

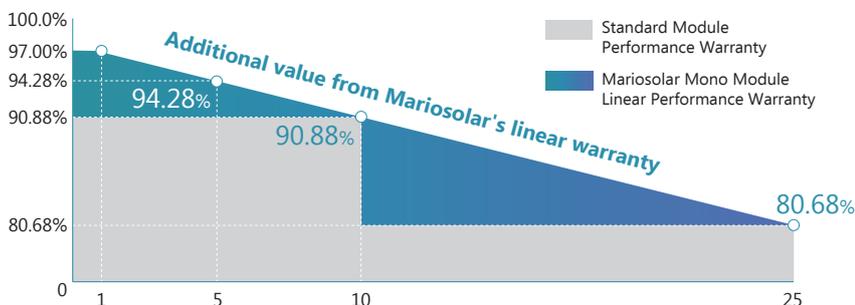
# DuDrive Series MSHM-120

Mariosolar High Efficiency Monocrystalline Half-cut Cell  
Solar Module with Perc Technonoly  
305-325W

-  **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



## 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.

# DuDrive Series MSHM-120 Mariosolar High Efficiency Monocrystalline Half-cut Cell Solar Module with Perc Technonoly

ELECTRICAL DATA @ STC*		MSHM305-120	MSHM310-120	MSHM315-120	MSHM320-120	MSHM325-120
Peak Power (Pmax)	(W)	305	310	315	320	325
Maximum Power Voltage (Vmp)	(V)	33.23	33.52	33.80	34.08	34.36
Maximum Power Current (Imp)	(A)	9.18	9.25	9.32	9.39	9.46
Open-circuit Voltage (Voc)	(V)	40.16	40.44	40.72	41.00	41.26
Short-circuit Current (Isc)	(A)	9.68	9.76	9.84	9.91	9.99
Module Efficiency	(%)	18.32	18.62	18.92	19.22	19.52
Operating Temperature		-40°C~+85°C				
Maximum System Voltage		1000V				
Maximum Series Fuse Rating		15A				
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

ELECTRICAL DATA @ NMOT*		MSHM305-120	MSHM310-120	MSHM315-120	MSHM320-120	MSHM325-120
Peak Power (Pmax)	(W)	226	230	234	237	242
MPP Voltage (Vmp)	(V)	30.60	30.87	31.12	31.38	31.99
MPP Current (Imp)	(A)	7.39	7.45	7.50	7.56	7.58
Open Circuit Voltage (Voc)	(V)	37.88	38.15	38.41	38.67	39.09
Short Circuit Current (Isc)	(A)	7.82	7.88	7.95	8.00	8.06

\*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		-0.38%/°C
Temperature coefficient of Voc		-0.31%/°C
Temperature coefficient of Isc		0.05%/°C
NMOT		41±3°C

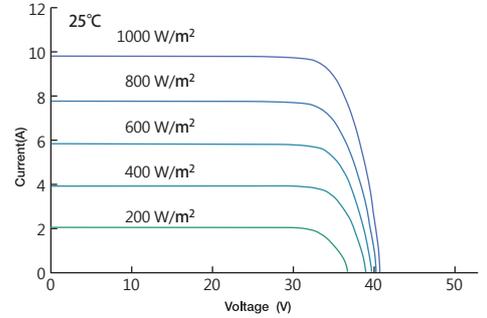
MECHANICAL DATA		
Cell Type		Mono-Crystalline, 156.75×78.38mm
Cell Arrangement		120pcs (2×(6×10))
Dimension (L×W×H)		1680×991×35mm
Weight		19kg
Front Cover		3.2mm Tempered Glass
Backsheet		Rear side colour white, optional black
Frame		Anodized Aluminium Alloy
Junction Box		IP67, 3 Bypass Diodes
Cable Type		4mm <sup>2</sup>
Length of Cable		1160mm
Connector		PV Connector

PACKING MANNER		
Packing Type		40HQ
Piece/Pallet		30
Pallet/Container		26
Piece/Container		780

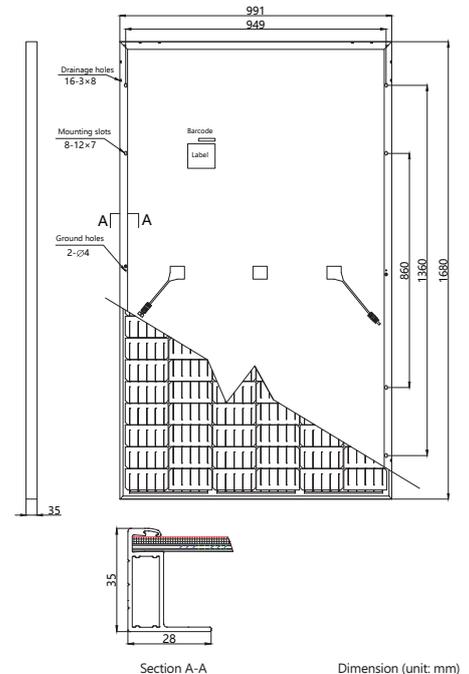
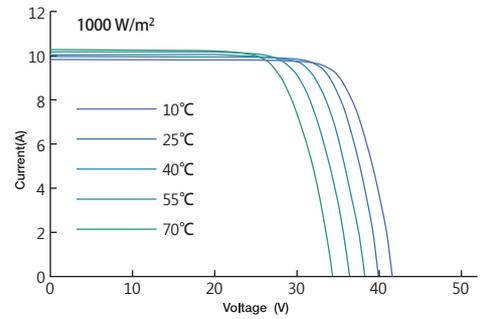
\*The specification and key features described in this datasheet may deviate slightly and are not guaranteed. Due to ongoing innovation, R&D enhancement, Mariosolar. Reserves the right to make any adjustment to the information described herein at any time without notice. Please always obtain the most 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%

Current-Voltage Curve under different irradiance



Current-Voltage Curve under different working temperatures



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