

GF 100 TF

GF100 TF solar module are suitable for all Grundfos Renewable-energy based water pumping system.

GF100 TF is a high performance and high quality thin-film solar module. The module is of a framed design and with an integrated junction box.

The solar module must be mounted on a support structure with a tilted angle to ensure optimum exposure to sun irradiation.

Quality

- Manufactured in ISO 9001, ISO 14001-certified factory.
- Listed by Underwriter's laboratories (UL1730) for electrical and fire safety (Class C fire rating).
- Tested in accordance with IEC 61 646 and 61 730.
- Compliant with the requirements of IEC 61 646 including:
 - thermal cycling between -40°F and $+185^{\circ}\text{F}$ (-40°C and $+85^{\circ}\text{C}$) at 85% relative humidity,
 - simulated impact of one inch hail at 52 mph (terminal velocity),
 - a "damp heat" test, consisting of 1000 hours of exposure to 185°F (85°C) 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 81 mph (130 km/h); front load (e.g. snow) of 5400 Pa (0.78 psi/113 psf).

Warranties

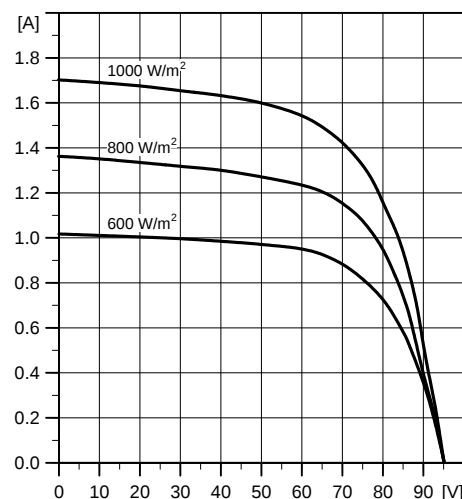
- Power output:
 - 25 years limited warranty of 80 % power output.
 - 10 years limited warranty of 90 % power output.
- Workmanship: 5 years.



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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

Data	GF 100 TF
Peak power (P_{max})	100 [W]
Voltage (V_{mp})	70 [V]
Current (I_{mp})	1.43 [A]
Open circuit voltage (V_{oc})	96 [V]
Short circuit current (I_{sc})	1.7 [A]
Reference cell temperature (T_{ref})	77 °F / 25 °C
Solar irradiation at reference cell temperature (I_{ref})	1000 [W/m^2]
Net weight (15 modules)	655 [lbs]/297 [kg]
Gross weight (15 modules)	748 [lbs]/339 [kg]
Shipping volume (15 modules)	42.48 [ft^3]/1.203 [m^3]

