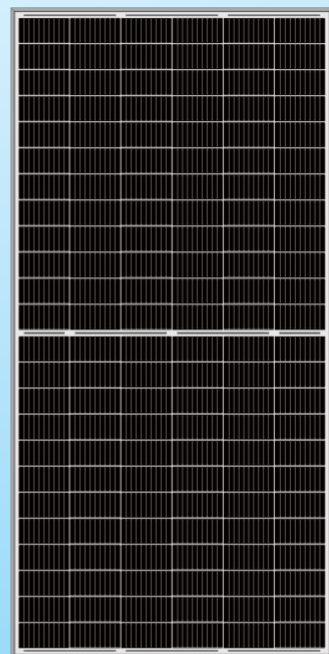


mono 158 72X9

MSM400~415W

Half-Cell
High Efficiency
PV Module



HIGH EFF.

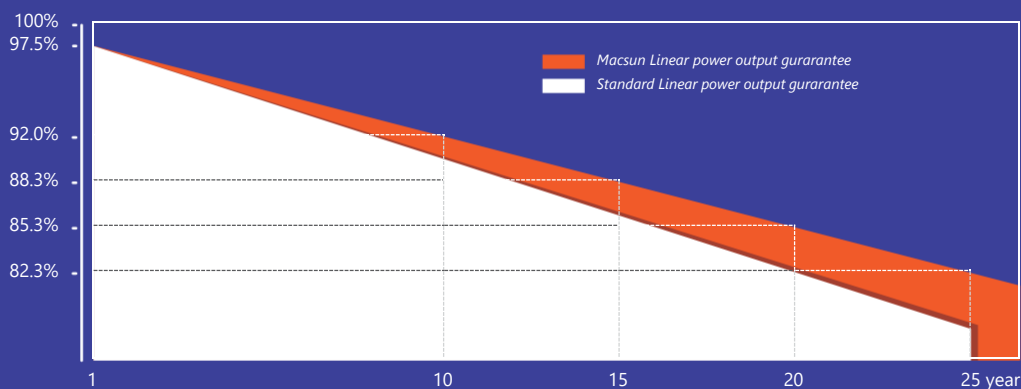


HALF CELL



Quality Guarantee

12-year material & technology warranty
25-year linear power output warranty



20.63%

Max Module Eff.

0~+5W

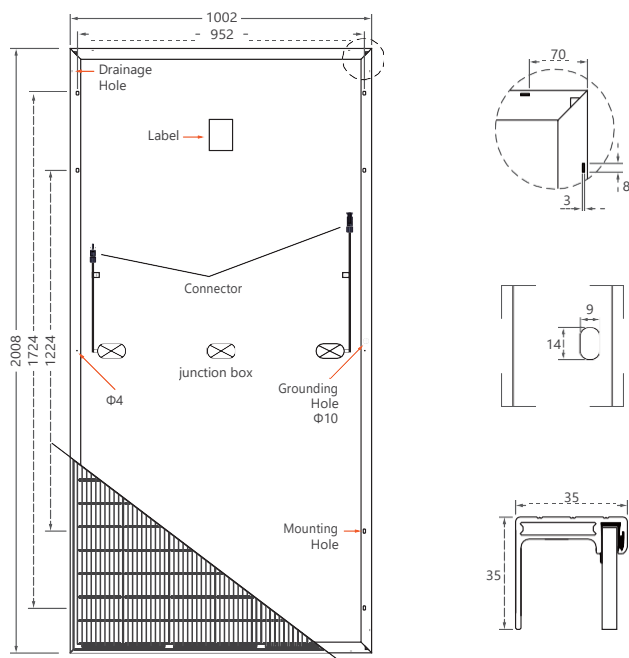
Positive Tolerance

Performance Advantage

- > More Busbars, the Less of Broken and cracking. As the Narrowed Cell Bus Bar Width, the Light Receiving Area and Power are Increased too.
- > Half-Cell technology and back passivation technology, excellent photoelectric conversion efficiency.
- > Excellent low-light power generation performance, even if it is half blocked, there is still 50% power output.
- > Series-parallel combined circuit design, higher output power than conventional PERC.



Design



Mechanical Specification

Cells Type	Mono 158.75×79.375mm
Weight	23kg
Dimension (L×W×T)	2008×1002×35mm
Cable	4.0mm ² ; Portrait: N 400mm/P 300mm, Landscape: N 1400mm/P 1400mm
No.of Cells	144 (6×24)
Glass	3.2 mm High Transmission, Antireflection Coating
Junction box	IP68, 3 Bypass Diodes
Connector	QC4 or MC4 Compatible
Packing	31pcs/pallet, 310pcs/20GP, 726pcs/40HQ

Operating Parameters

Maximum system voltage	1000V/1500V DC
Operating Temperature	-40 ~ +85°C
Maximum series fuse rating	20A
Snow load, frontside	5400Pa
Wind load, backside	2400Pa
Nominal operating cell temperature	45°C±2°C
Application level	Class A

Electrical Characteristics(STC)

Module Type	MSM400W	MSM405W	MSM410W	MSM415W
Maximum Power (Pmax)	400W	405W	410W	415W
Open-circuit Voltage (Voc)	49.0V	49.2V	49.4V	49.6V
Maximum Power Voltage (Vmp)	40.6V	40.8V	41.0V	41.2V
Short-circuit Current (Isc)	10.32A	10.35A	10.40A	10.43A
Maximum Power Current (Imp)	9.86A	9.93A	10.00A	10.08A
Module Efficiency (%)	19.88%	20.13%	20.38%	20.63%

Power Tolerance	0~+5W
Temperature Coefficient of Isc	0.05%/°C
Temperature Coefficient of Voc	-0.29%/°C
Temperature Coefficient of Pmax	-0.37%/°C
Standard Test Environment	Irradiance 1000w/m ² , Cell temperature 25°C, Spectrum AM1.5

Electrical Characteristics(NOCT)

Module Type	MSM400W	MSM405W	MSM410W	MSM415W
Maximum Power (Pmax)	302W	305W	309W	313W
Open-circuit Voltage (Voc)	47.3V	47.5V	47.7V	47.9V
Maximum Power Voltage (Vmp)	39.6V	39.8V	40.1V	40.3V
Short-circuit Current (Isc)	8.19A	8.23A	8.27A	8.31A
Maximum Power Current (Imp)	7.63A	7.67A	7.71A	7.77A

Standard Test Environment	Irradiance 800w/m ² , Cell temperature 20°C, Spectrum AM1.5, Wind speed 1m/s
---------------------------	---