

CST-M8/72GDF



Bifacial Dual Glass Monocrystalline Module 440-455W

MORE POWER

- Lower LCOE (Levelized Cost Of Energy), reduced BOS (Balance of System) cost, shorter payback time
- Lowest guaranteed first year and annual degradation
- Lower temperature/power coefficient (-0.35%)
- Up to 25% additional power gain from back side depending on albedo

MORE RELIABLE

- Minimized micro-cracks with innovative non-destructive cutting technology
- Resistant to harsh environments such as salt, ammonia, sand, high temperature and high humidity areas
- Long output warranty upto 30 years
- Enhanced Mechanical Load*
Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal).

* Please refer to Consort Solar Standard Module Installation Manual for details.

20.9%

MAX MODULE EFFICIENCY

0~+5W

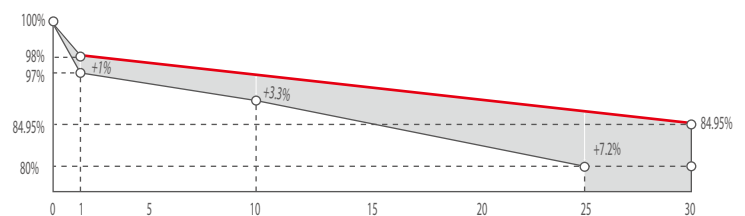
POSITIVE POWER TOLERANCE

System and product certification

- IEC61215 / IEC61730 / IEC61701 / IEC62716
- ISO9001: Quality Management System
- ISO14001: Environment Management System
- OHSAS18001: Occupational Health and Safety System



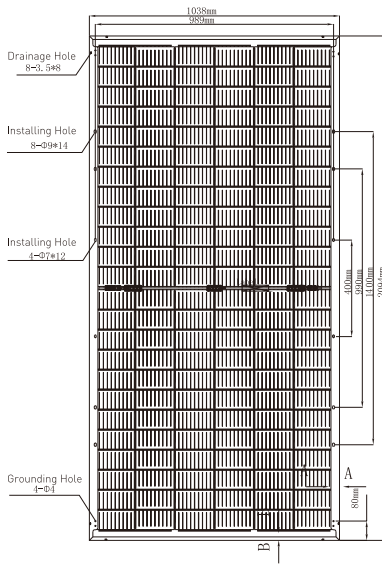
Industry-leading Warranty**



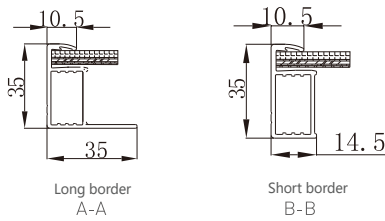
- ◆ First year power degradation: 2%
- ◆ Annual degradation: 0.45%
- ◆ Product warranty: 12 years
- ◆ linear warranty: 30 years

** Please refer to Consort Solar Limited Warranty for details.

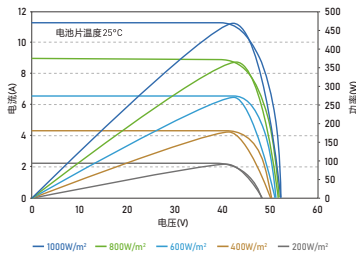
ENGINEERING DRAWING (mm)



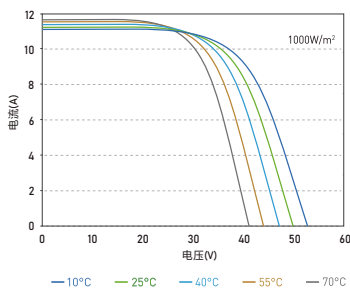
FRAME CROSS SECTION (mm)



I-V/P-V CURVE AT DIFFERENT IRRADIATION (455W)



I-V CURVE AT DIFFERENT TEMPERATURE (455W)



Electrical Characteristics (STC)

PV module model	CST-M8/72GDF 440	CST-M8/72GDF 445	CST-M8/72GDF 450	CST-M8/72GDF 455
Maximum Power - Pmax(W)	440	445	450	455
Open Circuit Voltage - Voc(V)	48.51	48.89	49.26	49.61
Short Circuit Current - Isc(A)	11.27	11.33	11.37	11.42
Voltage at Pmax-Vmp(V)	41.01	41.25	41.56	41.83
Current at Pmax-Imp(A)	10.73	10.79	10.83	10.88
Module Efficiency-ηm(%)	20.2	20.5	20.7	20.9
Power Output Tolerance(W)	0~+5			

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

Electrical Characteristics (NMOT)

Maximum Power - Pmax(W)	328.3	332.0	335.8	339.6
Open Circuit Voltage - Voc(V)	45.30	45.60	45.90	46.20
Short Circuit Current - Isc(A)	9.04	9.07	9.10	9.13
Voltage at Pmax-Vmp(V)	38.40	38.70	39.00	39.30
Current at Pmax-Imp(A)	8.55	8.58	8.61	8.64

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

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

Maximum Power - Pmax(W)	470.8	476.2	481.5	486.9
Open Circuit Voltage - Voc(V)	48.51	48.89	49.26	49.61
Short Circuit Current - Isc(A)	12.06	12.12	12.17	12.22
Voltage at Pmax-Vmp(V)	41.01	41.25	41.56	41.83
Current at Pmax-Imp(A)	11.48	11.55	11.59	11.64

Mechanical Data

Number of Cells	166mm monocrystalline 144 pieces (6x24)
External Dimensions	2094X1038X35mm
Weight	26.7kg
Front glass	High transparency solar glass 2.0mm
Back glass	High transparency solar glass 2.0mm
Frame	Anodized aluminum alloy
Junction Box	IP68 rated
Output Cables	4.0mm ² , Portrait: 230mm/230mm
Number Of Diodes	3
Wind/Snow Load	2400Pa/5400Pa
Connector	MC compatible

Temperature Characteristics

Nominal Module Operating Temperature (NMOT)	42±2 C
Isc Temperature Coefficient	+0.05% C
Voc Temperature Coefficient	-0.28% C
Pmax Temperature Coefficient	-0.35% C

Maximum Ratings

operational temperature	-40~+85 C
Maximum system voltage	1500V DC
Max Series Fuse Rating	20A

Power measurement error + / - 3%

Packaging Configuration

Module per box	31 pieces
Modules per 40' container	682 pieces