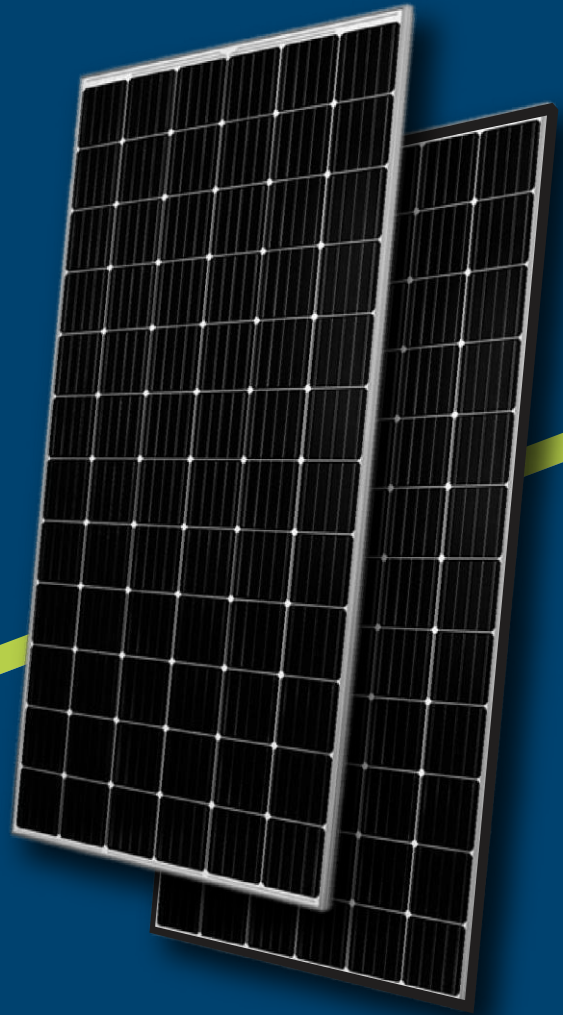


SERIES  
**MSEA**

355-370 WATT



**True Source  
of Energy**

**AUSTRALIAN MADE**

# Fully Automated & Largest Manufacturing Facility in Australia



## 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.

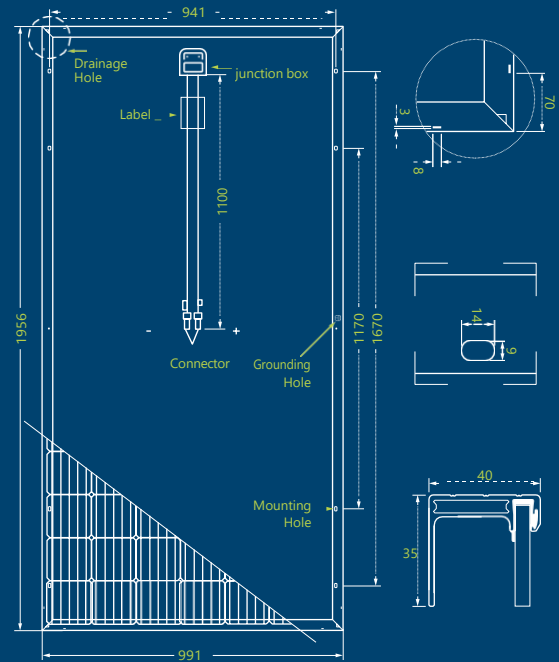
## Our Quality

- 2400 pa wind & 5400 pa mechanical loads
- High temperature operation
- Easy module replacement
- 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

<b>Cells Type</b>	Mono 156.75×156.75mm
<b>Weight</b>	22.5kg
<b>Dimension</b>	1956×991×40mm
<b>Output Cables</b>	TUV, Length 1100mm, 4.0mm <sup>2</sup>
<b>No. of Cells</b>	72 (6×12)
<b>Glass</b>	3.2mm High Transmission, Antireflection Coating
<b>Junction box</b>	IP68, 3 Bypass Diodes
<b>Connector</b>	QC Solar (Suzhou) Corporation(QC4.10-35)
<b>Packing</b>	30pcs/pallet, 336pcs/20GP, 792pcs/40HQ



**AUSTRALIAN  
QUALITY THAT  
YOU CAN TRUST**

## Modules

	MSEA72-355W		MSEA72-360W		MSEA72-365W		MSEA72-370W	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	355W	266W	360W	270W	365W	274W	370W	278W
Open-circuit Voltage (Voc)	47.0V	44.1V	47.2V	44.4V	47.4V	44.7V	47.6V	45.0V
Maximum Power Voltage (Vmp)	38.8V	36.0V	38.9V	36.3V	39.1V	36.6V	39.3V	36.9V
Short-circuit Current (Isc)	9.69A	7.81A	9.76A	7.86A	9.82A	7.92A	9.91A	7.98A
Maximum Power Current (Imp)	9.15A	7.37A	9.26A	7.44A	9.34A	7.49A	9.42A	7.54A
Module Efficiency (%)	19.40%		19.55%		19.80%		20.02%	
Operating Temperature (°C)	-40 ~ +85°C							
Maximum System Voltage	1500V DC							
Maximum Series Fuse Rating	16A							
Tolerance of rating	±3%/±4%/±4%							
Pmax/Isc/Voc%								

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

Serial number having prefix: MSEA is Made in Australia

Serial number having prefix: MSEC is Made in China

## TEMPERATURE RATINGS

Nominal Operating CellTemp	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	16A
Mechanical Load	5400pa

## PERFORMANCE WARRANTY

Max power degradation	0.5%/year
97.5% at the end of first year	
93% at the end of 10th year	
85.5% at the end of 25th year	



**20.02%**

Max Module Eff.

**0~+5W**

Positive Tolerance



**Made In Australia**

## **CONTACT US**

# **MSquare Energy Pty Ltd**

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

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

# SG5.0RT/SG7.0RT/SG10RT/ SG15RT/SG20RT **New**

**SUNGROW**  
Clean power for all

Multi-MPPT String Inverter for 1000 Vdc System



## HIGH YIELD

- Lower startup & wider MPPT voltage
- Compatible with bifacial modules
- Built-in PID recovery function

## SMART MANAGEMENT

- Smart IV curve scanning
- 24/7 Live monitoring
- Over-the-air firmware updates

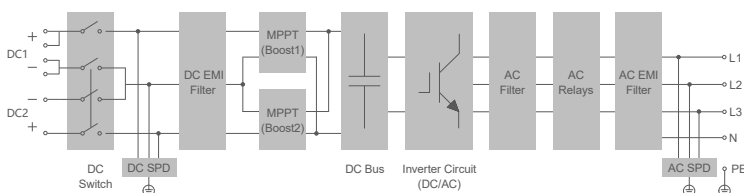
## SAFE AND DURABLE

- Quick arc fault circuit interrupter
- Build-in Type II DC & AC SPD
- High anti-corrosion rating at C5

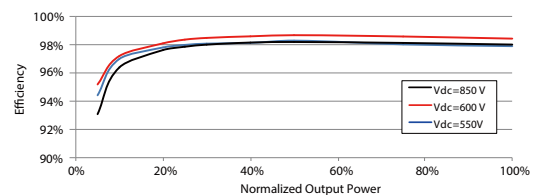
## EASY AND USER FRIENDLY

- 18 kg compact design
- Unique push-in connectors
- Fast and easy commissioning via App

## CIRCUIT DIAGRAM



## EFFICIENCY CURVE



# SG5.0RT/SG7.0RT/SG10RT/SG15RT/SG20RT

Type designation	SG5.0RT	SG7.0RT	SG10RT	SG15RT	SG20RT
<b>Input (DC)</b>					
Recommended max. PV input power	7.5 kW	10.5 kW	15 kW	22.5kW	30 kW
Max. PV input voltage			1100 V		
Min. PV input voltage / Start-up input voltage			180 V		
Nominal input voltage			600 V		
MPP voltage range			160 V – 1000 V		
No. of independent MPP inputs			2		
No. of PV strings per MPPT	1/1	2/1	2/1	2/2	2/2
Max. PV input current	25 A (12.5 A/12.5 A)	37.5 A (25 A/12.5 A)	37.5 A (25 A/12.5 A)	50 A (25 A / 25 A)	50 A (25 A / 25 A)
Max. current for input connector			30A		
Max. DC short-circuit current	32 A (16 A / 16 A)	48 A (32 A / 16 A)	48 A (32 A / 16 A)	64 A (32 A / 32 A)	64 A (32 A / 32 A)
<b>Output (AC)</b>					
Nominal AC power (@230 V, 50 Hz)	5000 W	7000 W**	10000 W	15000 W	20000 W
Max. AC output power	5500 VA*	7700 VA**	11000 VA*	16500 VA*	22000 VA*
Max. AC output current	8.3 A	11.7 A	16.7 A	25 A	31.9 A
Nominal AC voltage			3 / N / PE, 220 / 380 V 3 / N / PE, 230 / 400 V 3 / N / PE, 240 / 415 V		
AC voltage range			180 V – 276 V		
Nominal grid frequency / Grid frequency range			50 Hz / 45 – 55 Hz 60 Hz / 55 – 65 Hz		
Harmonic(THD)			<3 % (at nominal power)		
Power factor at nominal power / Adjustable power factor			>0.99 / 0.8 leading – 0.8 lagging		
Feed-in phases / AC connection			3 / 3		
<b>Efficiency</b>					
Max. efficiency	98.40%	98.40%	98.50%	98.50%	98.50%
European efficiency	97.40%	97.70%	97.90%	98.10%	98.10%
<b>Protection</b>					
Grid monitoring			Yes		
DC reverse connection protection			Yes		
AC short-circuit protection			Yes		
Leakage current protection			Yes		
Surge Protection			DC Type II / AC Type II		
DC switch			Yes		
Arc fault circuit interrupter (AFCI)			Yes		
PID recovery function			Yes		
<b>General Data</b>					
Dimensions (W*H*D)			370 * 480 * 195 mm		
Mounting method			Wall-mounting bracket		
Weight	18 kg	18 kg	18 kg	21 kg	21 kg
Topology			Transformerless		
Degree of protection			IP65		
Operating ambient temperature range			-25 °C to 60 °C		
Allowable relative humidity range			0% – 100%		
Cooling method	Natural cooling	Natural cooling	Natural cooling	Smart forced air cooling	Smart forced air cooling
Max. operating altitude			4000 m (> 2000 m derating)		
Noise(Typical)	35dB (A)	35dB (A)	35dB (A)	45dB (A)	45dB (A)
Display			LED		
Communication			WLAN, Ethernet, RS485, DI, DO		
DC connection type			MC4		
AC connection type			Plug and play		
Compliance	EN 61000-6-1/-3, IEC62109-2, IEC 61727, IEC 62116, AS/NZS 4777.2:2015, VDE-AR-N-4105, DIN VDE0126-1-1, CEI 0-21, EN50549-1				

\*: For Australia & Belgium & Germany Max. AC output power: SG5.0RT is 5000VA, SG10RT is 10000VA, SG15RT is 15000VA, SG20RT is 20000VA,

\*\* : For Australia, 6999W, 6999 VA

