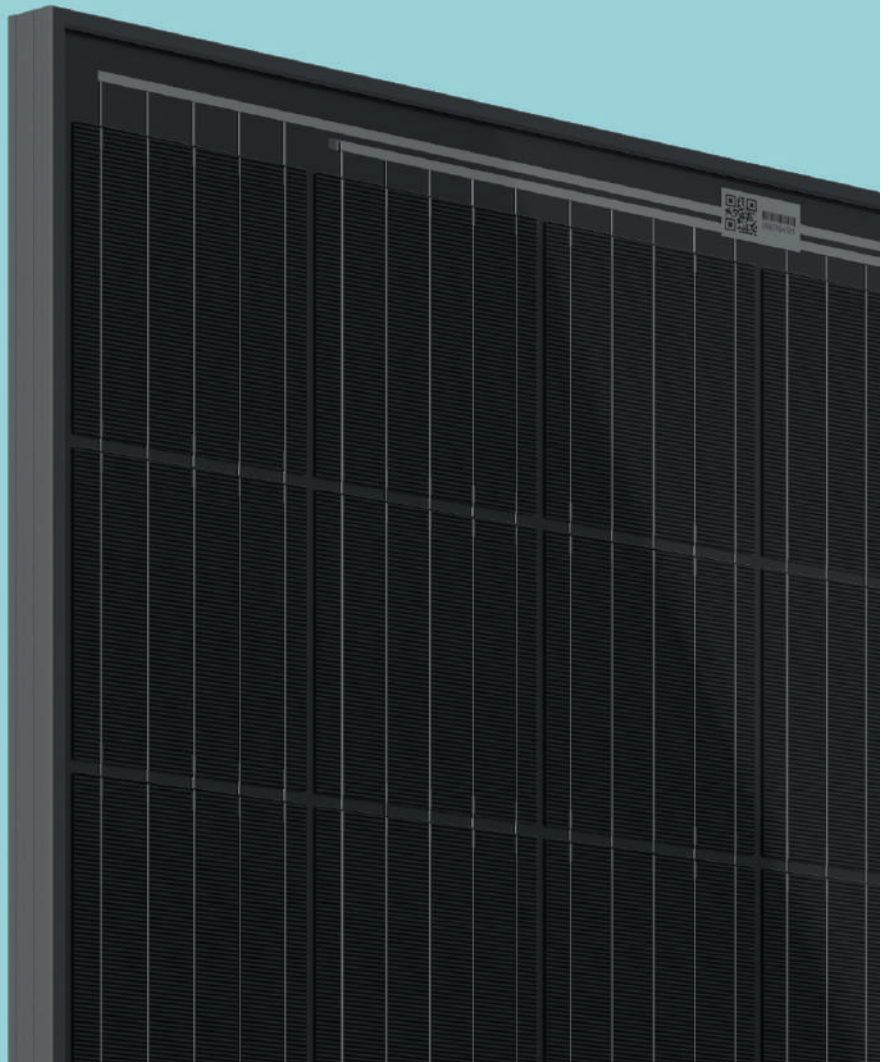


X83 Premium

320 - 330 W

 Made in
GERMANY



GERMAN ENGINEERING AND MANUFACTURING

Incorporated in 2001, aleo is recognized as one of the most trustworthy manufacturers of solar panels. We produce all our products in our certified production plant in Prenzlau, Germany.

THE BEST GUARANTEE PACKAGE

 25 Years Product Guarantee  25 Years linear Performance Guarantee

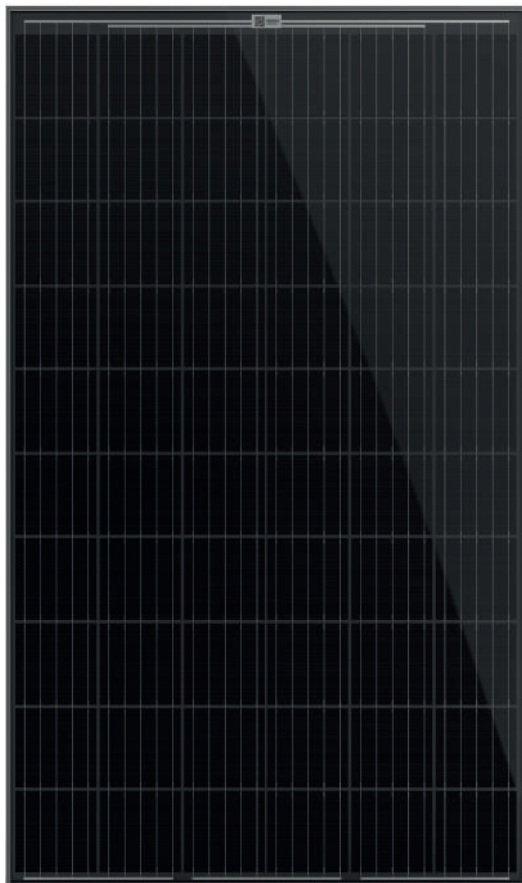
98% of nominal power guaranteed in the first two years

OUR QUALITY IS CERTIFIED

This module is certified according to the latest international standards: **IEC 61215:2016** and **IEC 61730:2016**.

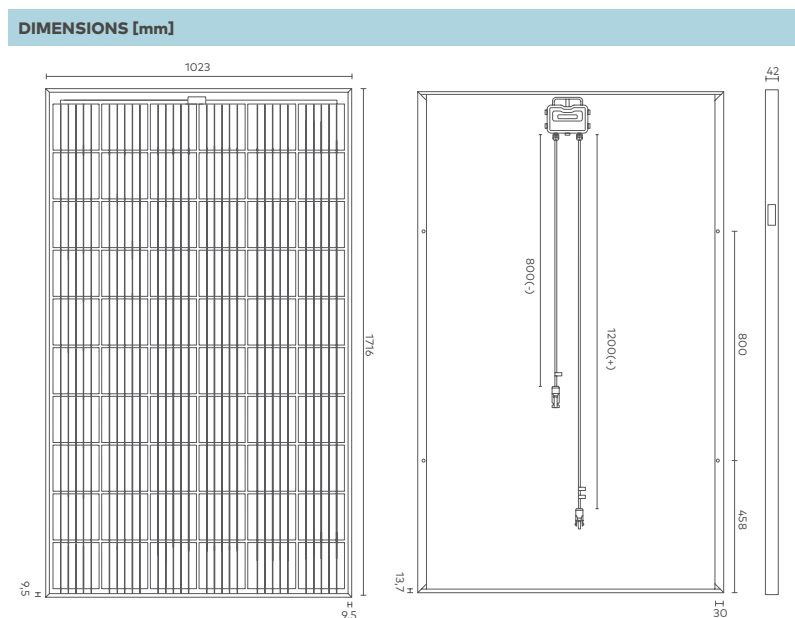
Additionally, this module obtained the following certificates:

- + Snail Trail Free
- + Salt mist corrosion resistance
- + Ammonia corrosion resistance
- + Sand and dust resistance
- + PID resistance
- + LeTID resistance
- + Hail resistance class 4
- + Pressure load: 8000 Pa - suction load: 5400 Pa
- + Dynamic mechanical load test



aleo solar module X83 Premium

ELECTRICAL DATA (STC)		X83L320	X83L325	X83L330	BASIC MODULE DATA	
Rated power	P_{MPP} [W]	320	325	330	Length x width x height	[mm] 1716 x 1023 x 42
Rated voltage	V_{MPP} [V]	32.6	32.8	33.1	Weight	[kg] 19.5
Rated current	I_{MPP} [A]	9.81	9.90	9.97	Number of cells	60
Open-circuit voltage	V_{OC} [V]	40.3	40.5	40.6	Cell size	[mm] 158.75 x 158.75
Short-circuit current	I_{SC} [A]	10.32	10.40	10.49	Cell material	Monocrystalline Si, PERC
Efficiency	η [%]	18.2	18.5	18.8	Number of bus bars	5
Electrical values measured under standard test conditions (STC): 1000 W/m ² ; 25°C; AM 1.5						
ELECTRICAL DATA (NMOT)		X83L320	X83L325	X83L330	BASIC MODULE DATA	
Power	P_{MPP} [W]	236	240	244	Front sheet	3.2 mm Solar glass (TSG)
Voltage	V_{MPP} [V]	30.2	30.4	30.7	Back sheet	Polymer sheet, black
Current	I_{MPP} [A]	7.82	7.90	7.95	Frame material	Al alloy, black
Open-circuit voltage	V_{OC} [V]	37.7	37.9	38.0	CERTIFICATIONS	
Short-circuit current	I_{SC} [A]	8.31	8.38	8.45	Fire Resistance	Class C
Efficiency	η [%]	16.8	17.1	17.4	Protection Against Electric Shock	II
Electrical values measured under nominal module operating temperature: 800 W/m ² ; 20°C; AM 1.5; wind 1 m/s; Module temperature NMOT : 45.5°C						
ELECTRICAL DATA (LOW IRRADIANCE)		X83L320	X83L325	X83L330	IEC 61215:2016, IEC 61730:2016	
Power	P_{MPP} [W]	62	63	64	IEC 62716 – Ammonia Resistance	
Electrical values measured under: 200 W/m ² ; 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				
Bypass diodes		3				
CLASSIFICATION		X83L320	X83L325	X83L330	LeTID Resistance	
Classification range (positive classification)	[W]	0/+4.99	0/+4.99	0/+2.99	IEC/TS 62782:2016 - Dynamic mechanical load testing	
IEC 60068-2-68:1994 - Sand and Dust test						
Hail resistance class 4 (40 mm hail stones)						
Snail trail free (AgNP Test)						
LOADS						
Max. module pressure load (Testload)					[Pa]	8000 ¹
Max. module pressure load (Designload) ²					[Pa]	5333 ¹
Max. module suction load (Testload)					[Pa]	5400 ¹
Max. module suction load (Designload) ²					[Pa]	3600 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						



GUARANTEES

Product Guarantee 25 years

Power Guarantee 25 years – Linear

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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