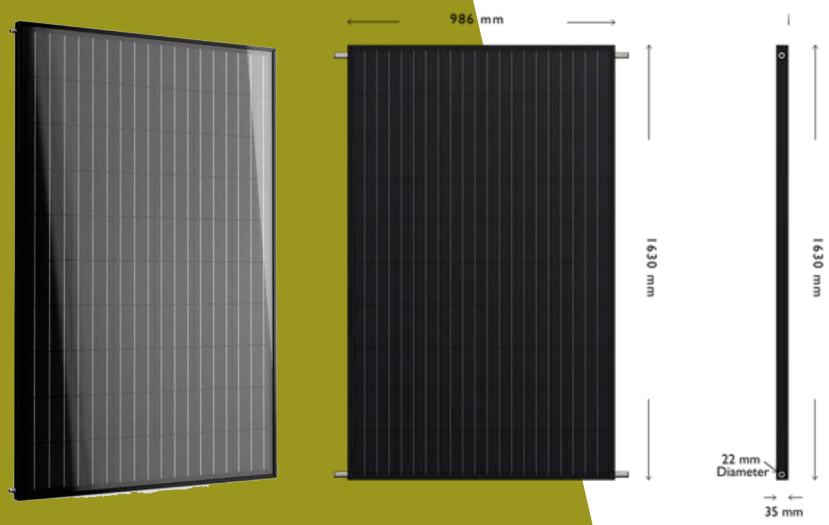
SOLAR® ANGEL
FUTURE GENERATION

Solar Angel DG-01

PV-T Module (Hybrid PV/Thermal)



Heat and Power from One Panel

Solar Angel DG-01 module from **Natural Technology Developments** offers high performance renewable energy generation at an affordable price. It has been designed to combine the best of traditional PV and solar thermal technologies in a low profile, attractive panel that produces both hot water and electricity.

The panel also overcomes the **challenges of conventional solar**. For example, on warm sunny days a traditional PV panel rises in temperature and can actually lose around 25% of its electrical output. This gets worse as the temperature rises. Solar Angel reverses this effect by cooling the PV. This is achieved by combining PV with a solar thermal absorber that strips away the heat, keeping the panel cooler and generating more electricity, as well as providing useful hot water.

What's more, **unlike traditional solar** thermal this panel has been designed not to overheat and cannot exceed more than 79°C. This means that the problems associated with high temperature stagnation, such as high pressure that puts strain on pipes and components causing leaks and early failure, are avoided.

Benefits

- **Produces more than 4 times the usable energy of standard PV**
- **Lower hydraulic pressure enabling more modules to be connected**
- **Low stagnation temperature avoids system overheating and damage**
- **Greater CO_2 displacement per m^2**
- **Low whole life costs**
- **Uses 1/3 less roof space**

Highly Decorated, Quality Assured

Each Solar Angel module is built to last and manufactured using the highest quality components. Every panel comes with a **10-year Product Warranty and 25-year linear Electrical Performance Warranty** covering you for the lifetime of your investment.

When you choose Solar Angel, you receive the added assurance of purchasing a product that has been made here in the UK by Romag, a leading UK glass manufacturer specialising in Solar PV and trusted worldwide to provide high quality products. The performance of each panel is **rigorously tested** before it leaves the factory and stringent quality procedures are in place to ensure a superior product every time.

Solar Angel PV-T has been tested to **IEC 61215, IEC 61730** and **EN12975**. The modules have also achieved the European quality label **Solar Keymark**, and are fully **MCS certified** (004 and 005).

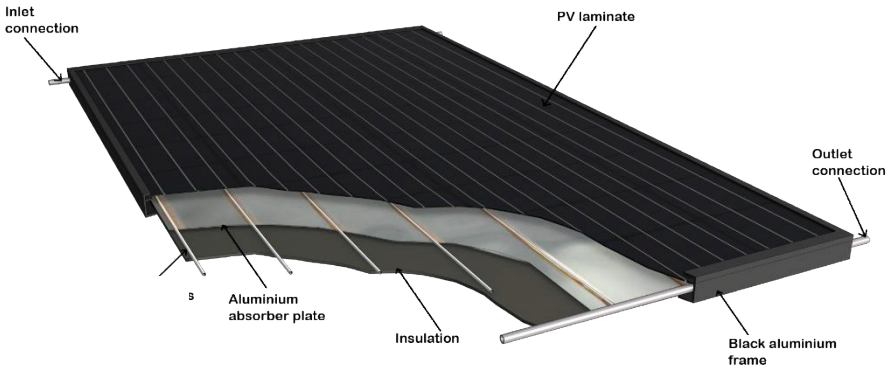
www.solarangel.com

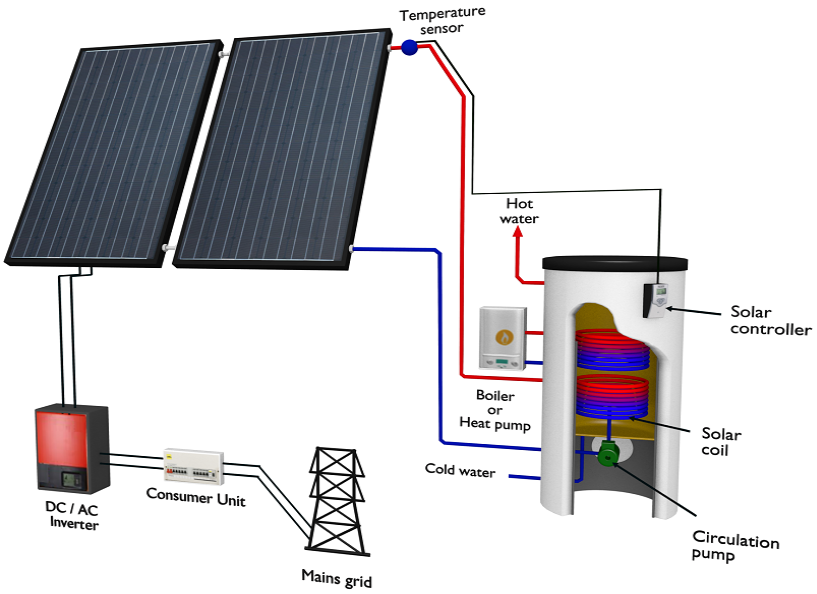
SOLAR ANGEL®
FUTURE GENERATION

Module Specification

Module Construction

Beautifully simple in design, Solar Angel's easy flow aluminium absorber efficiently removes heat from the panel to maximise electrical performance and ensure a low pressure drop, which allows up to ten panels to be connected in series.





Basic System Design

A Solar Angel PV-T system in its most basic form provides heat to a hot water tank and power to the building using a twin coiled tank with standard plumbing and electrical connections. It's as simple as that.

Technical Data

PV Output (Wp) (Polycrystalline)	250	Frame material	Aluminium
Thermal Output (Wp)	648	Insulation material	Polymer foam
Gross collector area (m2)	1.607	Connections	22mm Compression
Aperture area (m^2)	1.552	Max. operating pressure (KPa)	600
Absorber area (m^2)	1.501	Pressure tested to (KPa)	1500
Dimensions (mm)	1630 x 986 x 35	Pressure drop (mBar) @ 2.5 l/min	50
Weight – empty (kg)	25	Max System Voltage (V)	1000
Liquid content (l)	0.82	Voltage at max power (V)	30.4
Glass (low iron)	3.2 mm	Current at max power (A)	8.1
Stagnation temperature (°C)	78.9	Over current Protection Rating (A)	12
Absorber material	Aluminium	Snow and Wind Loading (max Pa)	6600

www.solarangel.com

To find out more please call on 0191 6450407
or send an email: contactus@solarangel.com