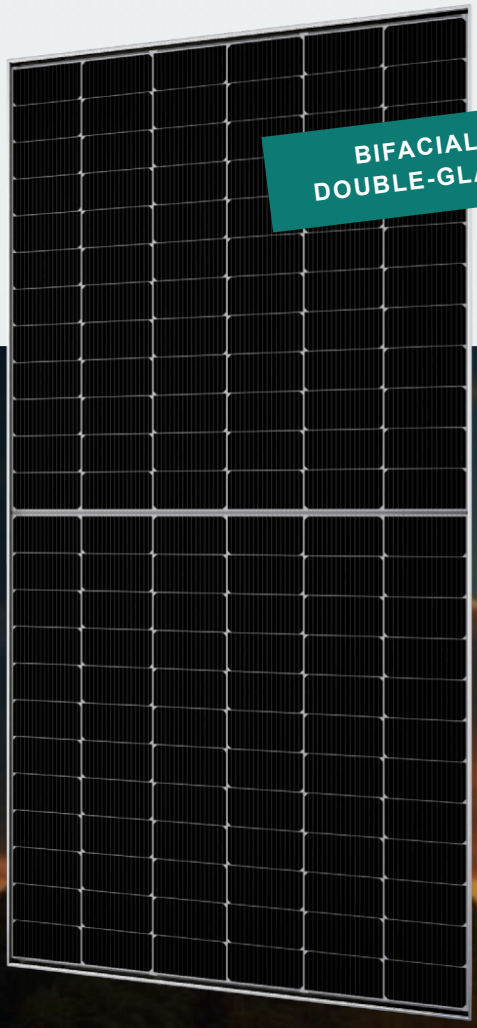
SOLANZO®
Simply Powerful

Avanza Series

N-TYPE TOPCON TECHNOLOGY

625W-650W

SZA-132NT-BF



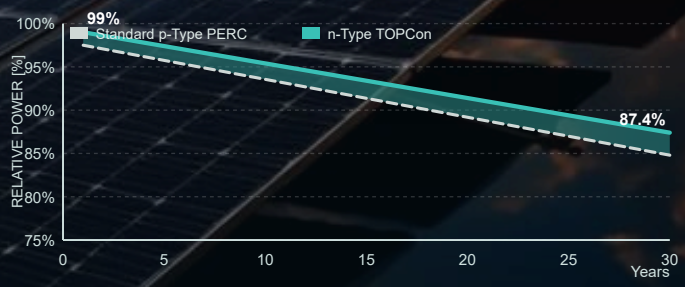
BIFACIAL DOUBLE-GLASS

24.06%
Maximum Efficiency

132
Half Cells

- N-type TOPCon Technology
- Enhanced efficiency and power performance
- Excellent low-light and high-temperature performance
- Long-term reliability with minimal degradation
- Certified to IEC 61215 & IEC 61730 standards

OUR PERFORMANCE WARRANTY



30 YEARS
Performance Warranty

15 YEARS
Product Warranty

≤ 1% first-year degradation, then 0.4 percentage points of initial rated power annually — 87.4% min. warranted power at year 30

*Specifications are subject to change without notice. Actual performance may vary. Warranty terms are defined in the latest SOLANZO Limited Warranty.

IEC CE INMETRO MCS CERTIFIED ISO 45001 ISO 9001 ISO 14001 TÜV SÜD

TIER 1 BloombergNEF

BIFACIAL - DOUBLE GLASS

SZA-132NT-BF 625W-650W

N-TYPE TOPCON TECHNOLOGY

Electrical specifications (STC*):

Module model SZA-132NT-BF-	625	630	635	640	650
Nominal max. power P_{max} (Wp)	625	630	635	640	650
Maximum operating voltage V_M (V)	40.88	41.02	41.16	41.30	41.57
Maximum operating current I_M (A)	15.29	15.36	15.43	15.5	15.64
Open-circuit voltage V_{oc} (V)	49.28	49.48	49.68	49.88	50.28
Short-circuit current I_{sc} (A)	16.14	16.20	16.26	16.32	16.44
Module efficiency η (%)	23.14	23.32	23.51	23.69	24.06
Power tolerance (W)	0~+3				
Maximum system voltage (V/DC)	1500				
Maximum series fuse rating (A)	35				

*STC: Standard Test Conditions (irradiance 1000 W/m², cell temperature 25°C and air mass of AM1.5), measurement tolerance Pmax: ±3%.

Electrical specifications (BNPI*: 1000 W/m² + 135 W/m²):

Nominal max. power P_{max} (Wp)	690	696	701	707	717
Maximum operating voltage V_M (V)	40.88	41.04	41.17	41.33	41.59
Maximum operating current I_M (A)	16.88	16.95	17.03	17.10	17.24
Open-circuit voltage V_{oc} (V)	49.26	49.46	49.66	49.86	50.26
Short-circuit current I_{sc} (A)	17.83	17.90	17.96	18.03	18.15

*BNPI (Bifacial Nameplate Irradiance, per IEC TS 60904-1-2): front-side irradiance 1000 W/m² and rear-side irradiance 135 W/m², cell temperature 25 °C, air mass AM1.5. Actual bifacial energy yield depends on rear-side irradiance, ground albedo, mounting configuration, and installation conditions. Nominal bifaciality factor: 80% (±5 percentage points).

Bifacial electrical specifications

Max. power front-side $P_{max\ front}$ (Wp)	625		630		635		640		650	
Backside Power Gain	5%	10%	5%	10%	5%	10%	5%	10%	5%	10%
Total equivalent power $P_{max\ equ}$ (Wp)	656	688	662	693	667	699	672	704	683	715

*Bifacial gain values represent the instantaneous increase in electrical power due to rear-side irradiance, expressed as a percentage of the module's front-side rated power at STC. Actual energy yield depends on mounting configuration, rear-side irradiance, and ground albedo.

Mechanical and design specifications

Cell type	N-Type Monocrystalline TOPCon Bifacial Half-Cut Cells
Cell configuration	132 Half-Cut Cells (6 × 11 × 2)
Bifaciality	80 ± 5%
Front cover	2.0 mm glass, high transmission, AR coated, tempered
Encapsulation	POE
Back cover	2.0 mm transparent tempered glass
Junction box	IP68 rated, 3 bypass diodes
Frame	30 mm anodized aluminium alloy
Cable (incl. connectors)	2 × 4 mm² (+/−), 300 mm or customized
Connectors	MC4-type, IP68 rated
Dimension	2382 mm x 1134 mm x 30 mm
Weight	32.4 kg
Hail resistance	Max. Ø 25 mm at 23 m/s
Wind load	2400 Pa or 244 kg/m²
Snow load	5400 Pa or 550 kg/m²
Fire rating	Class A (according to UL 790)

Packaging information

L (length): 2396 mm
H (height): 1251 mm
W (width): 1110 mm

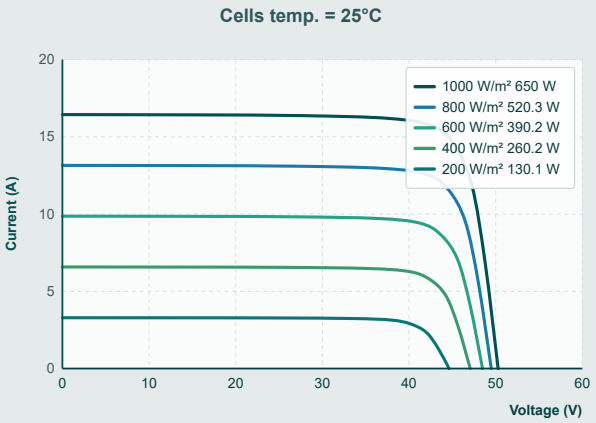
36 pcs One pallet

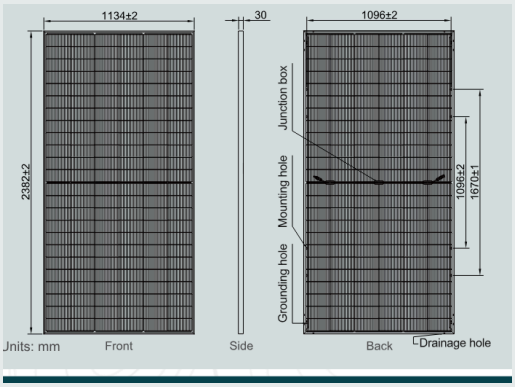
1166 kg Pallet weight

720 pcs 40HQ container

Temperature ratings

Operating temperature	-40 to +85°C
Temp. coefficient of Pmax	-0.29 %/°C
Temp. coefficient of Voc	-0.25 %/°C
Temp. coefficient of Isc	0.046 %/°C
Nom. operating cell temp. NOCT	42 ± 2°C





Environmental & reliability testing: IEC 62716 Ammonia Corrosion Resistance · **IEC 61701** Salt Mist Corrosion Resistance · **IEC 60068-2-68** Sand & Dust Resistance · **IEC TS 62804-1** PID Resistance · **IEC TS 63209-1** Extended-Stress Reliability · **IEC 62892** Extended Thermal Cycling

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PRODUCT CERTIFICATIONS

SOLANZO Simply Powerful

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