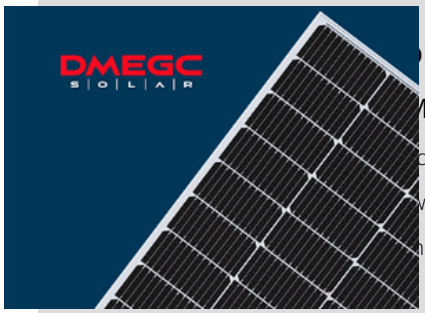
System Overview

Your system comprises **22 DM550M10-72HSW/-V solar panels** to collect sunlight and turn it into DC electricity.

The panels will be connected to **1 SolaX X1 G4 7.5D hybrid inverter**, which converts the DC electricity into mains (AC) electricity.

A SolaX Triple 5.8kWh LFP Battery battery storage system will allow you to store excess energy from sunny days, so that you can use your generated electricity at night too.

We include all the isolators, wiring and meters needed to connect the system safely to your electrical system. Your system will be installed and certified by our trained installation team.



lar Panels: DM550M10-72HSW/-V x 22

M550M10-72HSW/-V

del	DM550M10-72HSW/-V
wer	550 watts
ensions	1134 x 2278mm

Inverter: SolaX X1 G4 7.5D hybrid

Developed using the very latest solar technology, the SolaX X1-Hybrid G4 has an in-built EPS changeover switch and internet connectivity.

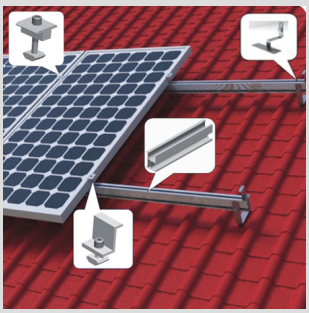
AC Power	7500 watts
Trackers	2

System components

Battery: SolaX Triple 5.8kWh LFP Battery

With a 10-year warranty and 90% depth of discharge, the new Triple Power battery is a flexible, practical, high-performance energy storage.

Capacity	Primary: 5.800 kWh, Secondary 5.800 kWh
Quantity	1 x Primary, 0 x Secondary



Mounting: Fastensol pitched roof mounting system

Fastensol are an excellent value, fully MCS accredited choice for pitched roof mounting systems, suitable for the majority of roof types.

Designed for	Natural Slate roofs
Colour	Not specified

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.

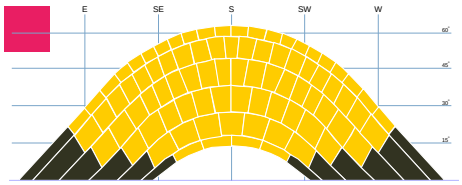
The degree of shading

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.

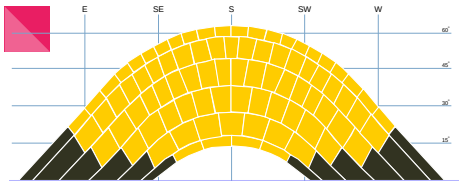
Roof diagram

Roof 1 Orientation: -91° Pitch: 30°

Sunpath diagrams



Shade factor: 1.00 Kk: 721



Shade factor: 1.00 Kk: 721

We expect your system to generate

8,724 kWh per year

Installation data

Installation capacity of PV system – kWp (stc)	12 kWp
Orientation of the PV system – degrees from South	-91°
Inclination of system (pitch) – degrees from horizontal	30°
Postcode region	Zone 11

Performance Calculations

kWh/kWp (Kk)	See sunpath diagrams
Shade Factor (SF)	See sunpath diagrams
Estimated output (kWp x Kk x SF)	8724 kWh

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.

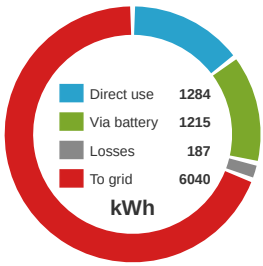
Your energy explained

In addition to the MCS calculation of system output we have run a more detailed model of your system to estimate how much of the electricity generated by the system you are likely to use yourself and how much will go to the grid.

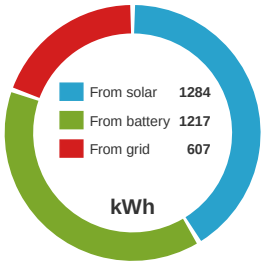
Smart Export Guarantee (SEG) information

The Smart Export Guarantee(SEG) enables Generators to receive payments from electricity suppliers for the electricity they export back to the National Grid, providing specific criteria are met. Your installation will be MCS accredited, which means that you should be able to apply for SEG payments from your electricity supplier. Further details on the SEG and its eligibility requirements, including how to apply, can be found online at ofgem.gov.uk

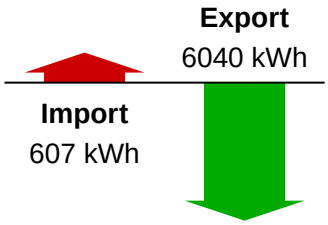
Annual Generation



Annual Consumption

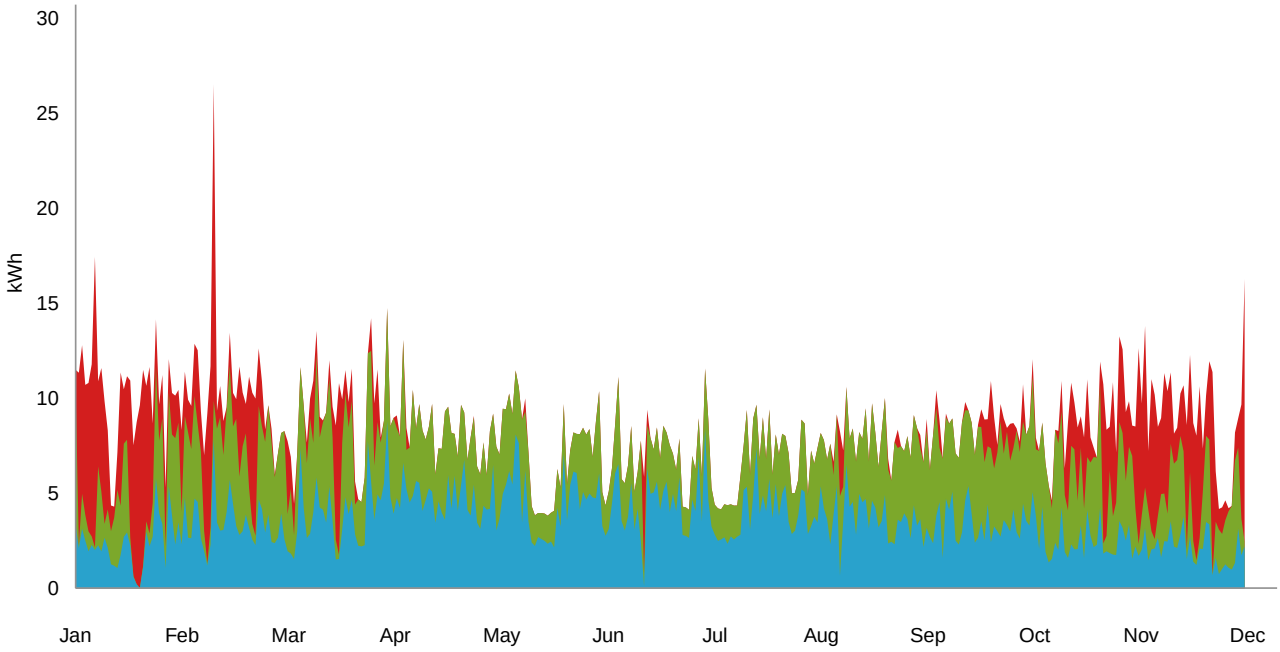


Annual Import/Export



Where your electricity will come from in a typical year

Based on an electricity usage of 3,100 kWh per year, the graph below shows how much electricity used in the property is expected to come directly from the solar panels (blue) , how much is expected to come from battery storage (green), and how much is expected to be imported from the grid (red).



Environmental Benefits

Your new PV system will supply your property with clean, green electricity - and in sunny periods some will also be exported back to the grid.

Overall you'll be making a big contribution to reducing CO_2 not just by lowering the carbon intensity of your own electricity, but by putting low-carbon electricity back in the grid for others to use too.

Your current electricity supply produces

658 kg CO_2 each year

83% will be supplied by solar, saving

549 kg CO_2 each year

6,138 kWh will be exported, saving

1,303 kg CO_2 each year

Total savings

1,852 kg CO_2 each year

Your yearly CO_2 reduction of 1,852 kg is equal to...

a car ride of 6,616 miles

CO_2 absorbed by 85 trees

Disclaimer: We calculate and compare the likely annual CO_2 emissions for your home based on your generation and usage with the solar PV system detailed in this document versus estimates for a property like yours using energy from the grid. Your actual CO_2 emissions will depend on lots of factors, like how much energy your solar panels generate, how much of this energy you use directly and how much energy you continue to use from the grid. To calculate what these savings equate to in miles driven, we base this on the CO_2 emissions of an average sized diesel car as outlined in the UK government's 'Greenhouse gas reporting: conversion factors 2022' (https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2022). To calculate what these savings equate to as the average amount of CO_2 absorbed by trees, we base this on a rate of 25kg per tree per year. Trees absorbs anywhere between 10 and 40kg of CO_2 per year on average, depending on a whole host of factors including the species, location, planting density, and age.