

System Summary

Physical

Roof

Orientation0°

Pitch35°

Location

RegionEast Pennines

Array

Width8.00 m

Height3.00 m

Surface Area27.89 m²

Weight343.44 kg

WeightM212.31 kg

Panel - Canadian Solar 440W TOPHiKu6 Black Frame with MC4

Panel Specifications

Number required14

Rating440 Wp

Length1,722 mm

Width1,134 mm

Voc at STC39.4 V

Vmpp at STC32.4 V

Imp at STC13.59 A

Isc at STC14.01 A

Array Specifications

Array Power6,160 Wp

Inverter - Solis 6kW S6 Dual MPPT - Single Phase with DC

Phases1

No. of MPPT2

Rated AC Power6,000 W

Max DC

Current28.00 A

Voltage600 V

PP Voltage

Min90 V

Max520 V

Electrical - Solis 6kW S6 Dual MPPT - Single Phase with DC

Quantity1

String Quantity2

Strings1 * (1x7 / 1x7)

String Voc at -5 °C296.49 / 296.49 V

String Vmpp at 70 °C197.20 / 197.20 V

String Vmpp at -5 °C246.53 / 246.53 V

Input Isc at 70 °C14.33 A

Distance to Array12 m

Cable Area4 mm²

Voltage Drop1.08 %

PV Performance Estimation

A. Installation Data - New MCS Calculation

Installed capacity of PV system - kWp (stc)6.160 kWp

Orientation of the PV system - degrees from South0°

Inclination of system - degrees from horizontal35°

Postcode region11

B. Calculation

kWh/kWp (KK) from table892 kWh/kWp

Shade factor (SF)1.00

Estimated annual output (kWp x KK xSF)5,495 kWh

MCS Wind Loading Calculation	
Wind Zone:	2-TA
Peak Pressure:	746 Pa
Altitude Correction Factor:	None
Topography Correction Factor:	None
Peak Velocity Pressure:	746 Pa
Pressure Coefficient:	-0.5
Wind Pressure:	-504 Pa

This calculation excludes an additional safety factor.

Snow Loading Calculation	
Snow Load:	600 Pa
Altitude Correction:	None
Pitch Adjustment:	0.800
Adjusted Snow Load:	480 Pa