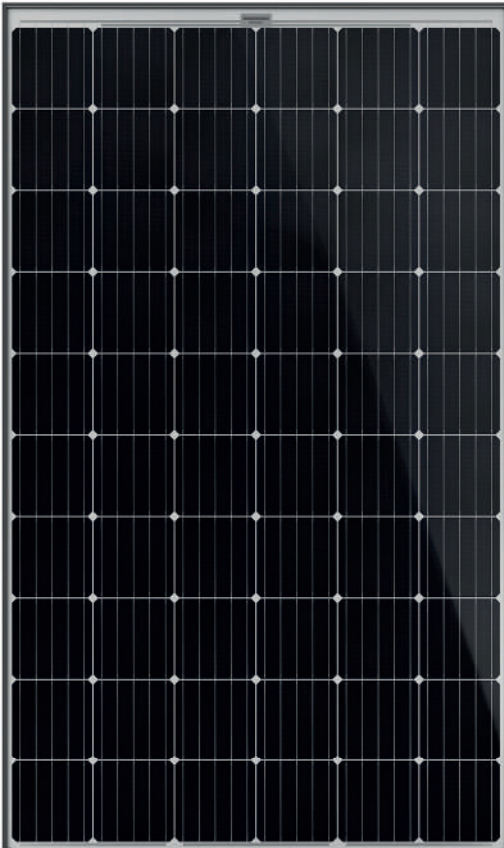


X59

310 - 320W



QUALITY SIGNED AND SEALED



8000 Pa PRESSURE LOAD

**25 YEAR PRODUCT GUARANTEE
OPTIONAL AVAILABLE**

**98% OF NOMINAL POWER GUARANTEED
IN THE FIRST TWO YEARS**



PID FREE

PID tested with excellent results
under the harshest conditions



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



**25 YEARS LINEAR
PERFORMANCE WARRANTY**



CRAFTED WITH PASSION



CONSTANTLY HIGH CELL QUALITY
through strict quality examinations
by highresolution electroluminescence
measurements

aleo solar module X59 HE

ELECTRICAL DATA (STC)		X59L310	X59L315	X59L320	BASIC MODULE DATA	
Rated power	P_{MPP} [W]	310	315	320	Length x width x height	[mm] 1660 x 990 x 42
Rated voltage	V_{MPP} [V]	32.7	33.0	33.2	Weight	[kg] 19
Rated current	I_{MPP} [A]	9.47	9.56	9.64	Number of cells	60
Open-circuit voltage	V_{OC} [V]	39.8	40.0	40.2	Cell size	[mm] 156.75 x 156.75
Short-circuit current	I_{SC} [A]	9.98	10.06	10.14	Cell material	Monocrystalline Si, PERC
Efficiency	η [%]	18.9	19.2	19.5	Number of bus bars	5

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

ELECTRICAL DATA (NMOT)		X59L310	X59L315	X59L320
Power	P_{MPP} [W]	229	233	237
Voltage	V_{MPP} [V]	30.3	30.6	30.8
Current	I_{MPP} [A]	7.55	7.62	7.69
Open-circuit voltage	V_{OC} [V]	37.2	37.4	37.6
Short-circuit current	I_{SC} [A]	8.04	8.10	8.17
Efficiency	η [%]	17.4	17.7	18.0

Electrical values measured under nominal module operating temperature: 800 W/m²; 20°C; AM 1.5; wind 1 m/s; Module temperature NMOT : 44.5°C

ELECTRICAL DATA (LOW IRRADIANCE)		X59L310	X59L315	X59L320
Power	P_{MPP} [W]	60	61	62

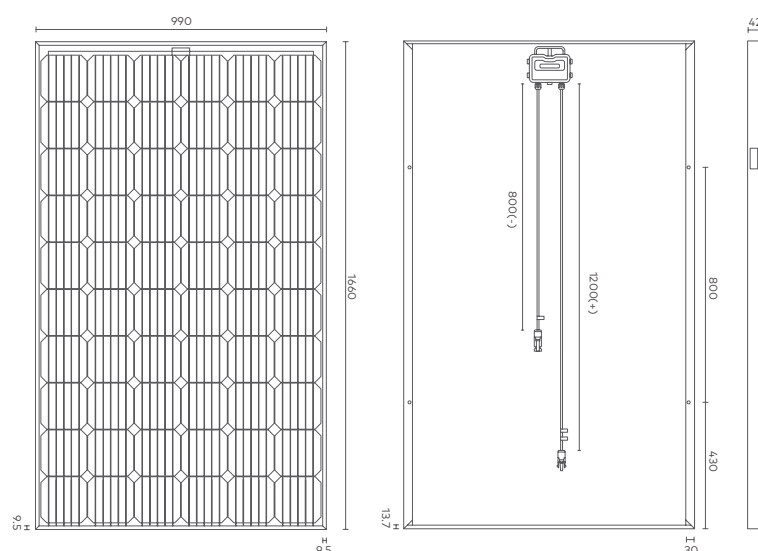
Electrical values measured under: 200 W/m²; 25°C; AM 1.5

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

CLASSIFICATION	
Classification range (positive classification)	[W] 0/+4.99

DIMENSIONS [mm]



CERTIFICATIONS AND WARRANTY

Product Guarantee	15 years, optional 25 years
Power Guarantee	25 years – Linear
Fire Resistance	Class C
Protection Against Electric Shock	II
Certifications	IEC 61215, IEC 61730 IEC 62716 – Ammonia Resistance IEC 61701 – Salt mist Resistance IEC 62804 – PID Resistance MCS 010; MCS 005

LOADS

Max. module pressure load (Testload)	[Pa]	8000 ¹
Max. module pressure load (Designload) ²	[Pa]	5333 ¹
Max. module suction load (Testload)	[Pa]	2400 ¹
Max. module suction load (Designload) ²	[Pa]	1600 ¹
Max. system voltage	[V _{OC}]	1000
Reverse current load	I_r [A]	20

Mechanical load acc. to IEC/EN 61215:2016

¹ Please observe the mounting conditions in the installation manual

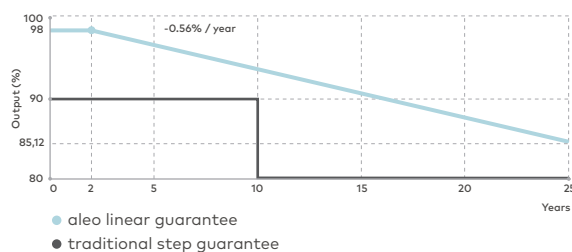
² Testload/ Safety factor 1.5 = Designload

Measurement tolerance of P_{MPP} under STC -3/+3% |

Accuracy of other electrical values -10/+10%

Efficiency relating to gross module area

PERFORMANCE GUARANTEE



PLEASE CONTACT YOUR AUTHORISED ALEO DEALER

ALEO SOLAR GMBH
Marius-Eriksen-Straße 1
17291 PRENZLAU
GERMANY

CONTACT
+49 3984-8328-0
info@aleo-solar.de
www.aleo-solar.com

©aleo solar GmbH 03/2019

aleo