

WST-NFX Glass-Glass-Series

450 Watt Full Black

Hey! I am your module.

More warranty.

30 years product warranty.
30 years performance warranty.
German guarantor.

More power.

Zero Gap Technology for more power
per square metre (225 watts/m²).
At least 87.4 % residual power after 30
years.

More safety.

35 mm frame thickness.
Particularly hail-resistant (hail impact with
35 mm diameter at approx. 100 km/h).

More protection.

Insurance cover for the complete solar
system included.

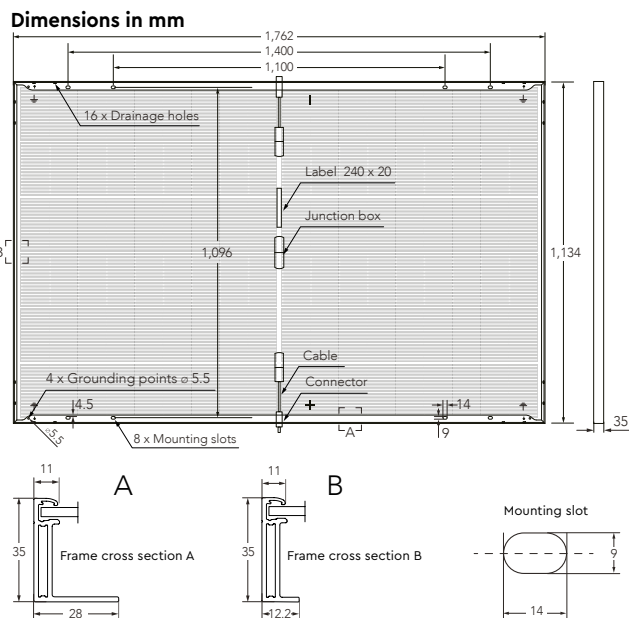


Mechanical Data WINAICO WST-NFX-B1 GLASS-GLASS-SERIES

Cell	Monocrystalline, N-type, bifacial up to 80 %
Bifaciality	up to 80 %
Quantity of cells	108 (6 × 18 half cells TOPCon)
Dimensions	1.762 × 1.134 × 35 mm
Weight	25 kg
Front glass	2,0 mm, tempered, highly transparent glass with anti-reflective coating
Encapsulation	EVA / EPE
Back glass	2.0 mm, tempered, highly transparent glass, partially black printed
Frame	Black anodised aluminium
Junction box	IP68, 3 Schottky Diodes
Connector type	Cable 2 × 1,2 m / 4 mm ² Stäubli MC4 Evo2A
Safety class (IEC 61140)	II
Fire safety class (IEC 61730)	A

Warranty

Product warranty	30 years
Performance warranty	30 years
Annual power degradation	0,40 %
Performance after 30 years	≥87,4 % of rated power
The warranty conditions apply.	



Operating conditions WST-450NFX54-B1

Operating temperature	°C	-40 bis +85
Maximum system voltage	V	1.500
Maximum series fuse I _R	A	30
Maximum design load (push/pull)	Pa	3.600/1.600
Maximum test load (push/pull)	Pa	5.400/2.400
Temperature coefficient of P _{MAX}	%/°C	-0,29
Temperature coefficient of U _{OC}	%/°C	-0,25
Temperature coefficient of I _{SC}	%/°C	0,043
Nominal module operating temperature NMOT	°C	42 ± 2

Electrical data WST-450NFX54-B1

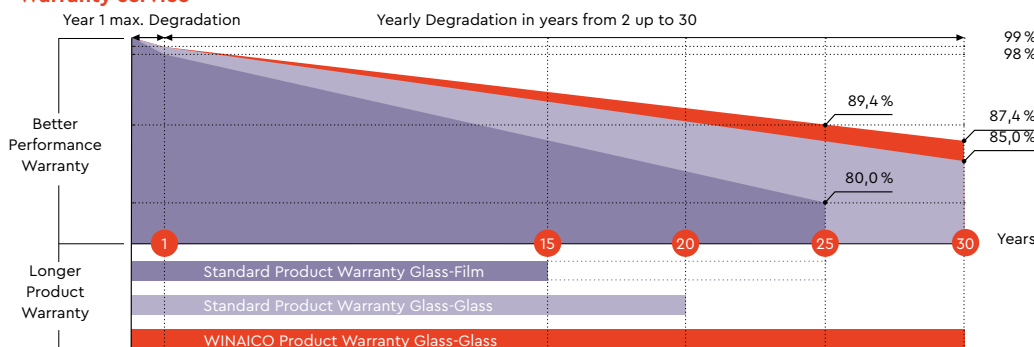
		STC ¹	NMOT ²
Nominal performance P _{MPP}	Wp	450	338
Voltage at maximum performance U _{MPP}	V	33,39	31,43
Current at maximum performance I _{MPP}	A	13,48	10,77
Open circuit voltage U _{OC}	V	39,40	37,42
Short circuit current I _{SC}	A	14,28	11,53
Module efficiency (STC)	%	22,5 (225 W/m ²)	
Increased performance through Power Bifaciality*	10 % P _{MPP} W	495 (+45)	
	15 % P _{MPP} W	518 (+68)	
	20 % P _{MPP} W	540 (+90)	
*Depending on irradiation conditions			
Power tolerance	W	-0/+5	

¹ Electrical data applies under standard test conditions (STC): solar radiation 1,000 W/m² with light spectrum AM 1,5, with cell temperature 25 °C. Measurement tolerance of P_{MAX} at STC: ±3 %.

Accuracy of other electrical data: ±10 %.

² Electrical data applies under Nominal Module Operating Temperature (NMOT), irradiance of 800 W/m², spectrum AM 1,5, ambient temperature 20 °C, wind speed 1 m/s.

Warranty service



Certifications

Standard IEC certifications:
IEC 61215-1:2021, IEC 61215-2: 2021
IEC 61730-1:2023, IEC 61730-2:2023

Additional certifications:
IEC PID
Ammonia resistance
Salt spray resistance
Hail storm resistance (35 mm at approx. 100 km/h)

WEEE Registration number:
DE85493209



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