

KIOTO
SOLAR

SOLAR MODULE

250 Wp poly

270 Wp mono

Smart 60



SMART!
Module-
optimizing

Advantages of KIOTO modules:

1. Module integrated MPP-tracking
2. Yield surplus up to 25 %
3. More flexibility in generator design
(various directions, shadowing,...)

Ready for:

4. Integrated monitoring on
module-, string- and generator level
5. System safety due to automatic shut down
on module level

The new intelligent KIOTO SMART photovoltaic module is ideal for generators with possible shadowing. Due to the module optimizer all panels react independently from each other and always provide the production optimum. There is no negative influence on the complete string because of shadowing. The generator design is more flexible, also roof surfaces with different orientations can be equipped with modules. Losses, temperature differences as well as contaminations are compensated. Every module can be set in a safety state and will be de-energized in case of maintenance or fire. Therefore the austrian guideline R11-01 is completely fulfilled.

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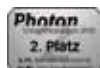


kiotosolar.com

Smart-60 KPV PE NEC 250 Wp poly KPV ME NEC 270 Wp mono

MODULE SPECIFICATIONS

Type	Pmpp _[Wp]	Umpv _[V]	Imp _[A]	Uoc _[V]	Isc _[A]	efficiency rate	area per kWp
KPV 250 PE poly	250 Wp	30,56 V	8,21 A	37,84 V	8,85 A	15,12 %	6,61 m ²
KPV 270 ME mono	270 Wp	30,84 V	8,83 A	37,87 V	9,16 A	16,34 %	6,12 m ²



ELECTRICAL DATA

60 crystalline cells:	156 mm x 156 mm
Connecting System:	SolarEdge OPJ300, MC4 - compatible connector 6 mm ²
Max. system voltage:	1000 V DC
Power tolerance:	(+ 5 W / - 0 W) Measurement: STC (standard test conditions)
Temperature coefficients:	poly: Pmpp= -0,405 %/K / Uoc= -114 mV/K / Isc= +4,1 mA/K mono: Pmpp= -0,37 %/K / Uoc= -90,7 mV/K / Isc= +2,85 mA/K
Ambient temperature:	+ 85°C to - 40°C
Cable length:	2 x 1000 mm
Bypass diodes:	3 pcs.
Efficiency guarantee:	min. 97% in the first year, afterwards max. 0,70 % reduction p.a. up to 25 years
Product guarantee:	12 years (excluding power electronics)

TECHNICAL DATA

With aluminium frame:	1666 mm x 992 mm x 40 mm (+/- 2 mm)
Weight:	20,00 kg
Glass specification:	Solar glass ESG 3,2 mm with high-strength antireflective coating
Encapsulation material:	Etimex, STRE
Backside material:	Isovoltaic
Test certificate:	IEC 61215, Ed. 2 incl. mechanical load test up to 5400 Pa, IEC 61730; IP 65, MCS - Certificate
Extended hail test:	Grainsize 25 mm, max. velocity of 46 m/s (165,6 km/h) and Grainsize 55 mm, max. velocity of 33,5 m/s (120,6 km/h)
Salt mist corrosion test:	A minimum of 96 hours continuous exposure to a highly concentrated salt mist
Packaging:	24 modules / pal.



Up to 25% yield surplus due to optimizing of single modules.



Roofs which were not sufficient for pv-generators, now can be equipped. Furthermore you can spare time in generator design.

Ready for:

Safety & Service

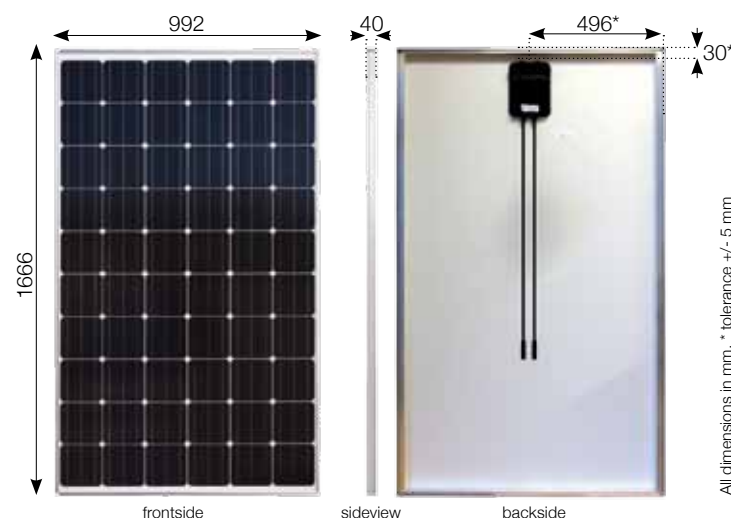


Maximum Safety standard and compliance of R11-01 guideline in Austria.

Monitoring



Monitoring on module level
Highest generator transparency and efficient maintenance.



Intelligent junction box

- Per module one MPP-tracker
- **Ready for*:** maximum safety standard R11-01
- **Ready for*:** Monitoring and surveillance on module level



* in combination with original Solaredge inverter