



CIPRO-TN9C54M(H)

470 - 500W

Single Glass
Full Black

- Partial Shading Optimisation
- Better Temperature Coefficient
- High Temperature Restriction
- Micro-crack Resistance
- More Aesthetic Values

25

25-year Warranty for Materials and Processing

30

30-year Warranty for ExtraLinear Power Output

IEC 61215:2021 / IEC 61730:2023

ISO 9001: 2015 Quality Management System

ISO 14001: 2015 Environment Management System

ISO 45001: 2018 Occupational Health and Safety Management Systems



Made in China
2025_12_05_AU

500W

Output

24.5%

Efficiency

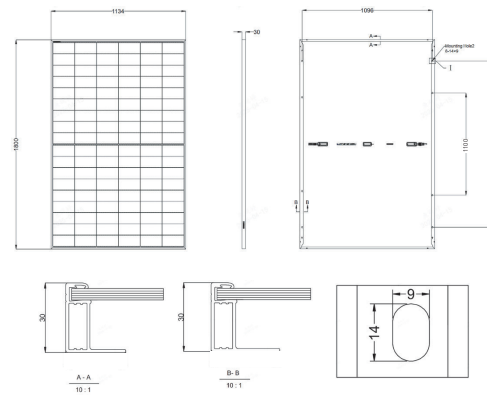
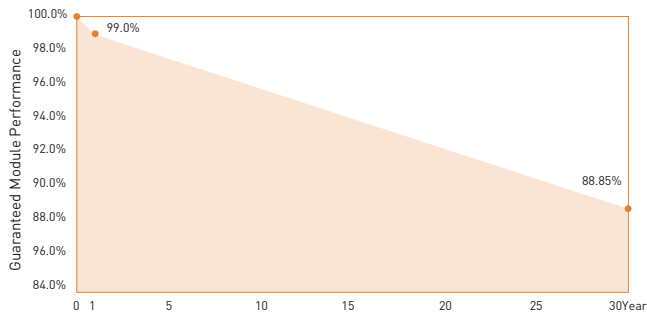
≤ 1%

First-year Degradation

≤ 0.35%

Annual Degradation from Year 2-30

30 - year Linear Performance Warranty



Tolerance
L: ±2mm
W: ±2mm
Unit: mm

Electrical Characteristics

Test Conditions	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Pmax[W]	470	354	475	358	480	362	485	366	490	370	495	373	500	377
Voc[V]	40.37	38.12	40.51	38.26	40.65	38.39	40.79	38.52	40.93	38.65	41.07	38.79	41.21	38.92
Vmp[V]	33.48	31.62	33.58	31.71	33.68	31.81	33.78	31.90	33.88	32.00	33.98	32.09	34.08	32.19
Isc[A]	14.86	12.02	14.93	12.07	15.00	12.13	15.07	12.19	15.14	12.24	15.21	12.30	15.28	12.36
Imp[A]	14.05	11.21	14.15	11.29	14.26	11.38	14.37	11.47	14.47	11.55	14.58	11.63	14.68	11.72
Module Efficiency	23.0%		23.3%		23.5%		23.8%		24.0%		24.3%		24.5%	

STC: Irradiance 1000W/m², Spectra at AM1.5, Module Temperature 25°C. Power output tolerance: 0~+5W. Test uncertainty for Pmax: ±3%
NOCT: Irradiance 800W/M², Ambient Temperature 20°C, AM=1.5, Wind Speed 1M/S

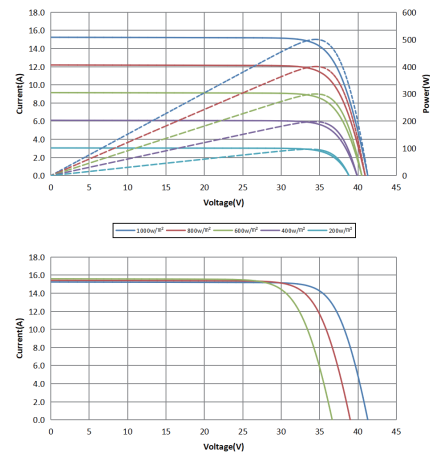
Product Specification

Cell Type	BC (Back Contact Cell)
Glass	3.2 mm tempered glass
Frame	Black anodized aluminum
Cable	TüV 1×4mm, (+)300mm, (-)200mm or Customized Length
No. of Cells	108 (6×18)
Junction Box	IP68, 3 bypass diodes
Connector	MC4 Compatible Staubli(PV-KST4-EVO2/XY_UR,PV-KBT4-EVO2/XY_UR; PV-KST4-EVO2A/XY,PV-KBT4-EVO2A/XY)
Weight	21.4 kg (47.18 lbs)
Dimension	1800×1134×30mm
Package Detail	37 pcs per pallet / 888 pcs per 40' HC

Temperature Ratings (STC)

Temperature Coefficient of Isc	+ 0.05%/°C
Temperature Coefficient of Voc	- 0.22%/°C
Temperature Coefficient of Pmx	- 0.26%/°C

Electrical Performance



Installation Guide

Level T ₉₈ < 70 °C	-40°C ~ +70°C [☆]
Maximum Series Fuse Rating	25A
Protection Class	Class II
Voc and Isc Tolerance	±3%
Maximum System Voltage	DC1500V
Test Mechanical load*	Front side +5400Pa, Back side -2400Pa
Hail Test	25 mm diameter hail at 23 m/s
Fire Rating	IEC Class C

*Note: Test Mechanical Load = 1.5 (Safety factor) x Design load

[☆]Short-term operation at 85°C is permitted;
operation at higher temperatures requires compliance with IEC TS 63126 testing.



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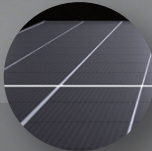
BC Module: High-Efficiency Back-Contact PV Solution for Maximum Energy Yield & Long-Lasting Performance

- High power density maximizes energy generation from limited spaces - up to 235W/m²
- Back-contact cell architecture for ultra-high conversion efficiency
- More savings, straight from your roof



Aesthetic appearance

- Sleek aesthetic appearance, ideal for high-end distributed PV applications
- No unobstructed appearance for the best choice for your home



High power density of 235W/m²

- High power density on a 54-cell panel
- Maximizes power output within limited installation areas
- Delivers higher clean energy yield in constrained spaces

Higher efficiency at all climatic environments

- Excellent temperature coefficient, minimal power loss in high-temperature environments
- Remarkable power generation gain in high-temperature areas, suitable for all climatic environments

Twin Design with BC cell

- Minimized internal resistance for higher power and enhanced reliability
- More uniform current distribution and milder bypass activation reduce hot-spot risk and improve power stability with all-back contact & integrated bypass-like design

Sustainable Production

- Eco-friendly, low-carbon manufacturing processes for high-performance back-contact modules

Premium Quality Assurance

- Automated precision production boosts reliability and performance stability
- Ultra-low warranty claim rate for dependable long term operation.



Back-contact cells

- Full front-side without grid shadow → Higher Isc & conversion efficiency
- Back-contact structure → Lower Rs, better temperature coefficient & higher FF

N-type technology

- No BO-LID prevents modules from initial power degradation
- Delivers the full rated power you pay for

Back-Contact Optimized Cell Connections

- Single-side back soldering reduces cell micro-cracking and improves reliability
- Larger contact area lowers series resistance and boosts fill factor
- Stronger solder adhesion enhances long-term stability

Superior light transmission

- Special anti-reflective (AR) glass enhances light transmittance for higher power output

Enhanced Structural Durability

- Heavy-duty frame supports up to 5400 Pa mechanical load
- Excellent resistance to harsh outdoor environments
- Sustains long-lasting, stable power performance

Talesun