

KK280P-3CD3CG

HIGH EFFICIENCY MULTICRYSTALLINE PHOTOVOLTAIC MODULE

This module has passed 2,400Pa mechanical load test based on IEC61215 ed.2
This module is manufactured in ISO9001 certified factories.
Registered No.: JMI0036 (Japan), CN07/00321 (China).

IEC 61215Ed.2
IEC 61730



HIGHLIGHTS OF KYOCERA PHOTOVOLTAIC MODULES

- ▶ Kyocera's advanced cell processing technology and automated production facilities produce highly efficient multi crystalline photovoltaic modules.
- ▶ The conversion efficiency of the solar cell is 19.1%.
- ▶ These cells are encapsulated between a tempered glass cover and a EVA pottant with back sheet to provide efficient protection from severe environmental conditions.
- ▶ The entire laminate is installed an anodized aluminum frame to provide structural strength and ease of installation.
- ▶ Equipped with plug in connectors.

APPLICATIONS

GRID-CONNECTED SYSTEMS:

Residential Solar Power Systems
Public and Industrial Solar Power Systems

STAND-ALONE SOLAR POWER SYSTEMS FOR:

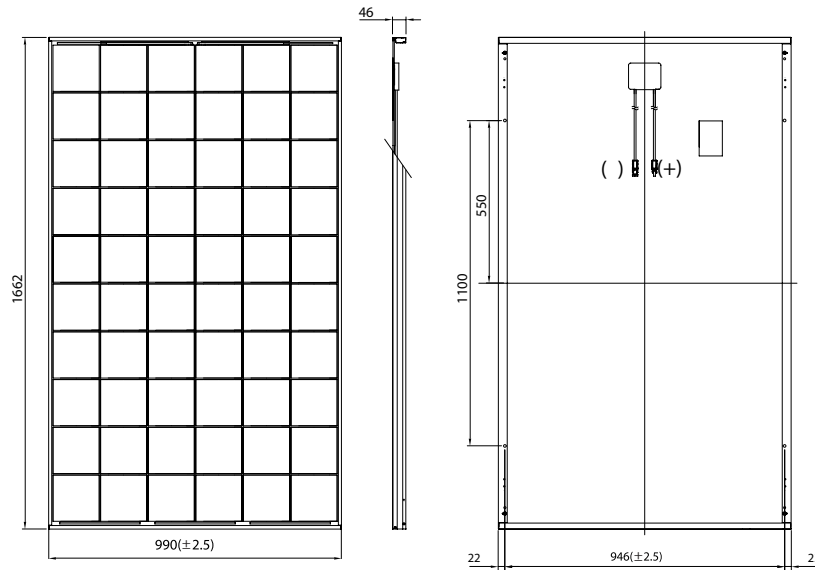
Villages in remote areas
Homes and summer cottages
Microwave/Radio repeater stations
Medicial facilities in rural areas
Emergency communication
Water quality and environmental data monitoring
Drinking and livestock water pumping
Irrigation pumping
Cathodic protection
Aviation obstruction lighting
Environmental data monitoring
Railway signals
Street lighting
Desalination

LIMITED WARRANTY

- *Limited warranty on material and workmanship:
For warranty period, please refer to Warranty issued by Kyocera
- *25 years limited warranty on power output:
For detail, please refer to "category V" in Warranty issued by Kyocera

(Long term output warranty shall warrant if PV Module(s) exhibits power output of less than 90% of the original minimum rated power specified at the time of sale within 10 years and less than 80% within 25 years after the date of sale the Customer. The power output values shall be those measured under Kyocera's standard measurement conditions. Regarding the warranty conditions in detail, please refer to Warranty issued by Kyocera)

PHYSICAL SPECIFICATIONS



SPECIFICATIONS

Module Efficiency 17.0%	KK280P-3CD3CG
Electrical Performance under Standard Test Conditions (STC*)	
Maximum Power (Pmax)	280 W (+5/-3%)
Maximum Power Voltage (Vmpp)	31.5 V
Maximum Power Current (Imp)	8.89 A
Open Circuit Voltage (Voc)	38.9 V
Short Circuit Current (Isc)	9.53 A
Max System Voltage	1000 V
Temperature Coefficient of Voc	-1.38 x 10 ⁻¹ V/°C
Temperature Coefficient of Isc	5.59 x 10 ⁻³ A/°C

*STC: Irradiance 1000W/m², AM1.5 spectrum, module temperature 25°C

Electrical Performance at 800W/m², NOCT*, AM1.5	
Maximum Power (Pmax)	201 W
Maximum Power Voltage	28.3 V
Maximum Power Current	7.11 A
Open Circuit Voltage (Voc)	35.6 V
Short Circuit Current (Isc)	7.71 A

*NOCT (Nominal Operating Cell Temperature): 45°C

Cells	
Number per Module	60
Cell Technology	Multi crystalline
Module Characteristics	
Length x Width x Depth without Box	1662 x 990 x 46 mm
Weight	19.0 kg
Cable	(+)1200 / (-) 1200 mm
Connector Type	SMK PV-03 Series
Junction Box Characteristics	
Length x Width x Depth	111 x 90 x 15.9 [mm]
IP Code	IP 67
Others	
Reduction*	3.3 %
Limiting Reverse Current	15 A
Mechanical load (to IEC61215 ed.2)	Pressure 2400 Pa

*Reduction of efficiency from an irradiance of 1000W/m² to 200W/m² (cell temperature 25°C)

ELECTRICAL CHARACTERISTICS

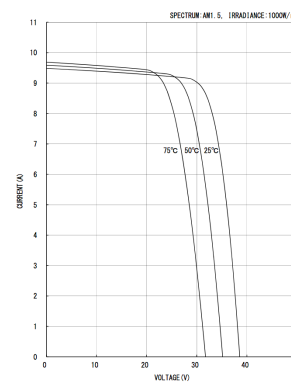


Fig. 4 I-V characteristics of KK280P-3CD3CG at various cell temperatures.

Current-Voltage characteristics of Photovoltaic Module KK280P-3CD3CG at various cell temperatures at Kyocera Corporation laboratory.

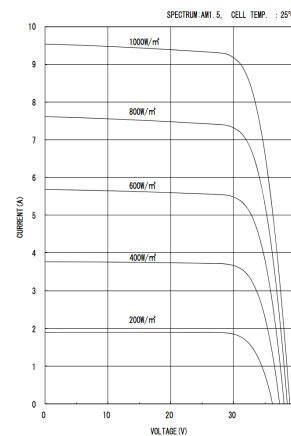


Fig. 5 I-V Characteristics of KK280P-3CD3CG at various irradiance levels.

Current-Voltage characteristics of Photovoltaic Module KK280P-3CD3CG at various irradiance levels at Kyocera Corporation laboratory.

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