# Symmetry Small Area 12V Solar Modules



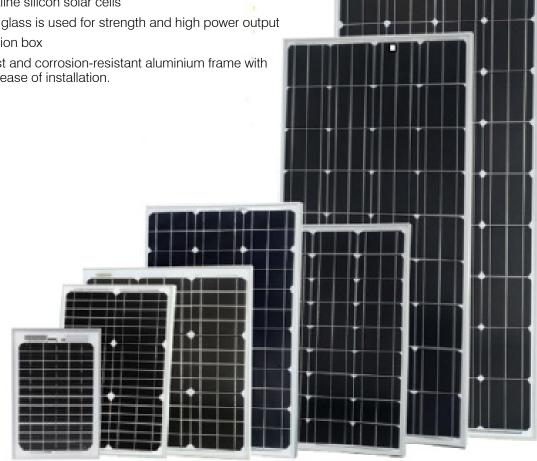
The Symmetry range of small area modules are perfect for use in a wide variety of low power solar PV systems. Available in a range of sizes from 5 watts up to 160 watts, the Symmetry range uses German manufactured mono-crystalline, weatherproof A grade solar cells in a robust aluminium frame.

## Features:

- Product range Products range from 5 watts to 160 watts
- High efficiency mono-crystaline silicon solar cells
- Low iron, high transmission glass is used for strength and high power output
- Weather-resistant IP65 junction box
- Framed with a strong, robust and corrosion-resistant aluminium frame with multiple mounting holes for ease of installation.

### Features:

- Off-Grid System
- Solar Fountains
- ■Caravans
- Boats
- Remote Lighting
- Telemetry
- Electric Fencing



# symmetry





## 5 to 40 Watts

Model Number	SY-M5W-8M	SY-M10W-8M	SY-M20W-5M	SY-M30W-5M	SY-M40W-5M		
Nominal Peak (W)	5	10	20	30	40		
Cell Type	Mono-Crystalline						
Module Size L x W (mm)	250 x 185	335 x 235	430 x 345	605 x 345	550 x 505		
Frame Depth	25						
Max. Power Voltage Vmp (V)	17.8						
Max. Power Current Imp (A)	0.28	0.56	1.12	1.69	2.25		
Open Circuit Voltage Voc (V)	22.3				21.6		
Short Circuit Current Isc (A)	0.30	0.61	1.21	1.82	2.43		
Power Output Tolerance Pmax (%)	±3%						
Operating Temperature (°C)	-40 ~ +85						
Maximum System Voltage (VDC)	1000						
Net Weight (kg)	1	1.2	2	2.5	3.2		
Junction Box IP Rating	IP 65						
Diode	1 Bypass diode						
Cable	8m x 1.3mm <sup>2</sup> red/black dual core with tinned cable ends (UV resistance) 5m x 1.3mm <sup>2</sup> red/black dual core with tinned cable ends (UV resistance)						
Warranty	Workmanship and materials: 5 years Power output: At least 90% after 10 years and more than 80% after 25 years.						

## 50 to 160 Watts

Model Number	SY-M50W/LH4	SY-M60W/LH4	SY-M80W/LH4	SY-M100W/LH4	SY-M160W/LH4		
Nominal Peak (W)	50	60	80	100	160		
Cell Туре	Mono-Crystalline						
Module Size L x W (mm)	650 x 505	770 x 505	770 x 670	1200 x 540	1475 x 670		
Frame Depth	25	30		35			
Max. Power Voltage Vmp (V)	17.8						
Max. Power Current Imp (A)	2.81	3.37	4.49	5.62	8.99		
Open Circuit Voltage Voc (V)	21.6	21.6 22.3					
Short Circuit Current Isc (A)	3.03	3.64	4.85	6.07	9.71		
Power Output Tolerance Pmax (%)	$\pm 3\%$						
Operating Temperature (°C)	-40 ~ +85						
Maximum System Voltage (VDC)	1000						
Net Weight (kg)	4.6	5	6	9	12		
Junction Box IP Rating	IP65						
Diode	2 bypass diode						
Cable	2 x 0.9m long 2.5mm <sup>2</sup> cable 2 x 0.9m long 4mm <sup>2</sup> cable						
Connector	2 x LH4 male & female connectors (30 amps)						
Warranty	Workmanship and materials: 5 years Power output: At least 90% after 10 years and more than 80% after 25 years						
Connector Accessories	SY-LH4-PAIR - LH4 1 x male & 1 x female LH4 connectors SY-LH4-BC-2F1M - LH4 branch connector 2 x female & 1 x male SY-LH4-BC-2M1F - LH4 branch connector 2 x male & 1 x female						
Cable Accessories	SY-1M/LH4 – 1m cable terminated with 1 x male & 1 x female LH4 connector SY-4M/LH4 - 4m cable terminated with 1 x male & 1 x female LH4 connector SY-12M/LH4 - 12m cable terminated with 1 x male & 1 x female LH4 connector						