

30/64/100W

CIGS THIN FILM SOLAR PANEL

Applications

Off-grid home systems

- Battery charging
- Billboards
- Home lighting systems
- Rooftop systems
- Water pumping

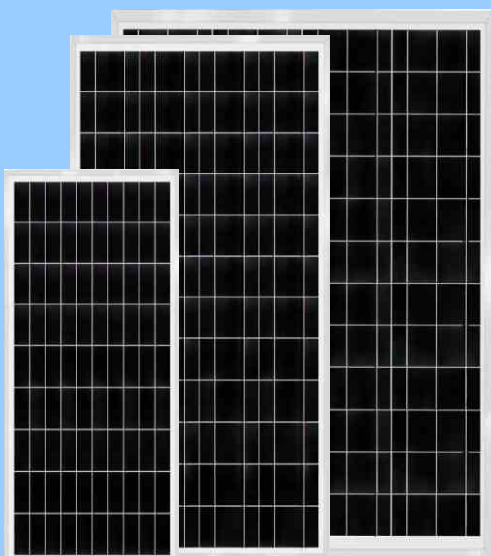
General

Shurjo Energy 2nd generation high efficiency photovoltaic panels are made using the latest Copper Indium Gallium diSelenide (CIGS) solar cells. CIGS perform well over a range of light-levels and climatic conditions, providing more KWhr per day compared to conventional silicon technology.

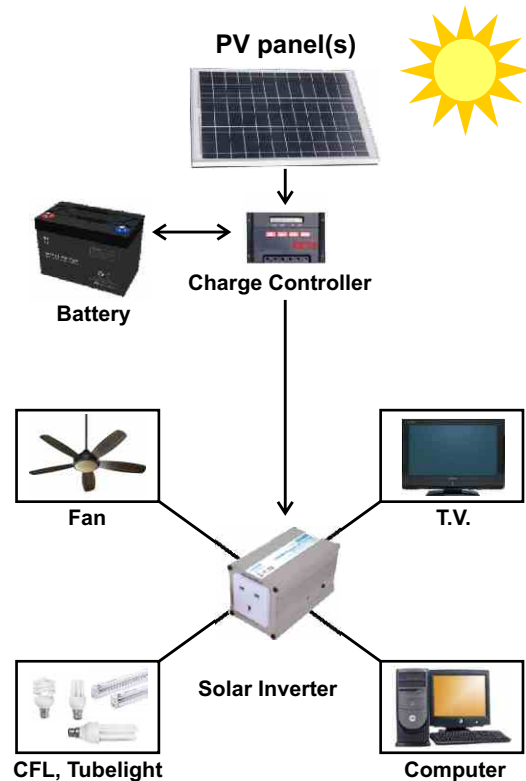
The panels provide consistent power, do not degrade when exposed to sunlight and are amongst the most efficient thin film panels in the market today.

They are constructed using the highest quality proven components, from the world's leading manufactures.

Panels are available in the range from 6-100W for battery charging applications & from 120-182W for grid connect. Customized BIPV panels are also available.



*Panel photograph is indicative. Appearance may change with change in design.



Pictorial Representation

Features

- 3 layer tedlar® with aluminium interlayer
- Ultra-clear 3.2 mm toughened and textured glass
- Reinforced anodized aluminium frame
- Robust high quality junction box
- Pre-punched frame for easy mounting
- Manufactured to IEC 61646 & IEC 61730
- **25 years limited warranty**
5 years against manufacturing defects. 10 years to 90% of rated power, 25 years to 80% of rated power, provided panel is undamaged.

Advantages

- CIGS cells are 40x thinner than standard crystalline cells.
- This technology requires as little as 25% of energy required to produce crystalline panels.
- CIGS has a crystalline structure which is stable over a period of time giving unabated performance for many years.
- Due to its high light absorbing band-gap, it is an optimal, effective PV material.

Specifications

30/64/100W SOLAR PANEL SPECIFICATIONS

Electrical Characteristics

SE30MP-CB3509B SE64MP-EB2410B SE100MP-EB1410B

Cell	Crystalline CIGS onto thin film stainless steel foil		
Characteristics (+/- 10%)			
Open circuit voltage (Voc)	26V	24.2V	24.2V
Optimum operating voltage (Vmp)	17V	16.7V	16.7V
Short circuit current (Isc)	2.2A	4.6A	6.9A
Optimum operating current (Imp)	1.77A	3.83A	5.99A
Power at STC* (Pmax)	30W	64W	100W
Temperature coefficient for Voc/°C	-0.37%	-0.37%	-0.37%
Temperature coefficient for Power W/°C	-0.44%	-0.44%	-0.44%
NOCT**	44.5°C	44.5°C	44.5°C

Panel Dimension

Weight	5.0 kg	8.6 kg	12.4 kg
Dimension of panel (a) x (b)	387 x 982 mm	603 x 1085 mm	874 x 1085 mm
Mounting oblong hole (g) x (f)	8 x 6 mm	8 x 6 mm	8 x 9.5 mm
Distance between mounting holes (c)	600 mm	800 mm	800 mm
Distance from corner (d)	191 mm	142.5 mm	142.5 mm
Frame thickness (x) - (y)	22 x 21 mm	34 x 22 mm	42 x 30 mm

Limits

Operating temperature	-40 to +85°C
Maximum system voltage	500V DC

Output

Output terminal	Junction box with flying lead
Cable	2.5 mm ² - 20 amp - 1100V
Cable length	1.5 m (1 core x 2 nos.)
Connection	Stripped wire

*STC: Irradiance 1000W/m² @ 25°C, AM=1.5

**NOCT = Irradiance level 800 W/m², spectrum AM 1.5, wind velocity 1 m/s, T_{amb} 20°C

Note: Panels, when first used, need two days of full sun exposure before reaching optimum performance.

Panels are marketed in India by PAE Ltd.

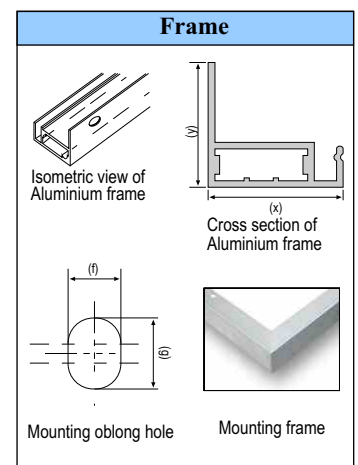
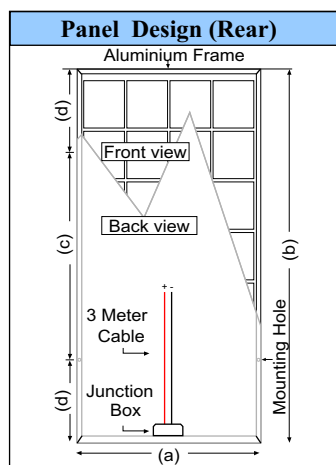
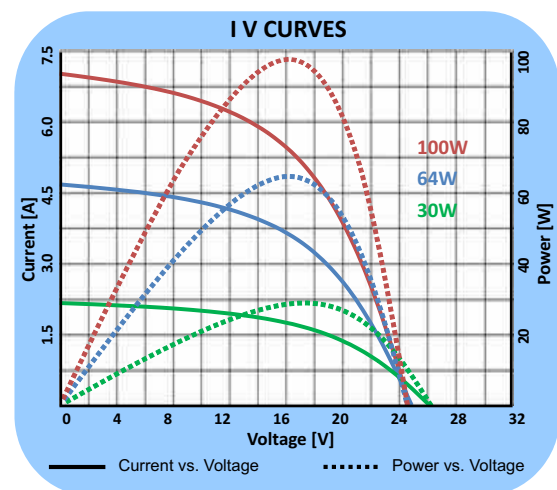
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Cells manufactured in the USA