# System Performance

We have made an estimate of the annual energy generation of your system. This takes into account the following factors that affect the output of a solar array.

### The location of the system

Sunlight is weaker near the poles than near the equator. We use data from a meteorological model of the intensity of sunlight over the course of the year in different locations all over the world.

### The orientation of the system

Solar panels that face south receive a little more sunlight than panels that face east or west. However, in diffuse light the orientation of the panels makes little difference, so the effect is less marked than many people imagine.

### The degree of shading

If you have trees, neighbouring buildings or nearby high ground that will shade your PV array, the output of the system will be reduced. We have used a 'sunpath diagram' that estimates how often sunlight will be blocked from reaching the panels.

# We expect your system to generate 8,278 kWh per year

#### Installation data

Installation capacity of PV system – kWp (stc)	9 kWp
Orientation of the PV system – degrees from South	45°
Inclination of system (pitch) – degrees from horizontal	10°
Postcode region	Zone 1
Performance Calculations	

kWh/kWp (Kk) Shade Factor (SF) Estimated output (kWp x Kk x SF) See sunpath diagrams See sunpath diagrams 8278 kWh

### **Roof diagram**



Flat Roof Orientation: 45° Pitch: 10°

# Sunpath diagrams



Shade factor: 1.00 Kk: 875



Shade factor: 1.00 Kk: 875



Shade factor: 1.00 Kk: 875

Important note: The performance of solar PV systems is impossible to predict with certainty due to the variability in the amount of sunlight from location to location and from year to year. This estimate is based upon a model that takes account of meteorological data at your location and makes an allowance for losses due to shading of the panels. This is a complex calculation however, and no model can be 100% accurate. It should not be considered a guarantee of performance.

If shading is present on your system that will reduce its output to the factor stated. This factor was calculated using industry standard shading methodology and we believe that this will yield results within 10% of the actual energy estimate stated for most systems.

VAN DER VALK	Van der Valk Solar Systems ValkPro+ Landscape 10° South
SOLAR SYSTEMS	Version: 1.0
ValkPro+ Landscape 10° Suitable panel length: Suitable panel width: Panel inclination: Available pitch:	1520 - 2320 mm 977 - 1350 mm 10° 1300 - 1600 mm (default 1500 mm)
* See next page for system details and drawings.	

# **VAN DER VALK**



Van der Valk Solar Systems ValkPro+ Landscape 10° South

Version: 1.0

Foundation types:





Rubber tile carriers: Bitumen / EPDM / Concrete / PVC

Mass blocks: Roof or field systems



Elevation blocks: for gravel roofs



Foundation tile: for sedum / green roofs or field systems



ValkSolarFix: for mechanical fixation

Ballast options:



Rubber tile carriers



Ballast wings



Mass carriers



Ballast trays

