CST-M8/72H

144 HALF-CELL MONOFACIAL MODULE
440-460W

MORE POWER

- Up to 460W front power and 21.2% module efficiency with half-cut and MBB (Multi Busbar) technology bringing more BOS savings
- Lower resistance of half-cut and good reflection effect of MBB ensure high power

- Better light trapping and current collection to improve module power output and reliability.

- Optimized electrical design and lower operating current for reduced hot spot loss and better temperature coefficient.

MORE RELIABLE

- Minimizes micro-crack impacts

- Ensured PID resistance through cell process and module material control

- Durability against extreme environmental conditions
- Resistant to salt, acid and ammonia

- Enhanced Mechanical Load*
  Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal).

21.2%
MAX MODULE EFFICIENCY

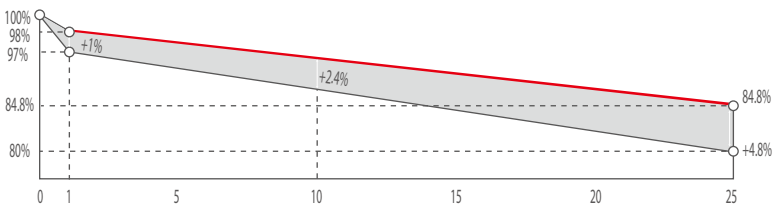
0~+5W
POSITIVE POWER TOLERANCE

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

System and product certification

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

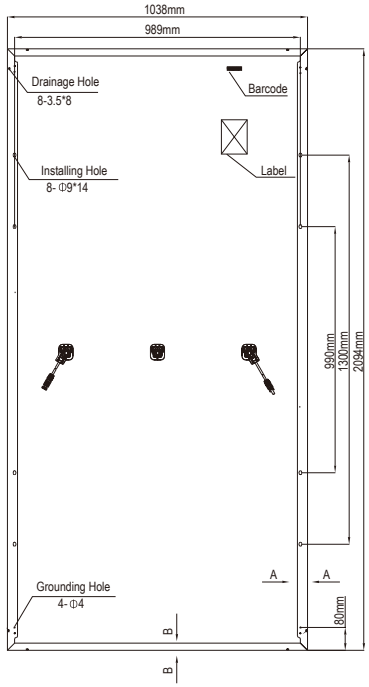
Industry-leading Warranty **



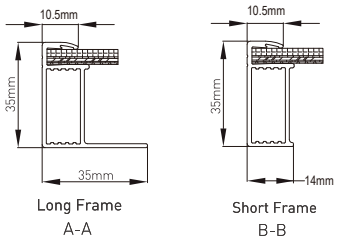
- First year power degradation: 2%
- Annual degradation: 0.55%
- Product warranty: 12 years
- linear warranty: 25 years

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

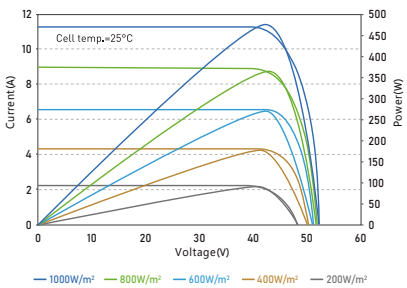
ENGINEERING DRAWING (mm)



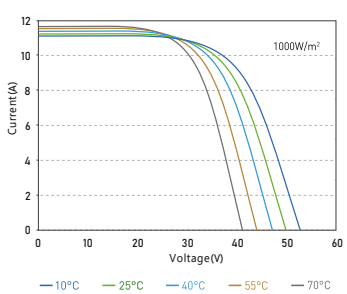
FRAME CROSS SECTION (mm)



I-V/P-V CURVE AT DIFFERENT IRRADIATION (460W)



I-V CURVE AT DIFFERENT TEMPERATURE (460W)



Electrical Characteristics(STC)

PV module model	CST-M8/72H 440	CST-M8/72H 445	CST-M8/72H 450	CST-M8/72H 455	CST-M8/72H 460
Maximum Power - Pmax(W)	440	445	450	455	460
Open Circuit Voltage - Voc(V)	49.25	49.55	49.84	50.10	50.39
Short Circuit Current - Isc(A)	11.28	11.31	11.34	11.37	11.40
Voltage at Pmax-Vmp(V)	41.40	41.75	42.10	42.41	42.76
Current at Pmax-Imp(A)	10.63	10.66	10.69	10.73	10.76
Module Efficiency-ηm(%)	20.2	20.5	20.7	20.9	21.2
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)	321.0	324.8	328.6	332.4	336.2
Open Circuit Voltage - Voc(V)	45.60	45.82	46.08	46.34	46.60
Short Circuit Current - Isc(A)	9.12	9.14	9.17	9.19	9.22
Voltage at Pmax-Vmp(V)	37.80	38.10	38.40	38.70	39.00
Current at Pmax-Imp(A)	8.48	8.52	8.55	8.59	8.62

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

Temperature Characteristics

Pmax Temperature Coefficient	-0.36%/℃
Voc Temperature Coefficient	-0.28%/℃
Isc Temperature Coefficient	+0.05%/℃
Operating Temperature	-40~+85℃
Nominal Module Operating Temperature (NMOT)	43±2℃

Mechanical Specifications

External Dimensions	2094x1038x35mm
Weight	23.3kg
Solar Cells	166mm monocrystalline 144(6x24)pcs
Front Glass	High transparency solar glass 3.2mm
Frame	Black/Silver, Anodized aluminum alloy
Junction Box	IP68 rated
Output Cables	length can be customized/4.0mm², Portrait: 230mm/230mm
Connector	MC4 Compatible
Wind/Snow Load	2400Pa/5400Pa
Maximum System Voltage	1500V DC
Max Series Fuse Rating	20A

Packing Configuration

Modules per pallet	31 pieces
Modules per 40' container	726 pieces