

We care! Since 1975.

# KD70SX-1P

High efficiency multicrystal photovoltaic module



*Solar Home System, Morocco*

## CUTTING-EDGE TECHNOLOGY

### ► Cell:

- 78 mm × 156 mm
- Polycrystalline, 3-busbar
- >16% efficiency
- Embedded in EVA film
- Patented RIE process: very little light reflection, homogenous dark coloration

### ► Frame:

- Aluminium, anodised and coated
- Screwed and also adhered
- Strength: 2,400 N/m<sup>2</sup>
- Drainage openings to protect against frost damage
- Flexible assembly (horizontal and upright)

### ► Junction box:

- Incl. bypass diodes
- Over-voltage proof Si-p/n bypass diodes
- Accessible junction box for flexible installation

### ► Pairing:

- Sorting procedure: Nominal output is achieved by two paired modules (≥ 140 Wp for 2 × KD70SX-1P)

### ► Production:

- Fully automated and integrated production processes in our own production plants
- No intermediate products are purchased
- 100% final inspection

### ► Service:

- Professional Europe-wide customer service in Esslingen/Germany

## COMPANY

As a pioneer in the photovoltaic sector, Kyocera Solar can look back on over 35 years of experience. We are also involved in numerous future-oriented solutions across the world. Our focus is on innovation and quality.

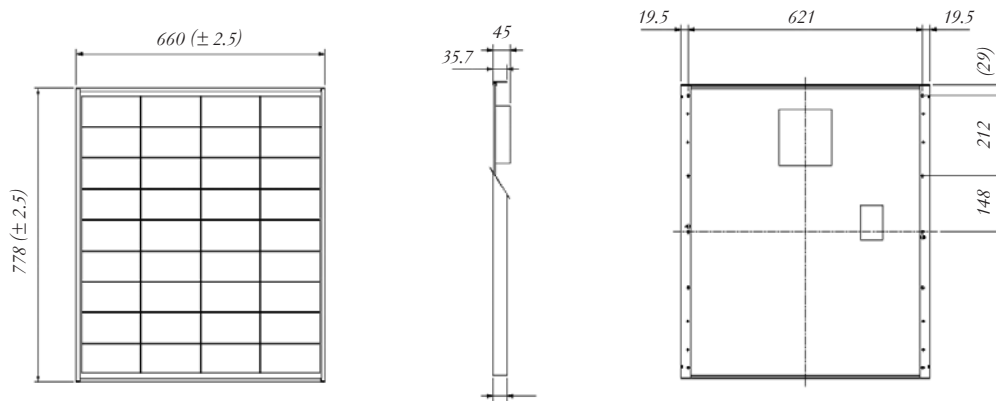
Our vision: To make solar energy accessible to everybody and to ensure a comprehensive sustained energy supply.

TUVdotCOM Service: Internet platform for tested quality and service  
 TUVdotCOM-ID: 0000023574  
 IEC 61215 ed. 2, IEC 61730 and Safety Class II  
 Kyocera is ISO 9001, ISO 14001 and OHSAS18001 certified and registered.



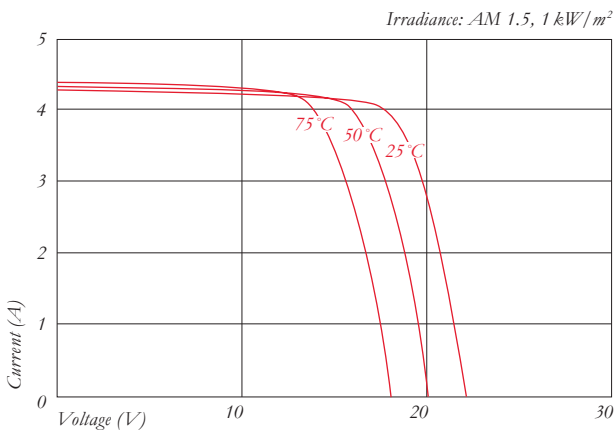
## SPECIFICATIONS

in mm

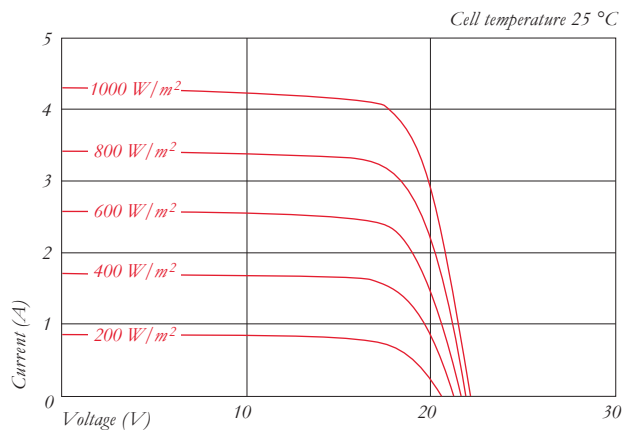


## ELECTRICAL CHARACTERISTICS

Current-Voltage characteristics at various cell temperatures



Current-Voltage characteristics at various irradiance levels



## ELECTRICAL PERFORMANCE

PV Module Type	KD70SX-1P	
<b>At 1000 W/m<sup>2</sup> (STC)*</b>		
Maximum Power	[W]	70
Maximum System Voltage	[V]	750
Maximum Power Voltage	[V]	17.9
Maximum Power Current	[A]	3.92
Open Circuit Voltage (V <sub>OC</sub> )	[V]	22.1
Short Circuit Current (I <sub>SC</sub> )	[A]	4.3
Efficiency	[%]	13.6
<b>At 800 W/m<sup>2</sup> (NOCT)**</b>		
Maximum Power	[W]	49
Maximum System Voltage	[V]	15.8
Maximum Power Current	[A]	3.13
Open Circuit Voltage (V <sub>OC</sub> )	[V]	19.9
Short Circuit Current (I <sub>SC</sub> )	[A]	3.50
NOCT	[°C]	49
Power Tolerance	[%]	+10 / -5
Maximum Reverse Current I <sub>R</sub>	[A]	8
Series Fuse Rating	[A]	8
Temperature Coefficient of V <sub>OC</sub>	[%/K]	-0.36
Temperature Coefficient of I <sub>SC</sub>	[%/K]	0.06
Temperature Coefficient of Max. Power	[%/K]	-0.45
Reduction of Efficiency (from 1000 W/m <sup>2</sup> to 200 W/m <sup>2</sup> )	[%]	4.3

## DIMENSIONS

Length	[mm]	778 (± 2.5)
Width	[mm]	660 (± 2.5)
Depth / incl. Junction Box	[mm]	36 / 45
Weight	[kg]	8.5
Connection Type	Screw Terminals	
Junction Box	[mm]	140 × 150 × 37,2
Number of bypass diodes	2	
IP Code	IP65	

## CELLS

Number per Module	36	
Cell Technology	polycrystalline	
Cell Shape (square)	[mm]	78 × 156
Cell Bonding	3-busbar	

## GENERAL INFORMATION

Performance Guarantee	10*** / 20 years ****	
Warranty	5 years *****	

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

\*\* Electrical values under normal operating cell temperature (NOCT): irradiation of 800 W/m<sup>2</sup>, air mass 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)

\*\*\*\* 20 years on 80% of the minimally specified power P under standard test conditions (STC)

\*\*\*\*\* In the case of Europe

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