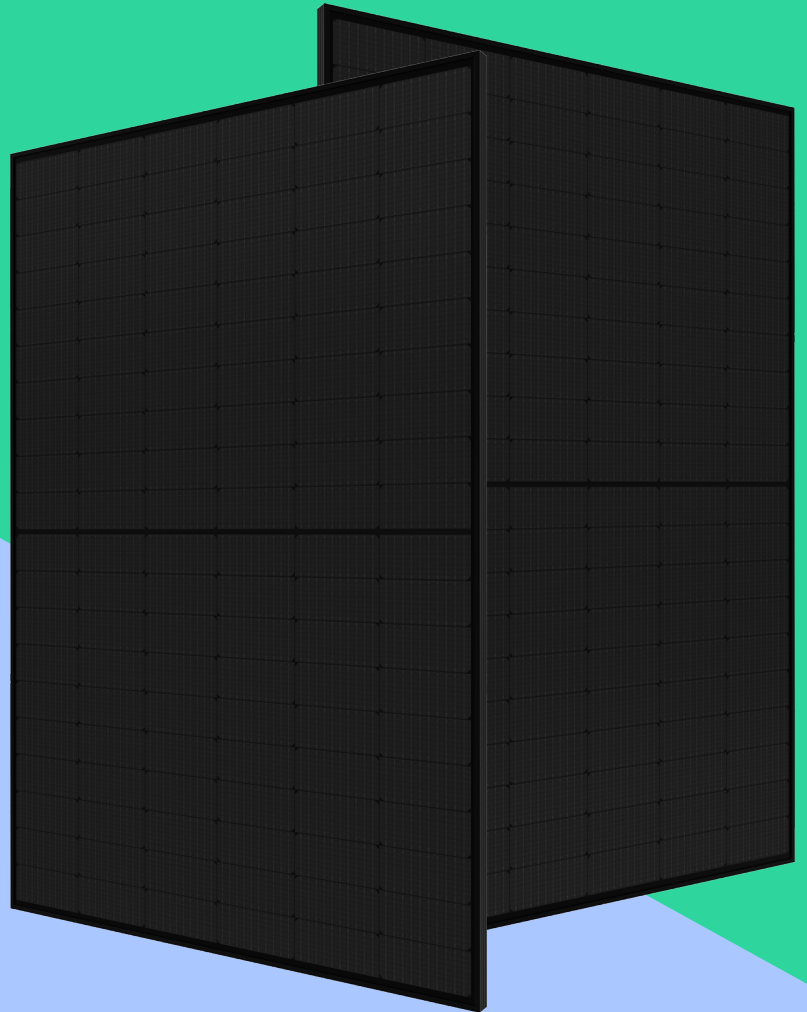


The all black stars



Denim all black 450Wp



denim

SOLAR, IT'S THAT SIMPLE

ALL-BLACK PANELS

Just imagine your roof shining with these all black panels. Black frames, black interior. A little more expensive, but well worth it. Elegant, aesthetic and streamlined. And 25 years guarantee. So what will it be - black or black?

WARRANTY

Always assured of a good yield thanks to the long product warranty of up to 25 years. After 25 years, we guarantee an output of 84.8 %.



denimsolar.nl

ELECTRICAL CHARACTERISTICS

450 ALL BLACK

		SCT ¹	NOCT ²
Maximum power (Pmax)	(W)	450	335
MPP voltage (Vmpp)	(V)	34.78	32.96
MPP current (Impp)	(A)	12.95	10.16
Open clamp voltage (Voc)	(V)	41.33	39.17
Short-circuit current (Isc)	(A)	13.90	11.22
Module efficiency	(%)	20.80	
Power tolerance	(W)		0 /+5
Operating temperature	(°C)		- 40 to +85
Maximum system voltage	(V)		1500
Series fuse rated current	(A)		25
Product reference		Denim U M3 450 BB 120H	

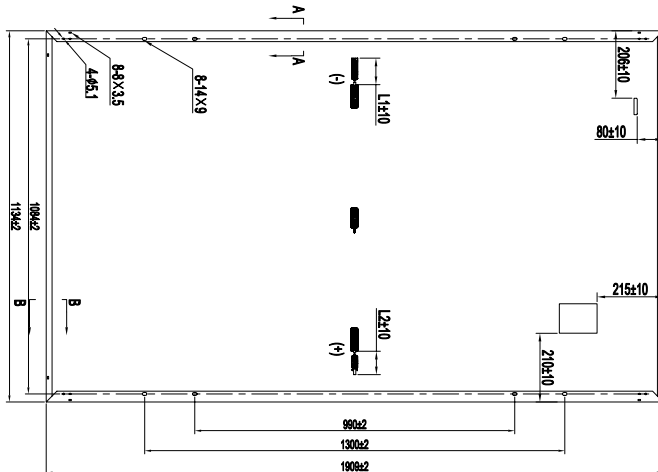
¹ STC (Standard Test Conditions): Irradiance 1000W/m², Cell temperature 25°C, Air mass 1.5

² NOCT (Nominal operating cell temperature): Irradiance 800W/m², Ambient temperature 20°C, Wind speed 1m/s

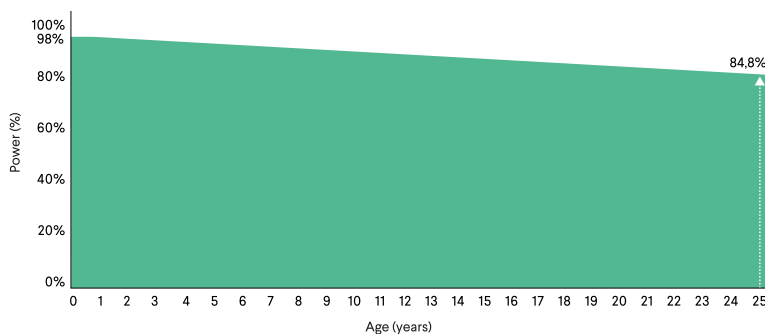
MECHANICAL PROPERTIES

Cell type	Monocrystalline PERC 182 x 91 mm
Number of cells	120 cells (6 x 20)
Dimensions	1909 x 1134 x 30 mm
Weight	23.0 kg
Frame	Anodised aluminium
Front plate	Hardened solar glass (high transmission)
Junction Box	IP68
Cable cross section / length	4mm ² (IEC) - 1200mm
Connector type	MC4-EVO2
Fire rating	C

DIMENSIONS



LINEAR PERFORMANCE WARRANTY



TEMPERATURE COEFF.

Pmax	-0.33 %/°C
Voc	-0.26 %/°C
Isc	0.042 %/°C

NUMBER OF PACKAGES

Quantity per pallet	36
Quantity per container	864

MECHANICAL LOAD

Snow load	Up to 5400 Pa
Wind load	Up to 2400 Pa
Hail test	Hailstones: Ø25mm, speed: 80km/h

DENIM IV CURVES

