Specifications

Photovoltaic Module

Kyocera Model KD135GX-LPU

Electrical Performance under Standard Test Conditions (*STC)	
Maximum Power (Pmax)	135W (+5%/-5%)
Maximum Power Voltage (Vmpp)	17.7V
Maximum Power Current (Impp)	7.63A
Open Circuit Voltage (Voc)	22.1V
Short Circuit Current (Isc)	8.37A
Max System Voltage	600V
Temperature Coefficient of Voc	-8.0×10^{-2} V/°C
Temperature Coefficient of Isc	5.02×10^{-3} A/°C
*STC: Irradiance 1000W/m^2, AM1.5 spectrum, cell temperature 25°C	
Electrical Performance at 800W/m^2, *NOCT, AM1.5	
Maximum Power	95W
Maximum Power Voltage (Vmpp)	15.7V
Maximum Power Current (Impp)	6.10A
Open Circuit Voltage (Voc)	20.0V
Short Circuit Voltage (Isc)	6.79A
*NOCT (Nominal Operating Cell Temperature): 47.9°C	

Cells	
Number per Module	36

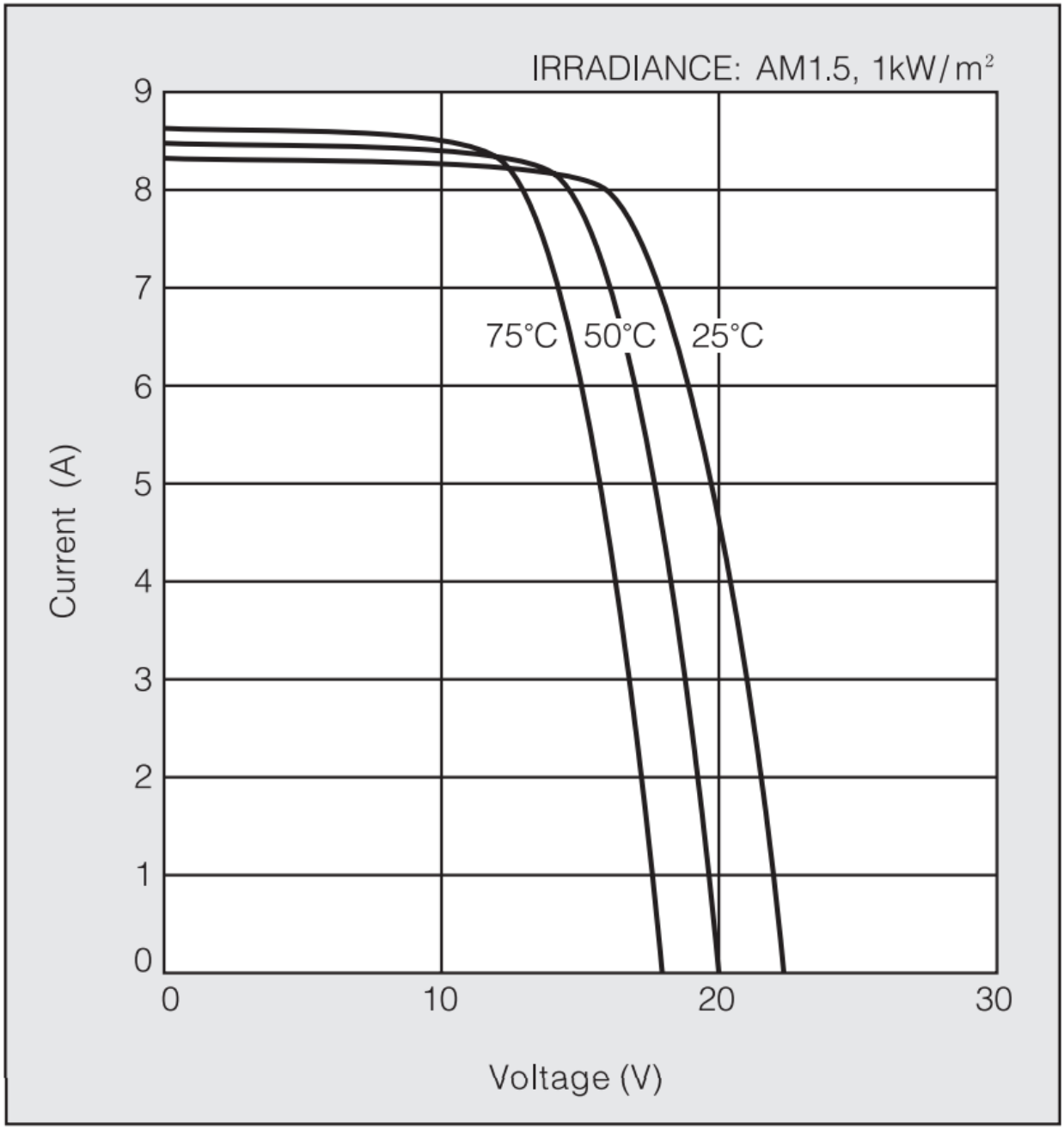
Module Characteristics	
Length x Width x Depth	59.1in x 26.3in x 1.8in
Weight	27.5lbs
Cable	(+) 29.9in,(-) 72.4in

Junction Box Characteristics	
Length x Width x Depth	3.9in x 4.3in x .6in
IP Code	IP65

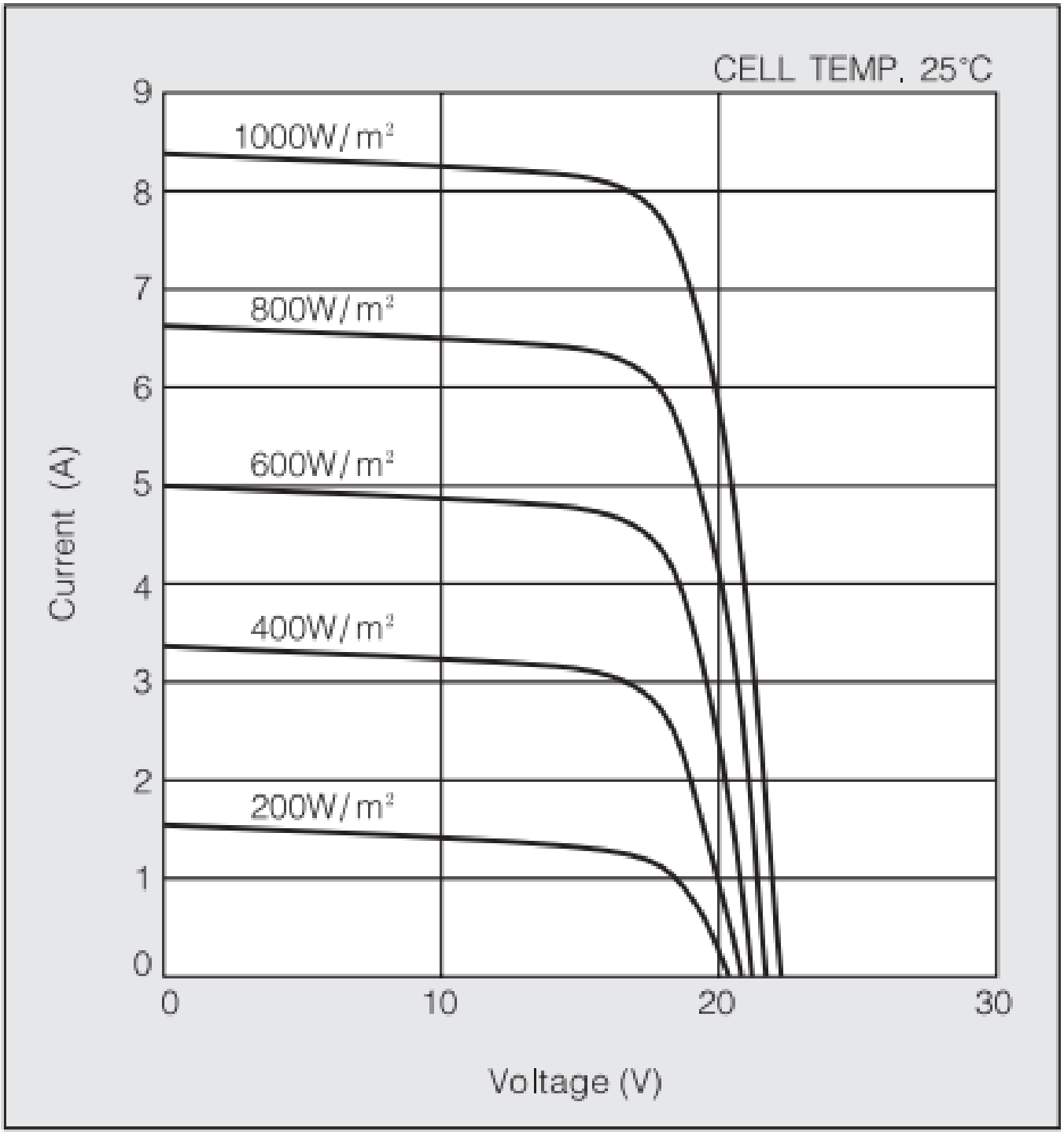
Others	
*Operating Temperature	-40°C - 90°C
Maximum Fuse	15A
*This temperature is based on cell temperature.	

- The electrical characteristics are within ±10 percent of indicated values of Isc, Voc, and Pmax under standard test conditions (irradiance of 1KW/m2 , AM 1.5 spectrum, and cell temperature of 25℃).

IV curve (Different temperatures)

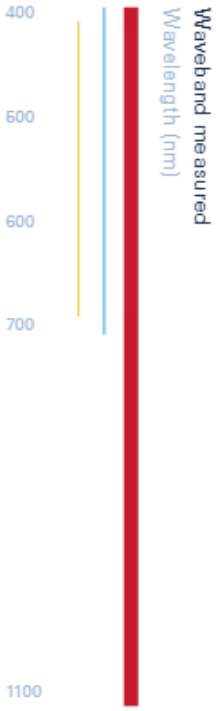


IV curve (Different solar irradiance)



Pyranometer (Solar irradiation meter)

Li-cor Pyranometer Model PY 73079



LI-200R Specifications

- Absolute Calibration: Calibrated against an Eppley Precision Spectral Pyranometer (PSP) under natural daylight conditions. Calibration uncertainty under these conditions is estimated as ± 3% typical, within ± 60° angle of incidence.*
- Sensitivity: Typically 75 µA per 1,000 W m^{-2}
- Linearity: Maximum deviation of 1% up to 3,000 W m^{-2}
- Response Time: Less than 1 µs (2 m cable terminated into a 147 Ohm load)
- Temperature Dependence: ± 0.15% per °C maximum
- Cosine Correction: Cosine corrected up to 82° angle of incidence
- Azimuth: < ± 1% error over 360° at 45° elevation
- Tilt: No error induced from orientation
- Operating Temperature Range: –40 °C to 65 °C
- Relative Humidity Range: 0% to 95% RH, Non-Condensing
- Detector: High stability silicon photovoltaic detector (blue enhanced)
- Sensor Housing: Weatherproof anodized aluminum body with acrylic diffuser and stainless steel hardware; O-ring seal on the sensor base
- Size: 2.36 cm diameter x 3.63 cm (0.93" x 1.43")
- Weight: 24 g head; 60 g base and cable (2 m) with screws
- Cable Length: 2 m, 5 m, 15 m, 50 m (6.5', 16.4', 49.2', 164')

Specifications subject to change without notice.
*Preliminary specification