

# MT5 435-460W

## MS460M-60H

182mm Cells Full Black  
Mono PERC with MBB &  
Half-cut Technology



High transparency  
solar glass

## Features

### High Power up to 460W

Large area cells based on 182mm silicon wafers,  
High module efficiency with high density interconnect technology

### High Energy Yield

Up to 21.27 % additional power gain from back side,  
Excellent low irradiation performance

### High Reliability

Resistant to harsh environments such as salt, ammonia, sand,  
high temperature and high humidity areas

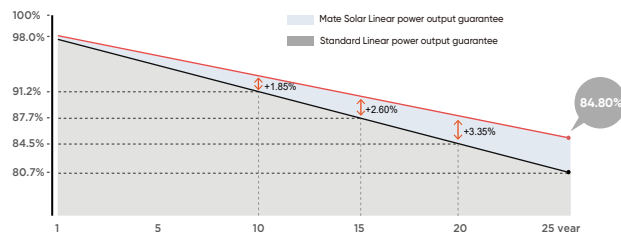
### High Customer Value

Lowest guaranteed first year and annual degradation,  
Compatible with existing mainstream system components

## Quality Guarantee

**12-Year** Warranty for Materials and Processing

**25-Year** Warranty for Extra Linear Power Output



\* Please refer to Mate Solar standard warranty for details

## Certifications

IEC 61215, IEC 61730, UL 61730

ISO 9001: 2015: ISO Quality Management System

ISO 14001: 2015: ISO Environment Management System

ISO 45001: 2018: Occupational Health and Safety



WEB



WECHAT

## Mechanical Data

|                            |                                      |
|----------------------------|--------------------------------------|
| Number of Cells            | 120 Cells (6x20)                     |
| Dimensions of Module L*W*H | 1908 x 1133 x 35mm                   |
| Weight                     | 24kg                                 |
| Front Side Glass           | High transparency solar glass 3.2mm  |
| Backsheet                  | Black                                |
| Frame                      | Black, anodized aluminium alloy      |
| Junction Box               | IP68 Rated, 3 Diodes                 |
| Cable                      | 4.0mm <sup>2</sup> , Portrait: 280mm |
| Wind/Snow Load             | 2400Pa/5400Pa                        |
| Connector                  | MC Compatible                        |

\* Please check the installation manual for more details

## Electrical Specification (STC\*)

|                               |       |       |       |       |       |       |
|-------------------------------|-------|-------|-------|-------|-------|-------|
| Maximum Power (Pmax/W)        | 435   | 440   | 445   | 450   | 455   | 460   |
| Maximum Power Voltage (Vmp/V) | 33.6  | 33.72 | 33.84 | 33.96 | 34.08 | 34.2  |
| Maximum Power Current (Imp/A) | 12.95 | 13.05 | 13.16 | 13.26 | 13.36 | 13.46 |
| Open Circuit Voltage (Voc/V)  | 40.92 | 41.02 | 41.12 | 41.22 | 41.32 | 41.42 |
| Short Circuit Current (Isc/A) | 13.66 | 13.73 | 13.80 | 13.87 | 13.94 | 14.01 |
| Module Efficiency (%)         | 20.11 | 20.34 | 20.57 | 20.80 | 21.03 | 21.27 |
| Power Output Tolerance (W)    | 0~+5  |       |       |       |       |       |

\* STC (Standard Testing Conditions): Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Spectra at AM1.5

## Electrical Specification (NMOT\*)

|                                 |       |       |       |       |       |       |
|---------------------------------|-------|-------|-------|-------|-------|-------|
| Maximum Power (Pmax / W)        | 323   | 327   | 331   | 335   | 339   | 343   |
| Maximum Power Voltage (Vmp / V) | 31.22 | 31.39 | 31.56 | 31.73 | 31.90 | 32.07 |
| Maximum Power Current (Imp / A) | 9.73  | 10.42 | 10.49 | 10.56 | 10.63 | 10.70 |
| Open Circuit Voltage (VOC / V)  | 38.62 | 38.72 | 38.82 | 38.92 | 39.02 | 39.12 |
| Short Circuit Current (Isc / A) | 11.03 | 11.09 | 11.15 | 11.21 | 11.27 | 11.33 |

\* Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C, Wind Speed 1m/s

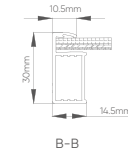
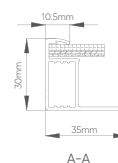
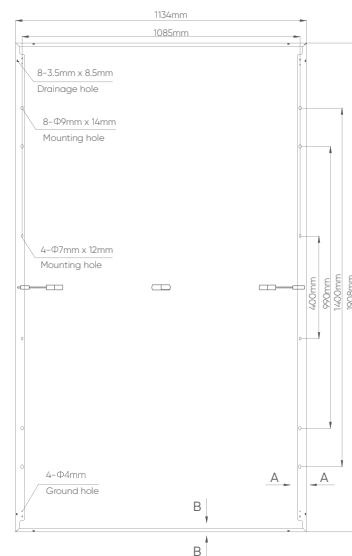
## Maximum Ratings

|                         |           |
|-------------------------|-----------|
| Operational Temperature | -40~+85°C |
| Maximum System Voltage  | 1500V DC  |
| Max Series Fuse Rating  | 25A       |

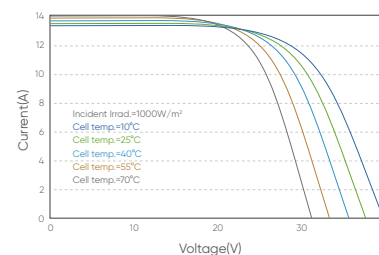
## Packaging Configuration

|                          |            |
|--------------------------|------------|
| Module per Box           | 31 pieces  |
| Module per 40' Container | 744 pieces |

## Module Dimension



I-V Curve at Different Temperature (460W)



I-V/P-V Curve at Different Temperature (460W)

