



1.6℃

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

4%

4% more energy generation



One third-Cut technique leads to increased power output

When the cells are cut into thirds, the current becomes one third of what it was, 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.



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



LINEAR PERFORMANCE WARRANTY

12 years

Product warranty on materials and workmanship

25

Linear power output warranty



CERTIFICATES

ISO 9001: 2015 Quality Management System

ISO 14001: 2015 Environmental Management System IEC 61215 / IEC 61730

OHSAS 18001: 2007 Occupational Health & Safety Managemnet System

*Certification requirements vary in different markets, please consult with Maysun Optronics sales team for appropriate certification.







MONO 9BB HALF-CUT MODULE

MS-MA40H 390-405W

MONO 9BB HALF-CUT MODULE

ELECTRICAL PARAMETERS @ STC

Max. Power Output Pmax (W)	390	395	400	405
Power Tolerance	0~+3%	0~+3%	0~+3%	0~+3%
Max. Power Voltage Vmp (V)	33.80	34.00	34.20	34.40
Max. Power Current Imp (A)	11.54	11.62	11.70	11.77
Open Circuit Voltage Voc (V)	40.80	41.00	41.20	41.40
Short Circuit Current Isc (A)	12.14	12.21	12.28	12.34
Module Efficiency (%)	20.29	20.55	20.81	21.06

^{*}STC (Standard Test Condition): Irradiance 1000W/m² , Cell Temperature 25 $^{\circ}\! C$, Air Mass 1.5

ELECTRICAL PARAMETERS @ NOCT

Max. Power Output Pmax (W)	291	294	298	302
Max. Power Voltage Vmp (V)	31.40	31.60	31.81	31.98
Max. Power Current Imp (A)	9.26	9.31	9.37	9.43
Open Circuit Voltage Voc (V)	38.03	38.21	38.39	38.58
Short Circuit Current Isc (A)	9.81	9.86	9.92	9.97

^{*}NOCT(Nominal Operating Cell Temperature): Irradiance 80 0W/m² , Ambient Temperature 20 °C , Wind Speed 1m/s

TEMPERATURE COEFFICIENTS

Temperature Coefficients of Pmp	-0.34%/ °C
Temperature Coefficients of Voc	-0.25%/ °C
Temperature Coefficients of Isc	+0.040%/ °C

MECHANICAL PARAMETERS

Cell Type	Mono 210x70mm
Number of Cells	120pcs(5x24)
Dimensions (L*W*H)	1754x1096x30mm
Weight	21.2kg
Frame	Anodised Aluminum
Junction Box	IP68, 3 bypass diodes
Cable, Length	4.0mm ² , 300mm

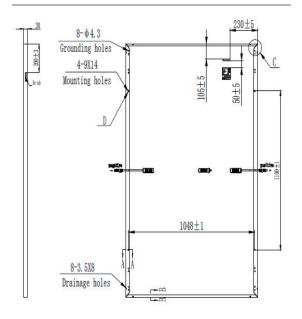
OPERATING CONDITION

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		
Fire Rating	Class C		
NOCT(C)	45±2		

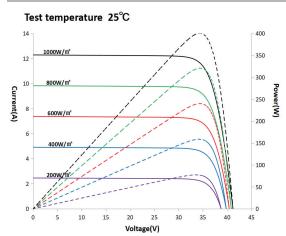
PACKAGE INFORMATION

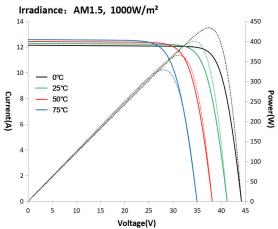
Container 40'HQ	936pcs
Quantity / Pallet	CTNR: 36pcs

ASSEMBLY DRAWING (Unit:mm)



I-V CURVES







^{*}Measurement Tolerance (±3.0%)