DuDrive Series MSHM-144L

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

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

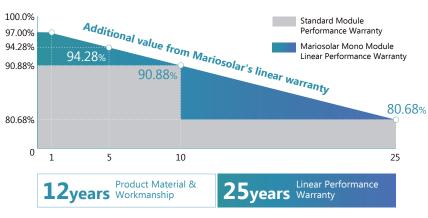
Thanks to Paralleling circuit design, more power generated under shading condition and during morning & evening time



Better Micro Crack Resistance

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







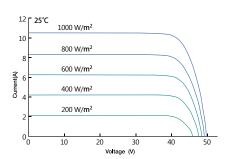




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ELECTRICAL DATA @ STC*		MSHM395-144L	MSHM400-144L	MSHM105-144L
Peak Power (Pmax)	(W)	395	400	405
Maximum Power Voltage (Vmp)	(V)	41.07	41.28	41.46
Maximum Power Current (Imp)	(A)	9.62	9.69	9.77
Open-circuit Voltage (Voc)	(V)	49.48	49.71	49.94
Short-circuit 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			1000V	
Maximum Series Fuse Rating			15A	
Application Class			Class A	
Power Telorance			0~+3%	

Current-Voltage Curve under different irradiance



ELECTRICAL DATA @ NMOT*

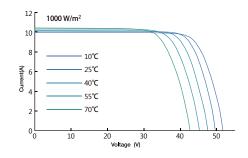
Peak Power (Pmax)	(W)	295	298	302
MPP Voltage (Vmp)	(V)	38.23	38.43	38.60
MPP Current (Imp)	(A)	7.70	7.76	7.82
Open Circuit Voltage (Voc)	(V)	46.87	47.09	47.31
Short Circuit Current (Isc)	(A)	8.38	8.44	8.50

^{*}Under Nominal Module Operating Temperature (NMOT), Irradiance of 800W/ m³, 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

Current-Voltage Curve under different working temperatures



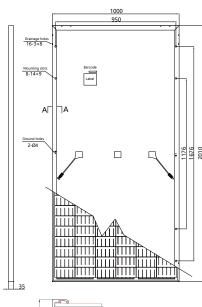
MECHNICAL DATA

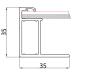
Cell Type	Mono-Crystalline, 158.75×79.38mm
Cell Arrangement	144pcs (2×(6×12))
Dimension (L×W×H)	2010×1000×35mm
Weight	22.5kg
Front Cover	3.2mm Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68, 3 Bypass Diodes
Cable Type	4mm²
Length of Cable	1250mm
Connector	PV Connector

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.





Dimension (unit: mm)

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^{*}STC (Standard Test Condition): Irradiance 1000W/ \mbox{m}^{i} , Module Temperature 25°C, AM 1.5