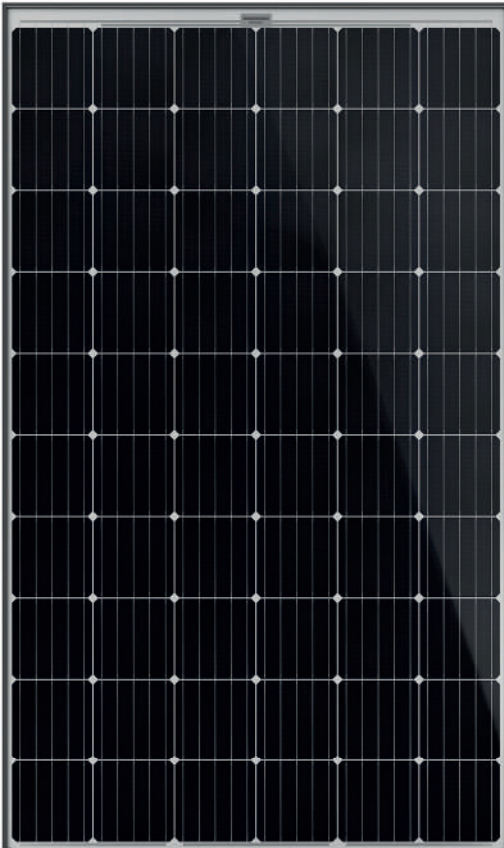


**X59**

310 - 325W



QUALITY SIGNED AND SEALED



**8000 Pa PRESSURE LOAD**

**25 YEAR PRODUCT GUARANTEE  
OPTIONAL AVAILABLE**

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



**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 high-resolution electroluminescence  
measurements.  
100% of diodes are tested.

# aleo solar module X59 HE

ELECTRICAL DATA (STC)		X59L310	X59L315	X59L320	X59L325	BASIC MODULE DATA	
Rated power	$P_{MPP}$ [W]	310	315	320	325	Length x width x height	[mm] 1660 x 990 x 42
Rated voltage	$V_{MPP}$ [V]	32.7	33.0	33.2	33.4	Weight	[kg] 19
Rated current	$I_{MPP}$ [A]	9.47	9.56	9.64	9.73	Number of cells	60
Open-circuit voltage	$V_{OC}$ [V]	39.8	40.0	40.2	40.3	Cell size	[mm] 156.75 x 156.75
Short-circuit current	$I_{SC}$ [A]	9.98	10.06	10.14	10.22	Cell material	Monocrystalline Si, PERC
Efficiency	$\eta$ [%]	18.9	19.2	19.5	19.8	Number of bus bars	5

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

ELECTRICAL DATA (NMOT)		X59L310	X59L315	X59L320	X59L325
Power	$P_{MPP}$ [W]	229	233	237	240
Voltage	$V_{MPP}$ [V]	30.3	30.6	30.8	31.0
Current	$I_{MPP}$ [A]	7.55	7.62	7.69	7.76
Open-circuit voltage	$V_{OC}$ [V]	37.2	37.4	37.6	37.7
Short-circuit current	$I_{SC}$ [A]	8.04	8.10	8.17	8.24
Efficiency	$\eta$ [%]	17.4	17.7	18.0	18.3

Electrical values measured under nominal module operating temperature: 800 W/m<sup>2</sup>; 20°C; AM 1.5; wind 1 m/s; Module temperature NMOT : 44.5°C

ELECTRICAL DATA (LOW IRRADIANCE)		X59L310	X59L315	X59L320	X59L325
Power	$P_{MPP}$ [W]	60	61	62	63

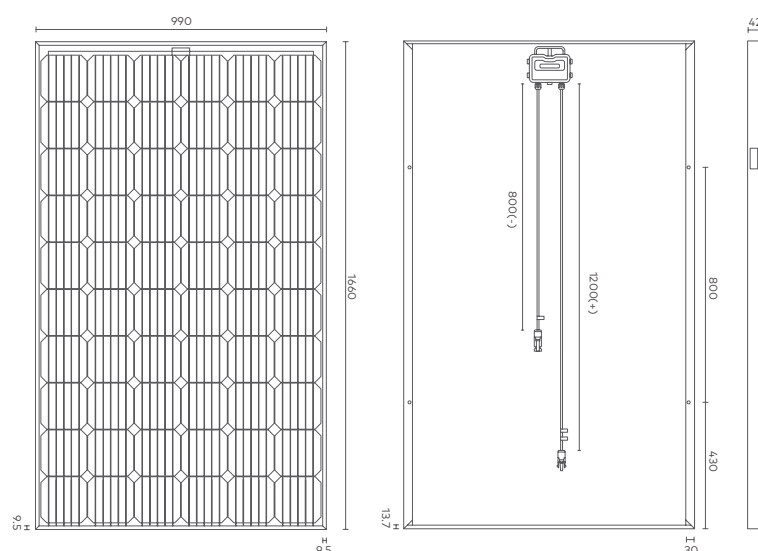
Electrical values measured under: 200 W/m<sup>2</sup>; 25°C; AM 1.5

TEMPERATURE COEFFICIENTS			
Temperature coefficient $I_{SC}$	$\alpha (I_{SC})$	[%/K]	+0.05
Temperature coefficient $V_{OC}$	$\beta (V_{OC})$	[%/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	Genuine MC4 (PV-KST4-EVO)
Bypass diodes	3

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

## DIMENSIONS [mm]



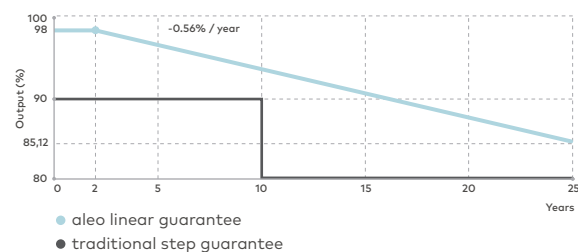
CERTIFICATIONS AND WARRANTY	
Product Guarantee	15 years, optional 25 years
Power Guarantee	25 years – Linear
Fire Resistance	Class C
Protection Against Electric Shock	II
Certifications	IEC 61215:2016, IEC 61730:2016 MCS 010; MCS 005

LOADS		
Max. module pressure load (Testload)	[Pa]	8000 <sup>1</sup>
Max. module pressure load (Designload) <sup>2</sup>	[Pa]	5333 <sup>1</sup>
Max. module suction load (Testload)	[Pa]	2400 <sup>1</sup>
Max. module suction load (Designload) <sup>2</sup>	[Pa]	1600 <sup>1</sup>
Max. system voltage	[V <sub>DC</sub> ]	1000
Reverse current load	$I_R$ [A]	20

Mechanical load acc. to IEC/EN 61215:2016  
<sup>1</sup> Please observe the mounting conditions in the installation manual  
<sup>2</sup> Testload/ Safety factor 1.5 = Designload

Tolerance of  $P_{MPP}$  under STC -3/+3% |  
 Tolerance 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

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**aleo**