

CST-NT10/54GDF

425-435W N-TOPCon

108 HALF-CELL BIFACIAL ALL-BLACK MODULE

Characteristic



High temperature power generation performance
n-type modules have a relatively low temperature coefficient. In combination with the lower module operating temperature, the power generation gain of around 2%.



PID Resistance
Excellent Anti-PID performance guarantee via optimized mass-production process and materials control.



Higher Power
Output Module power increases 5-25% generally, bringing significantly lower LCOE and higher IRR.



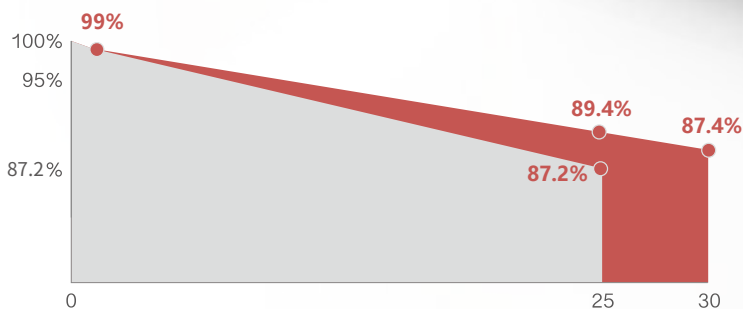
Excellent Reliability
15 Year Product Warranty ; 30 Year Linear Power Warranty ; 0.40% Annual Degradation Over 30 years.

22.3%

Max Module
Efficiency

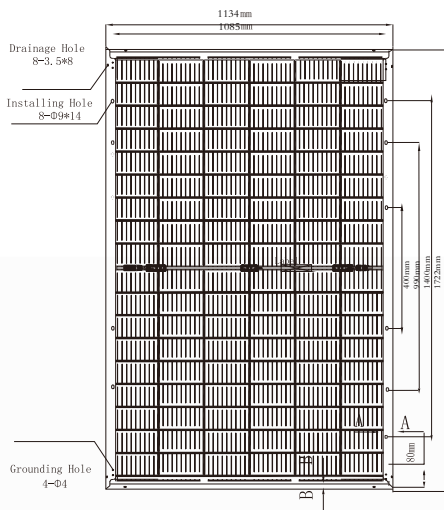
Consort Linear Warranty

● PERC Standard ● CONSORT SOLAR Module

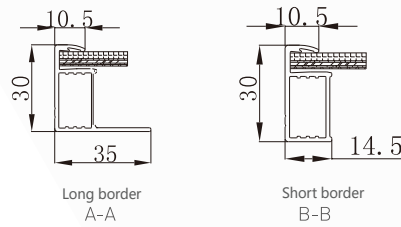


- 15 year Product Warranty
- 30 Year Linear Power Warranty
- 0.4% Annual Degradation Over 30 Years

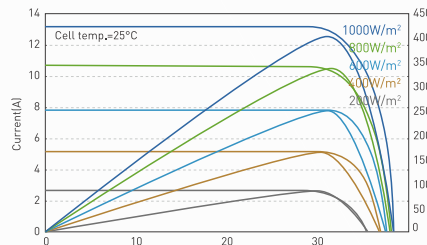
ENGINEERING DRAWING (mm)



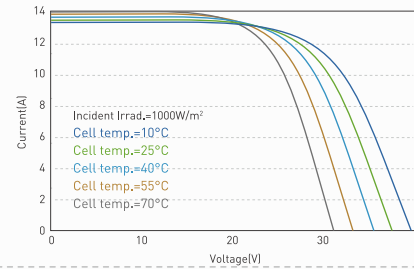
FRAME CROSS SECTION (mm)



I-V/P-V CURVE AT DIFFERENT IRRADIATION (425W)



I-V CURVE AT DIFFERENT TEMPERATURE (425W)



Electrical Characteristics (STC/NMOT)

PV module model	CST-NT10/54GDF 415		CST-NT10/54GDF 420		CST-NT10/54GDF 425		CST-NT10/54GDF 430		CST-NT10/54GDF 435	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power - Pmax(W)	415	312	420	316	425	319	430	323	435	327
Open Circuit Voltage - Voc(V)	38.35	36.43	38.50	36.57	38.64	36.70	38.90	36.95	39.06	37.10
Short Circuit Current - Isc(A)	13.65	11.08	13.73	11.14	13.78	11.19	13.83	11.25	13.91	11.31
Voltage at Pmax-Vmp(V)	31.95	30.02	32.16	30.22	32.39	30.43	32.60	30.63	32.81	30.83
Current at Pmax-Imp(A)	12.99	10.39	13.06	10.44	13.12	10.49	13.19	10.55	13.26	10.60
Module Efficiency-ηm(%)	21.3		21.5		21.8		22.0		22.3	
Power Output Tolerance(W)	0~+5									

STC: Irradiance 1000 W/m², Module Temperature 25°C, Air Mass AM1.5

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

Electrical Characteristics with different power bin (reference to 10% Irradiance ratio)

	457	462	468	473	479
Maximum Power - Pmax(W)	457	462	468	473	479
Open Circuit Voltage - Voc(V)	38.35	38.50	38.64	38.90	39.06
Short Circuit Current - Isc(A)	15.07	15.16	15.23	15.31	15.39
Voltage at Pmax-Vmp(V)	31.95	32.16	32.39	32.60	32.81
Current at Pmax-Imp(A)	14.29	14.37	14.43	14.51	14.58

Temperature Characteristics

Nominal Module Operating Temperature (NMOT)	45±2°C
Isc Temperature Coefficient	+0.045%/°C
Voc Temperature Coefficient	-0.25%/°C
Pmax Temperature Coefficient	-0.29%/°C

Mechanical Data

Number of Cells	N-type Mono-crystalline 108 pieces (54x2)
External Dimensions	1722X1134X30mm
Weight	24.4kg
Front glass	High transparency solar glass 2.0mm
Back glass	High transparency solar glass 2.0mm
Frame	Black/Silver, Anodized aluminum alloy
Junction Box	IP68 rated
Output Cables	4.0mm ² , 280 mm in length, length can be customized/UV resistant
Number Of Diodes	3
Wind/Snow Load	2400Pa/5400Pa
Connector	MC compatible
Bifaciality	80±5%

Maximum Ratings

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

Power measurement error +/- 3%

Packaging Configuration

Module per pallet	36 pieces
Modules per 40' container	936 pieces