


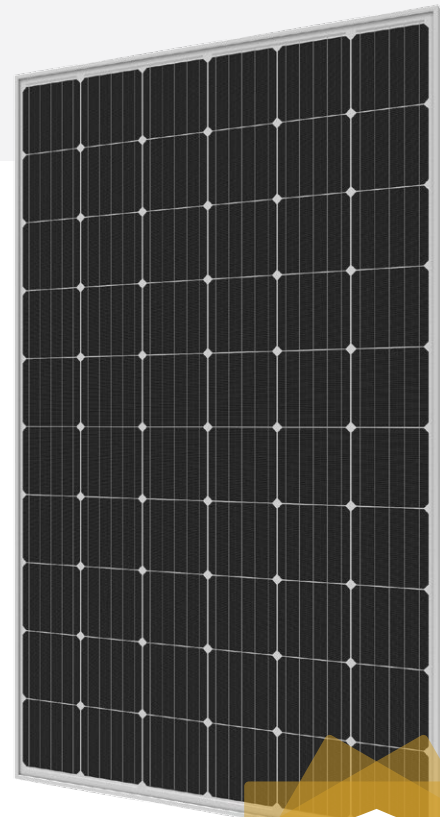


# MC series solar panels

autarco

The Autarco MC series solar panels are based on high efficiency monocrystalline PERC cells with five bus-bars (5BB) in a 6x10 layout. The ability to withstand mechanical loads of up to 6000 Pa, combined with superior resistance to sand, salt and ammonia delivers long lasting performance in even the harshest environments.

- 25** Insured linear 25-year performance guarantee up to 80.2%
- 10** 10-year product warranty
-  Salt and ammonia resistant
-  Free of potential induced degradation (PID)
-  Higher reliability and durability (6000 Pa)



## Quality certificates

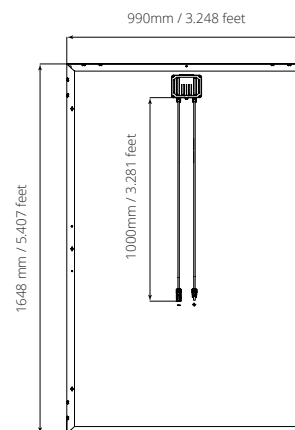
- IEC 61215, IEC61730, VDE, CE, MCS, CEC AU, UL1703
- ISO 9001, 14001, 18001 - CE
- Solarif, PV-Cycle



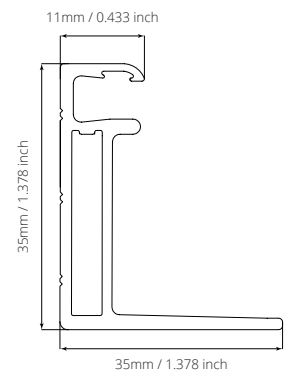
## Cells and construction

<b>Cells</b>	60 cells (157 x 157mm) in a 6 x 10 matrix connected in series
<b>Junction box</b>	IP67 box with 1000mm 4mm <sup>2</sup> cable fitted with MC4 connectors
<b>Diodes</b>	Three by-pass diodes
<b>Construction</b>	Front: 3.2mm glass Back: Composite Film (white) Encapsulant: EVA (white)
<b>Frame</b>	Anodized aluminium (silver)
<b>Weight</b>	18.3 kg
<b>Dimensions</b>	1648 x 990 x 35mm

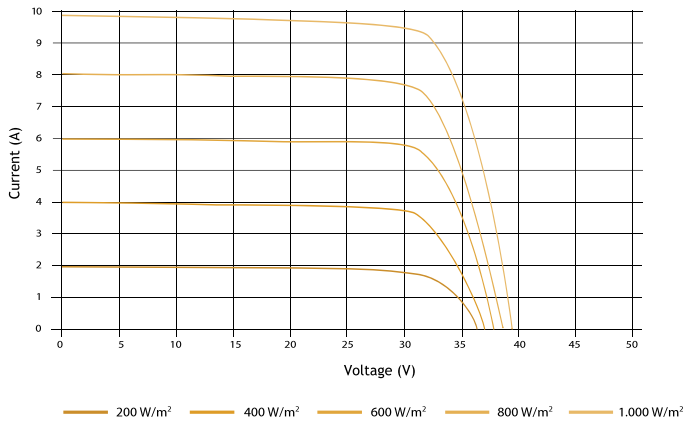
Panel



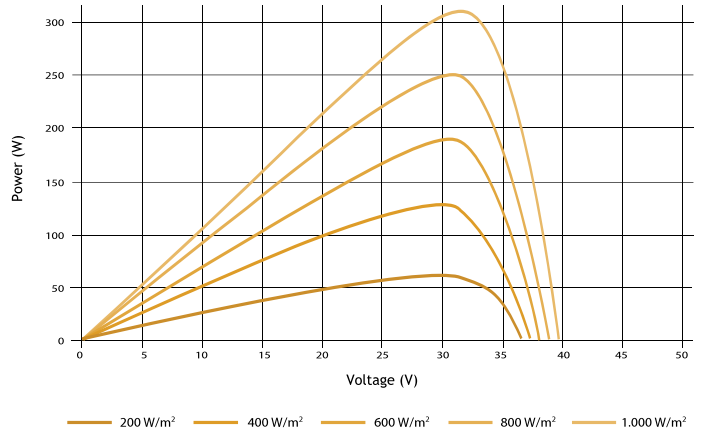
Frame cross section



## IV curve



## Power curve



## Electrical characteristics

		MC290	MC295	MC300	MC305	MC310
<b>Nominal power output (Wp)</b>	(P <sub>max</sub> )	290	295	300	305	310
<b>Power output tolerance (W)</b>	(ΔP <sub>max</sub> )	0/+5	0/+5	0/+5	0/+5	0/+5
<b>Open circuit voltage (V)</b>	(V <sub>oc</sub> )	39.45	39.81	39.90	40.05	40.18
<b>Short circuit current (A)</b>	(I <sub>sc</sub> )	9.54	9.59	9.68	9.72	9.86
<b>Max. power voltage (V)</b>	(V <sub>mp</sub> )	32.15	32.38	32.59	32.80	32.96
<b>Max. power current (A)</b>	(I <sub>mp</sub> )	9.03	9.12	9.21	9.30	9.42
<b>Module efficiency (%)</b>	(η)	17.80	18.10	18.40	18.70	19.00

Electrical values at standard test conditions (STC): irradiation 1000W/m<sup>2</sup>, air density AM1.5 and cell temperature 25°C  
 Max string voltage: 1000V, max series fuse: 15A

## Temperature characteristics

<b>I<sub>sc</sub> (α)</b>	+0.042% / °C
<b>V<sub>oc</sub> (β)</b>	-0.284% / °C
<b>P<sub>max</sub> (γ)</b>	-0.380% / °C
<b>Nominal cell temperature</b>	46°C (+/- 2°C)

## Other characteristics

<b>Operating temperature range</b>	-40°C to 85°C
<b>Max. load (front / wind)</b>	6000 / 2400 Pa
<b>Ammonia and salt resistance</b>	IEC 62716, 61701
<b>Max. hailstone impact</b>	25mm @ 23m/s
<b>Standard packaging</b>	31 pcs
<b>Quantity per 40'HQ container</b>	868 pcs

The specifications contained in this datasheet may deviate slightly from our actual products due to on-going product improvement and are subject to change at any time without prior notice.

