# **Hpower Series** MSM-60H









Mariosolar High Efficiency Monocrystalline Solar Module with Perc Technology (1500V)

300-320W



## **Higher Module Efficiency**

10% more power than standard modules, due to advanced the PERC technology



# **More Energy Yield**

Better temperature coefficient, helps boost energy yield



## Approved Technology

Approved practice for different operating conditions



# **Lower Operation Temperature**

Less hot spot heating risk, make the module more reliable



## **Aesthetic Design**

Uniformity appreance, aesthetic design with black frame option



# 1500V System Voltage

Approved IEC1500Vdc system voltage, saving on BoS cost







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ELECTRICAL DATA @ STC*		MSM300-60H	MSM305-60H	MSM310-60H	MSM315-60H	MSM320-60H
Peak Power (Pmax)		300	305	310	315	320
Maximum Power Voltage (Vmp)	(V)	32.95	33.23	33.52	33.80	34.08
Maximum Power Current (Imp)	(A)	9.11	9.18	9.25	9.32	9.39
Open-circuit Voltage (Voc)	(V)	39.88	40.16	40.44	40.72	41.00
Short-circuit Current (Isc)	(A)	9.60	9.68	9.76	9.84	9.91
Module Efficiency	(%)	18.46	18.77	19.07	19.38	19.69
Operating Temperature				-40°C~+85°C		
Maximum System Voltage				1500V		
Maximum Series Fuse Rating				15A		
Application Class				Class A		
Power Telorance				0~+3%		

<sup>\*</sup>STC (Standard Test Condition): Irradiance 1000W/  $\ensuremath{\text{m}}$  , Module Temperature 25°C, AM 1.5

#### **ELECTRICAL DATA @ NMOT\***

Peak Power (Pmax)	(W)	222	226	230	234	239
MPP Voltage (Vmp)	(V)	30.34	30.60	30.87	31.12	31.73
MPP Current (Imp)		7.33	7.39	7.45	7.50	7.52
Open Circuit Voltage (Voc)	(V)	37.62	37.88	38.15	38.41	38.84
Short Circuit Current (Isc)	(A)	7.75	7.82	7.88	7.95	8.00

<sup>\*</sup>Under Nominal Module Operating Temperature (NMOT), Irradiance of 800W/ m², Spectrum AM 1.5, Ambient Temperature 20°C, Wind Speed 1m/s

#### **TEMPERATURE CHARACTERISTICS**

Temperature coefficient of Pmax	-0.40%/°C
Temperature coefficient of Voc	-0.31%/℃
Temperature coefficient of Isc	0.05%/°C
NMOT	42±3°C

### **MECHNICAL DATA**

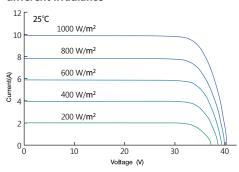
Cell Type	Mono-Crystalline, 6' inch
Cell Arrangement	60pcs (6×10)
Dimension (L×W×H)	1640×991×35mm
Weight	18.2kg
Front Cover	3.2mm Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP67, 3 Bypass Diodes
Cable Type	4mm²
Length of Cable	1000mm
Connector	PV Connector

### **PACKING MANNER**

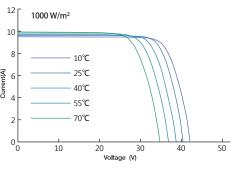
Packing Type	40HQ
Piece/Pallet	30
Pallet/Container	28
Piece/Container	840

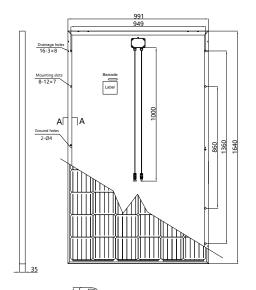
<sup>\*</sup>The specification and key features described in this datasheet may deviate slightly and are not guaranteed. Due to ongoing innovation, R&D enhancement, Mariosolar. Reserves the right to make any adjustment to the information described herein at any time without notice. Please always obtain the most recent version of the datasheet which shall be duly incorporated into the binding contract made by the parties governing all transactions related to the purchase and sale of the produccts described herein.

# Current-Voltage Curve under different irradiance



# Current-Voltage Curve under different working temperatures







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<sup>\*</sup>Power measurement tolerance: ±3%