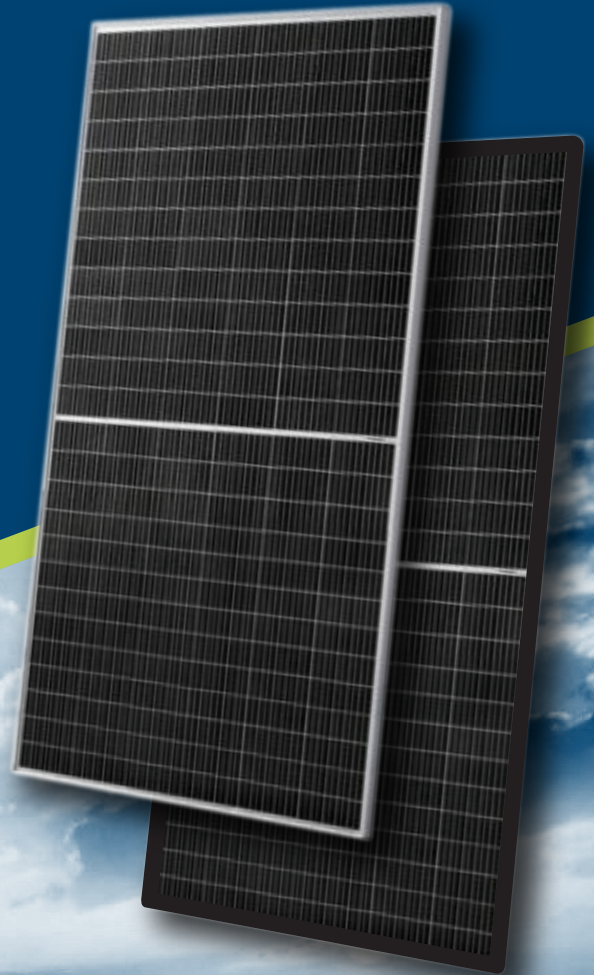


SERIES  
**MSEA**

435-455 WATT



True Source  
of **Energy**

AUSTRALIAN MADE

# FULLY AUTOMATED & LARGEST MANUFACTURING FACILITY IN AUSTRALIA



Crystalline Silicon  
PV Modules  
Type Testing

- ▶ IEC 61215-1: 2016
- ▶ IEC 61215-1-1: 2016
- ▶ IEC 61215-2: 2016
- ▶ IEC 61730-1: 2016
- ▶ IEC 61730-2: 2016
- ▶ EN 61215-1: 2016
- ▶ EN 61215-1-1: 2016
- ▶ EN 61215-2: 2017
- ▶ EN IEC 61730-1: 2018
- ▶ EN IEC 61730-2: 2018
- ▶ Periodically Factory Inspection as per CIG 021-024

[www.dekra-seal.com](http://www.dekra-seal.com)



**Our Approach** We believe high quality solar power should be produced locally at globally competitive pricing.

Meticulous manufacturing, testing and quality assurance standards, DEKRA certified according to IEC standards and developed QMS system ensures consistent quality and traceability.

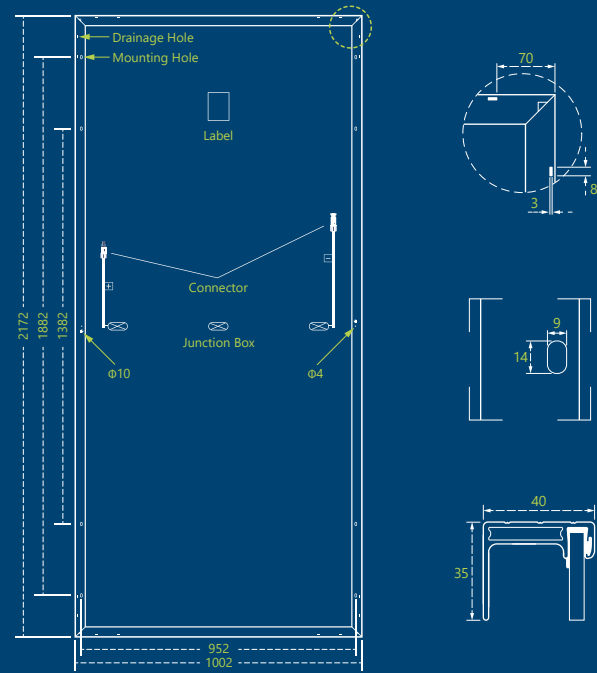
## Our Quality

- 2400 pa wind & 5400 pa mechanical loads
- High temperature operation
- Easy module replacement
- PID , Salt mist and ammonia corrosion resistant
- Quality control and traceability by stringent QMS system
- State of ART fully automatic facility
- Earth leakage tested to 3600V DC
- Double Electro-Luminescence (EL) tested
- Built to perform in low light condition
- Module Pass fire class C performance per UL790



# Module Design

- Cells Type Mono 158.75×79.375mm
- Weight 24.8kg
- Dimension 2172×1002×40mm
- Output Cables 4.0mm<sup>2</sup>; Portrait: N 400mm/P 300mm,  
(Cable length can be customized)
- No. of Cells 156(6×26)
- Glass 3.2 mm High Transmission, Antireflection Coating
- Junction box IP68, 3 Bypass Diodes
- Connector QC4 or MC4 Compatible
- Packing 27pcs/pallet, 270pcs/20GP, 580pcs/40HQ



**AUSTRALIAN  
QUALITY THAT  
YOU CAN TRUST**

## Modules

	MSEA-435W-MH78		MSEA-440W-MH78		MSEA-455W-MH78	
	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	435W	328W	440W	332W	455W	336W
Open-circuit Voltage (Voc)	52.9V	51.2V	53.1V	51.4V	53.7V	51.6V
Maximum Power Voltage (Vmp)	45.3V	42.9V	45.6V	43.1V	45.8V	43.3V
Short-circuit Current (Isc)	10.30A	8.21A	10.37A	8.24A	10.54A	8.29A
Maximum Power Current (Imp)	9.61A	7.65A	9.65A	7.70A	9.72A	7.76A
Module Efficiency (%)	20.35%		20.42%		20.60%	
Operating Temperature (°C)	-40 ~ +85°C					
Maximum System Voltage	1500V DC					
Maximum Series Fuse Rating	20A					
Power Tolerance	0~+5W					
Tolerance of rating Pmax/Isc/Voc%	3/3/3					

NOCT : Irradiance 800w/m<sup>2</sup>, Cell temperature 20°C, Spectrum AM1.5, Wind speed 1m/s  
 STC : Irradiance 1000w/m<sup>2</sup>, Cell temperature 25°C, Spectrum AM1.5

## TEMPERATURE RATINGS

Nominal Operating Cell Temp	45°C ±2°C
Tempcoefficient of Pmax	-0.37%/°C
Tempcoefficient of Voc	-0.29%/°C
Tempcoefficient of Isc	0.05%/°C

## MAXIMUM RATINGS

Operational Temp	-40 to +85°C
Max system Voltage	1500V DC (IEC)
Max Series Fuse Rating	20A
Mechanical Load	5400pa

## PERFORMANCE WARRANTY

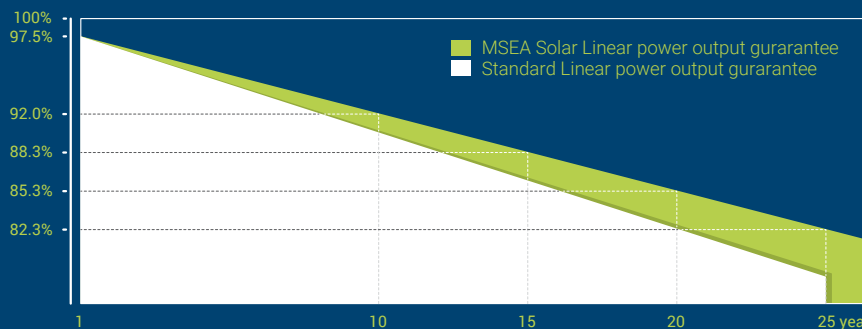
Max power degradation 0.5%/year  
 97.5% at the end of first year  
 92.0% at the end of 10th year  
 82.3% at the end of 25th year

20  
YEAR

**PRODUCT  
WARRANTY**

25  
YEAR

**PERFORMANCE  
WARRANTY**



**20.60%**  
Max Module Eff.


**0~+5W**  
Positive Tolerance



MADE IN AUSTRALIA

## CONTACT US

For any enquiries, mail us at  
[support@msquareenergy.com.au](mailto:support@msquareenergy.com.au)

 1800 336 786 | +61 286073354

 96-100 Toongabbie Rd  
Girraween NSW Australia 2145

For more details, visit [msquareenergy.com.au](http://msquareenergy.com.au)

