

GF 270

GF 270 solar modules are suitable for the RSI, SQFlex and CRFlex water supply system based on renewable energy sources.

GF 270 solar modules consist of 60 polycrystalline silicon solar cells in series with 3 bypass diodes. The solar cells are laminated between sheets of ethylene vinyl acetate (EVA) and tempered glass.

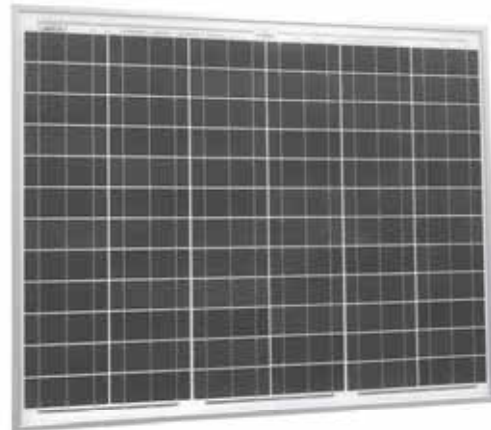
Each solar module is equipped with plugs and sockets for easy connection of several modules in parallel or series. The solar modules must be mounted on a support structure, tilted at an angle ensuring optimum utilisation of the solar energy.

Quality

- Manufactured in ISO 9001 and 14001-certified factories.
- Listed by Underwriter's Laboratories for electrical and fire safety (Class C fire rating).
- GF 270 is CE marked.
- Compliant with the requirements of IEC 61215 including:
 - thermal cycling between -40 °C and 85 °C (-40 °F and 185 °F) at 85 % relative humidity,
 - simulated impact of one inch hail at 84 km/h (52 mph) (terminal velocity),
 - a "damp heat" test, consisting of 1000 hours of exposure to 85 °C (185 °F) and 85 % relative humidity,
 - a "hot spot" test determining a module's ability to tolerate localised shadowing (which can cause reverse-biased operation and localised heating),
 - static mechanical load, front and back, of 2400 Pa (0.35 psi / 50 psf) corresponding to a windspeed of 130 km/h (81 mph); front load (e.g. snow) of 5400 Pa (0.78 psi / 113 psf),
 - certified according to IEC 61730-1 and IEC 61730-2:2007-05.

Warranties

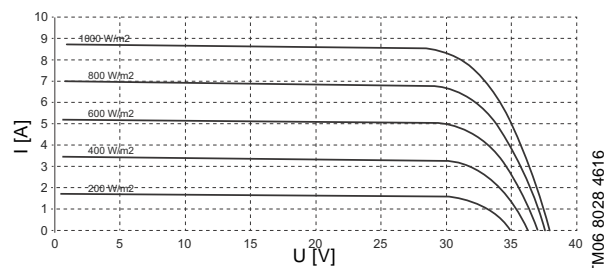
- Power output:
 - 25 years limited warranty of 80 % power output.
 - 12 years limited warranty of 90 % power output.
- Workmanship: 2 years.



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Performance

The performance chart below shows the relationship between the current [A] and the voltage [V].

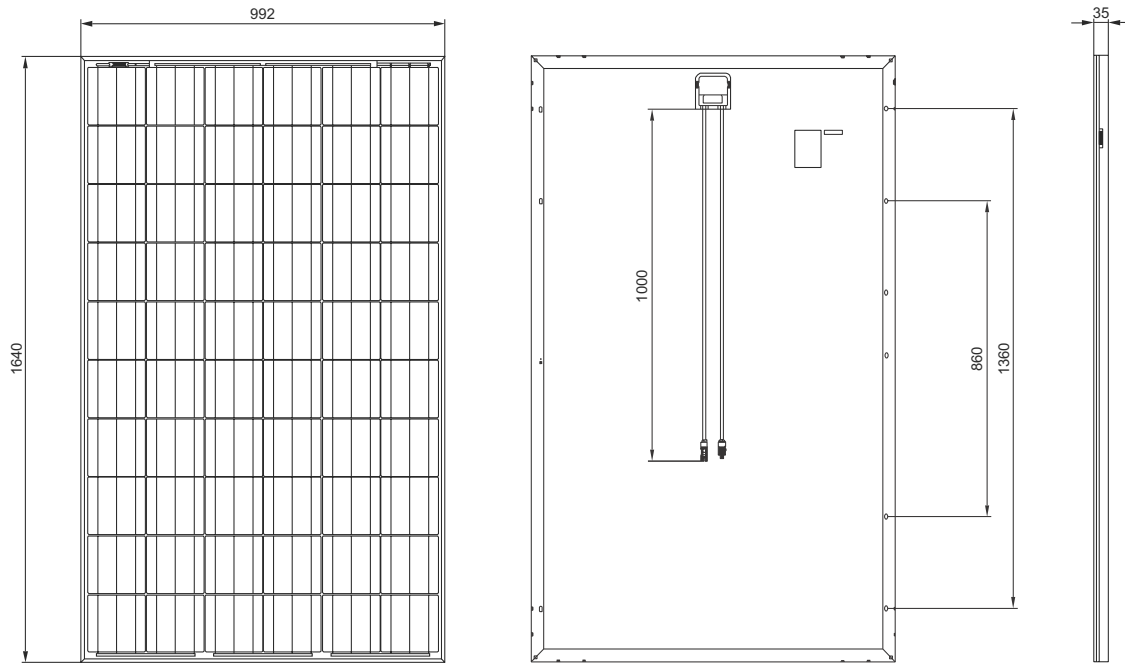


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Characteristics

	GF 270
Peak power (P_{max})	270 W
Voltage (U_{mp})	31.6 V
Current (I_{mp})	8.76 A
Open circuit voltage (U_{oc})	38.4 V
Short circuit current (I_{sc})	9.11 A
Temperature coefficient (I_{sc})	0.05 %/K
Temperature coefficient (V_{oc})	-0.31 %/K
Number of solar cells	60 cells
Nominal operating temperature (NOCT)	46 °C
Connector	MC4
Net weight	18 kg
Dimensions	1640 x 992 x 35 mm

Construction and dimensions



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Dimensions [mm]

Product numbers		
Solar module GF 270		99299012
Array-to-controller wire kit	Cable length 10 m / 32.8 f	98257868
Array-to-array wire kit	Cable length 0.5 m / 1.64 f	98257892

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ECM: 1231724

Subject to alterations.