

Summary for Input Data



Property Reference	5893-SAP-BPA-Fovant		Issued on Date	22/08/2024
Assessment Reference	5893-SAP-BPA-Fovant Dwelling 1	Prop Type Ref		
Property	SN3 5JH			

SAP Rating	80 C	DER	4.56	TER	10.55
Environmental	96 A	% DER < TER			56.78
CO ₂ Emissions (t/year)	0.46	DFEE	33.24	TFEE	33.65
Compliance Check	See BREL	% DFEE < TFEE			1.20
% DPER < TPER	13.55	DPER	47.78	TPER	55.27

Assessor Details	Mr. Lyle Andrews	Assessor ID	AM30-0001
Client	5893-SAP-BPA-Fovant, Caroline Everett		

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

Orientation	Northwest	
Property Tenture	ND	
Transaction Type	6	
Terrain Type	Suburban	
1.0 Property Type	House, Semi-Detached	
2.0 Number of Storeys	3	
3.0 Date Built	2024	
4.0 Sheltered Sides	1	
5.0 Sunlight/Shade	Average or unknown	
6.0 Thermal Mass Parameter	Precise calculation	
Thermal Mass	217.38	kJ/m²K
7.0 Electricity Tariff	Standard	
Smart electricity meter fitted	Yes	
Smart gas meter fitted	No	

7.0 Measurements	Ground floor:	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
	1st Storey:	18.00 m	35.95 m ²	2.40 m
	2nd Storey:	18.00 m	35.95 m ²	2.55 m
			35.95 m ²	2.24 m

8.0 Living Area	11.40	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
	External Walls	Cavity Wall	Cavity wall : plasterboard on dabs, AAC block, filled cavity, any outside structure	0.15	60.00	113.90	99.75	0.00	None	14.15	Enter Gross Area

9.1 Party Walls	Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Area (m ²)	Shelter Res	Shelter
	Party Wall	Filled Cavity with Edge Sealing	Single plasterboard on dabs both sides, lightweight aggregate blocks, cavity or cavity fill	0.00	110.00	55.50		None

9.2 Internal Walls	Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
	Stud Walls	Plasterboard on timber frame	9.00	138.64
	Block Walls	Dense block, plasterboard on dabs	75.00	67.87

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
	Ins at Rafter	External Slope Roof	Plasterboard, insulated slope	0.15	9.00	43.80	42.10	None	0.00	Enter Gross Area	1.70

10.2 Internal Ceilings	Description	Storey	Construction	Area (m ²)
	GF Internal Ceilings	Lowest occupied	Plasterboard ceiling, carpeted chipboard floor	35.95
	FF Internal Ceiling	+1	Plasterboard ceiling, carpeted chipboard floor	35.95

Summary for Input Data

11.0 Heat Loss Floors

Description	Type	Storey Index	Construction	U-Value (W/m²K)	Shelter Code	Shelter Factor	Kappa (kJ/m²K)	Area (m²)
Heatloss Floor	Ground Floor - Solid	Lowest occupied	Suspended concrete floor, carpeted	0.13	None	0.00	75.00	35.95

11.2 Internal Floors

Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
FF Internal Floor		Plasterboard ceiling, carpeted chipboard floor	9.00	35.95
SF Internal Floor		Plasterboard ceiling, carpeted chipboard floor	9.00	35.95

12.0 Opening Types

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Half-Glazed Doors	Manufacturer	Half Glazed Door	Double Low-E Soft 0.05			0.63		0.70	1.20
Windows	Manufacturer	Window	Double Low-E Soft 0.05			0.63		0.70	1.20
Roof Windows	Manufacturer	Roof Window	Double Low-E Soft 0.05			0.63		0.70	1.20

13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
Front Door	Half-Glazed Doors	External Walls	North West	1.76	
Side Door	Half-Glazed Doors	External Walls	North East	1.76	
NW Windows	Windows	External Walls	North West	3.95	
NE Windows	Windows	External Walls	North East	2.10	
SE Windows	Windows	External Walls	South East	4.58	
Front Roof Light	Roof Windows	Ins at Rafter	North West	0.78	43
Rear Roof Light	Roof Windows	Ins at Rafter	South East	0.92	43

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
E6 Intermediate floor within a dwelling	Independently assessed	36.00	0.00	0.00 Kingspan	No
E11 Eaves (insulation at rafter level)	Independently assessed	9.45	0.03	0.03 Kingspan	No
E13 Gable (insulation at rafter level)	Independently assessed	11.95	0.06	0.06 Kingspan	No
E16 Corner (normal)	Independently assessed	17.19	0.03	0.03 Kingspan	No
E17 Corner (inverted – internal area greater than external area)	Independently assessed	5.73	-0.06	-0.06 Kingspan	No
E18 Party wall between dwellings	Independently assessed	13.68	0.04	0.04 Kingspan	No
P1 Party wall - Ground floor	Independently assessed	7.30	0.21	0.21 Heatflux	No
P2 Party wall - Intermediate floor within a dwelling	Independently assessed	14.60	-0.02	-0.02 Heatflux	No
P5 Party wall - Roof (insulation at rafter level)	Independently assessed	5.05	0.27	0.27 Heatflux	No
R4 Ridge (vaulted ceiling)	Independently assessed	8.85	0.02	0.02 Heatflux	No
E1 Steel lintel with perforated steel base plate	Independently assessed	12.63	0.35	0.35 Kingspan	Yes
E3 Sill	Independently assessed	10.95	0.02	0.02 Kingspan	Yes
E4 Jamb	Independently assessed	27.60	0.02	0.02 Kingspan	Yes
E5 Ground floor (normal)	Independently assessed	18.00	0.06	0.06 Kingspan	Yes
R5 Ridge (inverted)	Independently assessed	4.88	-0.03	-0.03 Heatflux	No

Y-value W/m²K

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present

20.0 Fans, Open Fireplaces, Flues

Number of open chimneys

Number of open flues

Number of chimneys/flues attached to closed fire

Number of flues attached to solid fuel boiler

Number of flues attached to other heater

Number of blocked chimneys

Number of intermittent extract fans

Number of passive vents

Number of flueless gas fires

21.0 Fixed Cooling System

22.0 Pressure Testing

Designed AP₅₀ m³/(h.m²) @ 50 Pa

Summary for Input Data

Test Method

22.0 Lighting

No Fixed Lighting	<input type="text" value="No"/>				
Name	Efficacy	Power	Capacity	Count	
LED Downlighters	75.00	4.00	300.00	16	
LED Pendant	75.00	5.00	375.00	6	
Ext LED Wall Light	75.00	5.00	375.00	2	

24.0 Main Heating 1

	<input type="text" value="Database"/>	
Percentage of Heat	<input type="text" value="100.00"/>	%
Database Ref. No.	<input type="text" value="102614"/>	
Fuel Type	<input type="text" value="Electricity"/>	
In Winter	<input type="text" value="237.21"/>	
In Summer	<input type="text" value="175.22"/>	
Model Name	<input type="text" value="aroTHERM 8kW"/>	
Manufacturer	<input type="text" value="Vaillant Group UK Ltd"/>	
System Type	<input type="text" value="Heat Pump"/>	
Controls SAP Code	<input type="text" value="2210"/>	
Is MHS Pumped	<input type="text" value="Pump in heated space"/>	
Heating Pump Age	<input type="text" value="2013 or later"/>	
Heat Emitter	<input type="text" value="Radiators and Underfloor"/>	
Underfloor Heating	<input type="text" value="Yes - Pipes in Wood"/>	
Flow Temperature	<input type="text" value="Enter value"/>	
Flow Temperature Value	<input type="text" value="55.00"/>	

25.0 Main Heating 2

26.0 Heat Networks

Heat Source	Fuel Type	Heating Use	Efficiency	Percentage Of Heat	Heat	Heat Power Ratio	Electrical	Fuel Factor	Efficiency type
Heat source 1	None								
Heat source 2	None								
Heat source 3	None								
Heat source 4	None								
Heat source 5	None								

27.0 Secondary Heating

28.0 Water Heating

Water Heating	<input type="text" value="Main Heating 1"/>
SAP Code	<input type="text" value="901"/>
Flue Gas Heat Recovery System	<input type="text" value="No"/>
Waste Water Heat Recovery Instantaneous System 1	<input type="text" value="No"/>
Waste Water Heat Recovery Instantaneous System 2	<input type="text" value="No"/>
Waste Water Heat Recovery Storage System	<input type="text" value="No"/>
Solar Panel	<input type="text" value="No"/>
Water use <= 125 litres/person/day	<input type="text" value="Yes"/>
Cold Water Source	<input type="text" value="From mains"/>
Bath Count	<input type="text" value="1"/>
Immersion Only Heating Hot Water	<input type="text" value="No"/>

28.1 Showers

Description	Shower Type	Flow Rate [l/min]	Rated Power [kW]	Connected	Connected To
Triton Thermostatic Bar Mixer	Unknown	5.00		No	

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder

Summary for Input Data

Cylinder Stat	<input type="text" value="No"/>	
Cylinder In Heated Space	<input type="text" value="No"/>	
Independent Time Control	<input type="text" value="No"/>	
Insulation Type	<input type="text" value="Measured Loss"/>	
Cylinder Volume	<input type="text" value="210.00"/>	L
Loss	<input type="text" value="1.00"/>	kWh/day
Pipes insulation	<input type="text" value="Fully insulated primary pipework"/>	
In Airing Cupboard	<input type="text" value="No"/>	

31.0 Thermal Store

34.0 Small-scale Hydro

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	£84	B 81	A 96
£3,500 - £5,500	£247	B 87	A 97
		0	0