

## Solar Module

KIOTO  
SOLAR

### Power-60

275/280 Wp poly

300/305/310 Wp mono

### *TOP! The premium-class*

KIOTO Power modules are delivered with innovative aluminium frames for flexible mounting options. These output and yield optimized solar modules are designed mainly for the use in on grid systems.

**NEW:** All Power modules with **Design black** (black frame, black backs-heet) are delivered with a special Deflect solar glass. The module is perfectly suitable for regions where less light reflection is necessary e.g. next to airports, roads or multi-family homes.

### *Advantages:*

- // 12 years product warranty and 25 years linear performance warranty
- // Use of PID-resistant module components
- // Extremely solid (5400 Pa), nevertheless very light module construction (less than 20 kg)
- // Use of high quality components from nameable deliverers
- // Intelligent frame concept for technical safety, flexibility and homogeneous design
- // Optimized weak light behaviour



POWER-60

# KPV PE NEC 275/280 Wp poly

# KPV ME NEC 300/305/310 Wp mono

## Module specifications

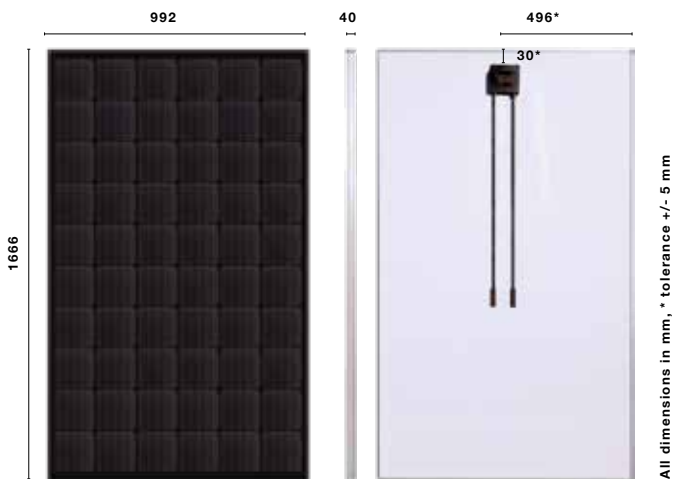
Type	P <sub>mp</sub> [W <sub>p</sub> ]	U <sub>mp</sub> [V]	I <sub>mp</sub> [A]	U <sub>oc</sub> [V]	I <sub>sc</sub> [A]	efficiency rate	area per kWp
275 poly	275 Wp	32,24 V	8,53 A	38,64 V	9,08 A	16,64%	6,00m <sup>2</sup>
280 poly	280 Wp	32,61 V	8,59 A	38,82 V	9,13 A	16,94%	5,90m <sup>2</sup>
300 mono PERC	300 Wp	32,28 V	9,29 A	38,23 V	9,69 A	18,15%	5,50m <sup>2</sup>
305 mono PERC	305 Wp	32,68 V	9,35 A	38,82 V	9,78 A	18,45%	5,42m <sup>2</sup>
310 mono PERC	310 Wp	32,91 V	9,42 A	39,28 V	9,85 A	18,76%	5,33m <sup>2</sup>

## Electrical data

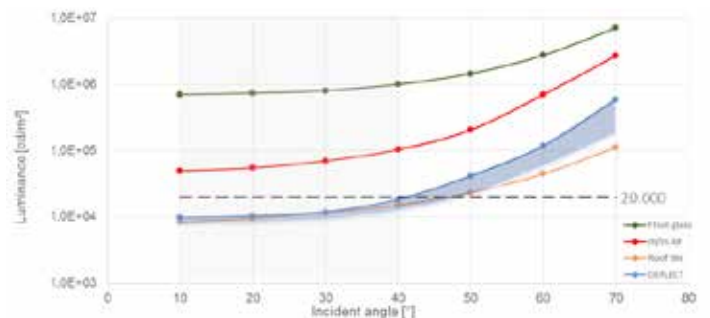
<b>60 crystalline cells</b>	156mm x 156mm
<b>Connecting System</b>	Tyco-PV4, MC4 - compatible plug in connector 4 mm <sup>2</sup>
<b>Max. system voltage</b>	1000V DC
<b>Power tolerance</b>	(+ 5 W / - 0 W) Measurement: STC (standard test conditions)
<b>Temperature coefficients</b>	poly: P <sub>mp</sub> -0,405%/K U <sub>oc</sub> -114mV/K I <sub>sc</sub> +4,1mA/K mono: P <sub>mp</sub> -0,37%/K U <sub>oc</sub> -90,7mV/K I <sub>sc</sub> +2,85mA/K
<b>Max. reverse over current</b>	15A
<b>Operation temperature</b>	+85°C up to -40°C
<b>Cable length</b>	2 x 1000mm
<b>Bypass diodes</b>	3 pcs. Tyco SL1515
<b>Efficiency guarantee</b>	min. 97% in the first year, afterwards max. 0,70 % reduction p.a. up to 25 years
<b>Product guarantee</b>	12 years

## Technical data

<b>incl. aluminium frame</b>	1666mm x 992mm x 40mm (+/-2mm)
<b>Laminate</b>	1659mm x 985mm x 4,5mm (Dosenhöhe 22,5mm)
<b>Weight with/without frame</b>	19,50kg/17,50kg
<b>Glass specification</b>	Solar glass ESG 3,2 mm with high-strength antireflective coating or solar glass Interfloat Deflect 3,2 mm
<b>Test certificate</b>	IEC 61215, Ed. 2 incl. mechanical load test up to 5400 Pa, IEC 61730; IP 65
<b>Extended hail test</b>	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)
<b>Salt mist corrosion test</b>	A minimum of 96 hours continuous exposure to a highly concentrated salt mist
<b>Ammonia resistance</b>	1500h at 750ppm Ammonia concentration
<b>Packaging</b>	24 modules / pal.



**Design Black with special DEFLECT glass:**  
 // Light transmission 94,9%  
 // Light reflection front side <20,000cd/m<sup>2</sup>  
 // less light reflection



The customer carries the sole responsibility the the goods ordered and delivered are suitable for his purposes. Applicational advices, whether verbal, in writing or by making tests are conducted to the best of KIOTO Photovoltaics GmbH's knowledge, whether verbal, in writing or by way of trials or otherwise, is provided to the best of our knowledge, but without any guarantee or liability. Special technical constructions may be subject to official approval. The constructor or the client is responsible for obtaining such official approval. The customer must bear any costs caused by changes or alterations because of special technical constructions, especially for tests or calculations. A project-related, static pre-dimensioning as well as the correct use of the glasses was not carried out or tested by us.  
 Measurement tolerance ±3%