



KD315GH-4FB

### CUTTING EDGE TECHNOLOGY

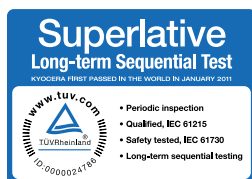
As a pioneer with over 37 years in the solar energy industry, Kyocera demonstrates leadership in the development of solar energy products. Kyocera's *Kaizen* Philosophy, commitment to continuous improvement, is shown by repeated achievement of world record cell efficiencies, supported by proven field performance.

### QUALITY & SAFETY BUILT IN

- Manufactured in our own production plants using a fully automated and integrated production process
- UV stabilized, aesthetically pleasing black anodized frame
- Easily accessible grounding points on all four corners for fast installation
- Proven junction box technology with encapsulation
- Pre-configured with connection wires and SMK plug connectors
- Frame reinforced on back side with two cross struts for added strength and durability
- Passed TUV surface load testing to 5400N/m<sup>2</sup>

### PROVEN RELIABILITY

- First module manufacturer to pass rigorous Long-Term Sequential Test performed by TÜV Rheinland
- Proven superior field performance with more than 25 years of field data from a number of real world operating systems
- Tight power tolerance
- Confirmed as Potential Induced Degradation (PID) resistant by Fraunhofer CSP Testing, with zero degradation



### QUALIFICATIONS AND CERTIFICATIONS



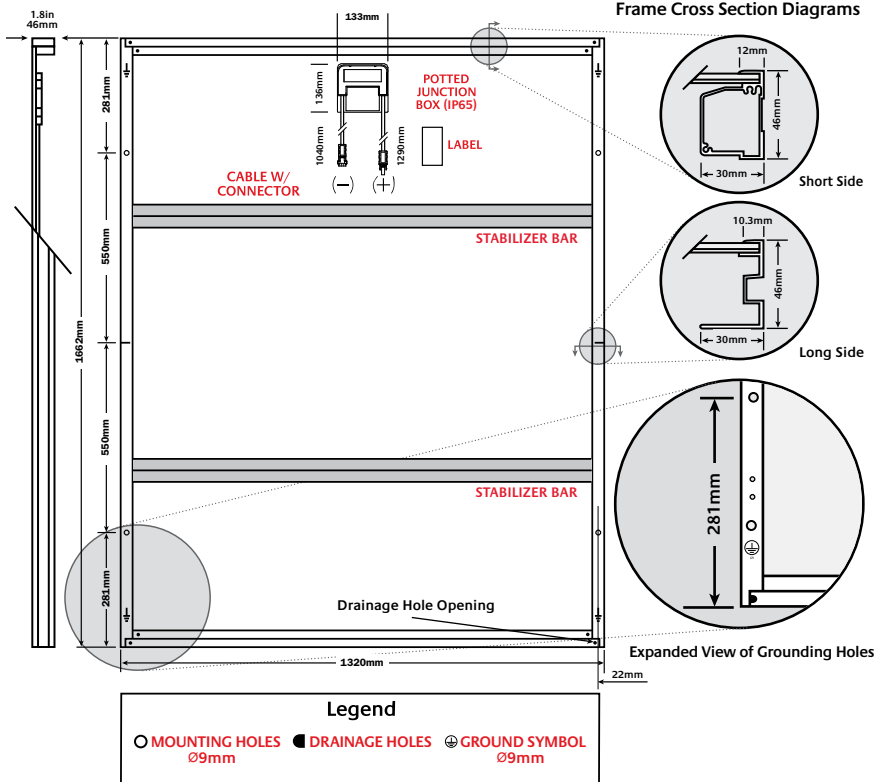
IEC 61215 ed.2 IEC 61730 and Application Class A  
IEC 61701 (Salt Mist Corrosion Testing)  
TUVdoCom-ID: 0000023299

Kyocera is ISO 9001 and ISO 14001 certified and registered

### WARRANTY

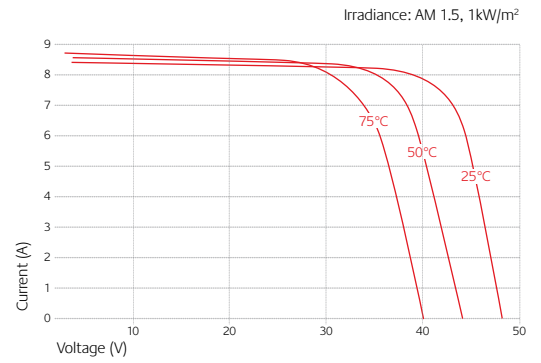
- Kyocera standard 20 year power output warranty
- 5 year workmanship warranty

## SPECIFICATIONS

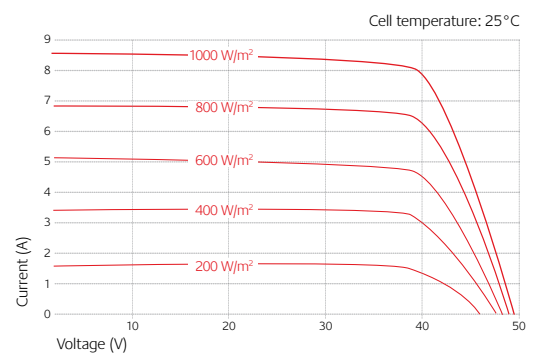


## ELECTRICAL CHARACTERISTICS

Current-Voltage characteristics at various cell temperatures



Current-Voltage characteristics at various irradiance levels



## ELECTRICAL PERFORMANCE

At 1000 W/m <sup>2</sup> (STC)*		
Maximum Power	315	W
Maximum Power Voltage (V <sub>mp</sub> )	39.8	V
Maximum Power Current (I <sub>mp</sub> )	7.92	A
Open Circuit Voltage (V <sub>oc</sub> )	49.2	V
Short Circuit Current (I <sub>sc</sub> )	8.50	A
Efficiency	14.3	%

At 800 W/m <sup>2</sup> (NOCT)**		
Maximum Power	226	W
Maximum Power Voltage (V <sub>mp</sub> )	35.8	V
Maximum Power Current (I <sub>mp</sub> )	6.34	A
Open Circuit Voltage (V <sub>oc</sub> )	45.0	V
Short Circuit Current (I <sub>sc</sub> )	6.88	A
NOCT	45	°C

Other Electrical Characteristics		
Power Tolerance	+5/-3	%
Maximum System Voltage	1000	V
Maximum Reverse Current	15	A
Series Fuse Rating	15	A
Temperature Coefficient of (V <sub>oc</sub> )	-0.36	%/C
Temperature Coefficient of (I <sub>sc</sub> )	0.061	%/C
Temperature Coefficient of Max. Power	-0.46	%/C

## MODULE CHARACTERISTICS

Dimensions		
Length	1662 (±2.5)	mm
Width	1320 (±2.5)	mm
Depth (Including Junction Box)	46	mm
Weight	27.5	kg
Cable	(+) 1290 / (-) 1040	mm
Connection Type	SMK R51-7/P51-7	
Junction Box	133 x 136 x 16.5	mm
Number of Bypass Diodes	4	
IP Code	IP65	

Cells	
Cell Per Module	80
Cell Technology	multi-crystalline
Cell Dimensions (Square)	156 x 156 mm
Cell Bonding	3 busbar

\* 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.

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

KYOCERA reserves the right to modify these specifications without notice.