

Lidl GB

Square 4 Services Limited
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Customer No.: 2364
Project Name: Lidl - Connahs Quay 2364 - Rev A

19/02/2021

Your PV system from Square 4 Services Limited

Address of Installation

Portland Street ,Shieldfield, Newcastle Upon Tyne ,NE2
1AL



Project Description:

Rev A

Standard 2020.2 Specification

180kWp 468 X JA385W roof Mounted Solar PV

Project Overview

PV System

Grid-connected PV System

Climate Data	Connahs Quay, GBR (1991 - 2010)	
PV Generator Output	180.18 kWp	
PV Generator Surface	870.9 m ²	
Number of PV Modules	468	
Number of Inverters	3	

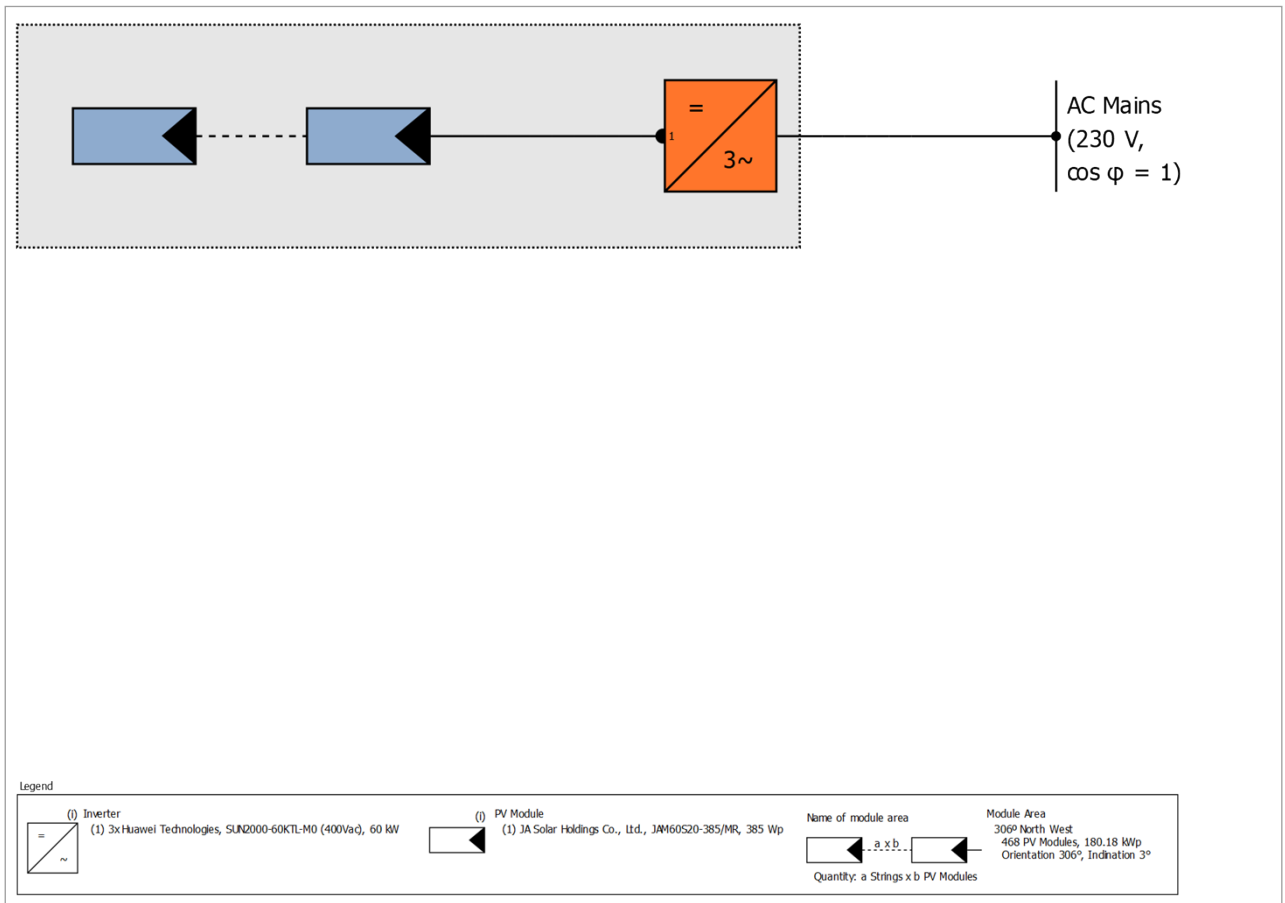


Figure: Schematic diagram

The yield

The yield

PV Generator Energy (AC grid)	139,682 kWh
Grid Feed-in	139,682 kWh
Down-regulation at Feed-in Point	0 kWh
Own Power Consumption	0.0 %
Solar Fraction	0.0 %
Spec. Annual Yield	775.05 kWh/kWp
Performance Ratio (PR)	87.4 %
CO ₂ Emissions avoided	31,700 kg / year

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	18/02/2021

Climate Data

Location	Connahs Quay, GBR (1991 - 2010)
Resolution of the data	1 h
Simulation models used:	
- Diffuse Irradiation onto Horizontal Plane	Hofmann
- Irradiance onto tilted surface	Hay & Davies

Inverter configuration

Configuration 1

Module Area	306° North West
Inverter 1	
Model	SUN2000-60KTL-M0 (400Vac) (v1)
Manufacturer	Huawei Technologies
Quantity	1
Sizing Factor	96.3 %
Configuration	MPP 1: 2 x 15 MPP 2: 2 x 15 MPP 3: 2 x 15 MPP 4: 2 x 15 MPP 5: 2 x 15 MPP 6: not allocated

Inverter 2

Model	SUN2000-60KTL-M0 (400Vac) (v1)
Manufacturer	Huawei Technologies
Quantity	1
Sizing Factor	107.8 %
Configuration	MPP 1: 2 x 14 MPP 2: 2 x 14 MPP 3: 2 x 14 MPP 4: 2 x 14 MPP 5: 2 x 14 MPP 6: 2 x 14

Inverter 3

Model	SUN2000-60KTL-M0 (400Vac) (v1)
Manufacturer	Huawei Technologies
Quantity	1
Sizing Factor	96.3 %
Configuration	MPP 1: 2 x 15 MPP 2: 2 x 15 MPP 3: 2 x 15 MPP 4: 2 x 15 MPP 5: 2 x 15 MPP 6: not allocated

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	180.2 kWp
Spec. Annual Yield	775.05 kWh/kWp
Performance Ratio (PR)	87.4 %
Grid Feed-in	139,682 kWh/Year
Grid Feed-in in the first year (incl. module degradation)	136,301 kWh/Year
Standby Consumption (Inverter)	34 kWh/Year
CO ₂ Emissions avoided	31,700 kg / year

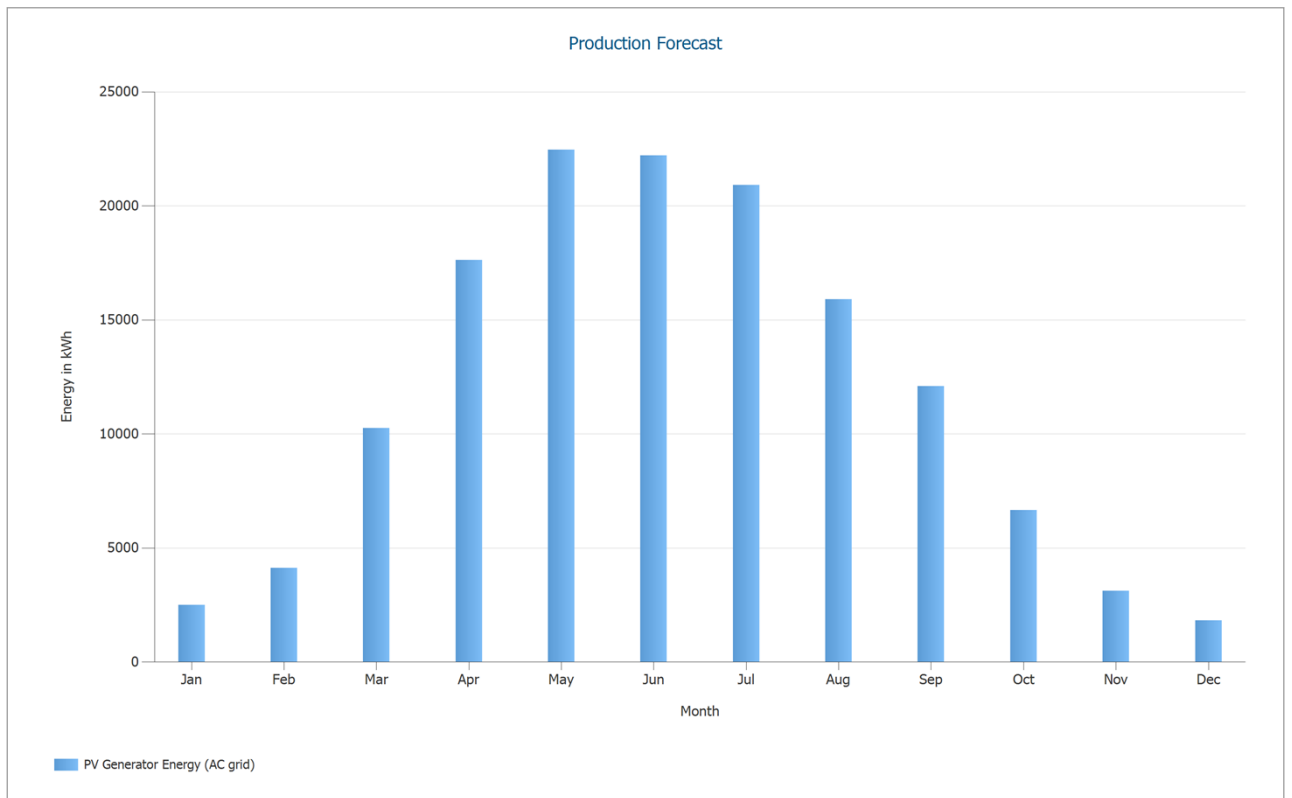


Figure: Production Forecast

Plans and parts list

Circuit Diagram

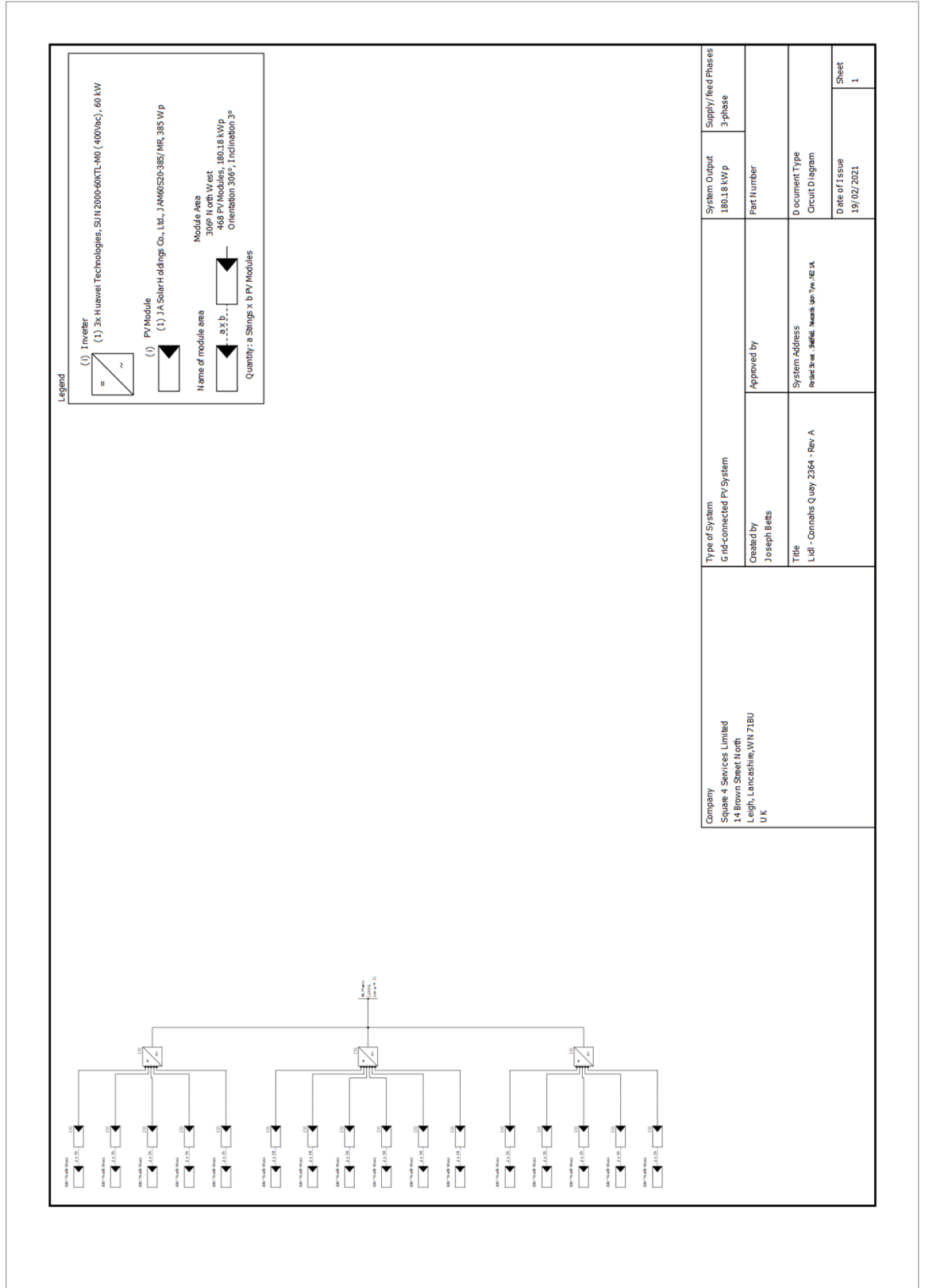


Figure: Circuit Diagram

Parts list

Parts list

#	Type	Item number	Manufacturer	Name	Quantity	Unit
1	PV Module		JA Solar Holdings Co., Ltd.	JAM60S20-385/MR	468	Piece
2	Inverter		Huawei Technologies	SUN2000-60KTL-M0 (400Vac)	3	Piece