

CIGS Thin Film Solar Module

20 years output warranty (80%)
10 years output warranty (90%)
2 years product warranty



Summary of Qualities

- glass-free modules are unbreakable and light-weight
- low weight allows for easy handling and fast installation
- can be bonded, bolted or heat-welded to appropriate supports
- balance of systems costs 40% lower since a racking system is not needed
- innovative encapsulation is safe, robust and guarantees long module lifetime
- high energy output yields excellent performance ratios
- no initial performance degradation like with other thin film technologies
- low voltage allows for up to 32 modules per string
- resistant to potential induced degradation (PID) up to 1000 V system voltage
- junction box can be mounted as standard
- innovative CGIS-on-polyimide from roll-to-roll process
- developed, manufactured and quality-tested in Switzerland

Performance*

Performance at Standard Test Conditions (STC: 1000 W/m², Temp. 25°C, Wind 1m/s, Spectrum AM 1,5 G)

Nominal Power P _{max}	[W]	28
Voltage at Nominal Power V _{mp}	[V]	34
Current at Nominal Power I _{mp}	[A]	0.74
Open Circuit Voltage V _{oc}	[V]	46
Short Circuit Current I _{sc}	[A]	0.82

Temperature Coefficients

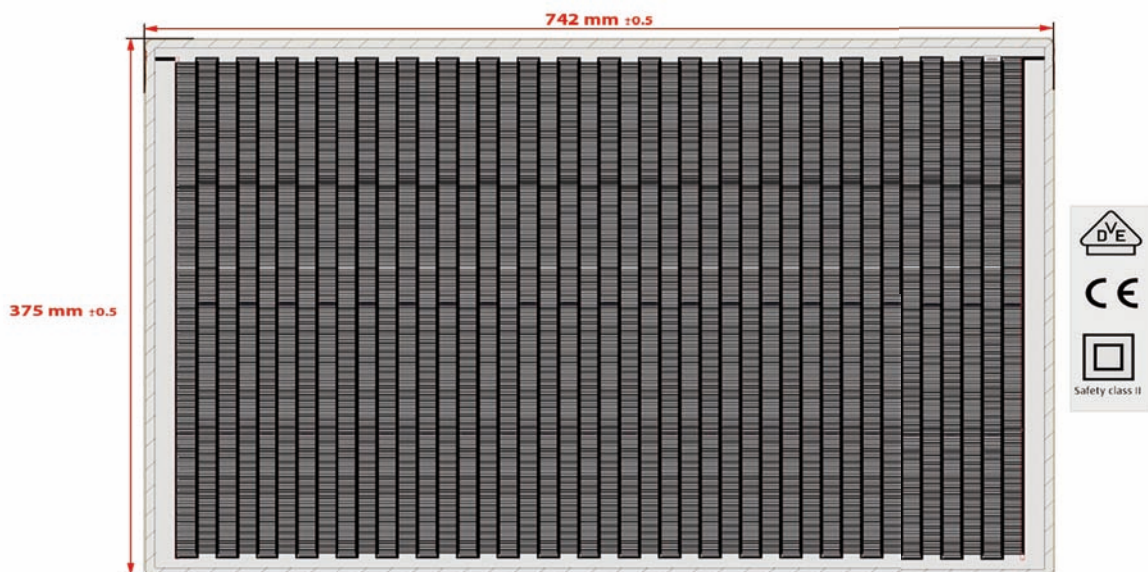
Temperature Range		-40 to +85 °C
Temperature Coefficient of V _{oc} (%/C)		-0.3
Temperature Coefficient of I _{sc} (%/C)		0.01
Temperature Coefficient of P _{mpp} (%/C)		-0.35

Mechanical Specifications

Module Construction	Barrier Foil/ Encapsulant/ Solar Cells/ Encapsulant/ Polymer
Type of Solar Cells	Flexible CIGS
Dimensions (L x W x T)	742 mm x 375 mm x 0.8 mm
Weight	0.350 kg
Max mechanical load	2400Pa, 245 kg/m ²
Certifications	IEC EN 61646 2nd Ed, IEC EN 61730
Product Guarantee	2 years workmanship after delivery date
Performance Guarantee	10 years 90%, 20 years 80% (of P _{mpp} under STC)

* Measurement tolerances: Nominal Power P_{mpp} ±5 %, all other Electrical Parameters ±10 %

Solar Module



Note: This preliminary data sheet is provided to assist you in the evaluation of the product still under development