COMMERCIAL

WST-NCX54-AW

N-TYPE BIFACIAL GLASS-GLASS SERIES

515-520W



Better low-light performance

Enhanced electricity production in low-irradiance environments

Excellent durability in extreme environments

WINAICO modules are tested above and beyond international standards

PID & LID Resistant

To reduce power degradation and ensure long-term sustained performance

25 years product warranty

30 years linear performance

-1 % 1st-year degradation

-0.40 % annual power degradation

>87.4 % of linear performance after 30 years

WINAICO 25 YEARS PRODUCT WARRANTY

30 YEARS PERFORMANCE WARRANTY

2 YEARS COMPLIMENTARY INSURANCE

WINAICO

Solar for Experts.

www.winaico.com.au

MECHANICAL DATA

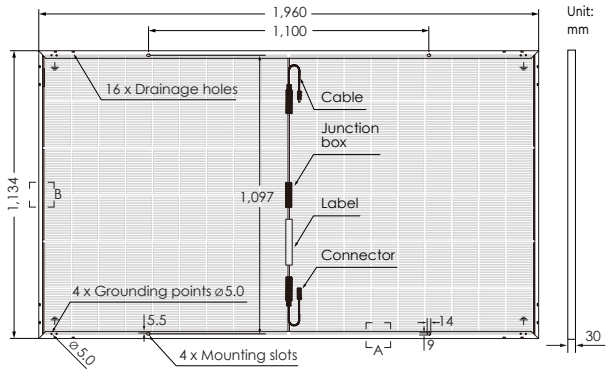
Cell	Monocrystalline, N-type, bifacial
Quantity and wiring of cells	108 (6 strings x 18 cells)
Bifaciality	Up to 80%
Dimensions	1,960 × 1,134 × 30 mm
Weight	27.4 kg (60.4 lbs)
Front-side glass	2.0 mm, semi-tempered solar glass with anti-reflective coating
Back-side glass	2.0 mm, semi-tempered solar glass, partially white printed
Frame	Black anodised aluminium
Junction box	IP68, 3 bypass diodes
Connector type	PV-KST4-EVO2A/xy, PV-KBT4-EVO2A/xy
Cable length (IEC/UL)	Cable x 2 1,250 mm / 4 mm²
Fire safety class[1] (IEC61730)	Class C
Protection class (IEC 61140)	II

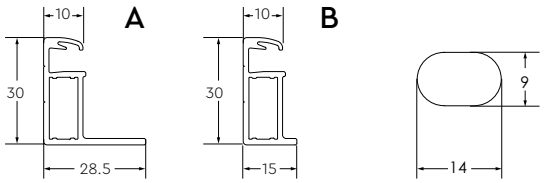
OPERATING CONDITION

Operating temperature	-40 °C to +85 °C / -40 °F to +185 °F
Maximum system voltage IEC	1,500 V
Maximum series fuse	30 A*
Maximum design load (push/pull)	3,600 Pa / 1,600 Pa
Maximum test load (push/pull)	5,400 Pa / 2,400 Pa
Nominal module operating temperature NMOT	42 ± 2°C
Temperature coefficient of P_{MAX}	-0.28%/°C
Temperature coefficient of V_{OC}	-0.23%/°C
Temperature coefficient of I_{SC}	0.043%/°C

*The installation of additional blocking diodes or fuses is necessary with the parallel connection of module strings.

DIMENSIONS

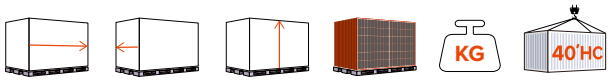




Frame cross sections

Mounting slot

PACKAGING



1,990 mm | 1,125 mm | 1,265 mm | 36 modules | 1,041 kg | 24 pallets

ELECTRICAL DATA

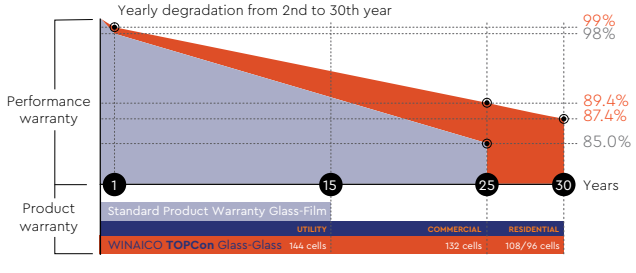
Module type		WST-515NCX54-AW			WST-520NCX54-AW			
Test Conditions		STC[2]	NMOT[3]	BNPI[4]	STC[2]	NMOT[3]	BNPI[4]	
Nominal performance	P_{MAX}	**515**	**392**	**565**	**520**	**396**	**570**	Wp
Voltage at maximum performance	V_{MP}	33.78	31.92	33.78	33.96	32.09	33.96	V
Current at maximum performance	I_{MP}	15.25	12.29	16.73	15.32	12.35	16.80	A
Open circuit voltage	V_{OC}	40.10	38.38	40.10	40.19	38.46	40.19	V
Short circuit current	I_{SC}	16.23	13.08	17.95	16.31	13.15	18.02	A
BSI: 1000 W/m² front / 300 W/m² rear irradiance	I_{SC}		20.31			20.40		A
Module efficiency			23.2			23.4		%
Bifacial gain[5] *Depending on irradiation conditions	10 % Pmpp		567 (+52)			572 (+52)		W
	15 % Pmpp		592 (+77)			598 (+78)		W
	20 % Pmpp		618 (+103)			624 (+104)		W
Power tolerance			0~+5			0~+5		W

PRODUCT AND QUALITY CERTIFICATES

IEC 61215:2021, IEC 61730:2023
IEC 61701 Salt Mist Resistance
IEC 62716 Ammonia Resistance
IEC TS 62804-1 Anti-PID

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

WINAICO PERFORMANCE GUARANTEE



25 year product guarantee.
Linear performance guarantee for 30 years.
≤1% degradation in 1st year.
No more than 0.4% degradation per year from 2nd year to 30th year.

1. The fire safety test methods according to IEC 61730-2, Fire Tests of Roof Coverings.
2. 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 Pmax:±3%; Voc:±3%; Isc:±3% at STC.
3. 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.
4. BNPI: The front side 1,000 W/m² solar irradiance and rear 135 W/m² .
5. The additional power gain from the rear side depends on the irradiance conditions at the installation site and the mounting situation.

WINAICO Australia Pty Ltd
Tel + 61 2 8091 2771
australia@winaico.com
www.winaico.com.au
3/393 George Street, Sydney NSW 2000, Australia

Win Win Precision Technology Co., Ltd
Tel + 886 3 568 8699 · info@w-win.com.tw
www.wwpt.com.tw · www.winaico.com
4F., No. 180, Sec. 2, Gongdao 5th Rd., East Dist., Hsinchu City 300, Taiwan R.O.C.
Made in China

WINAICO Solar for Experts.

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Specifications included in this datasheet are subject to change without notice. WST-520NCX54-AW_AUS.0126