PV Modules

Battery Charging Applications

- Quality, protective Design
- Rugged Junction Box
- Robust for Extreme Conditions
- Long Term Performance Warranties

Silicon CPV plc's range of quality flat-plate PV modules is manufactured at the Company's state-of-the-art production facility in Pakistan. The modules utilize Polycrystalline Silicon Cells from UK with energy conversion efficiency of up to 18%.

Superior by Design
The PV modules employ Glass-Tedlar technology. The Polycrystalline Silicon cells are embedded in flexible transparent EVA to resist UV and protect the cells from degradation, ensuring superb reliability whatever the operating climate. The modules are protected by highly transparent tempered glass to provide excellent protection against adverse environmental conditions such as rain, snow, hail, ice and storms. The back of the module is sealed with high quality Tedlar and the entire laminate is installed within an anodized aluminium frame to provide structural strength and ease of installation. Holes in the hollow section prevent the build up of condensation and damage to the frame from freezing.

Electrical Connections
Electrical connection to the PV module is made via a highly durable, patented junction box. It has a dust proof and splash proof housing using securely welded joints which protect against moisture ingress and corrosion. Its excellent capacity to dissipate heat results in a lower operating temperature for improved reliability.

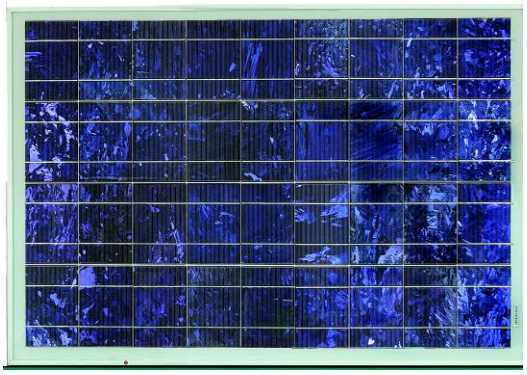
Durability and Reliability
Silicon CPV plc's modules were designed to provide very long term durability with built in reliability and comply with the requirements of IEC 61215 which defines the capability of a PV module to withstand prolonged exposure within a number of defined climatic environments.

Quality
Quality is a core value of Silicon CPV plc and all PV modules are manufactured under the control of the Company Quality Assurance system. The QA system includes specific QC procedures which ensure that the modules are manufactured to meet the stringent testing requirements defined by the Company and the appropriate parts of IEC 61215 and IEC 61730

Performance Warranties
Silicon CPV plc has such trust in its products that it expects them to operate continuously for many years and therefore confidently provides a 25 year power output warranty and a 2 year workmanship warranty.

Recyclable
Silicon CPV plc's PV products can be recycled at the end of their natural life. The Company will be happy to discuss your recycling requirements at any time.

The modules specified are for battery charging applications. This makes them suitable for medium to large domestic use, mobile caravans etc. These are for 12V applications ranging from 40W to 150W



MECHANICAL	
Frame:	Aluminium
Front	Tempered Glass
Back	Tedlar
Cell Encapsulation	EVA
Junction Box	IP65 (PPE)
Connector	MC Type 4
TEMPERATURE COEFFICIENT	
Current Temperature Coefficient	+4.40 mA/K
Power Temperature Coefficient	-0.46 %/K
NOCT Normal Operating Cell	48°C ± 2°C
LIMITS	
Operating Temperature Limits	-25°C to +85°C
Power Tolerance	+/- 3%
Maximum System Voltage	1,000V DC

Specifications

		P35-36	P50-36	P75-36	P100-36	P150-36
ELECTRICAL		Standard Test Conditions (STC) : AM1.5, 1,000W/m^2 , 25^{o}C				
Maximum Power	Pmax	35W	50W	75W	100W	150W
Open Circuit Voltage	Voc	22.40 V	22.40 V	22.40 V	22.40 V	22.40 V
Max Power Point Voltage	Vmpp	18.61 V	18.61 V	18.61 V	18.61 V	18.61 V
Short Circuit Current	Isc	2.17 A	2.89 A	4.34 A	5.78 A	8.67 A
Max Power Point Current	Imp	2.04 A	2.72 A	4.08 A	5.44 A	8.15 A
Cells per module		36	36	36	36	36
Cell Type		Polycrystalline				
DIMENSIONS						
CELL (L) x (W)	mm	39 x 156	52 x 156	78 x 156	104 x 156	156 x 156
MODULE (L) x (W) x (D)	mm	430 x 680 x 35	545 x 680 x 35	780 x 680 x 35	1010 x 680 x 35	1480 x 680 x 35
Module Weight	kg	5	7	8.5	10.5	14.2

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