# **DuDrive Series MSHP-144H**

Mariosolar High Efficiency Polycrystalline Half-cut Cell Solar Module (1500V)

330-350W



### **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









### **DuDrive Series MSHP-144H** Mariosolar High Efficiency Polycrystalline Half-cut Cell Solar Module (1500V)

<b>ELECTRICAL DATA @ STC*</b>		MSHP330-144H	I MSHP335-144F	I MSHP340-144H	MSHP345-144H	I MSHP350-144H
Peak Power (Pmax)	(W)	330	335	340	345	350
Maximum Power Voltage (Vmp)	(V)	38.11	38.38	38.60	38.86	39.11
Maximum Power Current (Imp)	(A)	8.66	8.73	8.81	8.88	8.95
Open-circuit Voltage (Voc)	(V)	45.96	46.24	46.51	46.79	46.79
Short-circuit Current (Isc)	(A)	9.20	9.46	9.57	9.68	9.74
Module Efficiency	(%)	16.65	16.90	17.15	17.41	17.66
Operating Temperature				-40°C~+85°C		
Maximum System Voltage				1500V		
Maximum Series Fuse Rating				15A		
Application Class				Class A		
Power Telorance		I		0~+3%		

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

### **ELECTRICAL DATA @ NMOT\***

Peak Power (Pmax)	(W)	244	248	252	256	259
MPP Voltage (Vmp)	(V)	35.18	35.43	35.63	35.87	36.10
MPP Current (Imp)	(A)	6.95	7.01	7.07	7.13	7.18
Open Circuit Voltage (Voc)	(V)	43.18	43.44	43.69	43.96	44.26
Short Circuit Current (Isc)	(A)	7.45	7.66	7.75	7.84	7.86

 $<sup>^*</sup> Under \ Nominal \ Module \ Operating \ Temperature \ (NMOT), Irradiance \ of \ 800W/\ m^{\dagger}, Spectrum \ AM \ 1.5, Ambient \ Temperature \ 20^{\circ}C, Wind \ Speed \ 1m/s$ 

#### **TEMPERATURE CHARACTERISTICS**

Temperature coefficient of Pmax	-0.39%/°C
Temperature coefficient of Voc	-0.33%/℃
Temperature coefficient of Isc	0.05%/°C
NMOT	42±3°C

### **MECHNICAL DATA**

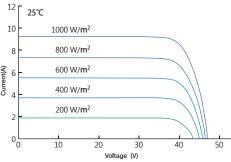
Cell Arrangement         144pcs (2×(6×12))           Dimension (L×W×H)         2000×991×35mm           Weight         22kg           Front Cover         3.2mm Tempered Glass           Frame         Anodized Aluminium Alloy           Junction Box         IP67, 3 Bypass Diodes           Cable Type         4mm²           Length of Cable         1250mm	MECHINICAL DATA	
Dimension (L×W×H)         2000×991×35mm           Weight         22kg           Front Cover         3.2mm Tempered Glass           Frame         Anodized Aluminium Alloy           Junction Box         IP67, 3 Bypass Diodes           Cable Type         4mm²           Length of Cable         1250mm	Cell Type	Poly-Crystalline, 156.75×78.38mm
Weight         22kg           Front Cover         3.2mm Tempered Glass           Frame         Anodized Aluminium Alloy           Junction Box         IP67, 3 Bypass Diodes           Cable Type         4mm²           Length of Cable         1250mm	Cell Arrangement	144pcs (2×(6×12))
Front Cover         3.2mm Tempered Glass           Frame         Anodized Aluminium Alloy           Junction Box         IP67, 3 Bypass Diodes           Cable Type         4mm²           Length of Cable         1250mm	Dimension (L×W×H)	2000×991×35mm
Frame Anodized Aluminium Alloy  Junction Box IP67, 3 Bypass Diodes  Cable Type 4mm²  Length of Cable 1250mm	Weight	22kg
Junction Box IP67, 3 Bypass Diodes  Cable Type 4mm²  Length of Cable 1250mm	Front Cover	3.2mm Tempered Glass
Cable Type 4mm²  Length of Cable 1250mm	Frame	Anodized Aluminium Alloy
Length of Cable 1250mm	Junction Box	IP67, 3 Bypass Diodes
	Cable Type	4mm²
Connector	Length of Cable	1250mm
eofficetor 1 v confector	Connector	PV Connector

#### **PACKING MANNER**

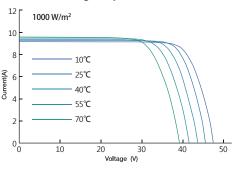
Packing Type	40HQ
Piece/Pallet	30
Pallet/Container	22
Piece/Container	660

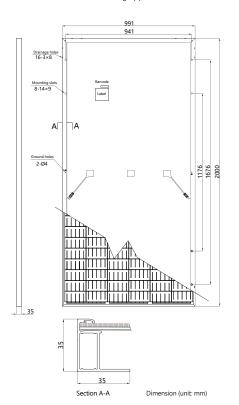
<sup>\*</sup>The specification and key features described in this datasheet may deviate slightly and are not guaranteed. Due to ongoing innovation, R&D enhancement, Mariosolar. Reserves the right to make any adjustment to the information described herein at any time without notice. Please always obtain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

## Current-Voltage Curve under different irradiance



### Current-Voltage Curve under different working temperatures





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