

CST-M10/60GDF

450-460W PERC

120 HALF-CELL BIFACIAL SOLAR MODULE

Characteristic



More Power
Lower LCOE (Levelized Cost Of Energy), reduced BOS (Balance of System) cost, shorter payback time.



Additional power generation gain
Up to 25% additional power gain from back side depending on albedo



Non-destructive Cutting
Minimized micro-cracks with innovative non-destructive cutting technology

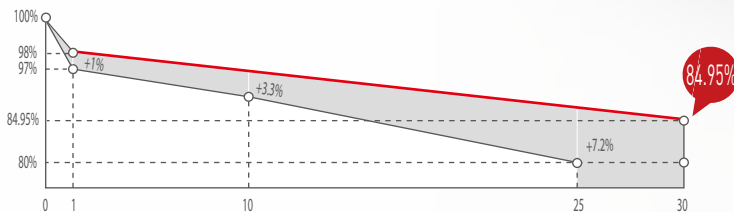


Durability Against Extreme Environmental Conditions
High salt mist and ammonia resistance

21.5%

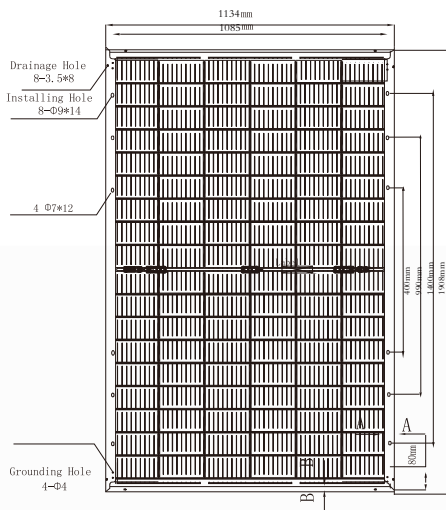
Max Module
Efficiency

Consort Linear Warranty

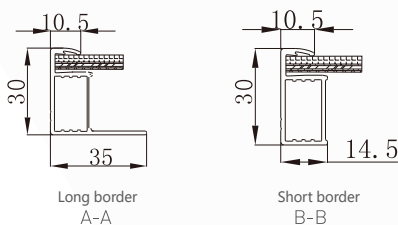


- 15 year Product Warranty
- 30 Year Linear Power Warranty
- 0.45% Annual Degradation Over 30 Years

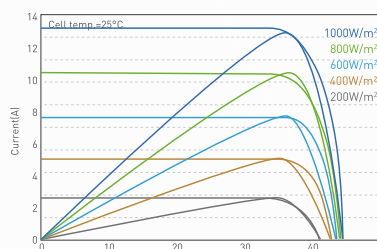
ENGINEERING DRAWING (mm)



FRAME CROSS SECTION (mm)

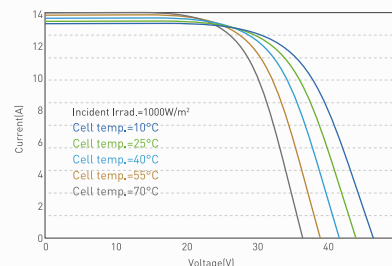


I-V/P-V CURVE AT DIFFERENT IRRADIATION (455W)



PARAMETER

I-V CURVE AT DIFFERENT TEMPERATURE (455W)



Electrical Characteristics (STC/NMOT)

PV module model	CST-M10/60GDF 445		CST-M10/60GDF 450		CST-M10/60GDF 455		CST-M10/60GDF 460		CST-M10/60GDF 465	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power - Pmax(W)	445	334.8	450	338.6	455	342.3	460	346.1	465	3499
Open Circuit Voltage - Voc(V)	40.25	38.50	40.53	38.70	40.81	39.00	41.09	39.30	41.37	39.50
Short Circuit Current - Isc(A)	13.68	11.03	13.73	11.07	13.78	11.11	13.83	11.15	13.88	11.19
Voltage at Pmax-Vmp(V)	33.89	31.80	34.12	32.00	34.35	32.20	34.58	32.40	34.84	32.60
Current at Pmax-Imp(A)	13.14	10.54	13.19	10.59	13.24	10.64	13.29	10.68	13.34	10.72
Module Efficiency-ηm(%)	20.6		20.8		21.0		21.3		21.5	
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)

	490	495	501	506	512
Maximum Power - Pmax(W)	490	495	501	506	512
Open Circuit Voltage - Voc(V)	40.25	40.53	40.81	41.09	41.37
Short Circuit Current - Isc(A)	15.04	15.10	15.16	15.23	15.28
Voltage at Pmax-Vmp(V)	33.89	34.12	34.35	34.58	34.84
Current at Pmax-Imp(A)	14.44	14.51	14.57	14.63	14.68

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

Mechanical Data

Number of Cells	182mm monocrystalline 120 pieces (60x2)
External Dimensions	1908x1134x30mm
Weight	27.3kg
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 , 280 mm in length, length can be customized/UV resistant
Number Of Diodes	3
Wind/Snow Load	2400Pa/5400Pa
Connector	MC compatible

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	864 pieces