PERC Technology

MONO

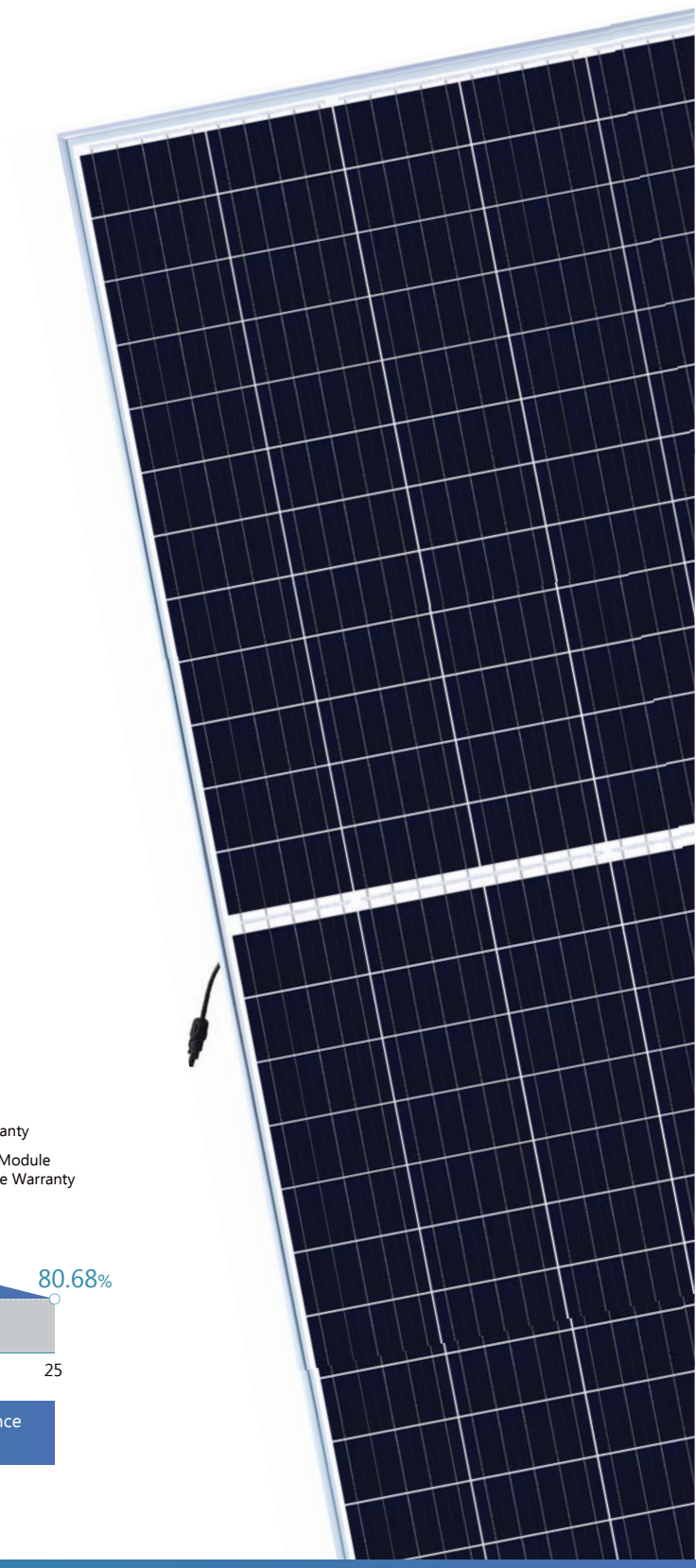
POLY

DuDrive Series

MSHM-144HL

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

395-405W



Higher Module Efficiency
Brings 5-10W power gain due to half-cut production system

More Energy Yield
Lower NMOT and better temperature coefficient by lower cell series resistance, helps boost energy yield

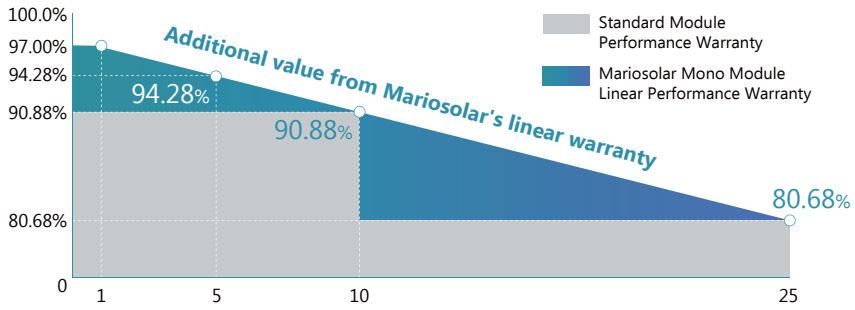
Lower Operating Temperature, More Reliable
Lower operating temperature and hot spot temperature during the sunny day, making the module prevail during the sunny days

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

Better Micro Crack Resistance
Minimize the impact by micro crack by limiting cell damage and potentially extending area by half-cut module architecture

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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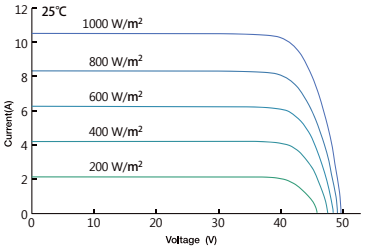
ELECTRICAL DATA @ STC*

		MSHM395-144HL	MSHM400-144HL	MSHM405-144HL
Peak Power (Pmax)	(W)	395	400	405
Maximum Power Voltage (Vmp)	(V)	41.07	41.28	41.46
Maximum Power Current (Imp)	(A)	9.62	9.69	9.77
Open-circuit Voltage (Voc)	(V)	49.48	49.71	49.94
Short-circuit Current (Isc)	(A)	10.39	10.46	10.53
Module Efficiency	(%)	19.65	19.90	20.15
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℃, AM 1.5

Current-Voltage Curve under different irradiance

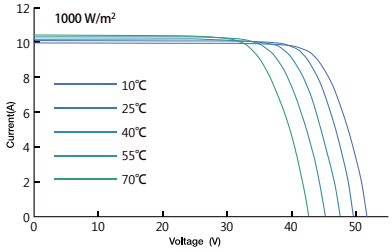


ELECTRICAL DATA @ NMOT*

Peak Power (Pmax)	(W)	295	298	302
MPP Voltage (Vmp)	(V)	38.23	38.43	38.60
MPP Current (Imp)	(A)	7.70	7.76	7.82
Open Circuit Voltage (Voc)	(V)	46.87	47.09	47.31
Short Circuit Current (Isc)	(A)	8.38	8.44	8.50

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

Current-Voltage Curve under different working temperatures



TEMPERATURE CHARACTERISTICS

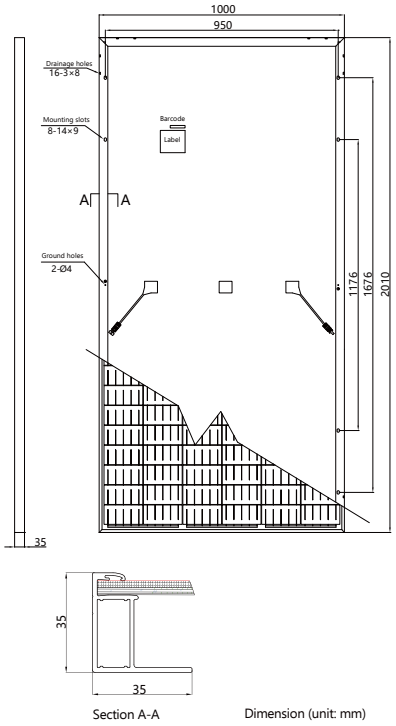
Temperature coefficient of Pmax	-0.38%/℃
Temperature coefficient of Voc	-0.31%/℃
Temperature coefficient of Isc	0.05%/℃
NMOT	41±3℃

MECHNICAL DATA

Cell Type	Mono-Crystalline, 158.75×79.38mm
Cell Arrangement	144pcs (2×(6×12))
Dimension (L×W×H)	2010×1000×35mm
Weight	22.5kg
Front Cover	3.2mm Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68, 3 Bypass Diodes
Cable Type	4mm²
Length of Cable	1250mm
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%

Jiangsu **Mario New Energy Co., Ltd**
<sven.wang@mariosolar.com>
<whatsapp:+8615905153526>