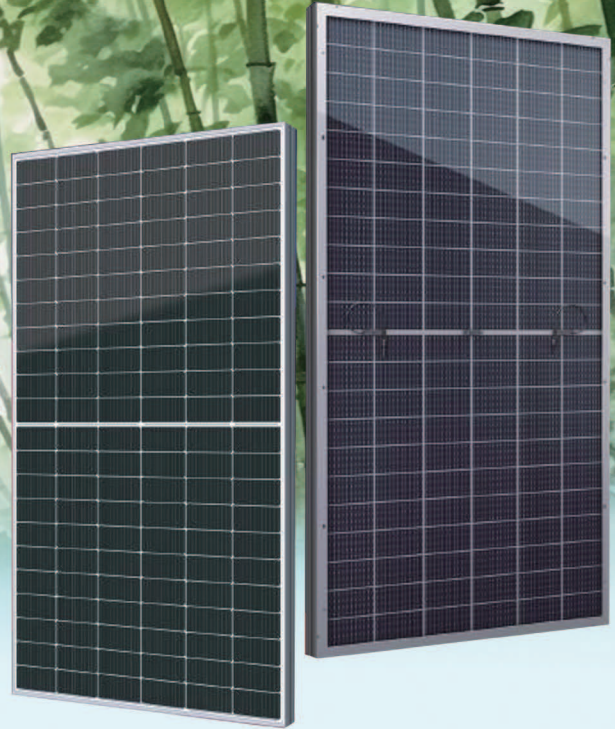




**Zhu Series
TOPCon Mono
Bifacial Glass Module**

680-700W 132



Product Features



Double sided power generation

The gain of double-sided power generation increases with the back light exposure, reaching up to 25% significantly reducing LCOE.



Low attenuation

The first year attenuation is less than 1.0% with a linear attenuation of 0.4% per year for 30 years



High power

Adopting large-sized TOPCon cell and overlaying bifacial glass half cut multi-busbar technology, it has higher power generation.



Excellent electricity generation

Excellent version design effectively enhances module output power.

Product System And Certification

- ISO 9001
- ISO 14001
- ISO 45001
- IEC 61215
- IEC 61730



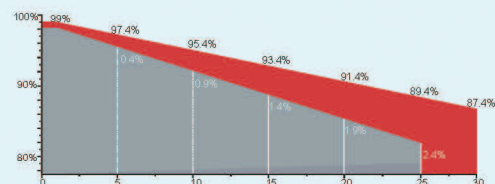
Add.: Changzhi, Shanxi, China
Tel: +86 355 5916888
Email: info@luansolar.com
https://www.luansolar.com

Leading Quality Standards

15 year
Quality assurance

30 year
Power guarantee

-0.40 %
Annual decay



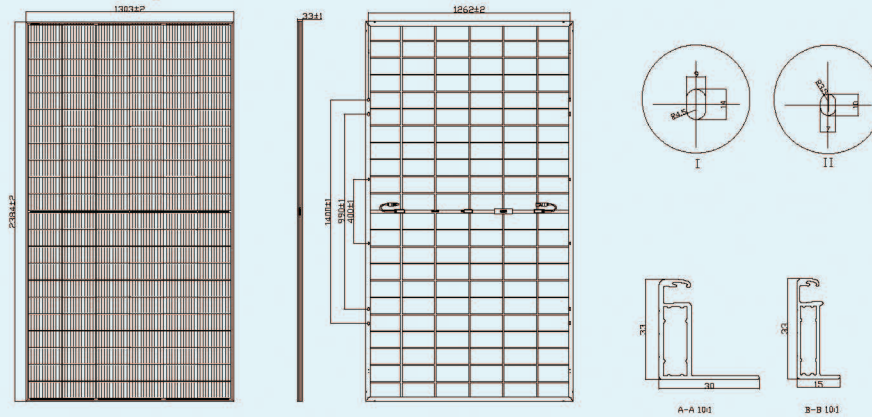
Mechanical Parameters

Cell	N-type TOPCon (132)
Dimensions	2384±2mm×1303±2mm×33±1mm
Weight	39kg±3%
Glass	2.0mm AR coating heatstrengthened glass,low iron
Frame	Anodized aluminium alloy
Junction box	IP68,3 diodes
Wireway	4mm ² , 350mm (+) /350mm (-) or customized length
Packaging	33pieces/pallet
Loading quantity	20GP: 132 pieces, 40GP: 264 pieces, 40HQ: 528pieces, 13 meter truck: 528pieces, 17.5 meter truck: 858pieces

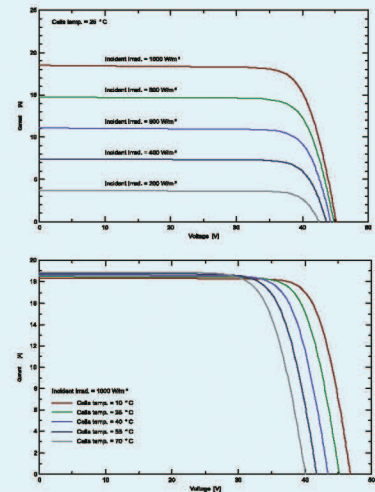
Operation Parameters

Maxsystem voltage	1500V DC
Operating Temperature	-40°C ~+85°C
Fuse's rated current	30A
Maxload front	5400Pa
Maxload back	2400Pa
Normal Operating Cell Temperature	45±2°C
Safety level	Class II
Fire performance	UL Type I

Drawing



I-V Curve



Electrical Parameters

Module	JKL132-C-680NB			JKL132-C-685NB			JKL132-C-690NB			JKL132-C-695NB			JKL132-C-700NB		
	(FS) STC	(FS) NOCT	(RS) STC	(FS) STC	(FS) NOCT	(RS) STC	(FS) STC	(FS) NOCT	(RS) STC	(FS) STC	(FS) NOCT	(RS) STC	(FS) STC	(FS) NOCT	(RS) STC
Maximum power [W]	680	516	544	685	520	548	690	523	552	695	527	556	700	531	560
Maximum working voltage [V]	40.31	37.9	40.31	40.5	38.11	40.52	40.71	38.31	40.71	40.92	38.52	40.92	41.12	38.71	41.12
Maximum working current [A]	16.89	13.61	13.61	16.95	13.64	13.64	16.98	13.66	13.66	17.02	13.69	13.69	17.04	13.72	13.72
Open circuit voltage [V]	46.7	44.31	46.92	47.1	44.51	47.11	47.31	44.71	47.32	47.52	44.91	47.52	47.71	45.13	47.73
Short circuit current [A]	17.93	14.31	14.31	17.99	14.33	14.33	18.02	14.36	14.36	18.05	14.38	14.36	18.08	14.41	14.41
EFF [%]	21.88%			21.06%			22.22%			22.36%			22.56%		
Power tolerance (W)	0 ~+5W														
Short circuit current temperature coefficient	+0.046%/°C														
Open circuit voltage temperature coefficient	-0.250%/°C														
Maximum power temperature coefficient	-0.300%/°C														
STC	Irradiance 1000W/m ² , Cell temperature 25° C, Spectral AM1.5														
NOCT	Irradiance 800W/m ² , Ambient temperature 20°C, Spectrum AM1.5, Wind speed 1m/s														

Note: The electrical performance in this product catalog do not only refer to a single module, or are they promised in the contract. The electrical parameters are only used for comparison between different module types.