

Summary for Input Data



Property Reference	22-049	Issued on Date	01/03/2023
Assessment Reference	004-NO solar PV	Prop Type Ref	
Property	Plot 2, Timms Drove, Swineshead, Lincolnshire, PE20 3PG		

SAP Rating	77 C	DER	4.42	TER	9.11
Environmental	95 A	% DER < TER			51.48
CO ₂ Emissions (t/year)	0.95	DFEE	47.49	TFEE	48.62
Compliance Check	See BREL	% DFEE < TFEE			2.33
% DPER < TPER	4.78	DPER	46.19	TPER	48.51

Assessor Details	Mr. Kevin Hopton	Assessor ID	P190-0001
Client			

SUMMARY FOR INPUT DATA FOR: New Build (As Designed)

Orientation	North
Property Tenure	1
Transaction Type	6
Terrain Type	Rural
1.0 Property Type	House, Detached
2.0 Number of Storeys	2
3.0 Date Built	2022
4.0 Sheltered Sides	0
5.0 Sunlight/Shade	Very little
6.0 Thermal Mass Parameter	Precise calculation

7.0 Electricity Tariff	Standard
Smart electricity meter fitted	Yes
Smart gas meter fitted	Yes

7.0 Measurements	Ground floor:	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
	1st Storey:	55.90 m	131.53 m ²	2.77 m
		53.71 m	103.80 m ²	2.84 m

8.0 Living Area	17.62	m ²
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9.0 External Walls	Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Res	Shelter	Openings	Area Calculation Type
	Brick cladding	Timber Frame	Timber framed wall (one layer of plasterboard)	0.14	9.00	260.57	196.18	0.00	None	64.39	Enter Gross Area
	Abuts unheated space roof	Timber Frame	Timber framed wall (one layer of plasterboard)	0.15	9.00	3.66	3.66	0.50	Room In Roof	0.00	Enter Gross Area
	Tile-hung areas	Timber Frame	Timber framed wall (one layer of plasterboard)	0.15	9.00	154.79	142.82	0.00	None	11.97	Enter Gross Area
	Abuts bed.1 vaulted area	Timber Frame	Timber framed wall (one layer of plasterboard)	0.18	9.00	3.98	3.98	0.00	None	0.00	Enter Gross Area

9.2 Internal Walls	Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
	Internal Wall GF	Plasterboard on timber frame	9.00	208.91
	Internal Wall FF	Plasterboard on timber frame	9.00	229.07

10.0 External Roofs	Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Code	Shelter Factor	Calculation Type	Openings
	Upper roof void	External Plane	Plasterboard, insulated at ceiling level	0.11	9.00	105.85	0.00	None	0.00	Enter Gross Area	0.00
	222 rafters @ 600c/c	External Slope	Plasterboard, insulated slope	0.11	9.00	42.80	0.00	None	0.00	Enter Gross Area	0.00
	Subroof area over utility	External Plane	Plasterboard, insulated at ceiling level	0.10	9.00	8.26	0.00	Room In Roof	0.50	Enter Gross Area	0.00

10.2 Internal Ceilings	Description	Storey	Construction	Area (m ²)
	Internal Ceiling 1	Lowest occupied	Plasterboard ceiling, carpeted chipboard floor	102.13

11.0 Heat Loss Floors	Description	Type	Storey Index	Construction	U-Value (W/m ² K)	Shelter Code	Shelter Factor	Kappa (kJ/m ² K)	Area (m ²)
	Heatloss Floor 1	Ground Floor - Solid	Lowest occupied	Suspended concrete floor, carpeted	0.12	None	0.00	75.00	147.99

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11.2 Internal Floors

Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
Internal Floor 1		Plasterboard ceiling, carpeted chipboard floor	9.00	102.13

12.0 Opening Types

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Windows TBC	Manufacturer	Window	Double Low-E Soft 0.1			0.63		0.70	1.40
Bi-fold door TBC	Manufacturer	Window	Double Low-E Soft 0.1			0.63		0.70	1.40
Front door TBC	Manufacturer	Solid Door							1.40
Sliding doors TBC	Manufacturer	Window	Double Low-E Soft 0.1			0.63		0.70	1.40
Utility door	Manufacturer	Half Glazed Door	Double Low-E Soft 0.1			0.63		0.70	1.40
Glazed pairs TBC	Manufacturer	Window	Double Low-E Soft 0.1			0.63		0.70	1.40

13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
Front elevation	Front door TBC	Brick cladding	North	2.14	
Front	Windows TBC	Brick cladding	North	28.73	
Rear elevation	Bi-fold door TBC	Brick cladding	South	10.91	
Rear	Utility door	Brick cladding	South	1.91	
Rear	Windows TBC	Brick cladding	South	12.50	
Rear	Windows TBC	Tile-hung areas	South	1.22	
Rear	Sliding doors TBC	Tile-hung areas	South	7.11	
Rear (angled)	Windows TBC	Tile-hung areas	South	3.64	
Side elevation	Windows TBC	Brick cladding	West	1.75	
Rear	Glazed pairs TBC	Brick cladding	South	2.86	
Side elevation	Windows TBC	Brick cladding	East	3.60	

14.0 Conservatory

15.0 Draught Proofing

 %

16.0 Draught Lobby

17.0 Thermal Bridging

17.1 List of Bridges

Bridge Type	Source Type	Length	Psi	Adjusted Reference:	Imported
E2 Other lintels (including other steel lintels)	Independently assessed	39.15	0.09	0.09 U13 Award Energy - batch 1	Yes
E3 Sill	Independently assessed	35.19	0.05	0.05 U13 Award Energy-Batch 1	No
E4 Jamb	Independently assessed	93.45	0.07	0.07 U13 Award Energy-Batch 1	Yes
E5 Ground floor (normal)	Independently assessed	42.34	0.05	0.05 U13 Award Energy-Issue 1	No
E6 Intermediate floor within a dwelling	Independently assessed	51.66	0.06	0.06 U13 Award Energy-Batch 1	No
E24 Eaves (insulation at ceiling level - inverted)	Table K1 - Default	3.01	0.15	0.15	No
E10 Eaves (insulation at ceiling level)	Independently assessed	33.34	0.05	0.05 U13 Award Energy-Batch 1	No
E11 Eaves (insulation at rafter level)	Independently assessed	9.81	0.02	0.02 U13 Award Energy-Batch 1	No
E12 Gable (insulation at ceiling level)	Independently assessed	14.06	0.04	0.04 U13 Award Energy-Batch 1	No
E13 Gable (insulation at rafter level)	Independently assessed	10.40	0.04	0.04 U13 Award Energy-Batch 1	No
E16 Corner (normal)	Independently assessed	40.55	0.03	0.03 U13 Award Energy-Batch 1	No
E17 Corner (inverted – internal area greater than external area)	Independently assessed	16.67	-0.03	-0.03 U13 Award Energy-Batch 1	No
R6 Flat ceiling	Independently assessed	14.47	0.01	0.01 Award Energy R6 calc	No

Y-value W/m²K

18.0 Pressure Testing

Designed AP₅₀ m³/(h.m²) @ 50 Pa

Test Method

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present

Approved Installation

Mechanical Ventilation data Type

Type

MV Reference Number

Configuration

Manufacturer SFP

Duct Type

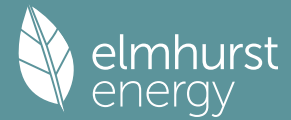
MVHR Efficiency

Wet Rooms

SFP from Installer Commissioning Certificate

MVHR System Location

Summary for Input Data



Duct Installation Specification

Level 1

20.0 Fans, Open Fireplaces, Flues

21.0 Fixed Cooling System

No

22.0 Lighting

No Fixed Lighting

No

Name
Lighting 1

Efficacy
80.00

Power
8

Capacity
640

Count
22

24.0 Main Heating 1

Description

SAP table

Air source heat pump

Percentage of Heat

100.00

%

Fuel Type

Electricity

SAP Code

224

In Winter

170.00

In Summer

170.00

Controls SAP Code

2207

Is MHS Pumped

Pump in heated space

Heating Pump Age

2013 or later

Heat Emitter

Underfloor

Underfloor Heating

Yes - Pipes in thin screed

Flow Temperature

Unknown

25.0 Main Heating 2

None

26.0 Heat Networks

None

28.0 Water Heating

Water Heating

Main Heating 1

SAP Code

901

Flue Gas Heat Recovery System

No

Waste Water Heat Recovery Instantaneous System 1

No

Waste Water Heat Recovery Instantaneous System 2

No

Waste Water Heat Recovery Storage System

No

Solar Panel

No

Water use <= 125 litres/person/day

Yes

Cold Water Source

From mains

Bath Count

2

Supplementary Immersion

No

Immersion Only Heating Hot Water

No

28.1 Showers

Description

Shower Type

Flow Rate
[l/min]

Rated Power
[kW]

Connected

Connected To

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder

Cylinder Stat

Yes

Cylinder In Heated Space

Yes

Independent Time Control

Yes

Insulation Type

Foam

Insulation Thickness Type

80 mm

Cylinder Volume

360.00

L

Pipes insulation

Fully insulated primary pipework

In Airing Cupboard

No

Summary for Input Data



31.0 Thermal Store

None

34.0 Small-scale Hydro

None

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

Typical Cost	Typical savings per year	Ratings after improvement	
		SAP rating	Environmental Impact
£4,000 - £6,000	£63	C 78	A 96
£3,500 - £5,500	£250	B 83	A 97
£15,000 - £25,000	£523	A 93	A 99