

Solar Energy Centre

SEC-GC Series IEC approved High Capacity Photovoltaic Panels



Introducing SEC-GC Series High Capacity Photovoltaic Panels

SEC GC series is a range of high capacity grid connectable Monocrystalline Photovoltaic panels that have a cell conversion efficiency of more than **14%**.

Available in high capacity sizes from 160-230W, SEC GC series products fully conform to the IEC61730 and IEC61215 standards, and have undergone a rigorous development program to ensure long term reliability.

Manufactured to ISO9001 standards, GC series are assembled using an advanced encapsulation technique and are supplied with a double walled Anodised Aluminium frame and waterproof junction box.

Applications

- **ON GRID** connection in commercial and domestic locations
- **Standalone (off grid) applications including:**
 - Remote villages and communities
 - Emergency communications
 - Remote environmental data monitoring
 - Standalone lighting and signage

Performance Warranty

- 2 year Full Warranty on material & workmanship
- 25 years limited warranty on power output (90% year 1-10, 80% year 11-25)

Technical data

SEC-GC Series	Electrical Characteristics*							Weights and Dimensions			
	I _{mp}	V _{mp}	P _m	I _{sc}	V _{oc}	Max. Voltage	No. Of Cells	Length	Width	Height	Weight
	(A)	(V)	(J/s or W)	(A)	(V)			'A' (mm)	'B' (mm)	'C' (mm)	(kg)
SEC GC-160 (160Wp)	4.44	36.1	160	5.05	43.8	1000/600	72	1576	798	35	14.5
SEC GC-180 (180Wp)	4.9	36.8	180	5.62	44.3	1000/600	72	1576	798	35	14.5
SEC GC-210 (210Wp)	7.23	29.1	210	7.93	36.4	1000	60	1653	982	46	14.5
SEC GC-220 (220Wp)	7.44	29.7	220	8.04	36.7	1000	60	1653	982	46	14.5
SEC GC-230 (230Wp)	7.56	30.5	230	8.11	37.1	1000	60	1653	982	46	14.5

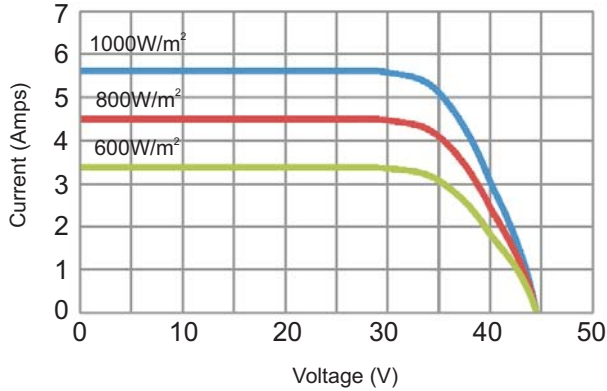
* = 1000W/M² AM 1.5 25°C

Temperature Coefficients		Other Data	
Power	-0.46%/K	Max. Power Tolerance	+/- 3%
Voltage	-0.384%/K	Rated Cell Operating Temperature	46°C (+/- 2°C)
Current	-0.031%/K	Cables	12AWG

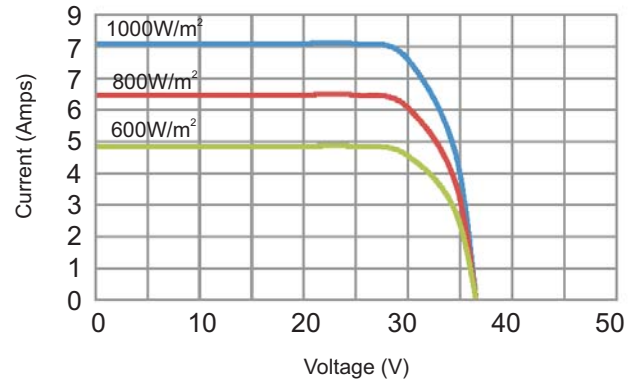
IV Curve Parameters

All tests conducted at standard test conditions (STC) of 1000W/m² AM 1,5G, at a cell temperature of 25°C (77°F)

■ 160 - 180W panels



■ 210 - 230W panels



Quality Assurance

SEC GC Series products have undergone a rigorous testing program, including the following:

- Approved to IEC61730 (Safety Class II) & IEC61215 standards
- Class C Fire Rating
- CE approved
- Mechanical, wind and twist loading test: Maximum 2400Pa
- Hail stone Impact test: 25mm hail diameter, velocity = 23m/s
- Temperature operating range from -40°C to +85°C (-40°F to +185°F)

Physical Dimensions

(Not to scale)

■ 160 - 180W panels



■ 210 - 230W panels



SEC Industrial Battery Co. Ltd
Thorney Weir House, Iver
Bucks SLO 9AQ, England
Tel. +44 1895 431543
Fax. +44 1895 431880

brian.harper@secbattery.com

SEC European Sales Office
42 rue de la Rochette
77000 Melun
France
Tel. +33 6 75 59 06 92

christian.dhainaut@secbattery.com

SEC Industrial Battery Co. Bsc
P.O.Box 32225
Kingdom of Bahrain
Tel: +973 17 721322
Fax: +973 17 740743

sujo.pulikottil@secbattery.com

SEC Industrial Battery Co. Ltd
Unit 6, 6/f, Hewlett Centre
No. 54 Hoi Yuen Road, Kwun Tong
Kowloon, Hong Kong
Tel: +852 230 44382
Fax: +852 230 44013

duncan.low@secbattery.com.hk