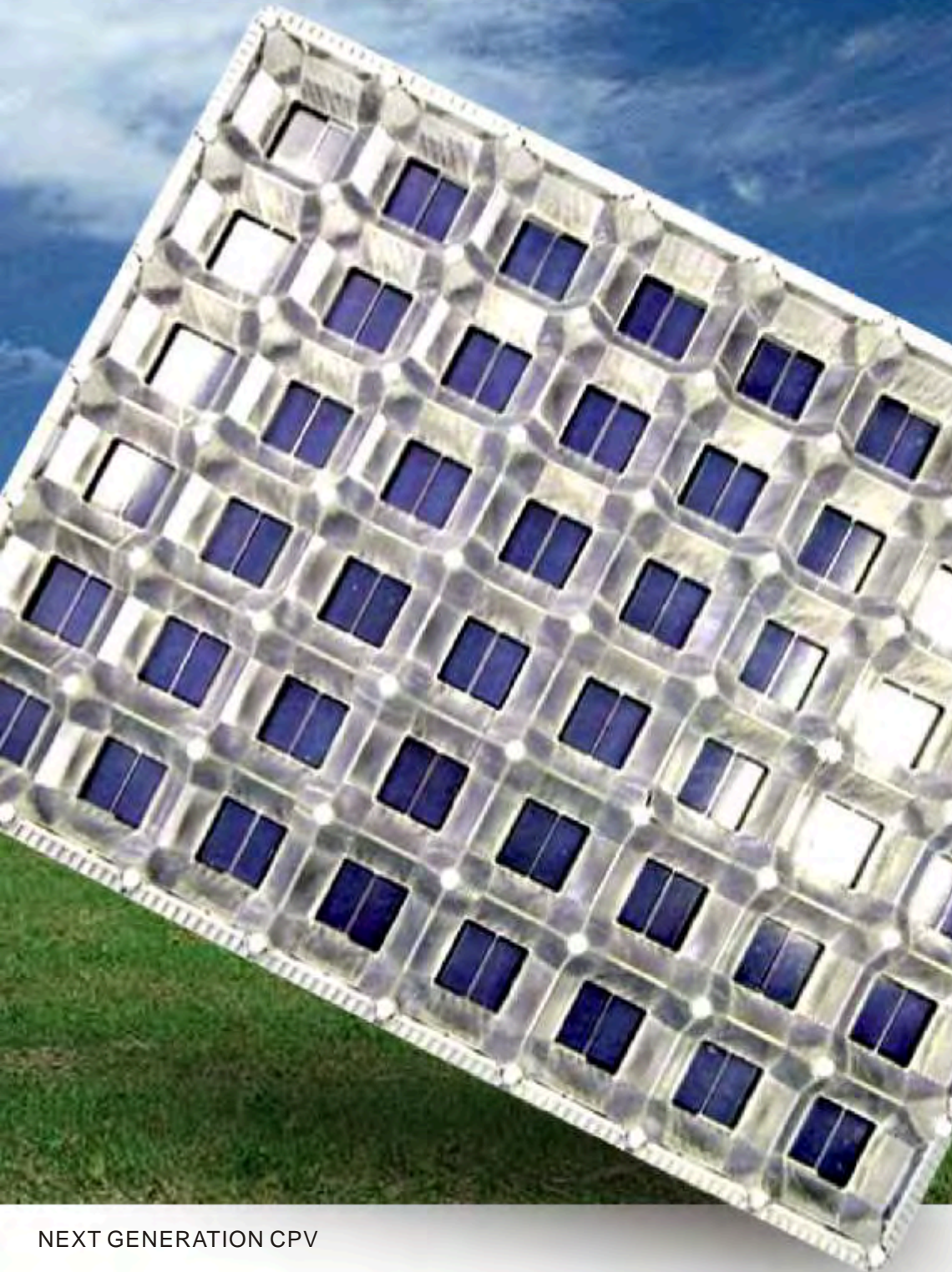


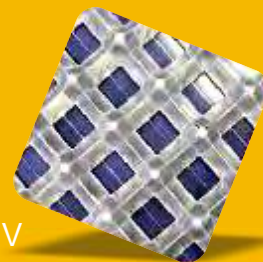
# Zytech CPV 4X Low Concentration PV

zero emissions · low maintenance · high efficiency



NEXT GENERATION CPV





# Zytech 4X LCPV

NEXT GENERATION CPV

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 Zytech 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.

Zytech CPV 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

**The Zytech 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

LCPV-36      LCPV-48

ELECTRICAL DATA			
		LCPV-36	LCPV-48
Maximum Power*	<i>P<sub>max</sub></i>	115W	150W
Open Circuit Voltage	<i>V<sub>oc</sub></i>	22.15	29.45
Max Power Point Voltage	<i>V<sub>mpp</sub></i>	17.45	23.25
Short Circuit Current	<i>I<sub>sc</sub></i>	7.15A	7.15A
Max Power Point Current	<i>I<sub>mp</sub></i>	6.55A	6.55A
Cells per module		36	48
DIMENSIONS			
Cell (L) x (W)	<i>cm</i>	7.8 x 7.8	7.8 x 7.8
Module (L) x (W) x (D)	<i>cm</i>	102x102x13.5	134x102x13.5
Module Weight	<i>kg</i>	18	24

MECHANICAL	
Frame:	Pc + ABS
Front	PMMA Lens
Back	Aluminium
Cell Encapsulation	EVA
Junction Box	EVAPPE- Ip65
Connector	MC Type 4
TEMPERATURE COEFFICIENT	
Current Temperature Coefcient	+4.40 mA/K
Power Temperature Coefcient	-0.46 %/K
Noct Normal Operating Cell Temperature	60°C ± 2°C
LIMITS	
Operating Temperature Limits	-25°C to +85°C
Power Tolerance	±3%
Maximum System Voltage	1,000V DC

