WD-A-CC-087 Series Product Specifications

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1. Product Specifications

(1) WD-A-CC-087 Series Module Specifications

Table1. Physical Specifications

Property		Specification
Active Material of Cell		Amorphous silicon
Junction Type of Cell		Single-junction
Material for Encapsulation		Polyvinylbutyral (PVB), thickness: 0.76mm
Front Cover		Float glass, thickness: 3.2 mm
Back Cover		Tempered float glass, thickness: 3.2 mm
Wiring Material		Tin & silver coated copper ribbon, thickness: 0.1 mm
Junction Box / IP Class		Multi-Contact PV-JB-LC (with bypass diode)/ IP65
Junction Box Cable Length		Direction：Downward Length：800 mm × 2
Connecting Cable/Plug		Rated voltage： 1000V D.C. Temperature range： -40 to 90℃ Plug/Socket type：MC4, Ø 4mm Cable cross section：2.5mm^2
Transparency		No
Frame		No
Dimensions	Length	1300 mm +2/-1mm
	Width	1100 mm +2/-1mm
	Thickness	7.0 ± 0.5 mm (without junction box) 21.2 ± 1.0 mm (with junction box)
Weight		24.0 ± 0.5 Kg

Table 2. Certifications

Certifications	
Certifications	EN/IEC 61646 EN/IEC 61730 application Class A
Remark: The module is tested under 2400Pa (50 lb/ft^2) mechanical load or approximately to a wind speed of 130 km/h (80 mph).	

Table3. Electrical Specifications

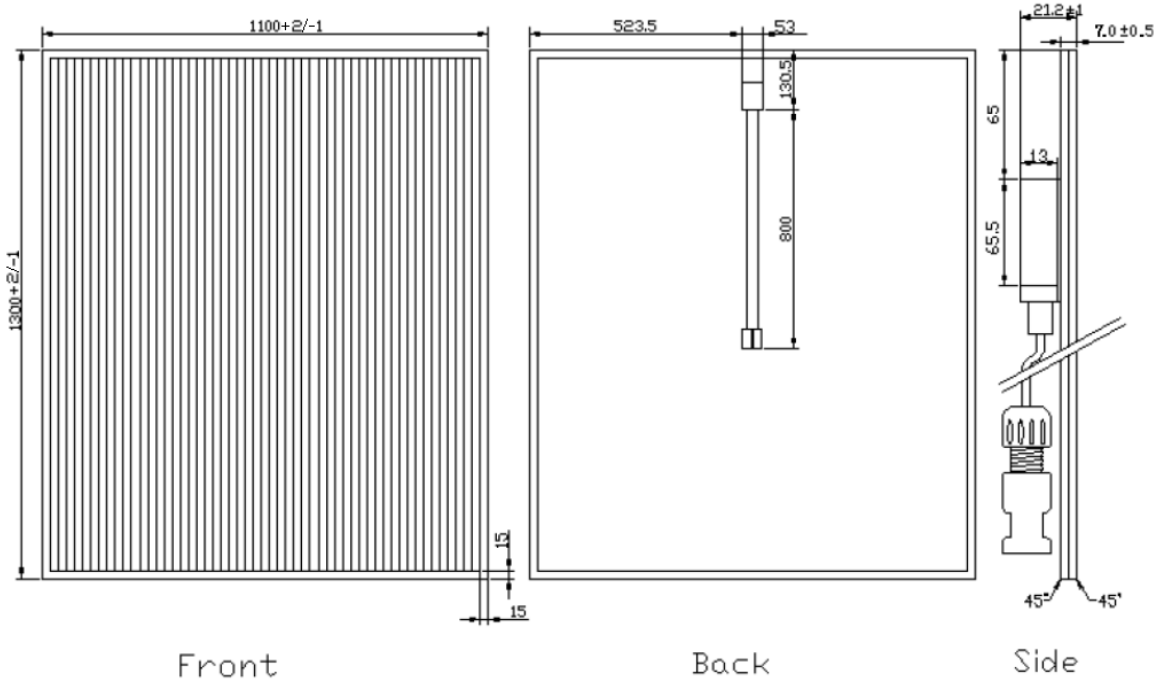
Property							Specification			
Max. System Voltage							1000 Volt D.C.			
Temperature Coefficients							Isc: +0.03 %/K Voc: -0.30 %/K Pmpp: -0.17 %/K Vmpp: -0.31 %/K			
Maximum Over-current Protection Rating							2 A			
Module Classification	Power Class	Maximum Power Output Range	Stabilized Performance at STC				Initial Performance at STC			
			Vmpp [V]	Impp [A]	Voc [V]	Isc [A]	Vmpp [V]	Impp [A]	Voc [V]	Isc [A]
WD-A-CC-0873	80 W	85 Wp > Grade 80W ≧ 80 Wp	95	0.85	135	1.12	104	0.99	138	1.18
WD-A-CC-0872	85 W	90 Wp > Grade 85W ≧ 85 Wp	97	0.87	136	1.13	107	1.02	139	1.19
WD-A-CC-0871	90 W	95 Wp > Grade 90W ≧ 90 Wp	100	0.90	137	1.15	110	1.05	140	1.21
WD-A-CC-0870	95 W	100 Wp > Grade 95W ≧ 95 Wp	100	0.96	137.5	1.20	110	1.11	140.5	1.26
WD-A-CC- 087A	100 W	105 Wp > Grade 100W ≧ 100 Wp	101	1.01	138	1.24	110	1.17	141	1.30
			Tolerance: -5%/+5%							

Remarks:

1. The modules electrical ratings are measured under Standard Test Conditions (STC) and have been delivered on the specific table of electrical characteristics as shown above.
2. A photovoltaic module may produce more current and/or voltage than reported at STC. Sunny, cool weather and reflection from snow or water can increase current and power output. Therefore, the values of Isc and Voc marked on the modules should be multiplied by a factor of 1.25 when determining component voltage ratings, conductor ampacities, fuse sizes, and size of controls connected to PV output.
3. [STC]: 1000 W/m^2, AM 1.5, 25 °C
4. The exactly measured electrical characteristics are shown on the label at rear side of the modules.
5. Module nominal power is subject to a tolerance of -0%/+5%.

2. Dimensions and Drawing

Refer to the following diagram.



3. Standard operating conditions

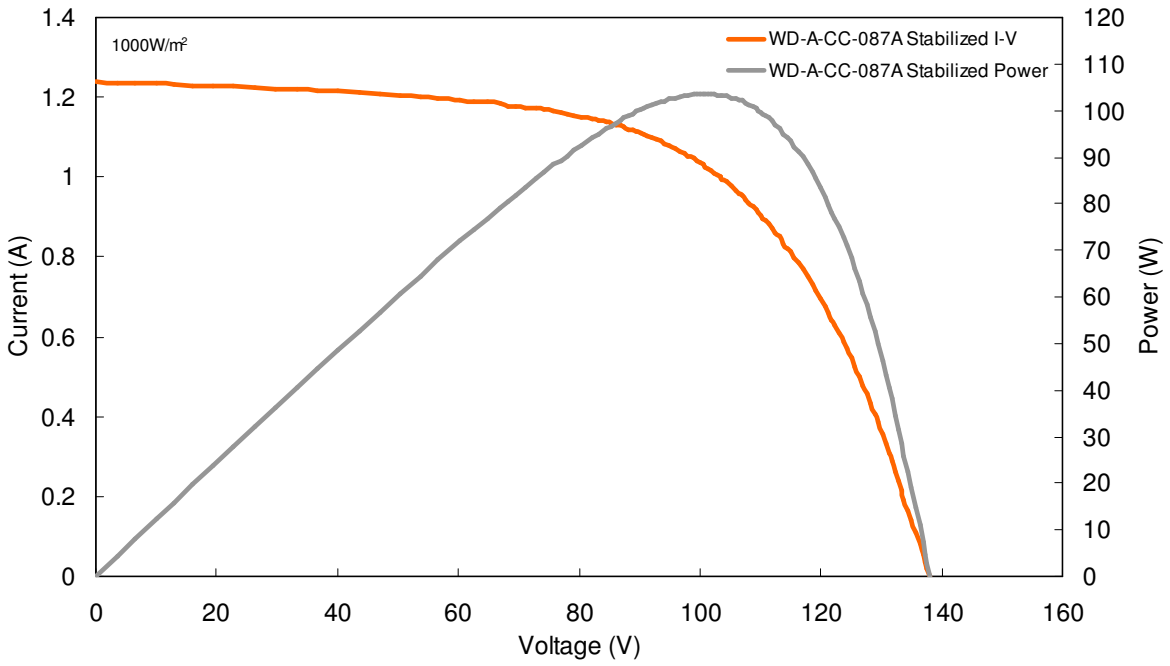
The modules should operate under sufficient sunlight and subjected to seawater or snowfall (1 m or more) should be avoided. Ambient temperature should be in the range between -20 ℃ and 45 ℃. The modules can be installed either vertically or horizontally and must be securely fixed. The junction box is qualified for IP65 of IEC 60529; however, water accumulating on the junction box or being immersed in water should be avoided.

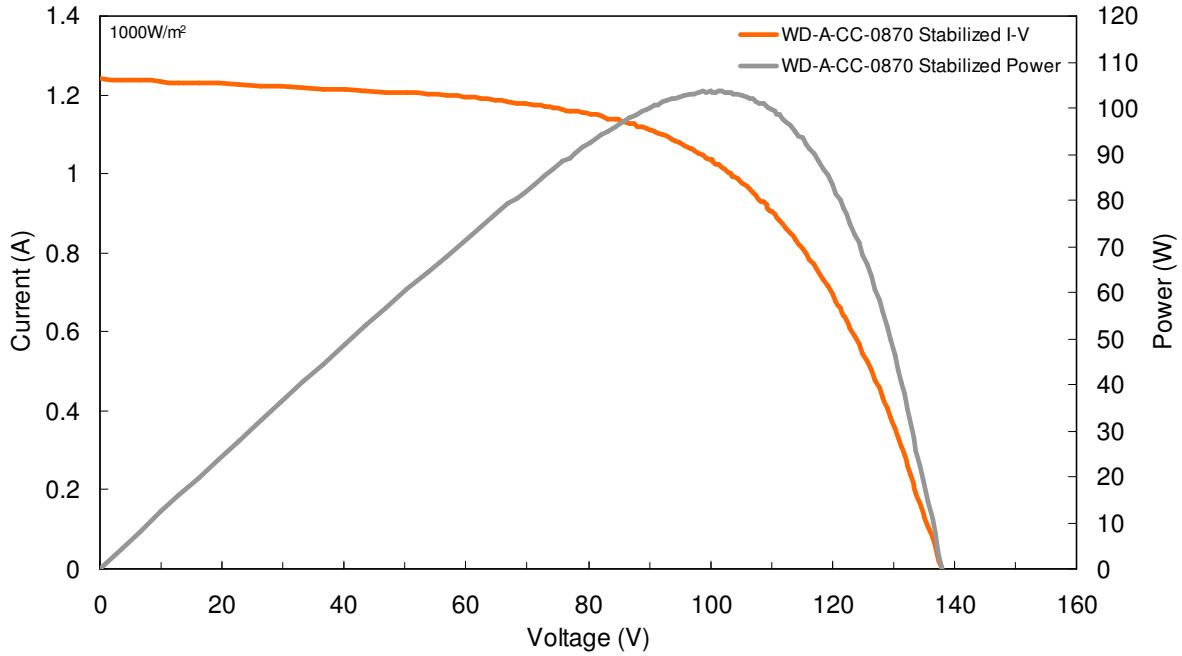
4. Warranty

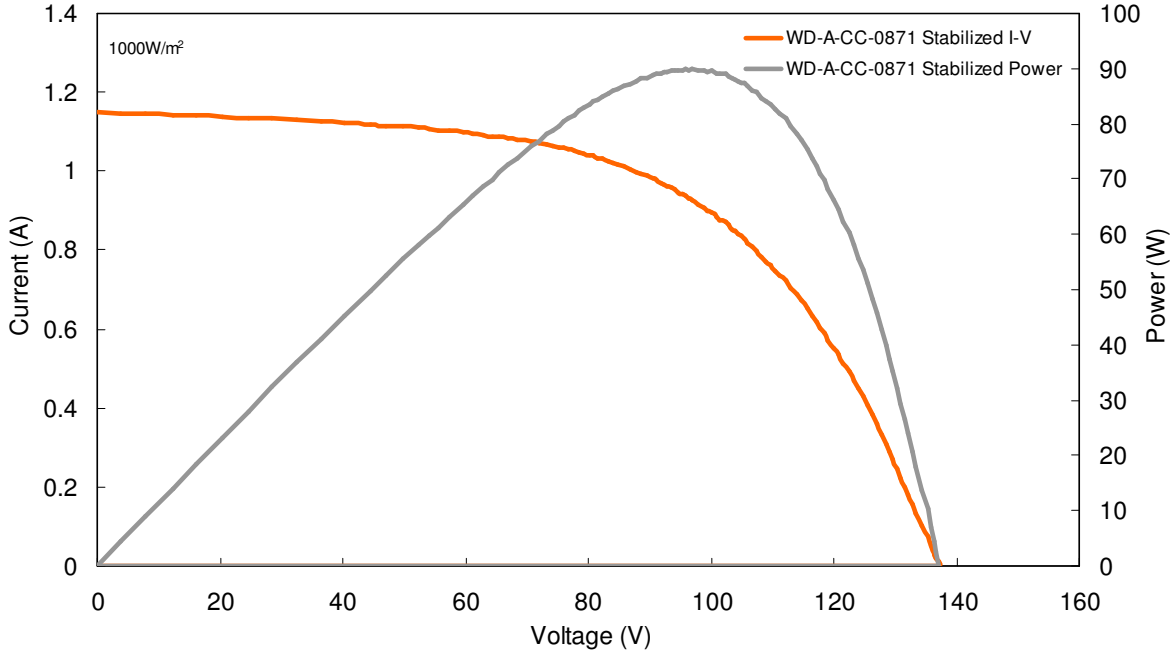
Product Guarantee (Workmanship/ Materials)	Power Guarantee (P_{max} output)
2 years after the shipment from SWS	90% of the specified minimum output of the module for a 10-year period, 80% of the specified minimum output of the module for a 20-year period after shipment from SWS.

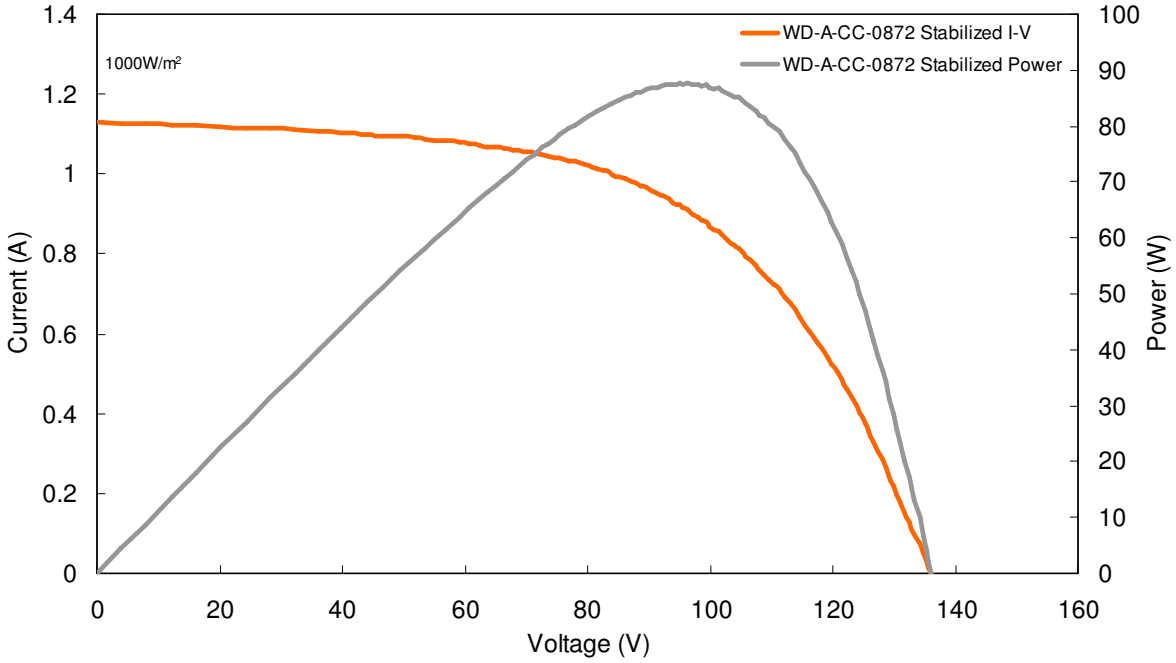
5. Performance characteristics

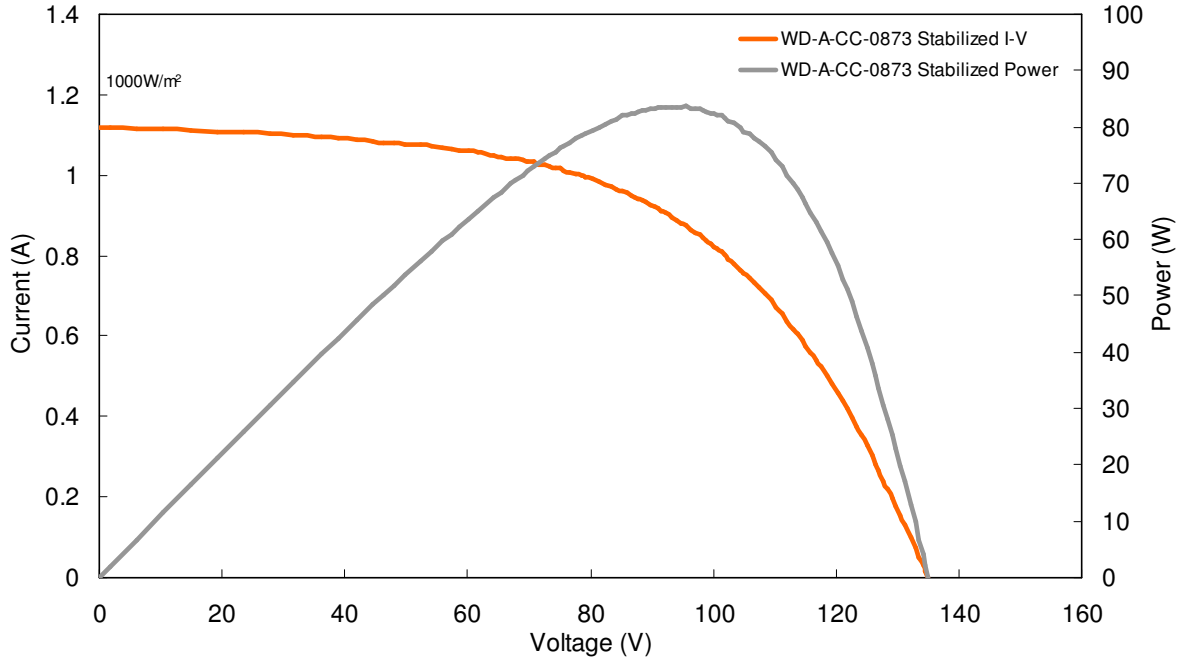
(1) I-V performance



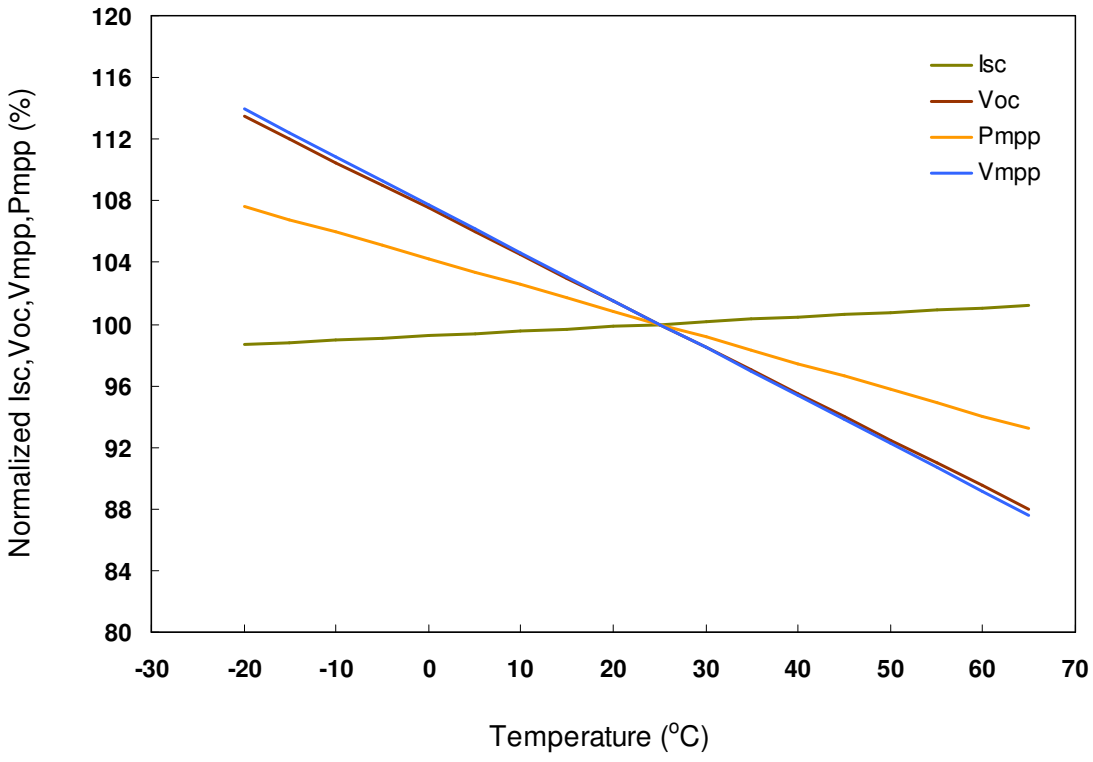








(2) Temperature coefficients



(3) Module performance under different irradiances

Remark: the data is measured of 37.6cm^2 sub module