



CHN-450-NRH-DG

Monocrystalline Module Bifacial Dual Glass

430W-450W

450W

Maximum Power
Output

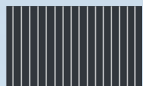
22.50%

Maximum Module
Efficiency

0~+3%

Power Output
Guarantee

TOPCON



16BB(182*210mm)

● FIRE CLASS C

Fire protection through double glazing according to safety requirements

● REINSURANCE COVERAGE

Taoistic is reinsured for 30 years of performance guarantee



High quality silicon wafers guarantee high power module output and excellent cost-effectiveness, making it an ideal choice for large power plants



Selected packaging materials and strict process plans to ensure component PID resistance



Lower oxygen and carbon content leads to lower LID



Adapt to harsh outdoor environments through weather resistance tests such as sand and dust, salt spray, and ammonia gas



The design of series and parallel connection reduces the series resistance R_s of components, reduces internal electrical performance losses, and improves the power generation capacity of the system end



Our company has concluded a reinsurance agreement with Ariel Re - Lloyd's syndicate 1910. Please see <http://verification.arielre-cleanenergy.com>

Deliver Reliable Performance Over Time

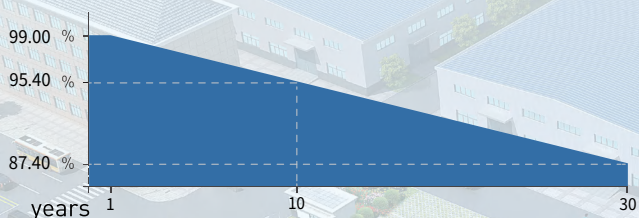
- manufacturer of crystalline silicon photovoltaic modules
- Fully automatic facility and world-class technology
- Rigorous quality control to meet the highest standard: ISO9001:2015, ISO14001: 2015 and ISO 45001:2008
- Tested for harsh environments (salt mist, ammonia corrosion, sand blowing test, and PID test: IEC 61701, IEC 62716)
- Long term reliability tests
- 2x100% EL inspection ensuring defect-free modules

WARRANTY

12 years product warranty

30 years performance warranty

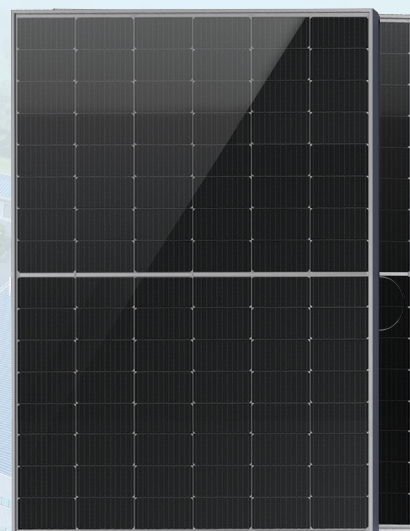
Linear Performance Warranty



12 Years Product Warranty 30 Years Linear Power Warranty

* Please refer to standard warranty for details

Product Certification



CHN-450-NRH-DG

Monocrystalline Module

Bifacial Dual Glass

430W-450W

Electrical Specification [STC*]

Maximum Power	P _{max} [W]	430	435	440	445	450
Maximum Power Voltage	V _{mp} [V]	28.96	29.22	29.52	29.79	30.09
Maximum Power Current	I _{mp} [A]	14.86	14.89	14.91	14.94	14.96
Open Circuit Voltage	V _{oc} [V]	34.75	34.98	35.20	35.42	35.64
Short Circuit Current	I _{sc} [A]	15.73	15.76	15.80	15.83	15.86
Module Efficiency	[%]	21.50	21.80	22.00	22.30	22.50
Power Output Tolerance	[W]	0~+3%				

* Irradiance 1000W/m², Module Temperature 25°C, Air Mass 1.5

Electrical Specification [NOCT*]

Maximum Power	P _{max} [W]	328	332	336	340	344
Maximum Power Voltage	V _{mp} [V]	27.24	27.44	27.64	27.84	28.04
Maximum Power Current	I _{mp} [A]	12.04	12.10	12.16	12.22	12.28
Open Circuit Voltage	V _{oc} [V]	32.73	32.93	33.13	33.33	33.53
Short Circuit Current	I _{sc} [A]	12.65	12.71	12.77	12.83	12.89

* Irradiance 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s

Mechanical Data

Number of Cells	96pieces [6×16]
Dimensions of Module L*W*H (mm)	1762×1134×30mm
Weight (kg)	Approx 21kg
Front Side Glass	2.0mm, Anti-reflection coating glass
Back Side Glass	2.0mm, Hightransparency solar glass
Frame	Anodized aluminium
J-Box	Protection level IP68
Cable	4.0mm ² , 300mm
Number of diodes	3
Wind/Snow Load	2400 Pa/5400 pa*
Connector	MC4 compatible or MC compatible

* For more details please check the installation manual

Temperature Ratings

Nominal Operating Cell Temperature [NOCT]	44±2°C
Temperature Coefficient of I _{sc}	+0.046%/°C
Temperature Coefficient of V _{oc}	-0.250%/°C
Temperature Coefficient of P _{MAX}	-0.300%/°C

Temperature Ratings

Operational Temperature	-40~+85°C
Maximum System Voltage	1500V DC-[H]
Max Series Fuse Rating	30A

Packaging Configuration

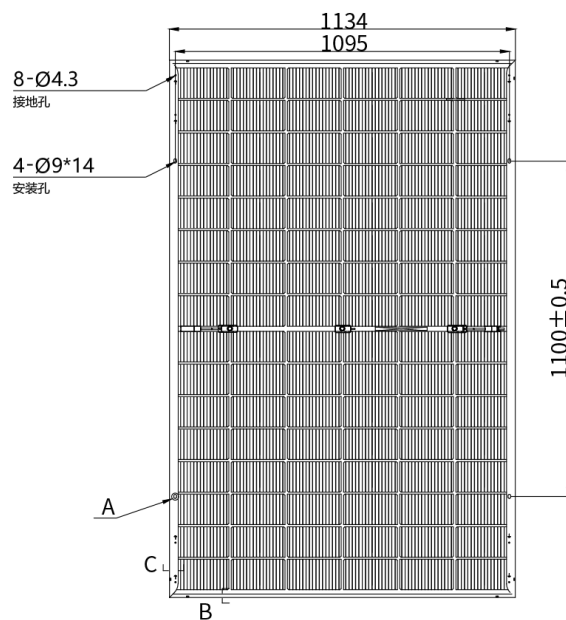
Module per box	36 pieces
Module per 17.5 flatcar	1188pieces
Module per 40 container	936 pieces

* Due to different specifications, the specific loading quantity is subject to the actual arrival of goods

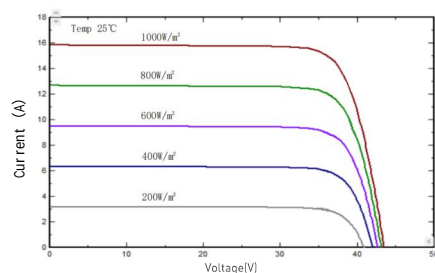
Optional

Connector	Original MC
Cable length	1200mm
Frame	Black
Glass	Black

Module Dimension



I-V Curve at Different Temperature (450W)



I-V/P-V Curve at Different Irradiation (450W)

