

FL130T-1A

High efficiency multicrystal photovoltaic module



Frameless Kyocera solar module

EXAMPLES OF APPLICATION

- Grid-connected systems, for e.g.
 - Residential Solar Power Systems
 - Public and Industrial Solar Power Systems
 - Roof integrated installation
 - Façade installation
 - Special architectural solutions



Solar Carport, Germany

CUTTING-EDGE TECHNOLOGY

Exhaustive research work, continuous further development of production processes and highly automated production enable polycrystalline Kyocera solar modules to attain an exceptional standard of quality and markedly high levels of efficiency.

The integrated Kyocera high-performance solar cells with a standard size of 15 cm x 15.5 cm achieve over 16 % efficiency, guaranteeing an extremely high annual yield of energy from the photovoltaic system.

To protect against the harshest weather conditions, the cells are embedded between a reinforced glass covering (hailstorm resistance complying with IEC 61215, tested by TÜV) and EVA foil, and are sealed with a PET foil backing.

The back of the junction box is equipped with bypass diodes that eliminate the risk of the individual solar cells overheating (hot spot effect). The solar cables ensure flexible installation in the junction box. With an appropriate installation system*, the frameless solar module is especially suited for direct integration in the roof covering.

Kyocera manufactures all the components at its own production sites – without buying in semi-finished products – to ensure consistently high product quality.

TUVdotCOM Service: Internet platform for tested quality and service
 TUVdotCom-ID: 0000018379
 IEC 61215* and Safety Class II
 Kyocera is ISO 9001 and ISO 14001 certified and registered.



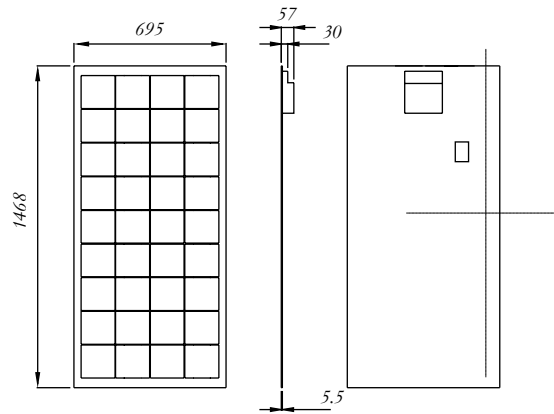
**KYOCERA
SOLAR**

We care!

* The IEC 61215 certification as well as all warranty claims only apply to professional use of the solar modules in the following form of system checked for stability so far: -YOLRUF-PV- Inproof systems, Ernst Schützler-AG, Heilbronn, Schutzgerüst, Level of production 07/2006 -more installation systems on request

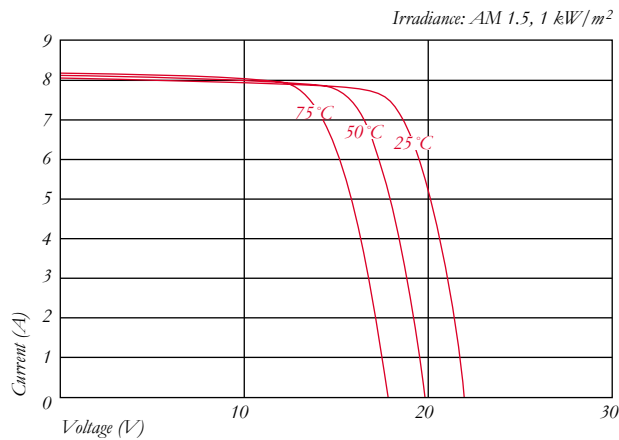
SPECIFICATIONS

in mm

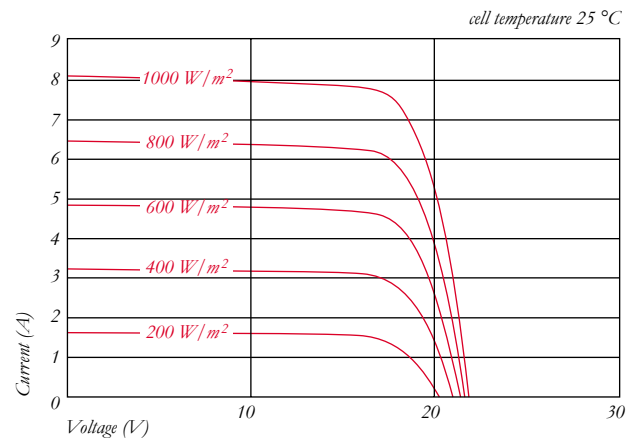


ELECTRICAL CHARACTERISTICS

Current-Voltage characteristics at various cell temperatures



Current-Voltage characteristics at various irradiance levels



ELECTRICAL PERFORMANCE

PV module type	FL130T-1A
At 1000 W/m² (STC)*	
Maximum Power	[W] 130
Maximum System Voltage	[V] 600
Maximum Power Voltage	[V] 17.6
Maximum Power Current	[A] 7.39
Open Circuit Voltage (V _{OC})	[V] 21.9
Short Circuit Current (I _{SC})	[A] 8.02
At 800 W/m² (NOCT)**	
Maximum Power	[W] 92
Maximum Power Voltage	[V] 15.5
Maximum Power Current	[A] 5.94
Open Circuit Voltage (V _{OC})	[V] 19.9
Short Circuit Current (I _{SC})	[A] 6.47
NOCT	[°C] 47
Power tolerance	[%] +10 / -5
Temperature Coefficient of V _{OC}	[V/°C] -8.21x10 ⁻²
Temperature Coefficient of I _{SC}	[A/°C] 3.18x10 ⁻³
Reduction of efficiency (from 1000 W/m ² to 200 W/m ²)	[%] 4.7

DIMENSIONS

Length	[mm]	1468
Width	[mm]	695
Depth / incl. junction box	[mm]	30 / 57
Weight	[kg]	10,5
Connection type		Screw terminals
Junction box	[mm]	170.6x191.6x51.5
IP Code		IP65

GENERAL INFORMATION

Performance guarantee	10 years****
Warranty	2 years

CELLS

Number per module	36
Cell Technology	multicrystal
Cell Shape (rectangular)	[mm] 150x155
Cell Bonding	3 busbar

* Electrical values under standard test conditions (STC): irradiation of 1000 W/m², airmass AM 1.5 and cell temperature of 25 °C

** Electrical values under normal operating cell temperature (NOCT): irradiation of 800 W/m², airmass AM 1.5, wind speed of 1 m/s and ambient temperature of 20 °C

*** 10 years on 90% of the minimally specified power P under standard test conditions (STC).

Your local Kyocera dealer:

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