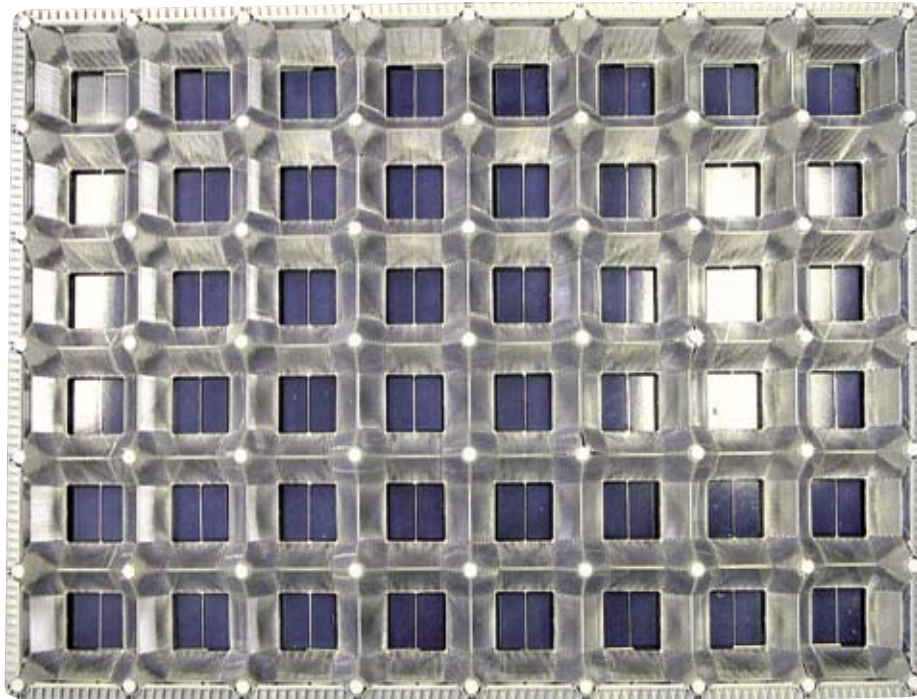


# Si-Con™ 4X Low Concentration PV

The Si-Con 4X LCPV is a low concentration ratio PV module with the following features:

- Patented 4X concentrator system
- Extremely cost effective
- Designed for long term durability and reliability
- Suitable for use in fixed-tilt systems or low precision single/dual axis trackers



## Si-Con™ 4X LCPV

Generating electricity from solar energy is becoming increasingly important considering the rapidly rising costs of fossil fuels such as Oil and gas. This trend looks likely to increase in rate over the coming years and therefore the total electricity generated from renewable energy sources such as the Sun needs to be rapidly scaled up if demands are to be met and maintained.

Although solar power plants have been in existence for many years the electricity generated by them has been costly in comparison to conventional generating methods. This problem has been compounded by the shortage of solar grade Silicon which has become expensive.

A solution to this problem was found by developing technologies which enable the solar radiation to be concentrated onto a smaller geometric area of Silicon. Using concentrator technology requires a significantly smaller area of costly Silicon while still producing the desired level of power.

The Si-Con™ 4X Low Concentration PV module has been targeted at applications such as rural electrification. The module increases the amount of generated power per kg of silicon used but its simple and elegant design ensures that it is still efficient even when fitted to a low specification single or dual-axis tracker.

The Sun's radiation is concentrated by a patented 'Prismatic Lens' which uses the principal of 'Total Internal Refraction' to collect light from an area same size as 6 inch Silicon wafer and channels it onto a Silicon cell which is quarter its size. This means only 25% silicon is used compared to Flat plate solar modules.

The entire module is structurally very strong, extremely robust and very easy to manufacture, making it one of the best products on the market.

### Silicon CPV plc advantages...

- We have a **manufacturability advantage over our competitors**
- We have a **major cost advantage over our competitors**
- **No one has the simplicity of our technology**
- **Our product reliability is outstanding**

### Specifications

		LCPV-36	LCPV-48
<b>ELECTRICAL</b>			
Maximum Power*	Pmax	115W	150W
Open Circuit Voltage	Voc	22.15	29.45
Max Power Point Voltage	Vmpp	17.45	23.25
Short Circuit Current	Isc	7.15A	7.15A
Max Power Point Current	Imp	6.55A	6.55A
Cells per module		36	48
<b>DIMENSIONS</b>			
CELL (L) x (W)	cm	7.8 x 7.8	7.8 x 7.8
MODULE (L) x (W) x (D)	cm	102 x 102 x 13.5	134 x 102 x 13.5
Module Weight	kg	18	24

\* Power rating is at 1,000 W/M<sup>2</sup>, AM 1.5 with cell operating temperature 25°C

<b>MECHANICAL</b>	
Frame:	Pc + ABS
Front	PMMA Lens
Back	Aluminium
Cell Encapsulation	EVA
Junction Box	PPE- IP65
Connector	MC Type 4
<b>TEMPERATURE COEFFICIENT</b>	
Current Temperature Coefficient	+4.40 mA/K
Power Temperature Coefficient	-0.46 %/K
NOCT Normal Operating Cell Temperature	60°C ± 2°C
<b>LIMITS</b>	
Operating Temperature Limits	-25°C to +85°C
Power Tolerance	±3%
Maximum System Voltage	1,000V DC

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