MONO

POLY

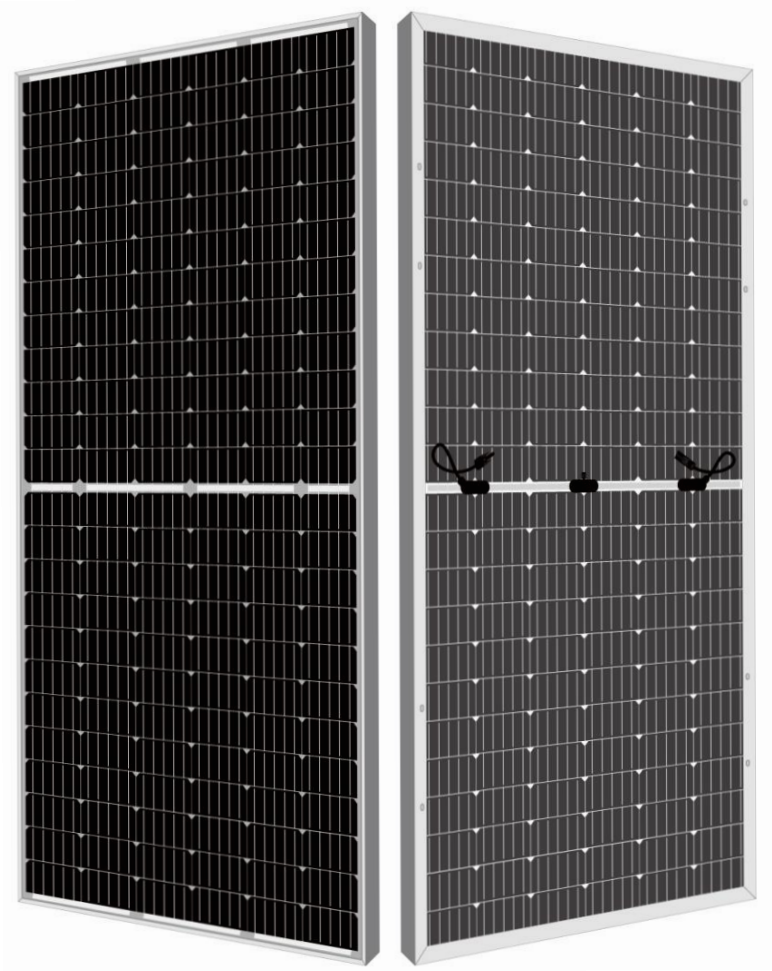
PERC Technology

DuDrive Series

MSHM-144HL

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

415-435W



Higher Module Efficiency
More energy yield

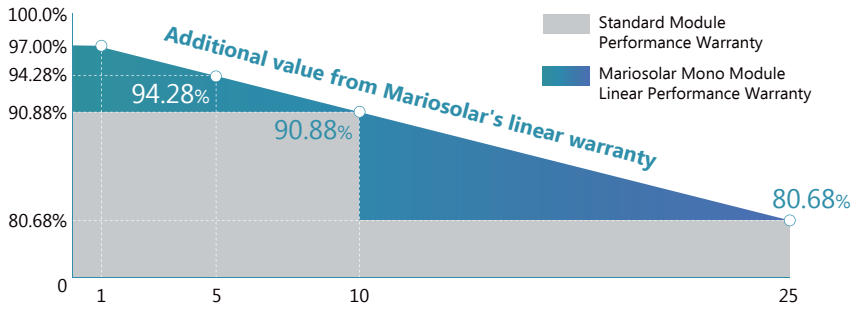
Positive Tolerance
Positive tolerance brings more power for free

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

Mechnical 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

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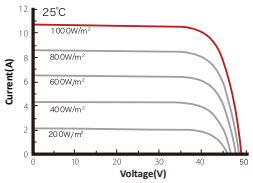
ELECTRICAL DATA @ STC*

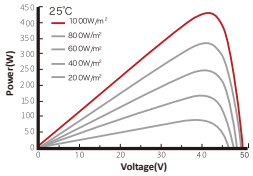
		415W	420W	425W	430W	435W
Peak Power (Pmax)	(W)	415	420	425	430	435
Maximum Power Voltage (Vmp)	(V)	40.6	40.8	41.0	41.2	41.4
Maximum Power Current (Imp)	(A)	10.23	10.30	10.37	10.44	10.51
Open-circuit Voltage (Voc)	(V)	49.0	49.2	49.4	49.6	49.8
Short-circuit Current (Isc)	(A)	10.89	10.96	11.02	11.09	11.16
Module Efficiency	(%)	18.5	18.7	19.0	19.2	19.4
Operating Temperature		-40°C~+85°C				
Maximum System Voltage		1500V				
Maximum Series Fuse Rating		15A				
Application Class		Class A				
Power Telorance		0~+3%				

*STC (Standard Test Condition): Irradiance 1000W/ ㎡, Module Temperature 25°C, AM 1.5

Current-Voltage Curve (425W)



Power-Voltage Curve (425W)



ELECTRICAL DATA @ NMOT*

Peak Power (Pmax)	(W)	308.6	312.3	316.0	319.7	323.5
MPP Voltage (Vmp)	(V)	37.7	37.9	38.1	38.2	38.4
MPP Current (Imp)	(A)	8.19	8.25	8.30	8.36	8.42
Open Circuit Voltage (Voc)	(V)	45.6	45.8	46.0	46.2	46.4
Short Circuit Current (Isc)	(A)	8.82	8.87	8.93	8.98	9.04

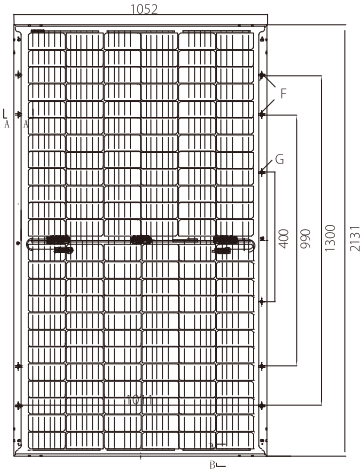
*Under Nominal Module Operating Temperature (NMOT), Irradiance of 800W/ ㎡, Spectrum AM 1.5, Ambient Temperature 20°C, Wind Speed 1m/s

TEMPERATURE CHARACTERISTICS

Temperature coefficient of Pmax	-0.37%/°C
Temperature coefficient of Voc	-0.3%/°C
Temperature coefficient of Isc	0.06%/°C
NMOT	45±2°C

MECHNICAL DATA

Cell Type	Mono-Crystalline, 166 x 83 mm
Cell Arrangement	144pcs (2×(6×12))
Dimension (L×W×H)	2131 x1052 x 35mm
Weight	24kg
Front Cover	3.2mm AR coating tempered glass
Frame	Anodized Aluminium Alloy
Junction Box	IP67, 3 Bypass Diodes
Cable Type	4mm²
Length of Cable	1200mm
Connector	PV Connector



PACKING MANNER

Packing Type	40HQ
Piece/Pallet	30
Pallet/Container	22
Piece/Container	660

*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.

*Power measurement tolerance: ±3%

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