

WST-BDX54 Back Contact Series

485 Watt Ultra Black

More warranty.

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

More power.

Highest area output of 238 watts/m².
At least 88,85 % residual power after 30 years.
Shading technology at cell level.

More safety.

Reduced risk of microcracks.
Protection against glass breakage thanks to
35 mm frame thickness.

More protection.

Insurance cover for the entire solar system
included for the first year.



WINAICO
Solar for Experts.

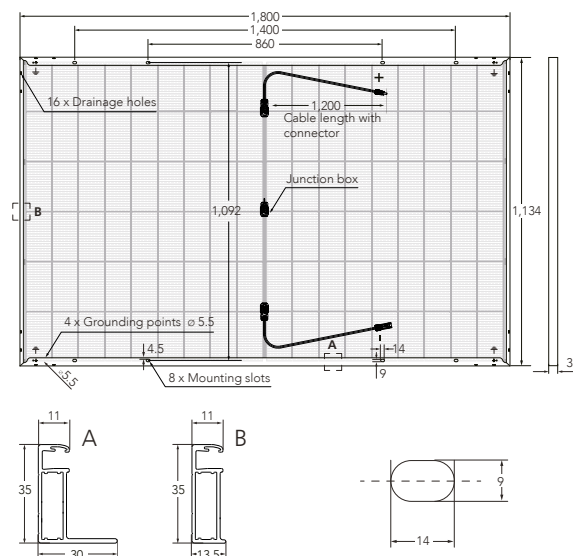
Mechanical Data WINAICO WST-BDX54 BACK CONTACT SERIES

Cell	Monocrystalline N-type, bifacial
Bifacity	70 ± 5 %
Quantity of cells	108 (6 × 18 half cells)
Dimensions	1.800 × 1.134 × 35 mm
Weight	25 kg
Front glass	2.0 mm, highly transparent glass with anti-reflective coating
Encapsulation	EPE / EVA
Back glass	2.0 mm, highly transparent glass, partially black printed
Frame	Black anodised aluminium
Junction box	IP68, 3 bypass diodes
Connector type	Cable 2 × 1.2 m / 4 mm ² Stäubli MC4 Evo2A
Safety class	II (IEC 61140)
Fire safety class	A (IEC 61730)

Warranty

Product warranty	30 years
Performance warranty	30 years
Annual power degradation	0.35 %
Performance after 30 years	≥ 88.85 % of rated power
The warranty conditions apply.	

Dimensions in mm



Operating conditions

WST-485BDX54-B2

Operating temperature	°C	-40 to +85
Maximum system voltage	V	1.500
Maximum series fuse I _R	A	30
Maximum test load (push/pull)	Pa	8.100/3.600
Maximum design load (push/pull)	Pa	5.400/2.400
Temperature coefficient of P _{MAX}	%/°C	-0,26
Temperature coefficient of V _{OC}	%/°C	-0,22
Temperature coefficient of I _{SC}	%/°C	0,05
Nominal module operating temperature NMOT	°C	45 ± 2

Electrical data

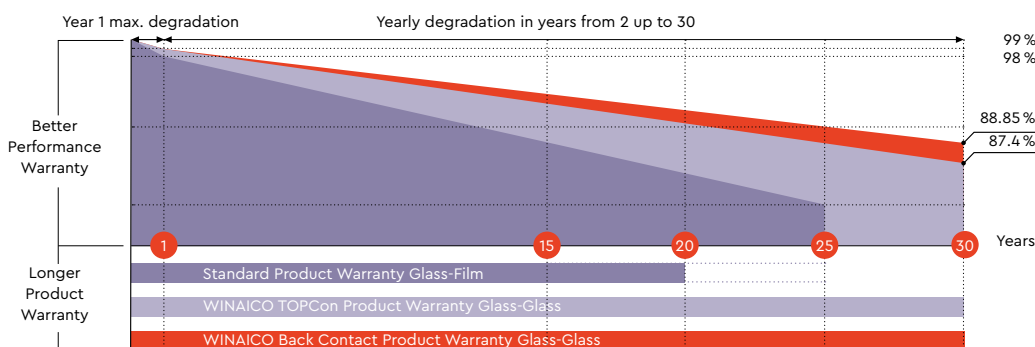
WST-485BDX54-B2

		STC ¹	NMOT ²
Nominal performance P _{MPP}	Wp	485	368
Voltage at maximum performance V _{MPP}	V	33,94	32,20
Current at maximum performance I _{MPP}	A	14,30	11,44
Open circuit voltage V _{OC}	V	40,89	38,80
Short circuit current I _{SC}	A	15,03	12,15
Module efficiency (STC)	%	23,8 (238 W/m ²)	
Increased performance through	10 % P _{MPP}	W	534 (+49)
Power Bifacility*	15 % P _{MPP}	W	558 (+73)
*Depending on irradiation conditions	20 % P _{MPP}	W	582 (+97)
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} ± 3 %, V_{OC} ± 3 %, I_{SC} ± 3 %.

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

IEC 61215:2021; IEC 61730:2023
 IEC 61701 Salt Mist Resistance
 IEC 62716 Ammonia Resistance
 IEC TS 62804-1 Anti-PID
 IEC 61215-2 Hail Storm Resistance
 (45 mm at 110 km/h in progress)

ISO 9001 Quality Management System
 ISO 45001 Occupational Health and Safety Management System
 ISO 14001 Environment Management System
 SA 8000 Social Accountability

WEEE Registration number:
 DE85493209



WINAICO Deutschland GmbH
 Phone + 49 7933 700 300
 Fax + 49 7933 700 3010
 germany@winaico.com · www.winaico.com
 Industriestraße 68, 97993 Creglingen, GERMANY

