

PERC Technology

# DuDrive Series

## MSHM-144HL



Mariosolar High Efficiency Monocrystalline Half-cut Cell Solar Module with Perc Technonoly (1500V)

385-405W



### Higher Module Efficiency

More energy yield



### Positive Tolerance

Positive tolerance brings more power for free



### Better Shading Tolerance

Thanks to Paralleling circuit design, more power generated under shading condition and during morning & evening time



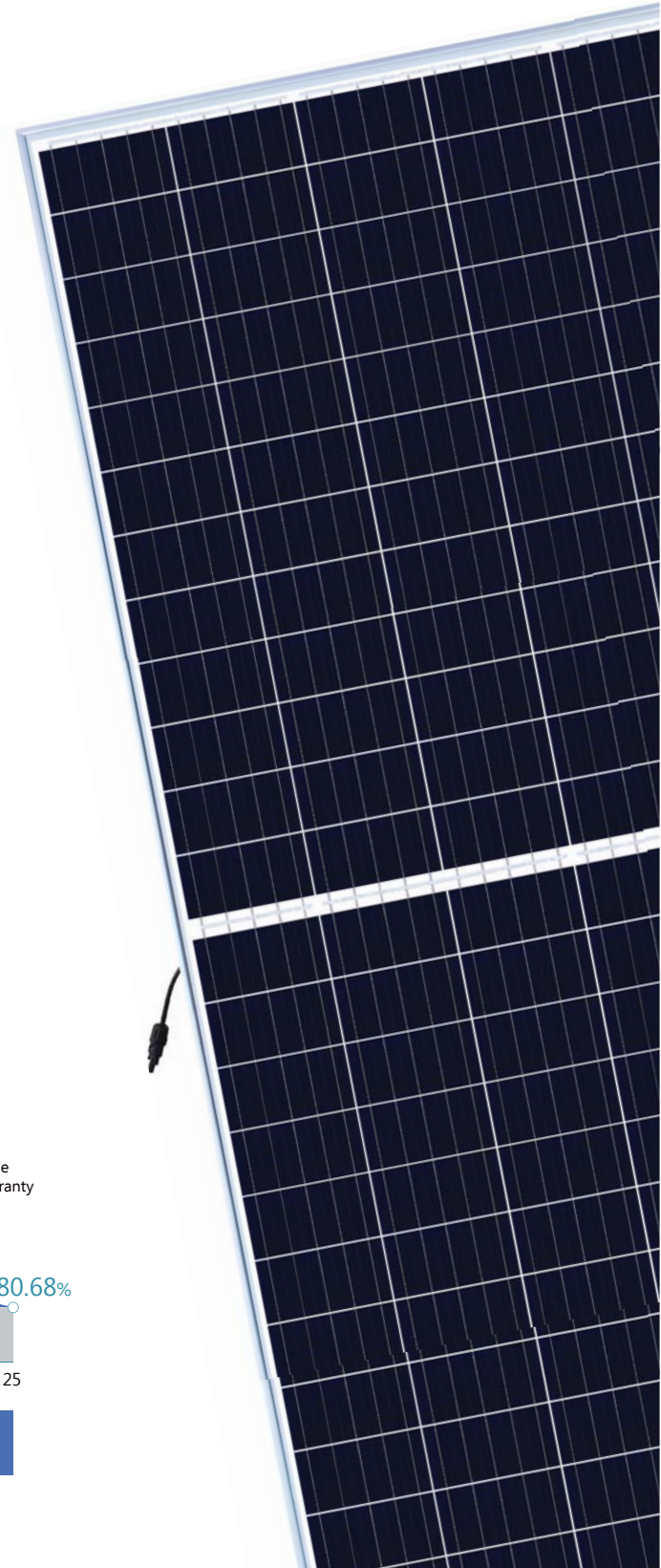
### Mechanical Load Endurance

Excellent mechanical load resistance: wind loads (2400Pa) & snow loads (5400Pa)

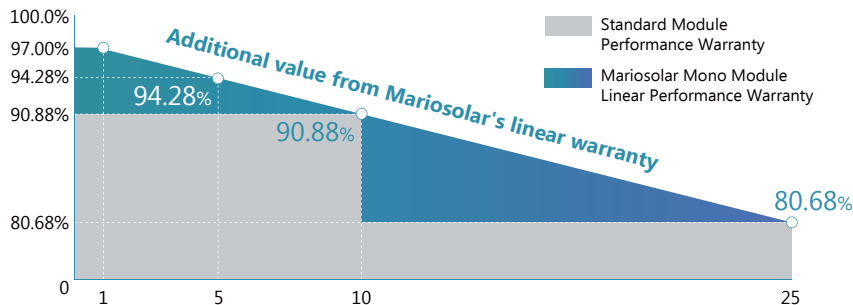


### 1500V System Voltage

Approved IEC1500Vdc system voltage, saving on BoS cost



### LINEAR PERFORMANCE WARRANTY



**12years** Product Material & Workmanship

**25years** Linear Performance Warranty

#### About Mariosolar

Mariosolar, established in 2018, is dedicated to providing solar products with high quality, excellent performance and strong after-sales support. The company not only has strong financial support but also never stops innovating. Mariosolar will keep delivering the diversified solar products for all kinds of renewable energy generation systems around the world.

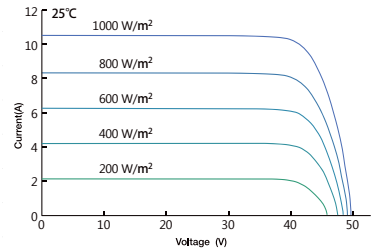
[www.mariosolar.com](http://www.mariosolar.com)

# DuDrive Series MSHM-144HL Mariosolar High Efficiency Monocrystalline Half-cut Cell Solar Module with Perc Technonoly (1500V)

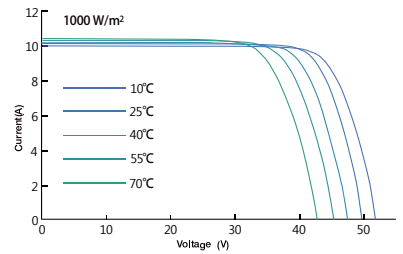
ELECTRICAL DATA @ STC*		385W	390W	395W	400W	405W
Peak Power (Pmax)	(W)	385	390	395	400	405
Maximum Power Voltage (Vmp)	(V)	39.5	41.3	41.5	41.7	41.5
Maximum Power Current (Imp)	(A)	9.76	9.45	9.52	9.60	9.52
Open-circuit Voltage (Voc)	(V)	48.1	49.1	49.3	49.5	49.3
Short-circuit Current (Isc)	(A)	10.08	9.96	10.04	10.12	10.04
Module Efficiency	(%)	18.81	19.05	19.29	19.54	19.78
Operating Temperature		-40°C~+85°C				
Maximum System Voltage		1500V				
Maximum Series Fuse Rating		20A				
Application Class		Class A				
Power Tolerance		0~+3%				

\*STC (Standard Test Condition): Irradiance 1000W/m<sup>2</sup>, Module Temperature 25°C, AM 1.5

Current-Voltage Curve under different irradiance



Current-Voltage Curve under different working temperatures



## ELECTRICAL DATA @ NMOT\*

Peak Power (Pmax)	(W)	286	290	293	297	301
MPP Voltage (Vmp)	(V)	36.9	41.4	41.6	41.8	41.6
MPP Current (Imp)	(A)	7.75	7.06	7.12	7.18	7.12
Open Circuit Voltage (Voc)	(V)	45.3	48.7	48.9	49.1	48.9
Short Circuit Current (Isc)	(A)	8.14	7.44	7.49	7.55	7.49

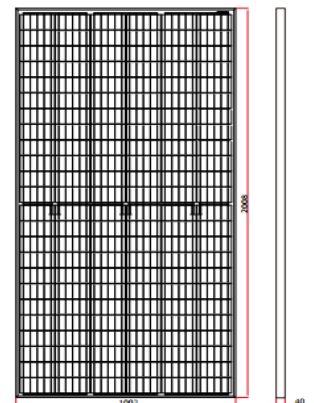
\*Under Nominal Module Operating Temperature (NMOT), Irradiance of 800W/m<sup>2</sup>, Spectrum AM 1.5, Ambient Temperature 20°C, Wind Speed 1m/s

## TEMPERATURE CHARACTERISTICS

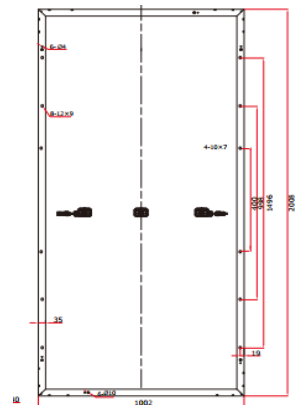
Temperature coefficient of Pmax		-0.35%/°C
Temperature coefficient of Voc		-0.29%/°C
Temperature coefficient of Isc		0.048%/°C
NMOT		45±2°C

## MECHANICAL DATA

Cell Type		Mono-Crystalline, 158.75×79.38mm
Cell Arrangement		144pcs (2×(6×12))
Dimension (L×W×H)		2008 x 1002 x 40mm
Weight		22.5kg
Front Cover		3.2mm AR coating tempered glass, low iron
Frame		Anodized Aluminium Alloy
Junction Box		IP67, 3 Bypass Diodes
Cable Type		4mm <sup>2</sup>
Length of Cable		1200mm
Connector		PV Connector



FRONT



BACK

## PACKING MANNER

Packing Type		40HQ
Piece/Pallet		27
Pallet/Container		22
Piece/Container		649

\*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 products described herein.

\*Power measurement tolerance: ±3%

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