



CHN-470-NEF-SG

Monocrystalline Module
Single Glass

440W-470W

470W

Maximum Power
Output

23.00%

Maximum Module
Efficiency

0~+3%

Power Output
Guarantee

TOPCON



16BB(182.2*191.6mm)

● FIRE CLASS C

Fire protection through single glazing according to safety requirements

● REINSURANCE COVERAGE

Taoistic is reinsured for 25 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

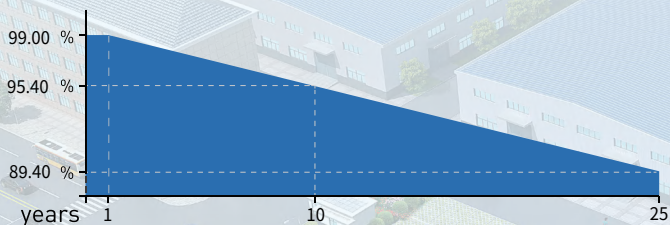
- manufacturer of crystalline silicon photovoltaic modules
- Fully automatic facility and world-class technology
- Rigorous quality control to meet the highest standard: ISO9001:2015, ISO14001: 2015 and ISO 45001:2008
- Tested for harsh environments (salt mist, ammonia corrosion, sand blowing test, and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

WARRANTY

12 years product warranty

25 years performance warranty

Linear Performance Warranty



12 Years Product Warranty 25 Years Linear Power Warranty

* Please refer to standard warranty for details

Product Certification



CHN-470-NEF-SG

Monocrystalline Module

Single Glass

440W-470W

Electrical Specification [STC*]

Maximum Power	P _{max} [W]	440	445	450	455	460	465	470
Maximum Power Voltage	V _{mp} [V]	32.80	33.00	33.20	33.40	33.60	33.80	34.00
Maximum Power Current	I _{mp} [A]	13.42	13.49	13.56	13.63	13.69	13.76	13.83
Open Circuit Voltage	V _{oc} [V]	39.18	39.38	39.58	39.80	39.99	40.22	40.45
Short Circuit Current	I _{sc} [A]	14.27	14.31	14.35	14.39	14.43	14.47	14.51
Module Efficiency	[%]	21.50	21.70	22.00	22.30	22.50	22.80	23.00
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]	333	337	340	344	348	352	356
Maximum Power Voltage	V _{mp} [V]	30.94	31.21	31.41	31.61	31.81	32.01	32.21
Maximum Power Current	I _{mp} [A]	10.76	10.80	10.84	10.88	10.94	11.00	11.06
Open Circuit Voltage	V _{oc} [V]	36.60	36.80	37.00	37.20	37.40	37.60	37.80
Short Circuit Current	I _{sc} [A]	11.50	11.55	11.60	11.65	11.70	11.75	11.80

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

Mechanical Data

Number of Cells	108pieces [6×18]
Dimensions of Module L*W*H [mm]	1802×1134×30mm
Weight [kg]	Approx 26.6kg
Front Side Glass	3.2mm, Anti-reflection coating glass
Backsheet	White
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	25A

Packaging Configuration

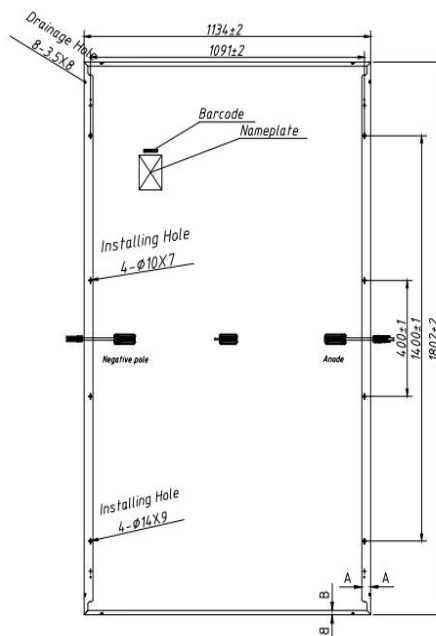
Module per box	36 pieces
Module per 17.5 flatcar	1296 pieces
Module per 40 container	936 pieces

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

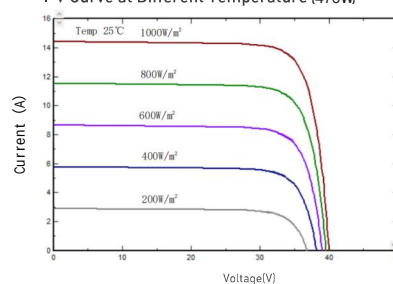
Optional

Connector	Original MC
Cable length	1200mm
Frame	Black
Backsheet	Black

Module Dimension



I-V Curve at Different Temperature (470W)



I-V/P-V Curve at Different Irradiation (470W)

