

SOLAR PANEL

MasterPower
Unlimited power

MP-MF8612M (HV)-455W

MONO PERC 9BB HALF-CUT



Certificates

ISO 9001: 2015 Quality Management System
IEC 61215 / IEC 61730
ISO 14001: 2015 Environmental Management System
OHSAS 18001: 2007 Occupational Health & Safety Management System

Main Features

Half-Cut technique leads to increased power output

When the cells are cut into halves, the current are also halved, which enables less internal loss. Series-parallel wiring improves power performance. The working temperature of module and junction box are lower than that of conventional types, which effectively reduces the hot spot risk and reduces overall module damage.

Series-parallel wiring mode results in reduced shading loss

Series-parallel wiring will not only reduce power lows from shade but also improves the effective use of supports and space.

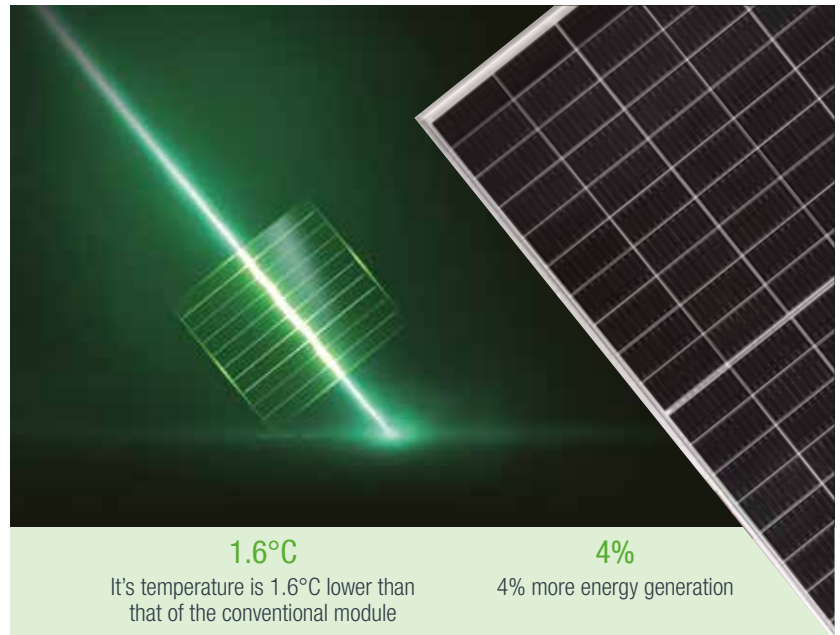
Excellent temperature performance

The temperature of HC module is 1.6°C lower than that of the conventional module under the same working condition, which results less power loss.

Reduced encapsulation loss due to reduced current

HC module is of lower current and lower CTM loss at around 0.2%, while the CTM loss of conventional module is 1%.

1500V high system voltage design



1.6°C

It's temperature is 1.6°C lower than that of the conventional module

4%

4% more energy generation

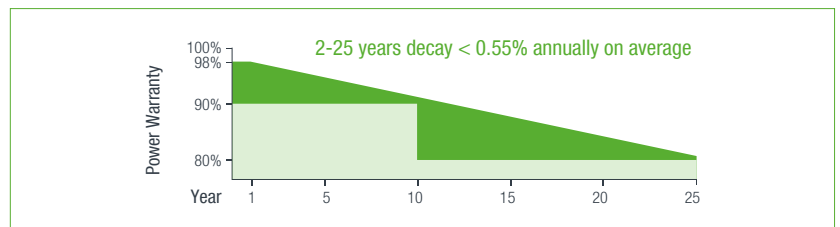
Linear Performance Warranty

12
years

Product Warranty on Materials and Workmanship

25
years

Linear Power Output Warranty



Electrical Parameters @ STC

Max. Power Output Pmax (W)	455
Power Tolerance	0 ~ 3%
Max. Power Voltage Vmp (V)	41.63
Max. Power Current Imp (A)	10.93
Open Circuit Voltage Voc (V)	49.89
Short Circuit Current Isc (A)	11.45
Module Efficiency (%)	20.93

*STC (Standard Test Condition): Irradiance 1000W/m², Cell Temperature 25°C, Air Mass 1.5

*Measurement Tolerance (±3.0%)



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Mechanical Parameters

Cell Type	Mono 166 x 83 mm
Number of Cells	144 pcs (6 x 24)
Dimensions (L*W*H)	2094 x 1038 x 35 mm
Weight	24.0 kg
Frame	Anodised Aluminum
Junction Box	IP68, 3 bypass diodes
Cable, Length	4.0 mm ² , 300 mm

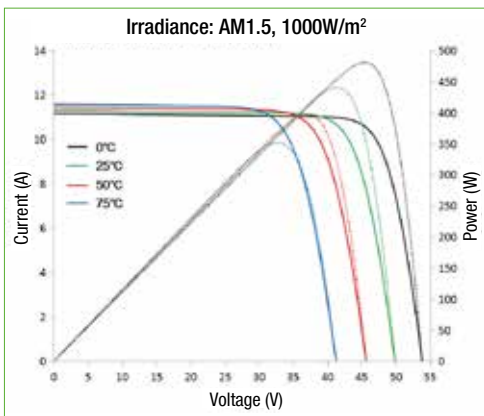
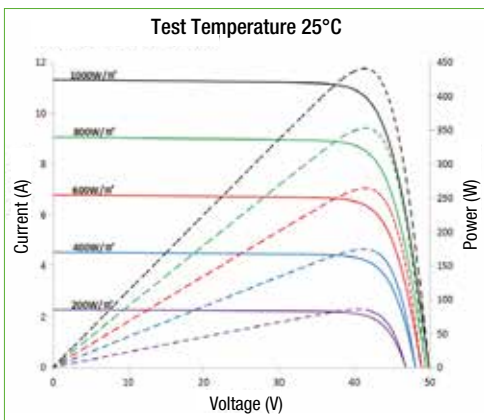
Temperature Coefficients

Temperature Coefficients of Pmp	-0.36% / °C
Temperature Coefficients of Voc	-0.29% / °C
Temperature Coefficients of Isc	+0.048% / °C

Package Information

Container 40'HQ	715 pcs
Quantity / Pallet	CTNR: 31 pcs

I-V Curves



Electrical Parameters @ NOCT

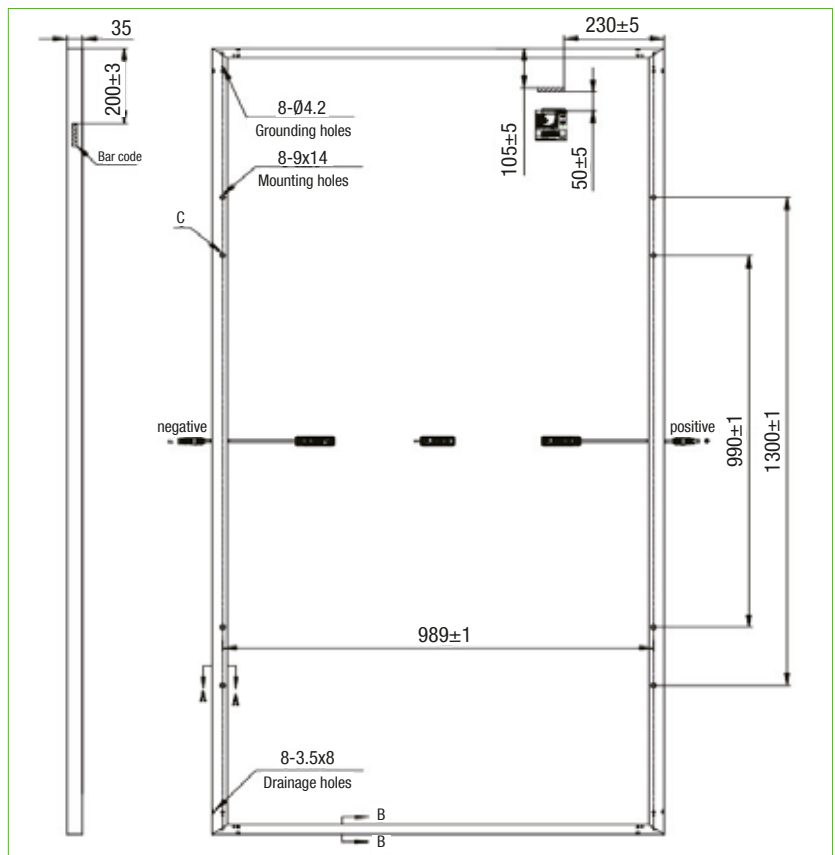
Max. Power Output Pmax (W)	337
Max. Power Voltage Vmp (V)	38.73
Max. Power Current Imp (A)	8.71
Open Circuit Voltage Voc (V)	46.35
Short Circuit Current Isc (A)	9.25

*NOCT (Nominal Operating Cell Temperature): Irradiance 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s

Operating Condition

Maximum System Voltage (V)	1000 (DC)	1500 (DC)
Operating Temperature (°C)	-40 ~ 85	
Max. Wind Load / Snow Load (pa)	2400 / 5400	
Max. Over Current (A)	20	
Application Class	Class A	
Fire Rating	Class C	
NOCT (OC)	45 ± 2	

Assembly Drawing (Unit: mm)



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