

MSolar MS series MONO 420-440W 9BB

144 cells // Half-cut cell modules

MSolar MS series (Super-efficiency half-cell Modules) Assembled with the advanced half-cell technology offer the advantages of higher power output, reduced series resistance loss, and lower risk of hot spot. In order to meet the Clients' requirements of best quality and efficiency.



9BB cell design

Smaller electric current, less CTM loss
Lower risk of hot spot



ISO9001:2015 & ISO14001 management systems



IEC61215 & IEC61730 standard quality



Wind load up to 3800Pa
Snow load up to 5400Pa



0-5W positive power sorting



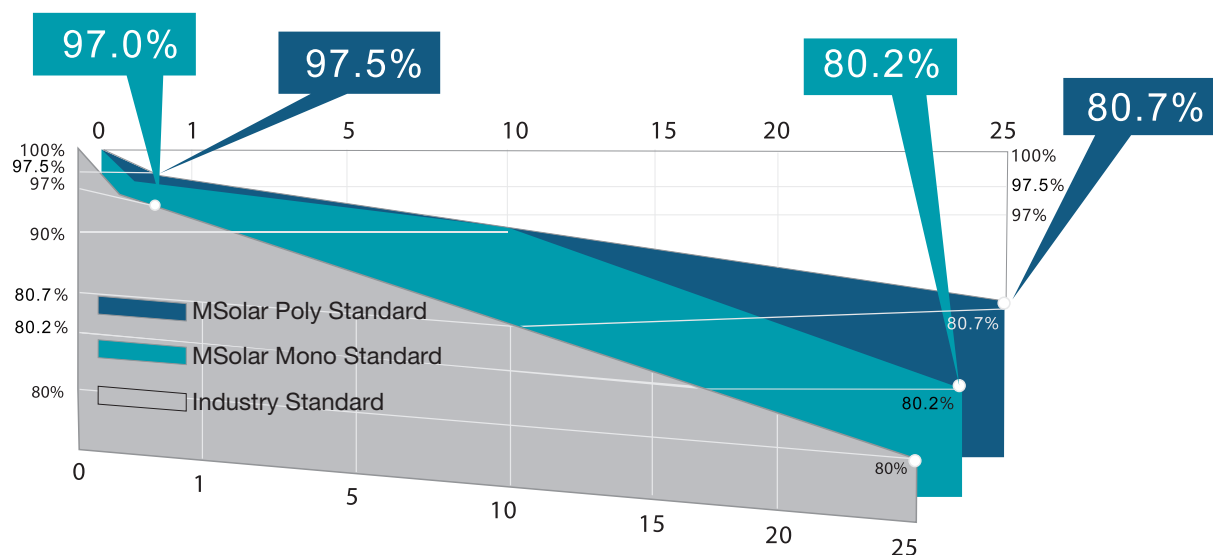
Stable performance under weak light conditions



25 year power warranty
10 year product warranty



Linear performance warranty



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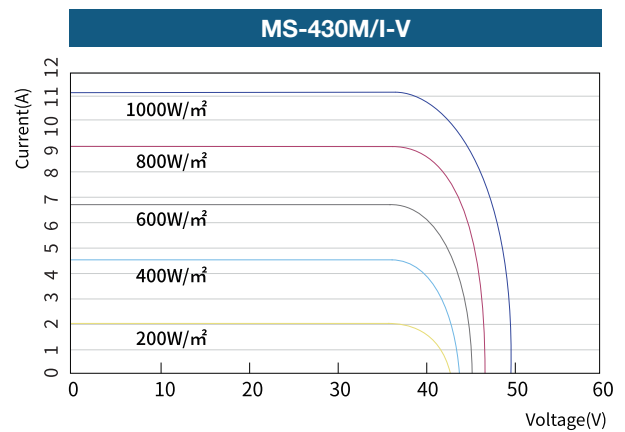
Electrical parameters

	MS-420M		MS-425M		MS-430M		MS-435M		MS-440M	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum power (P _{max})	420 W	312 W	425 W	315 W	430 W	318 W	435 W	321 W	440 W	324 W
Open circuit voltage (V _{oc})	48.80 V	45.39 V	49.00 V	45.45 V	49.20 V	45.45 V	49.39 V	45.48 V	49.59 V	45.51 V
Short circuit current (I _{sc})	11.04 A	8.90 A	11.11 A	8.96 A	11.18 A	9.03 A	11.25 A	9.09 A	11.32 A	9.16 A
Voltage at maximum power (V _{mpp})	40.19 V	37.23 V	40.40 V	37.32 V	40.60 V	37.46 V	40.81 V	37.56 V	41.01 V	37.67 V
Current at maximum power (I _{mp})	10.45 A	8.38 A	10.52 A	8.44 A	10.59 A	8.49 A	10.66 A	8.55 A	10.73 A	8.60 A
Module efficiency (%)	18.88 %		19.10 %		19.33 %		19.55 %		19.78 %	

STC: Irradiance 1000 W/m², cell temperature 25°C, AM 1.5G

NOTC: Irradiance 800 W/m², ambient temperature 20°C, wind speed 1 m/s, AM 1.5G

Operating module temperature	-40°C to + 85°C
Maximum system voltage	1500V DC(IEC) 1000V DC(UL)
Maximum series fuse rating	20 A
Power tolerance	0/+5W
Temperature characteristics	
Nominal operating cell temperature (N _o ct)	45±2°C
Temperature coefficient of P _{max}	-0.36%/°C
Temperature coefficient of V _{oc}	-0.29%/°C
Temperature coefficient of I _{sc}	+0.05%/°C

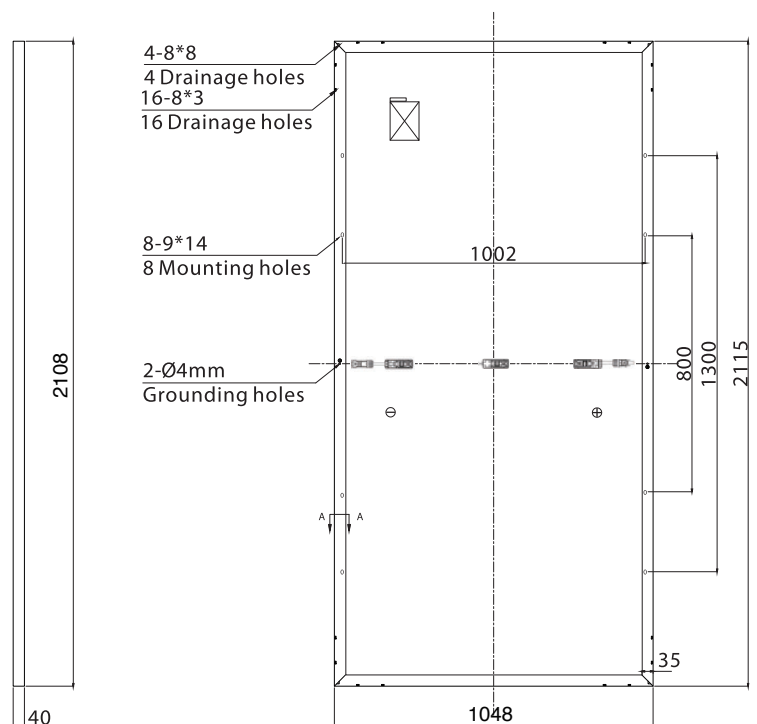


Mechanical characteristics

Solar cell	MONO
No. of cells	144 (6x24)
Dimensions	2108 x 1048 x 40 mm
Weight	25.5 kg
Front	3.2mm tempered glass
Frame	Anodized aluminium alloy
Junction box	IP68 rated (3 bypass diodes)
Output cables	4.0 mm ² Symmetrical length 300 mm
Connectors	MC4 compatible
Mechanical load test	5400 Pa

Packing configuration

Container	40'GP
Pieces per pallet	26
Pallets per container	22
Pieces per container	572



Note: Due to continuous technical innovation, R&D and improvement, technical data above mentioned may be of modification accordingly. MSOLAR have the sole right to make such modification at anytime without further notice.