

COMMERCIAL

N-TYPE BIFACIAL GLASS-GLASS SERIES

525/530/535/540 watt
WST-NGX-D3



Better low-light performance
Enhanced electricity production
in low-irradiance environments



PID & LID Resistant
To reduce power degradation
and ensure long-term sustained
performance



**Excellent durability in extreme
environments**
WINAICO modules are tested
above and beyond international
standards.

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



Power to Perform

www.winaico.com.au



MECHANICAL DATA

Cell	Monocrystalline, N-type, bifacial
Quantity and wiring of cells	132 (6 strings x 22 cells)
Bifaciality	Up to 80 %
Dimensions	2,094 x 1,134 x 35 mm
Weight	29.7 kg (65.48 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	Stäubli PV-KST4-EVO2A/xy (M), PV-KBT4-EVO2A/xy (F) IP68
Cable length (IEC/UL)	Cable 2 x 1,200 m / 4 mm ²
Fire safety class ¹ (IEC61730)	C
Protection class (IEC 61140)	II

OPERATING CONDITION

Operating temperature	-40 °C to +85 °C / -40 °F to +185 °F
Maximum system voltage IEC/UL	1,500 V / 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}	-0.30 %/°C
Temperature coefficient of V _{OC}	-0.25 %/°C
Temperature coefficient of I _{SC}	0.045 %/°C

ELECTRICAL DATA

Module type		WST-525NGX-D3			WST-530NGX-D3			WST-535NGX-D3			WST-540NGX-D3			
Electrical data		STC ²	NMOT ³	BNPI ⁴	STC ²	NMOT ³	BNPI ⁴	STC ²	NMOT ³	BNPI ⁴	STC ²	NMOT ³	BNPI ⁴	
Nominal performance	P _{MAX}	525	392	575	530	396	580	535	400	585	540	404	590	Wp
Voltage at maximum performance	V _{MP}	39.84	37.64	39.26	40.16	37.97	39.46	40.47	38.3	39.66	40.79	38.63	39.86	V
Current at maximum performance	I _{MP}	13.18	10.42	14.81	13.2	10.44	14.88	13.22	10.46	14.95	13.24	10.48	15.02	A
Open circuit voltage	V _{OC}	47.22	44.61	47.7	47.27	44.7	47.78	47.42	44.79	47.86	47.63	44.87	47.94	V
Short circuit current	I _{SC}	13.81	11.14	15.29	13.89	11.14	15.3	13.95	11.15	15.31	14.01	11.16	15.32	A
BSI: 1000 W/m ² front / 300 W/m ² rear irradiance	I _{SC}	17.12			17.22			17.3			17.39			A
Module efficiency		22.1			22.3			22.5			22.8			%
Bifacial gain ⁵	10 % P _{mp}	578 (+53)			583 (+53)			589 (+54)			594 (+54)			W
*Depending on irradiation conditions	15 % P _{mp}	604 (+79)			610 (+80)			615 (+80)			621 (+81)			W
	20 % P _{mp}	630 (+105)			636 (+106)			642 (+107)			648 (+108)			W
Power tolerance		0~+5			0~+5			0~+5			0~+5			W

PRODUCT AND QUALITY CERTIFICATES

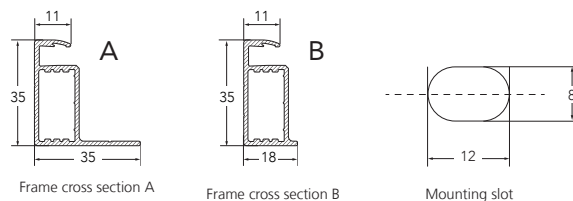
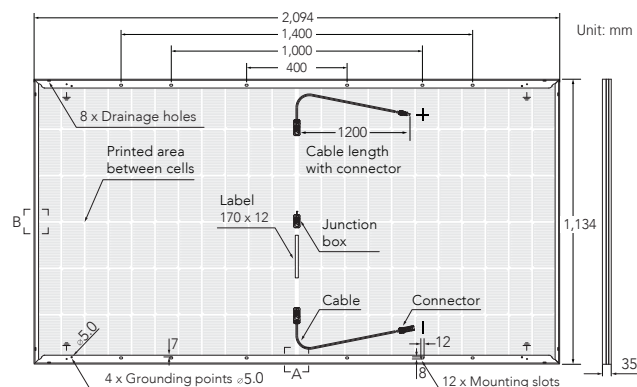
IEC 61215:2021, IEC 61730:2023

ISO 9001 Quality Management System
ISO 50001 Occupational Health and Safety Management System
ISO 14001 Environment Management System
SA 8000 Social Accountability



- The fire safety test methods according to IEC 61730-2, Fire Tests of Roof Coverings.
- 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}: ±5% at STC.
- 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.

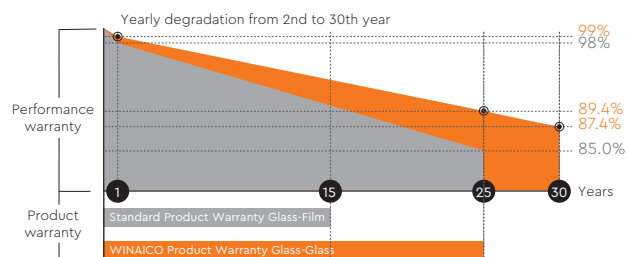
DIMENSIONS



PACKAGING



WINAICO PERFORMANCE GUARANTEE



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

- BNPI: The front side 1,000 W/m² solar irradiance and rear 135 W/m².
- The additional power gain from the rear side depends on the irradiance conditions at the installation site and the mounting situation.

Specifications included in this datasheet are subject to change without notice. WST-540NGX-D3_AUS_1124



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