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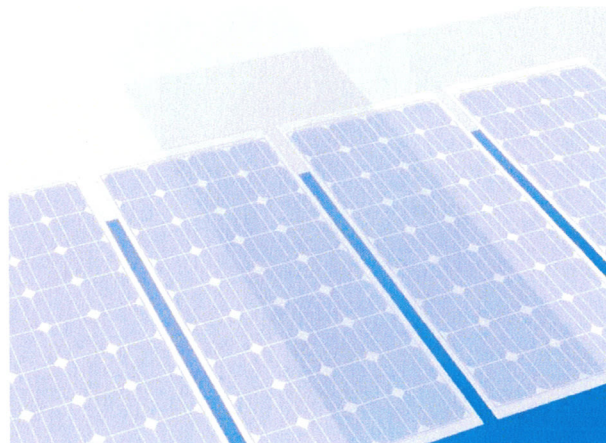
Project Name: Stephenson House
Offer no.: TQ 1328

30/04/2020

Your PV system from Elco Group Ltd

Address of Installation

Stephenson House,
Hampstead Road,
London,
NW1 2PL



Project Description:
20kWp Photovoltaic Array

Project Overview

PV System

Grid-connected PV System

Climate Data	London Weather C., GBR (1986 - 2005)
PV Generator Output	20.4 kWp
PV Generator Surface	100.9 m ²
Number of PV Modules	60
Number of Inverters	1

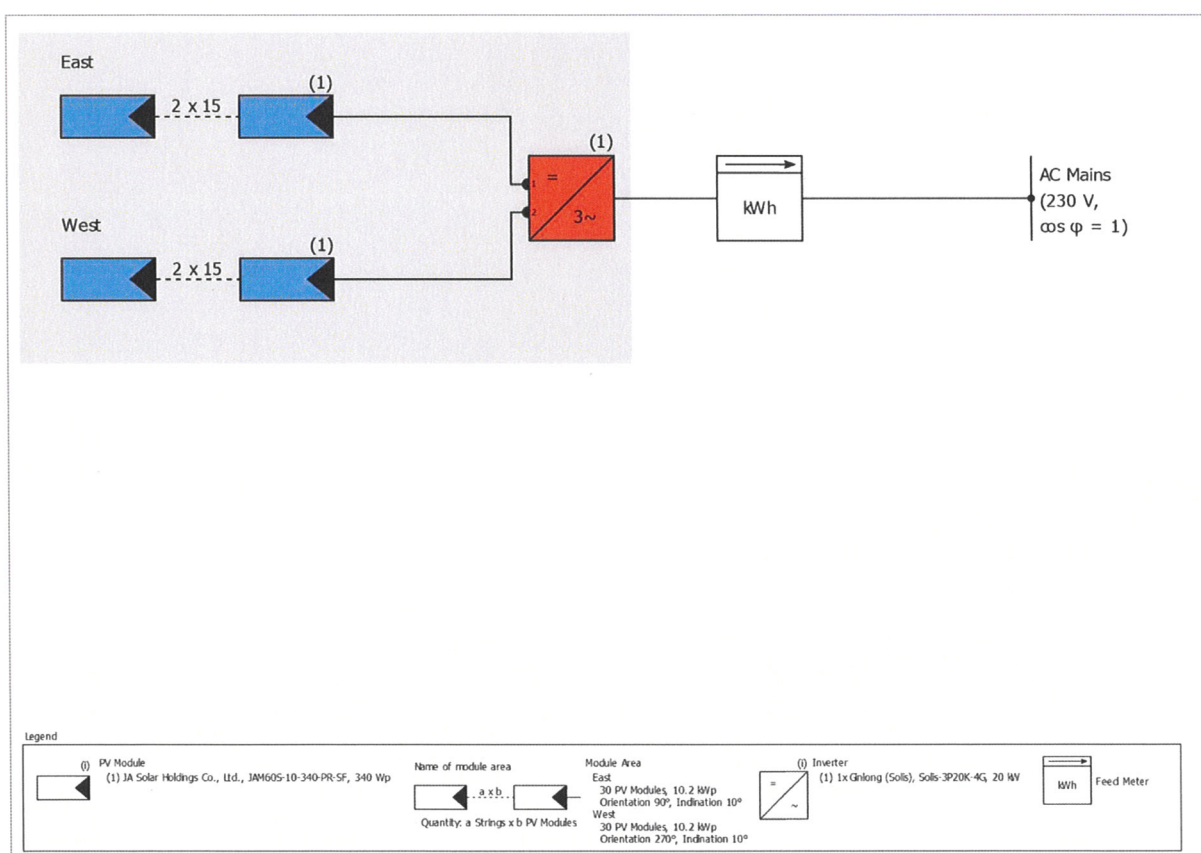


Figure: Schematic diagram

The yield

The yield

PV Generator Energy (AC grid)	16,800 kWh
Grid Feed-in	16,800 kWh
Down-regulation at Feed-in Point	0 kWh
Own Power Consumption	0.0 %
Solar Fraction	0.0 %
Spec. Annual Yield	823.54 kWh/kWp
Performance Ratio (PR)	88.5 %
CO ₂ Emissions avoided	10,080 kg / year

Financial Analysis

Your Gain

Total investment costs	24,480.00 £
Return on Assets	0.00 %
Amortization Period	More than 25 Years
Electricity Production Costs	0.09 £/kWh
Energy Balance/Feed-in Concept	Full Feed-in

The results have been calculated with a mathematical model calculation from Valentin Software GmbH (PV*SOL algorithms). The actual yields from the solar power system may differ as a result of weather variations, the efficiency of the modules and inverter, and other factors.

Set-up of the System

Overview

System Data

Type of System	Grid-connected PV System
Start of Operation	26/07/2019

Climate Data

Location	London Weather C., GBR (1986 - 2005)
Resolution of the data	1 h
Simulation model used:	
- Diffuse Irradiation onto Horizontal Plane	Hofmann
- Irradiance onto tilted surface	Hay & Davies

Module Areas

1. Module Area - East

PV Generator, 1. Module Area - East

Name	East
PV Modules	30 x JAM60S-10-340-PR-SF
Manufacturer	JA Solar Holdings Co., Ltd.
Inclination	10 °
Orientation	East 90 °
Installation Type	Mounted - Roof
PV Generator Surface	50.5 m ²

2. Module Area - West

PV Generator, 2. Module Area - West

Name	West
PV Modules	30 x JAM60S-10-340-PR-SF
Manufacturer	JA Solar Holdings Co., Ltd.
Inclination	10 °
Orientation	West 270 °
Installation Type	Mounted - Roof
PV Generator Surface	50.5 m ²

Inverter configuration

Configuration 1

Module Areas	East + West
Inverter 1	
Manufacturer	Ginlong (Solis)
Model	Solis-3P20K-4G
Quantity	1
Sizing Factor	102 %
Configuration	MPP 1: 2 x 15 MPP 2: 2 x 15

Stephenson House

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AC Mains

AC Mains

Number of Phases	3
Mains Voltage (1-phase)	230 V
Displacement Power Factor (cos phi)	+/- 1

Simulation Results

Results Total System

PV System

PV Generator Output	20.4 kWp
Spec. Annual Yield	823.54 kWh/kWp
Performance Ratio (PR)	88.5 %
Grid Feed-in	16,800 kWh/year
Grid Feed-in in the first year (incl. module degradation)	16,315 kWh/year
Standby Consumption (Inverter)	4 kWh/year
CO ₂ Emissions avoided	10,080 kg / year

Energy Flow Graph

Project: Stephenson House



All values in kWh
Small deviations in the totals can occur due to rounding
created with PV*SOL

Figure: Energy Flow Graph

Plans

Circuit Diagram

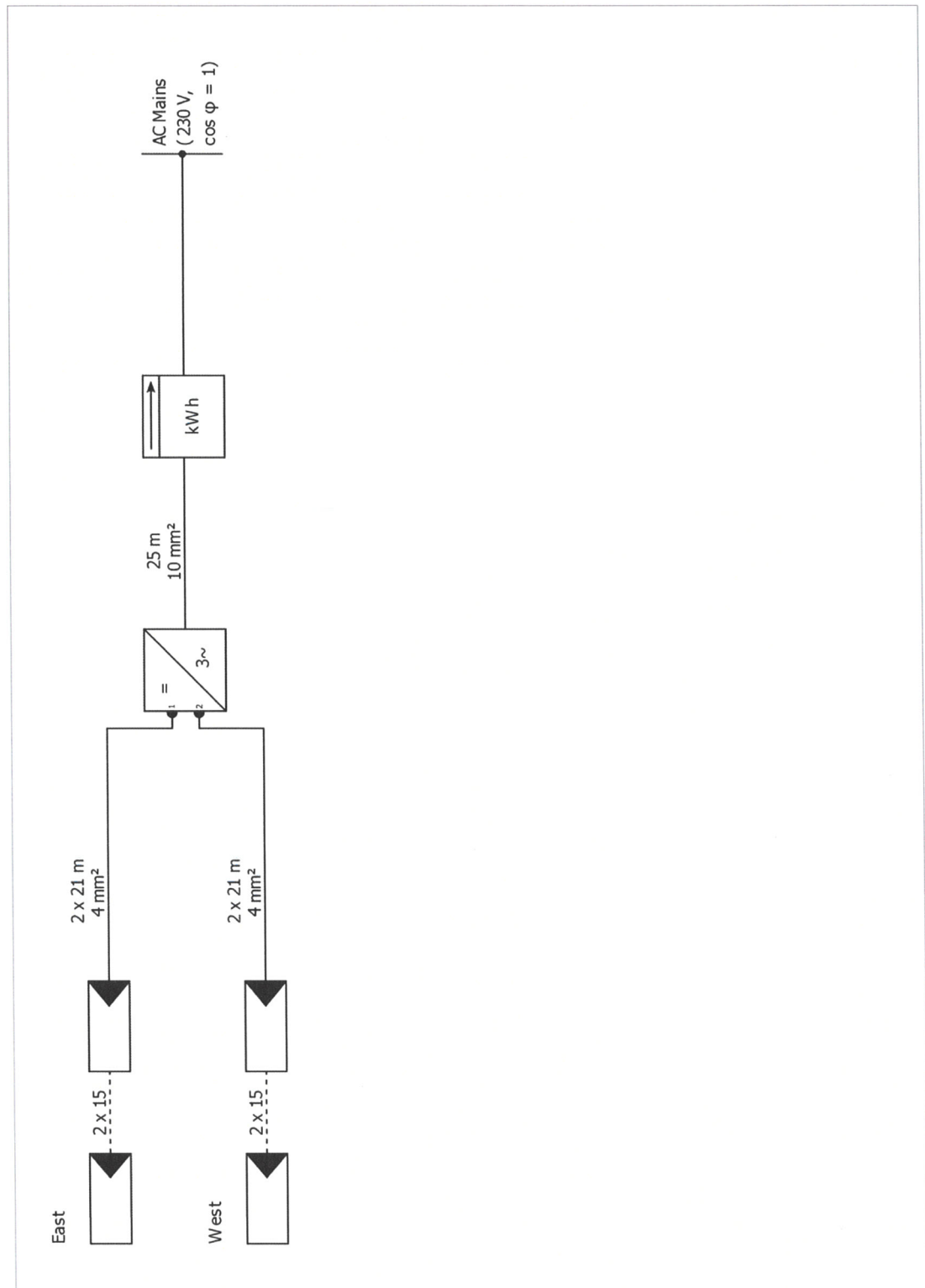


Figure: Circuit Diagram