# **K**YOCERa **SOLAR**

## KD215GH-2PU

High efficiency multicrystal photovoltaic module



Factory Building, Germany

#### **CUTTING-EDGE TECHNOLOGY**

#### Cell:

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

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

#### Junction box:

- · Incl. bypass diodes
- Encapsulated
- · Highest fireproof class 5V-A in accordance with UL94
- · Over-voltage proof Si-p/n bypass diodes
- · Pre-configured with connection wires and original multi-contact plug connectors

#### ▶ Pairing:

· Sorting procedure: Nominal output is achieved by two paired modules (≥430 Wp for 2×KD215GH-2PU)

### ▶ 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: 0000023299 IEC 61215 ed. 2, IEC 61730 and Safety Class II

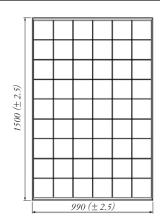
Kyocera is ISO 9001, ISO 14001 and OHSAS18001 certified and registered.



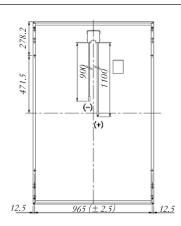




in mm

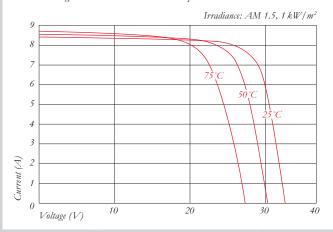






#### **ELECTRICAL CHARACTERISTICS**

Current-Voltage characteristics at various cell temperatures



Current-Voltage characteristics at various irradiance levels

$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	9	$1000 W/m^2$	_
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	8		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	7	800 W/m²	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	5	000 W / III	
$\frac{4}{3}$ $\frac{400  W/m^2}{2}$ $\frac{200  W/m^2}{2}$	5	$600 W/m^2$	\ \
$\frac{3}{2}$ $\frac{400 W/m^2}{200 W/m^2}$	,		
2 200 W/m <sup>2</sup>	4	400 W// 2	$\overline{}$
$200 W/m^2$	3	400 W / m <sup>2</sup>	$\rightarrow H$
$200 W/m^2$	,		
1	-	200 W/m <sup>2</sup>	<b>─</b>
	1		<del>- 1/   </del>
0 10 20 30	,		

ELECTRICAL	PERFORMANCE
PV Module Tvi	26

PV Module Type	KD2	15GH-2PU
At 1000 W/m² (STC)*		
Maximum Power	[W]	215
Maximum System Voltage	[V]	1000
Maximum Power Voltage	[V]	26.6
Maximum Power Current	[A]	8.09
Open Circuit Voltage (V <sub>oc</sub> )	[V]	33.2
Short Circuit Current (I <sub>sc</sub> )	[A]	8.78
Efficiency	[%]	14.4

At 800 W/m² (NOCT)**	
Maximum Power	
Maximum Power Voltage	
Maximum Power Current	

NOCT	[°C]	45
Power Tolerance	[%]	+5/-3
Maximum Reverse Current I <sub>R</sub>	[A]	15
Series Fuse Rating	[A]	15
Temperature Coefficient of V <sub>oc</sub>	[%/K]	-0.36
Temperature Coefficient of I <sub>sc</sub>	[%/K]	0.06

Reduction of Efficiency (from 1000 W/m² to 200 W/m²) [%]

**DIMENSIONS** 

Length	[mm]	1500 (± 2.5)
Width	[mm]	990 (±2.5)
Depth/incl. Junction Box	[mm]	46
Weight	[kg]	18
Cable	[mm]	(+)1100 / (-)900
Connection Type	MC F	V-KBT3 / MC PV-KST3
Junction Box	[mm]	113×82×15
Number of bypass diodes		3
IP Code		IP65

#### CELLS

155

24.0

6.47 30.4

7.11

-0.46

6.0

[W] [V]

[A]

[V]

[A]

[%/K]

Number per Module		54
Cell Technology		polycrystalline
Cell Shape (square)	[mm]	156 × 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/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 ml, sand 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)

Your local Kyocera dealer:

Temperature Coefficient of Max. Power

Open Circuit Voltage (Voc)

Short Circuit Current (I<sub>sc</sub>)



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<sup>\*\*\*\*\*</sup> In the case of Europe