

CST-M8/72H

450-460W PERC

144 HALF-CELL MONOFACIAL MODULE

Characteristic



Better light trapping and current collection
Improve module power output and reliability



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



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

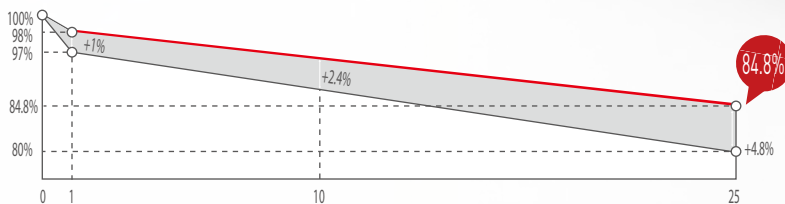


Enhanced Mechanical Load
Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal)

21.4%

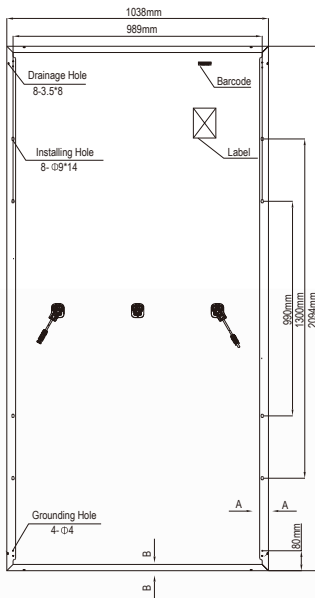
Max Module
Efficiency

Consort Linear Warranty

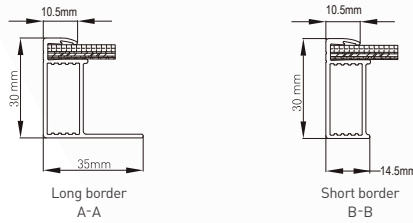


- 12 year Product Warranty
- 25 Year Linear Power Warranty
- 0.55% Annual Degradation Over 25 Years

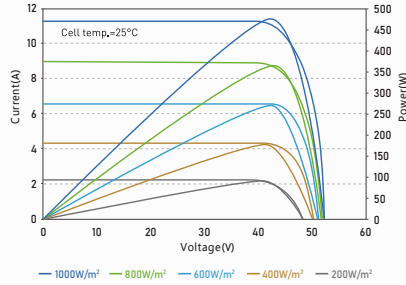
ENGINEERING DRAWING (mm)



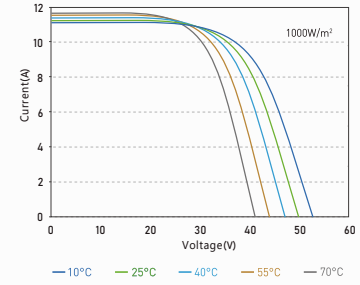
FRAME CROSS SECTION (mm)



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



I-V CURVE AT DIFFERENT TEMPERATURE (460W)



Electrical Characteristics (STC/NMOT)

| PV module model | CST-M8/72H 445 | | CST-M8/72H 450 | | CST-M8/72H 455 | | CST-M8/72H 460 | | CST-M8/72H 465 | |
|--------------------------------|-------------------|-------|-------------------|-------|-------------------|-------|-------------------|-------|-------------------|-------|
| | STC | NMOT | STC | NMOT | STC | NMOT | STC | NMOT | STC | NMOT |
| Maximum Power - Pmax(W) | 445 | 324.8 | 450 | 328.6 | 455 | 332.4 | 460 | 336.2 | 465 | 340.0 |
| Open Circuit Voltage - Voc(V) | 49.55 | 45.82 | 49.84 | 46.08 | 50.10 | 46.34 | 50.39 | 46.60 | 50.68 | 46.86 |
| Short Circuit Current - Isc(A) | 11.31 | 9.14 | 11.34 | 9.17 | 11.37 | 9.19 | 11.40 | 9.22 | 11.43 | 9.25 |
| Voltage at Pmax-Vmp(V) | 41.75 | 38.13 | 42.10 | 38.42 | 42.41 | 38.71 | 42.76 | 39.00 | 43.10 | 39.29 |
| Current at Pmax-Imp(A) | 10.66 | 8.52 | 10.69 | 8.55 | 10.73 | 8.59 | 10.76 | 8.62 | 10.79 | 8.65 |
| Module Efficiency-ηm(%) | 20.5 | | 20.7 | | 20.9 | | 21.2 | | 21.4 | |
| 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

Mechanical Data

| | |
|---------------------|--|
| Number of Cells | 166mm monocrystalline 144 pieces (72x2) |
| External Dimensions | 2094x1038x30mm |
| Weight | 23.3kg |
| Front glass | High transparency solar glass 3.2mm |
| Frame | Black/Silver, Anodized aluminum alloy |
| Junction Box | IP68 rated |
| Output Cables | 4.0mm ² , 230 mm in length, length can be customized/UV resistant |
| Wind/Snow Load | 2400Pa/5400Pa |
| Connector | MC4 compatible |

Packaging Configuration

| | |
|---------------------------|------------|
| Module per pallet | 36 pieces |
| Modules per 40' container | 792 pieces |

Temperature Characteristics

| | |
|---|-----------|
| Nominal Module Operating Temperature (NMOT) | 43±2°C |
| Isc Temperature Coefficient | +0.05%/°C |
| Voc Temperature Coefficient | -0.28%/°C |
| Pmax Temperature Coefficient | -0.36%/°C |

Maximum Ratings

| | |
|-------------------------|-----------|
| Operational Temperature | -40~+85°C |
| Maximum System Voltage | 1500V DC |
| Max Series Fuse Rating | 20A |

Power measurement error + / - 3%

PARAMETER