

We care! Since 1975.

# POLYCRYSTALLINE SOLAR MODULES

KD-SERIE: KD145GH-4FU



*Apartment house, Germany*

## CUTTING-EDGE TECHNOLOGY

### ► Cell:

- 156 mm × 156 mm
- Polycrystalline, 3-busbar
- >16% efficiency
- Embedded in EVA film
- Silicon nitride texturing: Minimisation of light reflectivity, homogenous coloration

### ► Frame:

- Aluminium, **black** anodised and coated
- **Screwed** and also adhered
- Load capacity: **5,400 N/m<sup>2</sup>** (IEC standard: 2,400 N/m<sup>2</sup>)
- Interior drainage openings to protect against frost damage
- Flexible assembly (horizontal and upright)
- Approved for module inlay systems

### ► Junction box:

- Incl. bypass diodes
- **Encapsulated**, prevents penetration of moisture
- Highest fireproof class 5VA in accordance with UL94
- pre-configured with connection wires and SMK plug connectors

### ► Service:

- Professional Europe-wide customer service in Esslingen/Germany (**Service tested by TÜV**)
- Individual maintenance service increases life expectancy of the photovoltaic system

## COMPANY

### ► Competence and stability:

Founded in 1959 in Kyoto, Japan, Kyocera is now a globally active, financially powerful corporation with 230 subsidiaries.

### ► Quality:

Kyocera Solar, a pioneer in the photovoltaic sector and collaborator in groundbreaking photovoltaic solutions since 1975, is one of the leading manufacturers of solar energy systems. Kyocera was the first company to introduce the series production of polycrystalline silicon solar cells and the patented 3-busbar cell technology in mass production.

### ► Verified longevity:

The reliability and longevity of the products have been verified by proven long-term solutions. For example, systems installed in Japan and Sweden have been providing excellent yields since 1984.

### Kyocera photovoltaic modules meet the highest standards

Kyocera is ISO 9001, ISO 14001 and OHSAS 18001 certified and registered.



IEC 61215  
IEC 61730



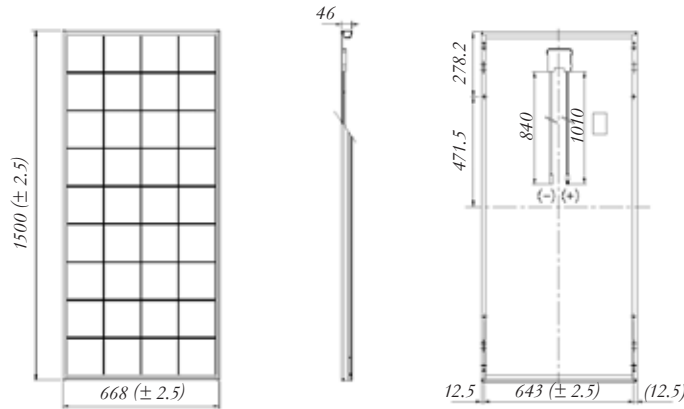
www.tuv.com  
ID 0000023299

Salt mist corrosion test, severity 6 according to IEC 61701



## SPECIFICATIONS

in mm



### ELECTRICAL PERFORMANCE

PV Module Type

#### At 1000 W/m<sup>2</sup> (STC)<sup>(1)</sup>

Maximum Power	[W]
Maximum System Voltage	[V]
Maximum Power Voltage	[V]
Maximum Power Current	[A]
Open Circuit Voltage (V <sub>OC</sub> )	[V]
Short Circuit Current (I <sub>SC</sub> )	[A]
Efficiency	[%]

#### At 800 W/m<sup>2</sup> (NOCT)<sup>(2)</sup>

Maximum Power	[W]
Maximum Power Voltage	[V]
Maximum Power Current	[A]
Open Circuit Voltage (V <sub>OC</sub> )	[V]
Short Circuit Current (I <sub>SC</sub> )	[A]
NOCT	[°C]

Power Tolerance	[%]
Maximum Reverse Current I <sub>R</sub>	[A]
Series Fuse Rating	[A]
Temperature Coefficient of V <sub>OC</sub>	[%/K]
Temperature Coefficient of I <sub>SC</sub>	[%/K]
Temperature Coefficient of Max. Power	[%/K]
Reduction of Efficiency (from 1000 W/m <sup>2</sup> to 200 W/m <sup>2</sup> )	[%]

### DIMENSIONS

Length	[mm]
Width	[mm]
Depth / incl. Junction Box	[mm]
Weight	[kg]
Cable	[mm]
Connection Type	
Junction Box	[mm]
Number of bypass diodes	
IP Code	

### CELLS

Number per Module	
Cell Technology	
Cell Shape (square)	[mm]
Cell Bonding	

### GENERAL INFORMATION

Performance Guarantee	
Warranty	

(1) Electrical values under standard test conditions (STC): irradiation of 1000 W/m<sup>2</sup>, airmass AM 1.5 and cell temperature of 25 °C.

(2) Electrical values under normal operating cell temperature (NOCT): irradiation of 800 W/m<sup>2</sup>, airmass AM 1.5, wind speed of 1 m/s and ambient temperature of 20 °C.

KD145GH-4FU	
	145
	1000
	17.9
	8.11
	22.3
	8.78
	14.4
	104
	16.1
	6.46
	20.4
	7.11
	45
	+5 / -5
	15
	15
	-0.36
	0.06
	-0.46
	4.9
	1500 (± 2.5)
	668 (± 2.5)
	46
	12.5
	(+)1010 / (-)840
	PV-03 (SMK)
	123 × 91.6 × 16
	2
	IP65 / IP67
	36
	polycrystalline
	156 × 156
	3-busbar
	10 <sup>(3)</sup> / 25 years <sup>(4)</sup>
	10 years <sup>(5)</sup>

(3) 10 years on 90% of the minimally specified power P under standard test conditions (STC).

(4) 25 years on 80% of the minimally specified power P under standard test conditions (STC).

(5) In the case of Europe

Your local Kyocera dealer:



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