



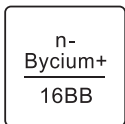
182 N-TYPE

ZHONGXING

108 half-cell

435-460W

16BB half-cut n-type Solar Modules



MBB Half-Cell
Technology

23.6%



Cell Conversion
Efficiency

KEY FEATURES



16BB half-cut cell technology

New circuit design, lower internal current, lower Rs loss
Ga doped wafer, attenuation < 2% (1st year) / ≤ 0.45% (Linear)



Industry leading high yield

Bifacial N-type cell technology,
5%-25% more yield depends on different conditions



Excellent Anti-PID performance

2 times of industry standard Anti-PID test by TUV SUD



Wider application

No water-permeability and high wear-resistance,
can be widely used in high-humid, windy and dusty area



IP68 junction box

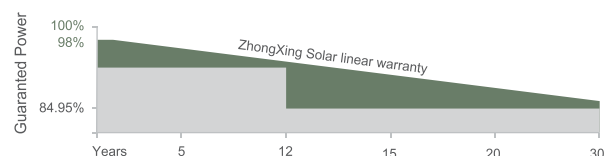
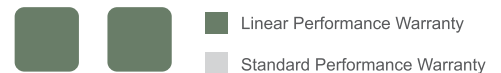
High waterproof level

SYSTEM & PRODUCT CERTIFICATES

- IEC 61215 / IEC 61730 / UL 61730
- ISO 9001: 2015
- CE
- TUV



PERFORMANCE WARRANTY





ZHONGXING SOLAR

Dimensions: 1762mm*1134mm*30mm

Power: 435-460W

Module Type		ZX435M-54NT	ZX440M-54NT	ZX445M-54NT	ZX450M-54NT	ZX455M-54NT	ZX460M-54NT
Test Environment		STC	STC	STC	STC	STC	STC
Maximum Power	P _{max} (W)	435	440	445	450	455	460
Maximum Power Voltage	V _{mp} (V)	32.59	32.81	33.02	33.21	33.41	33.60
Maximum Power Current	I _{mp} (A)	13.35	13.41	13.48	13.55	13.62	13.69
Open Circuit Voltage	V _{oc} (V)	39.16	39.38	39.59	39.78	39.98	40.17
Short Circuit Current	I _{sc} (A)	14.24	14.32	14.41	14.50	14.59	14.68
Tolerance	(W)	0~+5	0~+5	0~+5	0~+5	0~+5	0~+5
Module Efficiency	(%)	21.80	22.00	22.30	22.50	22.80	23.00

STC: Irradiance 1000 W/m², Cell Temperature 25°C, Air Mass AM1.5 according to EN 60904-3. Average efficiency reduction of 4.5% at 200W/m² according to EN 60904-1

NOCT: Irradiance at 800 W/m², Ambient Temperature 20°C, Wind Speed 1m/s.

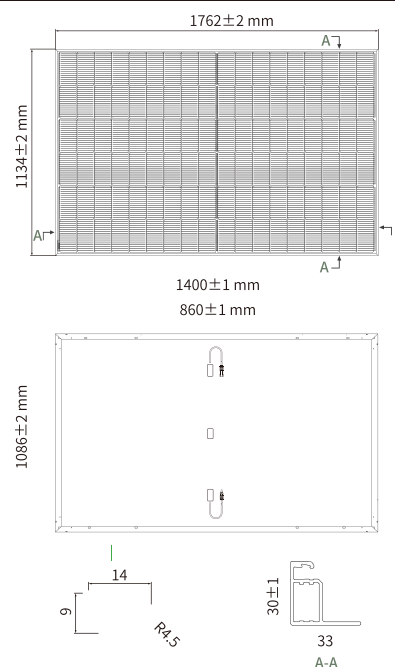
Cell Type	Monocrystalline Silicon 16Busbar
No. of Cells	108pcs in series(6*18)
Module Dimensions	1762mm*1134mm*30mm
Weight	21.5kg
Front Glass	3.2mm AR Coating Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68, 3 Bypass Diodes
Output Cables	4mm ² (IEC), 12AWG(UL) 300mm in Length or Customized Length
Connectors	TO1/LJQ-3-CSY/MC4/MC4-EVO2

Maximum System Voltage	1500V/DC
Operating Temperature	-40° C ~ +85° C
Maximum Series Fuse	30A
Safety Protection Class	Class II
Mechanical Load (Front side)	5400Pa
Mechanical Load (Back side)	2400Pa

Temperature Coefficient of P _{max}	-0.35%/° C
Temperature Coefficient of V _{oc}	-0.26%/° C
Temperature Coefficient of I _{sc}	+0.048%/° C
Nominal Module Operating Temperature(NMOT)	43±2° C

Pieces Per Pallet	36	36(USA)
Pieces Per Container (40'HQ)	936	936

DIMENSIONS OF PV MODULE



CURVE DIAGRAM

