

# MOTOMA<sup>®</sup>

Power into the Future

High Efficiency PERC Half Cell  
Mono-Crystalline Solar Module



- IEC61215(2016),IEC61730(2016)
- ISO9001: 2015 Quality Management System
- ISO14001:2015 Environment Management System
- ISO45001: 2018 Occupation Health Safety Management System

**MONO**

**530 - 555 W**

**21.30%**

MAX MODULE  
EFFICIENCY

**0-3%**

POWER  
TOLERANCE

**<2.5%**

FIRST YEAR  
POWER DEGRADATION

**0.6%**

YEAR 2-25 POWER  
DEGRADATION

**Half-cell**

LOWER COST AND  
HIGH EFFICIENCY

**Class - A**

PREMIUM  
QUALITY

## Key Features



PV chain including silicon materials, wafer, solar glass, solar cell, solar module and solar project, and ISO9001 & ISO14001 certified factory, ensure excellent raw materials and production control.



Guarantee from 0 to +5W as power tolerance, customer can obtain 5.8% power more than conventional output.



100% EL test before and after lamination, and finished products EL test, providing higher quality assurance.



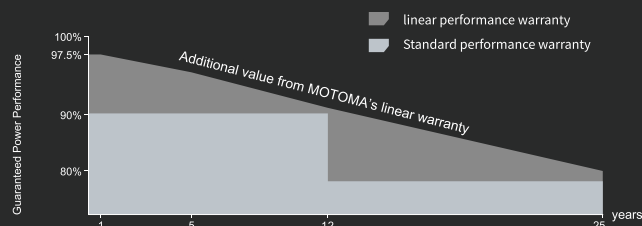
Solar modules certified by TUV NORD (IEC61215& IEC61730:2016) in the extreme conditions ( Temperature, load, impact) with good performance. Pass TUV Salt Mist Corrosion Test, PID Test, Ammonia Resistance Test, Carbon Footprint Test, Fire Test, Sand Test, EMC and LVD Test.



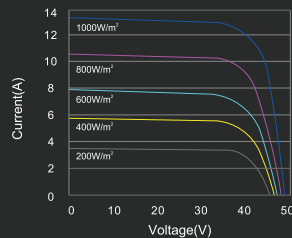
The good weak light performance(morning, evening and cloudy days) has been tested and approved by professional third-party.

## Linear Performance Warranty

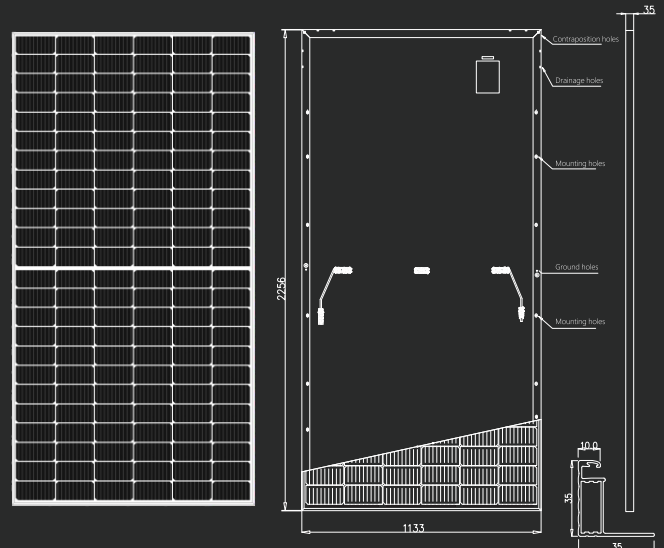
12 Year Product Warranty 25 Year Linear Power Warranty



## I-V Curve



## Technical drawing



## Electrical Characteristics

Module Type	SO-SPN-MC182-xxxF					
Maximum Power -P <sub>mp</sub> (W)	530	535	540	545	550	555
Maximum Power Voltage -V <sub>mp</sub> (V)	40.6	40.63	40.7	41.0	41.3	41.0
Maximum Power Current -I <sub>mp</sub> (A)	13.1	13.17	13.27	13.29	13.32	13.54
Open Circuit Voltage -V <sub>oc</sub> (V)	49.3	49.34	49.42	49.52	49.62	49.72
Short Circuit Current -I <sub>sc</sub> (A)	13.7	13.78	13.85	13.94	14.03	14.12
Module Efficiency STC (%)	20.5	20.71	20.9	21.09	21.29	21.48
Power Tolerance ( W )	0-5W					
Maximum System Voltage (V)	1500VDC					
Maximum Series Fuse Rating (A)	25A					
Pmax Temperature Coefficient	-0.35 °C					
Voc Temperature Coefficient	-0.27 %/°C					
Isc Temperature Coefficient	+0.048 %/°C					
Operating Temperature	-40~+85 °C					
Nominal Operating Cell Temperature	45±2 °C					

STC: Irradiance 1000 W/m<sup>2</sup> module temperature 25°C AM=1.5

NOCT: Irradiance 800 W/m<sup>2</sup> ambient temperature 20°C wind speed :1m/s Power measurement tolerance: +/-3%

## Mechanical Specifications

External Dimension(mm)	2278X1134X35
Weight	28.5kg
Solar Cells	Mono Crystalline 182×91mm
No. of Cells	Half cells 144(6*24)10BB PERC
Frame	Anodized aluminium alloy
Junction Box	IP68, MC4
No. of Bypass Diodes(pcs.)	3
Output Cables	Φ=4mm <sup>2</sup> , L=300±5mm
Connector	MC4 Compatible
Load Max	5400Pa

## Packing Configuration

Pieces per Carton	31pieces/Carton
Pieces per Container	620pcs/40HQ, 205pcs/20GP