

YOUR ECOFUTURE

Air Source Heat Pump Installation Pack

EcoFuture
Renewables for your world

CONSULTING | DESIGNING
IMPLEMENTING | MONITORING

TABLE OF CONTENTS

1. Contact Information

2. Heat Pump System

3. System Design - Heat Loss

17. System Design - Schematic

18. System Design - Floor Plans

20. Sound Assessment

22. Commissioning Checklist

24. Five Point Check

25. Maintenance Log

26. Maintenance Requirements

26. Guarantees and Warranties

27. Data Sheets

CONTACT INFORMATION

INSTALLATION DETAILS

Client Name: Ashley Hurst

Client Address: 69 Cross Lane, Manchester, M18 8WA

ADMINISTRATION COMPANY

Company: EcoFuture

Address: 168A Kells Lane, Low Fell, Gateshead, Tyne and Wear, NE9 5HY

Phone: 0191 490 3308

Post Installation Support: support@yourecofuture.com

General enquiries: hello@yourecofuture.com

HEAT PUMP SYSTEM

AIR SOURCE HEAT PUMP



PLANTROOM



SYSTEM DESIGN

HEAT LOSS REPORT

08/08/2024

Heat Loss Report

Project Reference: Ashleigh Hurst 3 Bed House

Heating Type: Air Source Heat Pump

69 Cross Lane,
Manchester,
M18 8WA

This report has been completed by jay abley

The methods used in these calculations are from the Chartered Institution of Building Services Engineers (CIBSE) The Domestic Heating Design Guide and EN 12831. The UK standards for MCS MIS 3005 and MIS 3004 have also been met ensuring heat pumps and Biomass calculations can be presented.

It's important for the relevant persons to read this report and notify ecofuture technology of any corrections that need to be made before the heating system is installed. EcoFuture Technology is not liable for any inaccurate calculations made due to incorrect information, therefore it's important that the information provided is to the best knowledge available from the home owner, architect or builder.

Heat Loss Report

Contents

Appendix A Summary of Results

Appendix B Summary of Survey: Room features

Appendix C Summary of survey: Room Dimensions

Appendix D Summary of Survey: Vaulted Rooms

Appendix E Summary of Survey: External, Internal and Party Walls

Appendix F Summary of Survey: Windows and Doors.

Appendix G Summary of Survey: Floors, Ceilings and Roof

Appendix H Review of Heat Loss

Appendix I Summary of U values (W/m2K), temperatures and additional heating

Appendix J DHW (Domestic Hot Water)

Appendix K Emitters and Performance

Appendix N Fuel Comparison

Appendix P Proposed Emitters

Appendix A

Summary of Results

When the external temperature is -2.65°C
The total heat source required to heat the building must provide an output of 3.72 kW

Heating Type: Air Source Heat Pump

Manufacturer: Vaillant UK

Model: aroTHERM Plus 5kW

Output at designed external temperature: 6.1 kW

Maximum designed flow temperature: 45°C

ASHP=Air Source Heat Pump

Worst Performing Room

Room name: Toilet

Floor Area: 2.4 m²

Power demand: 220.98 watts

Specific room heat loss: 92.08 W/m²

Emitter type: Standard Radiators

Seasonal Coefficient of Performance (SCOP):
3.77

Temperature Star Rating: ★★★★

Calculated Energy using Degree Day Data: The energy calculation method is worst case scenario, therefore assuming all rooms to be heated to their designed temperatures throughout the heating season. Of course most people don't use all the rooms and don't have the heating on within all rooms throughout a year at maximum. As a result, the calculated energy figure can be overestimated, therefore running costs may be higher with this calculation than actual.

Appendix B

Room Features

Number of rooms 11 and total floor area 76.60 m²
Location (Degree Day): Manchester,
Ground Temperature 10 °C
Outside Temperature -2.65 °C
Degree Day Data 2228
Is property > 2006? YES
If property has thermal bridging? NO
Does the building have MVHR? NO

Room Names	Designed Temperature	Fireplace	Throat restriction	Year room was built	Air Changes Per Hour	Exposed Location	Intermitted Heating	Vaulted Ceiling?	Vaulted Ceiling Type	Room Below	Room Above	Emitter Type
Lounge	21	NO	NO	2024	0.5	NO	NO	NO	-	None	Room at 18C	Standard Radiators
Hall	21	NO	NO	2024	0.5	NO	NO	NO	-	None	Room at 18C	Standard Radiators
Toilet	21	NO	NO	2024	1.5	NO	NO	NO	-	None	Room at 18C	Standard Radiators
Kitchen	21	NO	NO	2024	1.5	NO	NO	NO	-	None	Room at 18C	Standard Radiators
Bedroom	21	NO	NO	2024	0.5	NO	NO	NO	-	Room at 21C	None	Standard Radiators
Bedroom 2	21	NO	NO	2024	0.5	NO	NO	NO	-	Room at 21C	None	Standard Radiators
Bedroom 3	21	NO	NO	2024	0.5	NO	NO	NO	-	Room at 21C	None	Standard Radiators
Bathroom 1	22	NO	NO	2024	1	NO	NO	NO	-	Room at 21C	None	Standard Radiators
Landing	21	NO	NO	2024	0.5	NO	NO	NO	-	Room at 21C	None	Standard Radiators
Store - FF	18	NO	NO	2024	0.5	NO	NO	NO	-	Room at 21C	None	Standard Radiators
Store - FF Left	18	NO	NO	2024	0.5	NO	NO	NO	-	Room at 21C	None	Standard Radiators

Appendix C

Room Dimensions

Room Names	Floor Areas m²	Room Height m	External wall(Type A) m	External wall(Type B) m	Window (Type A) m²	Window (Type B) m²	Internal Wall m	Party wall m	External Door Area m²	Roof Glazing Area m²	Lowest Parallel room temp	High ceiling % increase
Lounge	11.90	2.80	7.40	0	3.70	0	7.3	0	0	0	18 °C	0 %
Hall	9.70	2.80	2.50	0	0.60	0	13	0	2.00	0	18 °C	0 %
Toilet	2.40	2.80	1.10	0	0.70	0	5.7	0	0	0	18 °C	0 %
Kitchen	15.00	2.80	11.30	0	1.40	0	5.2	0	3.20	0	18 °C	0 %
Bedroom	11.10	2.20	7.00	0	2.40	0	6.9	0	0	0	18 °C	0 %
Bedroom 2	8.60	2.20	6.00	0	1.80	0	7.5	0	0	0	18 °C	0 %
Bedroom 3	7.30	2.20	5.60	0	1.60	0	5.5	0	0	0	18 °C	0 %
Bathroom 1	4.00	2.20	4.20	0	0.70	0	4.2	0	0	0	18 °C	0 %
Landing	4.50	2.20	0	0	0	0	9.3	0	0	0	18 °C	0 %
Store - FF	1.20	2.20	0.70	0	0	0	4.4	0	0	0	18 °C	0 %
Store - FF Left	0.90	2.20	0	0	0	0	3.8	0	0	0	18 °C	0 %

Appendix E

External, Internal and Party Walls

Room Names	External Wall (A)	External Wall (B)	Internal Wall	Party Wall
Lounge	Building Regulations 2021 for new dwelling, External (0.26)	-	Plasterboard with Studding (1.72)	-
Hall	Building Regulations 2021 for new dwelling, External (0.26)	-	Plasterboard with Studding (1.72)	-
Toilet	Building Regulations 2021 for new dwelling, External (0.26)	-	Plasterboard with Studding (1.72)	-
Kitchen	Building Regulations 2021 for new dwelling, External (0.26)	-	Plasterboard with Studding (1.72)	-
Bedroom	Building Regulations 2021 for new dwelling, External (0.26)	-	Plasterboard with Studding (1.72)	-
Bedroom 2	Building Regulations 2021 for new dwelling, External (0.26)	-	Plasterboard with Studding (1.72)	-
Bedroom 3	Building Regulations 2021 for new dwelling, External (0.26)	-	Plasterboard with Studding (1.72)	-
Bathroom 1	Building Regulations 2021 for new dwelling, External (0.26)	-	Plasterboard with Studding (1.72)	-
Landing	Building Regulations 2021 for new dwelling, External (0.26)	-	Plasterboard with Studding (1.72)	-
Store - FF	Building Regulations 2021 for new dwelling, External (0.26)	-	Plasterboard with Studding (1.72)	-
Store - FF Left	-	-	Plasterboard with Studding (1.72)	-

Appendix F

Windows and Doors

Room Names	Window Type (A)	Window Type (B)	Roof Glazing	Door
Lounge	Current Building Regulations Window Metal frame (2.2)	-	-	-
Hall	Current Building Regulations Window Metal frame (2.2)	-	-	Building Regulations 2021 for new dwelling, Doors including glazed (1.6)
Toilet	Current Building Regulations Window Metal frame (2.2)	-	-	-
Kitchen	Current Building Regulations Window Metal frame (2.2)	-	-	Building Regulations 2021 for new dwelling, Doors including glazed (1.6)
Bedroom	Current Building Regulations Window Metal frame (2.2)	-	-	-
Bedroom 2	Current Building Regulations Window Metal frame (2.2)	-	-	-
Bedroom 3	Current Building Regulations Window Metal frame (2.2)	-	-	-
Bathroom 1	Current Building Regulations Window Metal frame (2.2)	-	-	-
Landing	-	-	-	-
Store - FF	-	-	-	-
Store - FF Left	-	-	-	-

Appendix G

Floors, Ceilings and Roof

Room Names	Floor	Roof or Ceiling
Lounge	Ground Floor Current Building Regulations (0.25)	Intermediate Floor Timber with insulation (0.32)
Hall	Ground Floor Current Building Regulations (0.25)	Intermediate Floor Timber with insulation (0.32)
Toilet	Ground Floor Current Building Regulations (0.25)	Intermediate Floor Timber with insulation (0.32)
Kitchen	Ground Floor Current Building Regulations (0.25)	Intermediate Floor Timber with insulation (0.32)
Bedroom	Intermediate Floor Timber with insulation (0.32)	Pitched roof with tiles, 300mm Insulation between joists (0.12)
Bedroom 2	Intermediate Floor Timber with insulation (0.32)	Pitched roof with tiles, 300mm Insulation between joists (0.12)
Bedroom 3	Intermediate Floor Timber with insulation (0.32)	Pitched roof with tiles, sarking felt, 300mm Insulation between joists (0.12)
Bathroom 1	Intermediate Floor Timber with insulation (0.32)	Pitched roof with tiles, 300mm Insulation between joists (0.12)
Landing	Intermediate Floor Timber with insulation (0.32)	Pitched roof with tiles, 300mm Insulation between joists (0.12)
Store - FF	Intermediate Floor Timber with insulation (0.32)	Pitched roof with tiles, 300mm Insulation between joists (0.12)
Store - FF Left	Intermediate Floor Timber with insulation (0.32)	Pitched roof with tiles, 300mm Insulation between joists (0.12)

Appendix H

Review of Heat Loss Part 1

Room Names	W/m²	Floor (watts)	External wall Type A (watts)	External wall Type B (watts)	Window Type A (watts)	Window Type B (watts)	Internal Wall (watts)	Party Wall (watts)	External Door (watts)	Roof Glazing (watts)	Roof or Ceiling (watts)
Lounge	48.47	32.73	104.66	0.00	192.51	0.00	105.47	0.00	0.00	0.00	11.42
Hall	47.81	26.68	27.06	0.00	31.22	0.00	187.82	0.00	75.68	0.00	9.31
Toilet	92.08	6.60	14.63	0.00	36.42	0.00	82.35	0.00	0.00	0.00	2.30
Kitchen	65.51	41.25	166.27	0.00	72.84	0.00	75.13	0.00	121.09	0.00	14.40
Bedroom	36.93	0.00	79.94	0.00	124.87	0.00	78.33	0.00	0.00	0.00	31.50
Bedroom 2	40.36	0.00	70.10	0.00	93.65	0.00	85.14	0.00	0.00	0.00	24.41
Bedroom 3	40.41	0.00	65.92	0.00	83.25	0.00	62.44	0.00	0.00	0.00	20.72
Bathroom 1	60.24	1.28	54.73	0.00	37.96	0.00	63.57	0.00	0.00	0.00	11.83
Landing	34.88	0.00	0.00	0.00	0.00	0.00	105.57	0.00	0.00	0.00	12.77
Store - FF	15.90	-1.15	8.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.97
Store - FF Left	9.01	-0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.23

Review of Heat Loss Part 2

Room Names	High Ceiling Increase (watts)	Amount of Air Heated per hour (m³/ hour)	Ventilation (watts)	Exposed Location (watts)	Intermitted Heating (watts)	Thermal Bridges (watts)	Total Watts	Total kWh
Lounge	0.00	16.66	130.02	0.00	0.00	0.00	576.81	1124.94
Hall	0.00	13.58	105.98	0.00	0.00	0.00	463.75	699.97
Toilet	0.00	10.08	78.67	0.00	0.00	0.00	220.98	325.39
Kitchen	0.00	63.00	491.68	0.00	0.00	0.00	982.66	2171.09
Bedroom	0.00	12.21	95.29	0.00	0.00	0.00	409.93	749.74
Bedroom 2	0.00	9.46	73.83	0.00	0.00	0.00	347.13	592.35
Bedroom 3	0.00	8.03	62.67	0.00	0.00	0.00	294.99	525.80
Bathroom 1	0.00	8.80	71.58	0.00	0.00	0.00	240.96	382.03
Landing	0.00	4.95	38.63	0.00	0.00	0.00	156.98	116.22
Store - FF	0.00	1.32	8.99	0.00	0.00	0.00	19.09	52.40
Store - FF Left	0.00	0.99	6.75	0.00	0.00	0.00	8.11	23.24

Appendix I

Summary of U values (W/m²K) Part 1

Room Names	Floor	External Wall Type A	External Wall Type B	Window Type A	Window Type B	Internal Wall	Party Wall	External Door
Lounge	0.25	0.26	0	2.20	0	1.72	0	0
Hall	0.25	0.26	0	2.20	0	1.72	0	1.60
Toilet	0.25	0.26	0	2.20	0	1.72	0	0
Kitchen	0.25	0.26	0	2.20	0	1.72	0	1.60
Bedroom	0.32	0.26	0	2.20	0	1.72	0	0
Bedroom 2	0.32	0.26	0	2.20	0	1.72	0	0
Bedroom 3	0.32	0.26	0	2.20	0	1.72	0	0
Bathroom 1	0.32	0.26	0	2.20	0	1.72	0	0
Landing	0.32	0.26	0	0	0	1.72	0	0
Store - FF	0.32	0.26	0	0	0	1.72	0	0
Store - FF Left	0.32	0	0	0	0	1.72	0	0

Summary of U values (W/m²K) Part 2

Room Names	Roof Glazing	Roof or Ceiling	Exposed Location	Intermitted Heating	Thermal Bridges	Room Temp Below (If none then average Ground temp)	Room Temp Above (through Ceiling or Roof)
Lounge	0	0.32	0	0	0	10	18
Hall	0	0.32	0	0	0	10	18
Toilet	0	0.32	0	0	0	10	18
Kitchen	0	0.32	0	0	0	10	18
Bedroom	0	0.12	0	0	0	21	-2.65
Bedroom 2	0	0.12	0	0	0	21	-2.65
Bedroom 3	0	0.12	0	0	0	21	-2.65
Bathroom 1	0	0.12	0	0	0	21	-2.65
Landing	0	0.12	0	0	0	21	-2.65
Store - FF	0	0.12	0	0	0	21	-2.65
Store - FF Left	0	0.12	0	0	0	21	-2.65

Appendix J

DHW (Domestic Hot Water)

Number of bedrooms:	3
Number of occupants per bedroom:	1
Flow temperature for hot water (DHW):	55°C (55 for heat pump others 70)
Hot water per occupant:	45 litres (if heat pump use 45, if other use 35)
η efficiency pipework loss to cylinder:	90%
Electricity Cost:	21 p/kWh
SHC Water:	4,187 J/kgK
J to kWh:	3,600,000
water mains input temp:	10°C
kg to litres water:	1
Hot water energy demand per day:	10 kWh
Annual Demand:	3,930 kWh
	3,962 kWh

Radiator / Emitters

Proposed Emitters

Room Temperature	Room Name	Room Heat Loss	Type	Connection Type	Height (mm)	Length (mm)	Volume (L)	Custom MWT 42.5°C Output (Watts)	Mean (Flow/Return) Water Temperature and Outputs					
									35°C Output (Watts)	40°C Output (Watts)	45°C Output (Watts)	50°C Output (Watts)	55°C Output (Watts)	60°C Output (Watts)
21°C	Lounge	576.81	K2	BOE	500	1400	7.88	653.32	369.26	554.28	756.25	972.69	1,201.86	1,442.45
						Total Output (Watts)		653.32	369.26	554.28	756.25	972.69	1,201.86	1,442.45
21°C	Hall	463.75	K2	BOE	500	1000	5.63	466.65	263.75	395.9	540.17	694.76	858.45	1,030.3
						Total Output (Watts)		466.65	263.75	395.9	540.17	694.76	858.45	1,030.3
21°C	Toilet	220.98	P+	BOE	700	600	4.58	284.42	160.07	241	329.59	424.72	525.62	631.71
						Total Output (Watts)		284.42	160.07	241	329.59	424.72	525.62	631.71

Appendix N

Fuel Comparison

Heating Type	Effeciency %		Annual Energy Demand kWh			Number of kWh in unit	Price per unit	Pence per kWh	£ / kWh	Total annual running cost	C02 emissions	
	Hot water	Heating	Hot water	Heating	Total						factor (kg/ kWh)	Total kg
Mains Gas	85 %	85 %	3,962	6,763	10,725	1	7.9p / kilowatt-hour	7.9	0.08	£996.82	0.227	2,864
Air Source Heat Pump	3.06 (SCOP)	3.77 (SCOP)	3,821	6,763	10,584	1	21p / kilowatt-hour	21	0.21	£661.85	0.233	709

Appendix P

Air Source Heat Pump Summary

SPACE HEATING

101	Demand:	6,763 kWh/yr
102	Heat supplied by HP, excluding auxiliary heaters:	6,763 kWh/yr
103	SCOP(2):	3.77
104	Electricity consumed by HP, excluding auxiliary heaters:	1,794 kWh/yr
105	Renewable heat supplied by HP:	4,969 kWh/yr
106	Remaining heat to be supplied by auxiliary heaters and other heat sources:	0 kWh/yr
107	Remaining heat, supplied by other heat sources:	0 kWh/yr
108	Remaining heat, supplied by auxiliary heaters:	0 kWh/yr
109	Electricity consumed by HP, including auxiliary heaters:	1,794 kWh/yr

WHERE OTHER HEAT SOURCES ARE USED

110	Fuel used:	N/A
111	Efficiency of other heat sources:	0%
112	Consumed by other heat sources:	0 kWh/yr

WATER HEATING

	No. of bedrooms:	3 Rooms
	No of occupants / bedroom:	1 Person/s
	HP flow temperature in DHW mode:	55°C
	Hot water / occupant:	45 Litres/day
	Final HP secondary HW temperature:	50°C
201	Demand:	3,930 kWh/yr
202	Heat supplied by HP, excluding immersion heater:	3,821 kWh/yr
203	SCOP(2):	3.06
204	Electricity consumed by HP, excluding immersion heater:	1,249 kWh/yr
205	Renewable heat supplied by HP:	2,572 kWh/yr
206	Remaining heat to be supplied by immersion heater and other heat sources:	109 kWh/yr
207	Remaining heat, supplied by other heat sources:	0 kWh/yr
208	Remaining heat, supplied by immersion heater:	109 kWh/yr
209	Electricity consumed by HP, including immersion heater:	1,358 kWh/yr

WHERE OTHER HEAT SOURCES ARE USED

210	Fuel used:	N/A
211	Efficiency of other heat sources:	0%
212	Consumed by other heat sources:	0 kWh/yr

PROPORTIONS, ENERGY CONSUMPTION, AND PERFORMANCE

301	Proportion of space heating and water heating demand provided by heat pump (excluding auxiliary):	100%
302	Renewable heat:	7,541 kWh/yr
303	Electricity consumed by HP (excluding auxiliary/ immersion heaters):	3,043 kWh/yr
	Electricity consumed by auxiliary/immersion heaters (supplied as part of HP):	109 kWh/yr
304	Fuel consumed by other heat sources:	0 kWh/yr
305	HP combined performance SCOP(4):	3.39
306		

RUNNING COST

401		
402	Cost per unit of electricity for HP:	21 p/kWh
	Cost per unit of fuel for other heat sources:	0 p/kWh
403	Cost of electricity for HP (including auxiliary/	

404 **immersion heaters):** £661.85
Cost of fuel for other heat sources: £0

Disclaimer:
"The performance of Microgeneration heat pump systems is impossible to predict with certainty due to the variability of the climate and its subsequent effect on both heat supply and demand. This estimate is based upon the best available information but is given as guidance only and should not be considered as a guarantee."

Radiator / Emitters

Proposed Emitters

Room Temperature	Room Name	Room Heat Loss	Type	Connection Type	Height (mm)	Length (mm)	Volume (L)	Custom MWT 42.5°C Output (Watts)	Mean (Flow/Return) Water Temperature and Outputs					
									35°C Output (Watts)	40°C Output (Watts)	45°C Output (Watts)	50°C Output (Watts)	55°C Output (Watts)	60°C Output (Watts)
21°C	Kitchen	982.66	K3	BOE	700	1200	13.64	1,008.3	567.46	854.38	1,168.43	1,505.69	1,863.39	2,239.48
						Total Output (Watts)		1,008.3	567.46	854.38	1,168.43	1,505.69	1,863.39	2,239.48
21°C	Bedroom	409.93	K2	BOE	500	900	5.07	419.98	237.38	356.31	486.15	625.28	772.6	927.26
						Total Output (Watts)		419.98	237.38	356.31	486.15	625.28	772.6	927.26
21°C	Bedroom 2	347.13	K2	BOE	500	800	4.5	373.31	211	316.72	432.13	555.8	686.75	824.22
						Total Output (Watts)		373.31	211	316.72	432.13	555.8	686.75	824.22

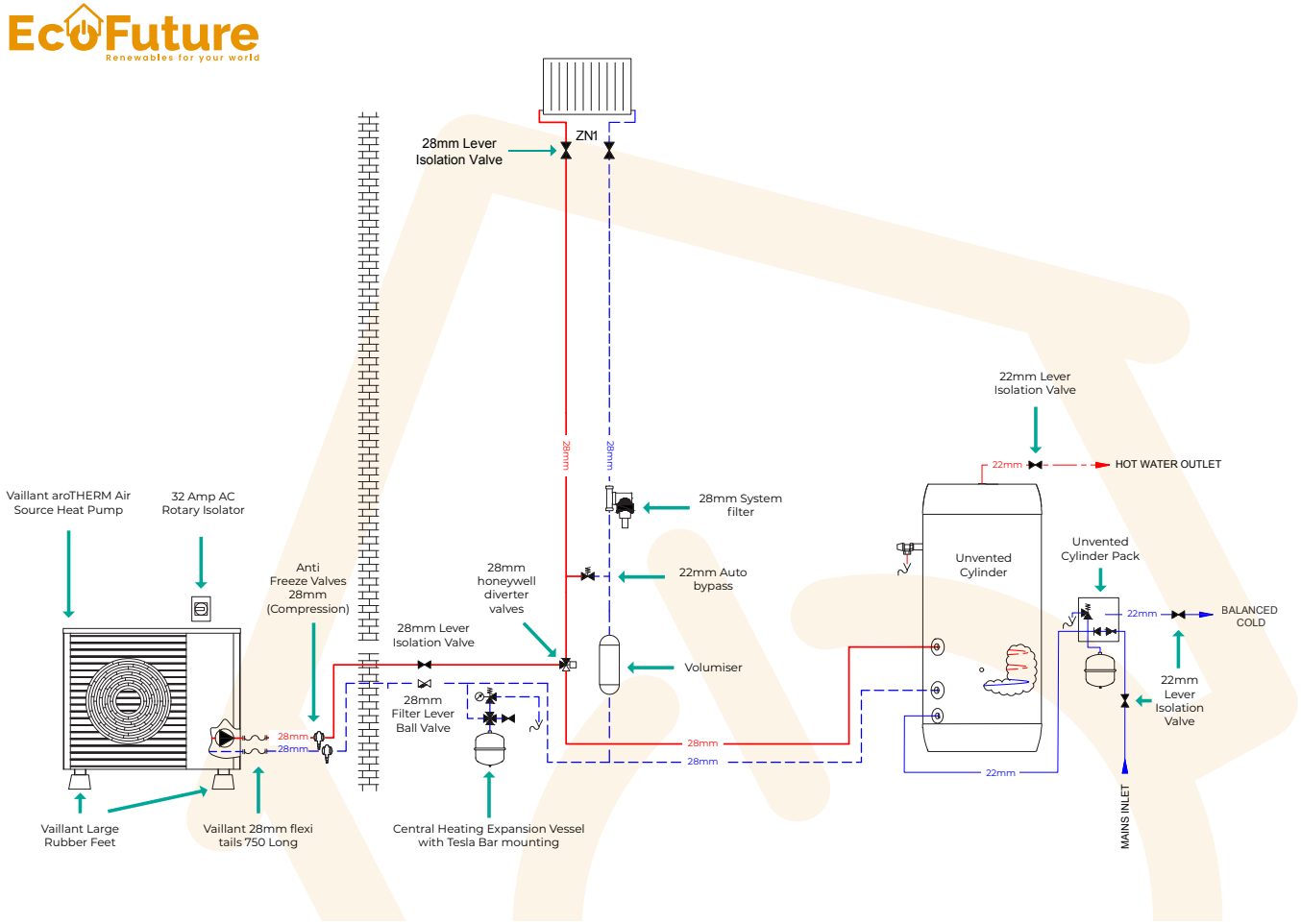
Radiator / Emitters

Proposed Emitters

Room Temperature	Room Name	Room Heat Loss	Type	Connection Type	Height (mm)	Length (mm)	Volume (L)	Custom MWT 42.5°C Output (Watts)	Mean (Flow/Return) Water Temperature and Outputs					
									35°C Output (Watts)	40°C Output (Watts)	45°C Output (Watts)	50°C Output (Watts)	55°C Output (Watts)	60°C Output (Watts)
21°C	Bedroom 3	294.99	K2	BOE	500	800	4.5	373.31	211	316.72	432.13	555.8	686.75	824.22
						Total Output (Watts)		373.31	211	316.72	432.13	555.8	686.75	824.22
22°C	Bathroom 1	240.96	P+	BOE	700	600	4.58	266.84	144.94	224.16	311.32	405.22	505.01	610.1
						Total Output (Watts)		266.84	144.94	224.16	311.32	405.22	505.01	610.1
21°C	Landing	118.34	P+	BOE	450	600	2.22	197.85	111.83	167.85	229.02	294.56	363.96	436.82
						Total Output (Watts)		197.85	111.83	167.85	229.02	294.56	363.96	436.82

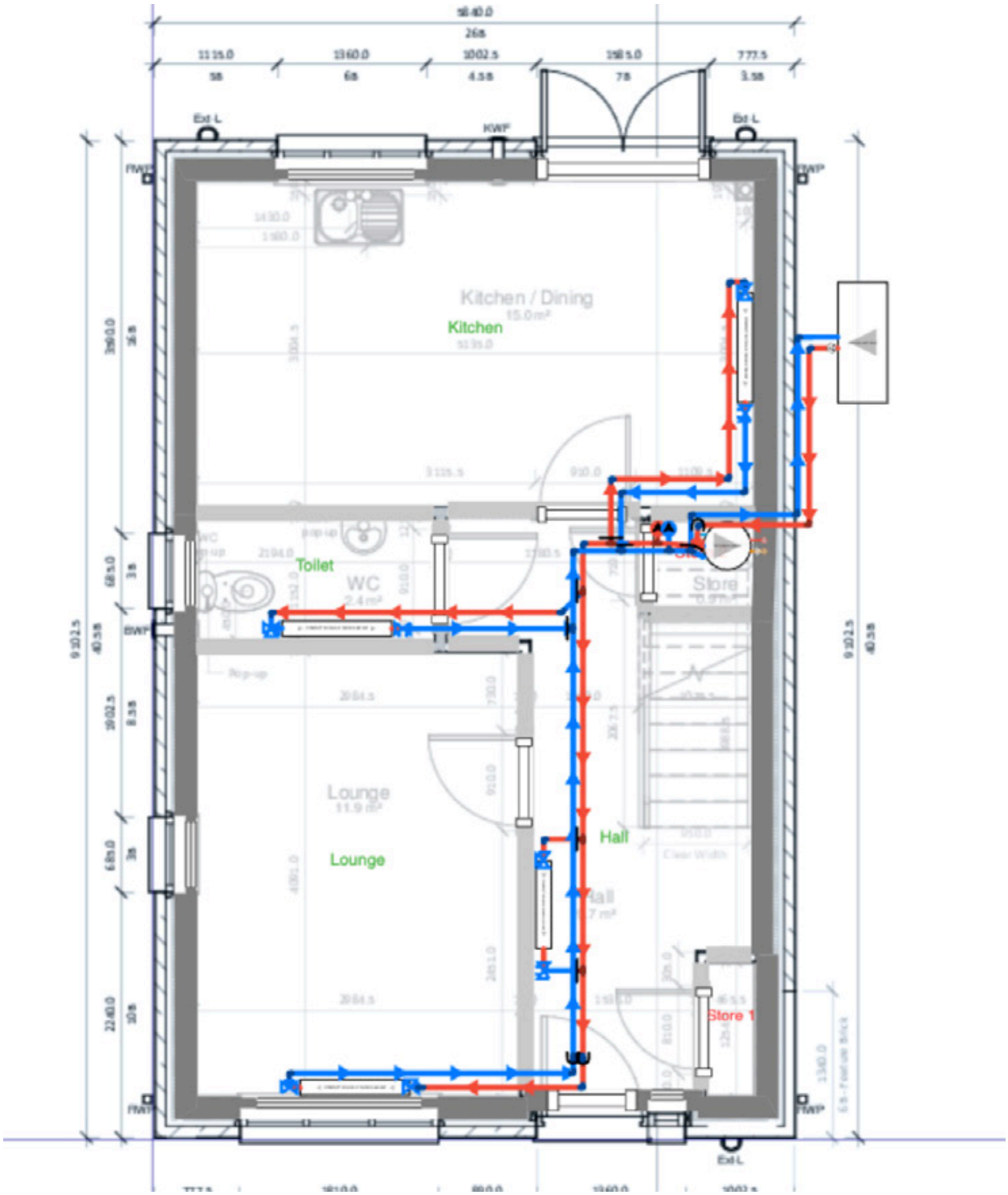
SYSTEM DESIGN

SCHEMATIC



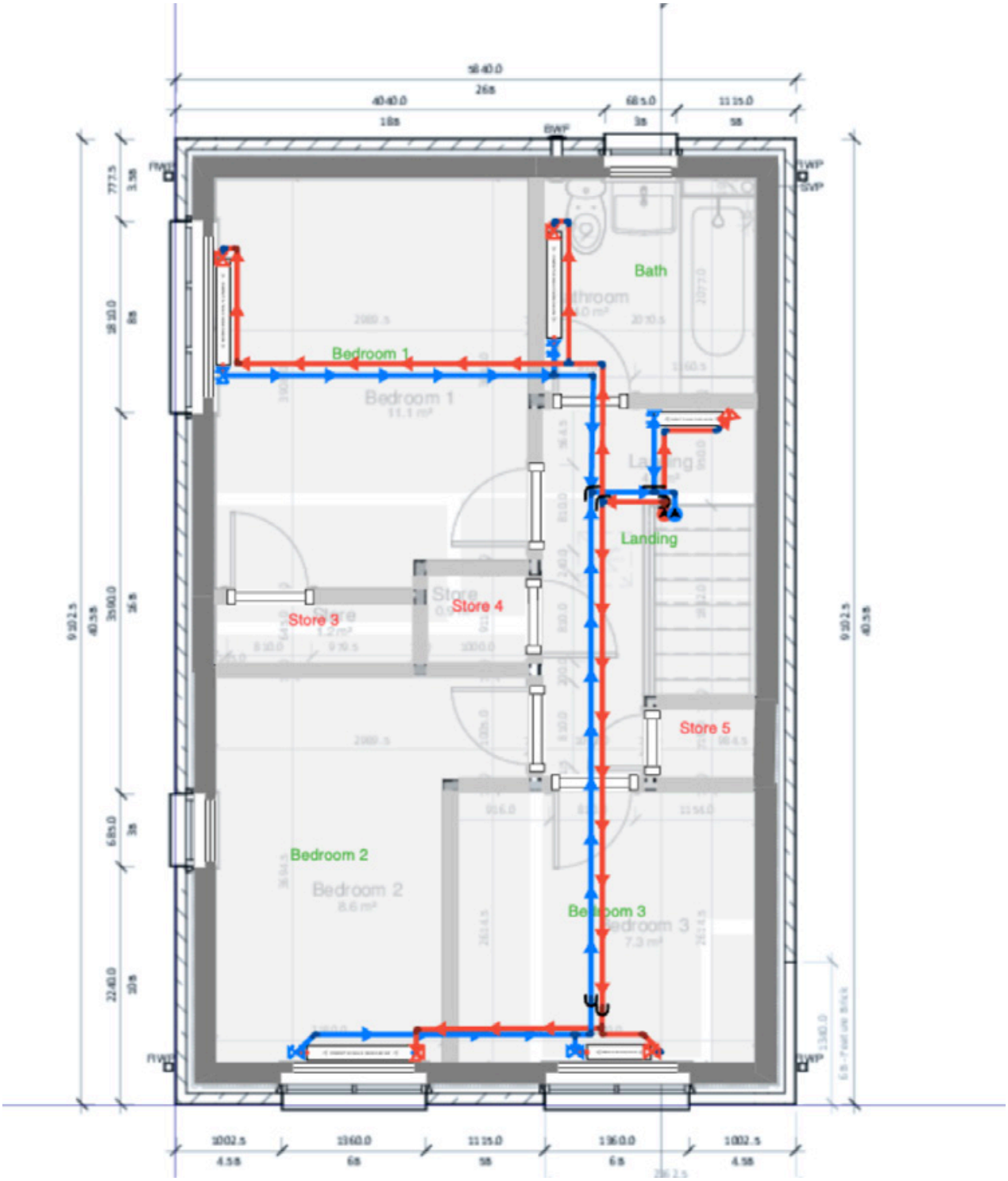
SYSTEM DESIGN

GROUND FLOOR



SYSTEM DESIGN

FIRST FLOOR



SOUND ASSESSMENT

MCS 020 - Planning Standards
Noise Assessment Calculations (Air Source Heat Pump)

EcoFuture

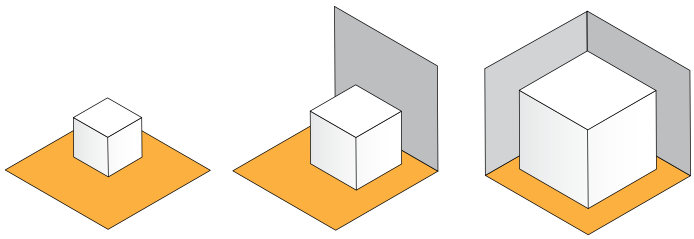
Assessment date:	**4 Jul 2025**	Assessment result:	**PASS**
MCS Installation company:	**EcoFuture**		
Site Reference:	**69 Cross Lane, Manchester, M18 8WA**		
ASHP Manufacturer:	**Vaillant**		
ASHP Model:	**aroTHERM Plus 3.5kW (VWL 35/6 A 230V S2)**		

Assessment position description:

Assessment position is the first floor bathroom window and it is 3.5 metres away from the air source heat pump



Step 1:	A-Weighted Sound Power Level from manufacturer	54.0
Step 2:	Determination of directivity (Q)	8
Step 3:	Distance from heat pump to the assessment position in metres	3.5
Step 4:	dB distance reduction	-11
Step 5:	dB reduction for any barriers between heat pump and assessment point	-10
Step 6:	Calculated Sound Pressure Level (Step 1 + Step 4 + Step 5)	33.0
Step 7:	Assumed background noise level	40
Step 8:	Difference between background noise level and heat pump noise level	7.0
Step 9:	Final decibel corrected sound level (< or = 42dB = Pass)	41dB



Q = 2 Q = 4 Q = 8

Barriers (Step 5)	
Is there a barrier between the heat pump and the assessment point?	
A solid barrier (e.g, brick wall or fence) completely obscures the installers vision of the assessment position from the top edge of the ASHP	**-10**
A solid barrier completely obscures the installers vision of the assessment position from the top or side edges of the ASHP, but moving a maximum distance of 25cm in any direction of the ASHP allows an assessment position to be seen	**-5**
It is possible for the installer to see any part of an assessment position from the top or side of the ASHP	**0**

Decibel Correction (Step 9)	
Left column values apply to both positive and negative dB values	
Difference between the two noise levels (dB) (+/-)	Correction to be added to the higher noise level
0	**3.0**
1	**2.5**
2	**2.1**
3	**1.8**
4	**1.5**
5	**1.2**
6	**1.0**
7	**0.8**
8	**0.6**
9	**0.5**
10	**0.4**
11	**0.3**
12	**0.3**
13	**0.2**
14	**0.2**
15	**0.1**

	dB Distance Reduction (Step 4)													
	Distance in meters from Heat Pump (Step 3)													
	1	**1.5**	**2**	**3**	**4**	**5**	**6**	**8**	**10**	**12**	**15**	**20**	**25**	**30**
Q (step 2)														
2	-8	-11	-14	-17	-20	-21	-23	-26	-28	-29	-31	-34	-36	-37
4	-5	-8	-11	-14	-17	-19	-20	-23	-25	-26	-28	-31	-33	-34
8	-2	-5	-8	-11	-14	-16	-17	-20	-22	-23	-25	-28	-30	-31

COMMISSIONING CHECKLIST

CUSTOMER DETAILS	
Name	Ashley Hurst
Address	69 Cross Lane , Manchester , M18 8NZ
Tel No.	07979 368645
Job Number/ Reference	
Email	j.h.plumbing@ntlworld.com

APPLIANCE INFORMATION	
ASHP/ GSHP/ BLR	ASHP
Heat pump Make and Model	Vaillant Arotherm Plus VWL 35/6A
Serial No.	21252000100473801300107437N4

HEATING CHECKLIST	
Appliance, clearances, positioning and stability ok	Yes
Condense pipework fitted correctly	Yes
Heating element fitted inside condense pipework	Yes
No visible leaks on pipework	No
Glycol frost protection level	N/A
Anti freeze valves fitted	Yes
PRV termination correct	Yes
Filter / strainer position and clear	Yes / Outside next to heatpump
Expansion vessel charge	1.5
System pressure reading	1.4
Brine pressure reading	N/A
Outdoor sensor location and heading	Front of property , heading North
Isolation valves fitted to ASHP	Yes
Outdoor pipework insulated with 19mm insulation	Yes
Diverter valve fitted correctly B to Buffer	Yes
Filling loop accessible	Yes
Flow rate	858
Benchmark book completed	Yes

CYLINDER CHECKLIST	
Heat pump approved cylinder	Yes
Model and serial number	Unistor 150 HP , 212436001001923009290105 38N1
Location	Landing cupboard
Pipework free of leaks	Yes
Immersion wired in and labelled	Yes
D1 600mm max from temperature valve to tundish	Yes
D2 300mm before elbow or bend	Yes
Pressure reducing valve setting	3.5bar
T&PR valves operate and tundish discharges correctly	Yes
Benchmark book completed	Yes
MCS & ECOFUTURE REQUIREMENTS	
MCS Certificates	N/A
Building Regs certificates	Yes
Electrical Certificates -	N/A
Benchmark ASHP - photo taken	Yes
Benchmark Cylinder - photo taken	Yes
All serial numbers obtained - photos taken	Yes
Completion of works certificate signed and completed	N/A
ELECTRICAL CHECKS	
External Rotary isolation switch out of protection zone	Yes
Electrical supply single/3 phase	Single
Incoming voltage	240v
Ebus cables ≥0.75mm	Yes
Isolation switches labelled	Yes
Fuse ratings and types ok MCB type C RCD type B	Yes
Controls and settings applied and tested	Yes
Vaillant gateway connected to customers phone and explained	N/A
Commissioning Engineer Signature:	Paul Clapham
Date:	02/07/25

FIVE POINT CHECK

Please refer to the five point check list below, before reporting any system faults.

1. **CHECK VAILLANT THERMOSTAT**
   FOR ANY SYSTEM NOTIFICATIONS AND BATTERIES

2. **CHECK HEAT PUMP INTERFACE UNIT FOR FAULT CODES**

3. **CHECK SYSTEM PRESSURE**
   IS ABOVE 1 BAR. FOR CENTRAL HEATING SYSTEM AND HEAT PUMP SYSTEM (AS THEY ARE PHYSICALLY SEPARATE)

4. **CHECK ALL ELECTRICAL SWITCHES AND CIRCUIT BREAKERS**
   ON POSITION AND NO BREAKERS TRIPPED

5. **CHECK DEMAND FOR HEATING OR HOT WATER**
   TURN ON HEATING DEMAND FROM APP OR THERMOSTAT



MAINTENANCE LOG

HEAT PUMP LOGBOOK

The following logbook must be maintained for all maintenance procedures carried out on this system.

Date	Company	Engineer	Comments / Action Taken

PLANTROOM / UNVENTED CYLINDER LOG BOOK

Date	Company	Engineer	Comments / Action Taken

MAINTENANCE REQUIREMENTS

Your Air Source Heat Pump (ASHP) and unvented cylinder should be maintained and serviced annually to ensure manufactures warranty.

Activity	Frequency
Air Source Heat Pump	**Annually**
Unvented Cylinder	**Annually**
System Pressure	**Quarterly**

GUARANTEES AND WARRANTIES

Your equipment is guaranteed by its manufacturer, but you should contact us in the first instance if anything appears to be operating incorrectly.

Heat pump - Vaillant manufacturer's warranty - parts and labour (Subject to annual servicing)	**7 Years**
Vaillant Controls	**2 Years**
Hot water cylinder - Vaillant manufacturer's warranty - cylinder shell (Subject to annual servicing)	**25 Years**
Hot water cylinder - Vaillant manufacturer's warranty - parts and labour (Subject to annual servicing)	**2 Years**
Workmanship Warranty	**2 Years**

Technical specifications

aroTHERM plus	Unit	3.5kW VWL 35 / 6	5kW VWL 55 / 6	7kW VWL 75 / 6	10kW VWL 105 / 6	12kW VWL 125 / 6
General						
Width	mm	1,100				
Height	mm	765		965	1,565	
Depth	mm	450				
Weight, ready for operation	kg	114		128	194	
Connection, heating circuit		G 1 1/4"				
Rated voltage	V	230 V (+10%/- 15%), 50 Hz, 1~/N/PE				
Rated current, maximum	A	14.3		15.0	23.3	
Fuse size		16			25	
Fuse type	A	C/D				
RCD type		A				
eBUS (2-core communication cable)	mm2	0.75				
Maximum length eBUS cable (communication cable)	m	50				
IP rating		IP 15 B				
Fan, power consumption	W	40			50	
Fan quantity		1			2	
Fan, air flow , maximum	m^3 /h	2,300			5,100	
Heating pump, power consumption	W	2 - 50			3 - 87	
Heating circuit						
Heating water temperature, minimum/maximum	° C	20 - 75				
Basic length of the heating water pipe, maximum, between the outdoor unit and indoor unit	m	20				
Operating pressure, minimum	bar	0.50				
Operating pressure, maximum	bar	3.00				
Volume flow, minimum	l/h	400		540	995	
Volume flow, maximum	l/h	860		1,205	2,065	
Water volume, in the outdoor unit	l	1.5		2.0	2.5	
Water volume, in the heating circuit, minimum, thawing mode, activated/deactivated back-up heater	l	15 / 40		20 / 55	45 / 150	
Remaining feed pressure, hydraulic	kPa (mbar)	56.0 (560.0)		44.0 (440.0)	55.0 (550.0)	

aroTHERM plus	Unit	3.5kW VWL 35 / 6	5kW VWL 55 / 6	7kW VWL 75 / 6	10kW VWL 105 / 6	12kW VWL 125 / 6
Refrigerant circuit						
Fluid type		R290				
Fluid fill quantity	kg	0.6		0.9	1.3	
Refrigerant, Global Warming Potential (GWP)		3				
CO_2 equivalent	t	0.0018		0.0027	0.0039	
Permissable operating pressure	bar	31.5				
Compressor type		Rotary piston			Scroll compressor	
Compressor oil type		Specific polyalkylene glycol (PAG				
Compressor, control		Electronic				

Noise emissions, heating mode						
Sound power, EN 12102, EN 14511 LWA, A7/W35	dB(A)	51		53	58	
Sound power, EN 12102, EN 14511 LWA, A7/W45	dB(A)	53			58	
Sound power, EN 12102, EN 14511 LWA, A7/W55	dB(A)	54		55	60	

Efficiency		
Energy efficiency class 35°C	(A+++ to F)	A+++
Energy efficiency class 55°C	(A+++ to F)	A++
Combination with uniTOWER		
Energy efficiency class	(A+++ to F)	A++
Energy efficiency class for hot water supply	(A+ to F)	A

uniTOWER	Unit	VIH QW 190 / 6
Total storage cylinder capacity	l	188
Temperature hot water (max. – with auxiliary heating)	°C	55 - 75
Dimensions, unpacked (height/width/depth)	mm	1880 x 599 x 693
Weight, unpacked	kg	175
Auxiliary electric heater	kW	6kW (230V/50Hz) / 9kW (400V/50Hz)

Hydraulic station	Unit	VWZ MEH 97
Dimensions, unpacked (height/width/depth)	mm	720 x 440 x 350
Weight, unpacked	kg	15
Power electric backup heater	kW	6 kW (230V/50Hz) / 9 kW (400V/50Hz)

Description	Article number
aroTHERM plus with heat pump interface	
aroTHERM plus 3.5kW - VWL 35 / 6	0010037211
aroTHERM plus 5kW - VWL 55 / 6	0010037212
aroTHERM plus 7kW - VWL 75 / 6	0010037213
aroTHERM plus 10kW - VWL 105 / 6	0010037214
aroTHERM plus 12kW - VWL 125 / 6	0010037215
aroTHERM plus with hydraulic module	
aroTHERM plus 3.5kW - VWL 35 / 6	0010037206
aroTHERM plus 5kW - VWL 55 / 6	0010037207
aroTHERM plus 7kW - VWL 75 / 6	0010037208
aroTHERM plus 10kW - VWL 105 / 6	0010037209
aroTHERM plus 12kW - VWL 125 / 6	0010037210
aroTHERM plus with uniTOWER	
aroTHERM plus 3.5kW - VWL 35 / 6	0010037201
aroTHERM plus 5kW - VWL 55 / 6	0010037202
aroTHERM plus 7kW - VWL 75 / 6	0010037203
aroTHERM plus 10kW - VWL 105 / 6	0010037204
aroTHERM plus 12kW - VWL 125 / 6	0010037205

Compatible with



uniSTOR



sensoCOMFORT



VRC 700

Accessories	Article number
aroTHERM connection kit for ground install	0010027971
aroTHERM connection kit for ground install extension	0010027972
aroTHERM connection kit for wall install	0010027974
aroTHERM straight pipe connection kit	0010027976
750mm flexihose for air-to-water heat pump (pair)	0020165288
Snow Spacer	0010027984
Wall bracket for insulated wall	0020250224
Wall bracket for non-insulated wall	0020250225
Anti-vibration feet large	0020250226
Anti-vibration rubber feet small	0020252091
Coding resistor active cooling	0020269259
Discharge vessel	0020145563
aroTHERM 45 litre buffer	0010038365
aroTHERM heat exchanger module	0020222285
aroTHERM inline 6kW back-up heater	0020222286
VR 10 temperature sensor	306787
WH40 low-loss header (flow rates up to 3,000 litres per hour)	306720
WH95 low-loss header (flow rates up to 8,000 litres per hour)	306721
VR 32/B eBUS coupler (includes housing)	0020235465
VR 32 eBUS coupler	0020139895
Ball filter valve 28mm	0010038133
uniTOWER accessories	
uniTOWER decoupling module (small) for 3.5 - 7kW model	0010027982
uniTOWER decoupling module (large) for 10 and 12kW model	0010027973
uniTOWER 1" adapter connection kit	0020269275
18l Buffer cylinder for uniTOWER	0020269273
uniTOWER multi-zone kit - 1 direct zone	0020170507
uniTOWER extension set - 2 direct zones	0020170509
uniTOWER extension set - 1 mixed zone	0020170508
Circulation set without pump	0020170502
Circulation set with pump	0020170503
2l brine expansion vessel	0010030975

Mr Ashley Hurst
69
Cross Lane
Manchester
England
M18 8WA

25/07/2025

Dear Mr Hurst,

Congratulations on your Vaillant uniSTOR plus SL PP 210L purchase (Serial Number: 212514800001162213315606 63N1)

We are pleased to advise that you have successfully registered a guarantee for your new product at 69, Cross Lane, Manchester, England, M18 8WA.

Your guarantee includes the following:

2 years compentent 25 year shell as per all other cyclinders from 21/07/2025 - 20/07/2027

The terms and conditions applicable for the guarantee period only are as shown overleaf.

In the event of a breakdown it is advisable to contact your installer to confirm that there is an appliance fault or alternatively, you can contact us on 0330 100 7681 quoting your full address. Lines are open 7 days a week except Christmas Day.

Your Vaillant product must be serviced annually by a fully qualified BPEC and preferable MCS certificated Engineer in accordance with the manufacturer's instructions. Service details must be recorded in the Benchmark logbook. Please note that the cost of the annual service is not included in the guarantee period.

If your installer does not provide an annual service agreement, you can call Vaillant to service your product on 0330 100 7681 where one of our dedicated service staff will be happy to assist you further.

You can also book a service visit online at www.vaillant.co.uk/homeowners/repairs-servicing

Thank you for choosing a Vaillant uniSTOR plus SL PP 210L.

Yours sincerely

Vaillant Group Service

Vaillant Group UK Ltd
Nottingham Road
Belper
Derbyshire DE56 1JT
T 0330 678 0878 **W** www.vaillant.co.uk

Registered office Nottingham Road, Belper, Derbyshire DE56 1JT. Registered in England No. 294316
Gas Safe Register is a registered trade mark of the HSE and is used under licence

Vaillant Group UK Limited ("Vaillant") Guarantee Terms and Conditions

To receive the full benefits of the guarantee the following terms and conditions must be followed or your claim may be rejected.

If your installer advises you of a heat pump fault, please contact Vaillant Group Service on 0330 100 3540.

1. The installation of your heat pump must be carried out by a suitably competent engineer with relevant valid certification.
2. The heat pump must be installed fully in accordance with the installation manual and these terms and conditions as well as all prevailing building control regulations and local regulations.
3. The Benchmark logbook must be completed by the installer at the point of installation and retained on site for inspection during an engineer's visit.
4. The guarantee will commence from the date of installation. To validate this Vaillant will require proof of purchase – i.e. an invoice or completed Benchmark logbook, without which the guarantee will commence from the date of manufacture, as shown on the heat pump data plate.
5. Please ensure that you register your heat pump with us within 30 days of it being installed, by providing us with the full 28-digit serial number of the heat pump and any other details that we reasonably require from you. Failure to register within this time period will result in the guarantee reverting to 12 months from the date of installation, provided that your Benchmark logbook has been completed in accordance with these terms and conditions. If your Benchmark logbook has not been completed in accordance with these terms and conditions, the guarantee will revert to 12 months from the date of manufacture of the heat pump. To register your guarantee and for further details go to our website at: www.vaillant.co.uk.
6. The heat pump should be serviced annually by either the Vaillant Service organisation or other suitably competent engineer with relevant valid certification in accordance with the manufacturer's instructions. If the heat pump has not been serviced annually the heat pump guarantee will become invalid.
7. The guarantee will cover all major components of the heat pump against manufacturing defects from the installation date, provided that the heat pump is not beyond economic repair. If the heat pump is beyond economic repair, the guarantee will not cover the replacement of such components.
8. If any spare parts are used as part of the services under the guarantee, those spare parts will be guaranteed for a period of 12 months (against defective material/faulty workmanship) and shall be replaced free of charge. Please note that the guarantee on any replacement parts does not extend the duration of the guarantee beyond the original term.
9. Invoices for attendance and repair of this heat pump by third parties will not be accepted for payment unless preauthorised in writing by Vaillant.
10. If a failure of the heat pump is caused by contaminated water or contaminated glycol in the system, this may result in the engineer's visit becoming chargeable.
11. Moving the heat pump to another property without our written consent may invalidate the guarantee.
12. Please ensure that:

    - your system has been flushed prior to heat pump installation, to ensure that there are no contaminates;
    - the water circulating within the heat pump is checked for hardness and salinity and correctly and fully inhibited prior to the installation of the heat pump;
    - the water circulating in the heat pump is maintained in a clean condition and kept correctly inhibited throughout the heat pump's life cycle;
    - relevant frost protection measures are in place (e.g. glycol, anti-frost valves); and
    - your heat pump is serviced each calendar year. The cost of the annual service is not included in the guarantee and service details must be recorded in the Benchmark logbook and made available for inspection during any engineer's visit.

13. The guarantee does not include cover for fair wear and tear, wilful damage, abnormal storage or working conditions, accidental damage or negligence by you or by any third party and failure by you or any third party to operate or use the heat pump in accordance with the operating instructions.
14. The guarantee does not cover installation in mobile leisure accommodation vehicles – i.e. boats, caravans etc.
15. The guarantee does not cover consequential losses relating to any other costs or expenses caused by or arising as a result of the breakdown of the heat pump.
16. All installation related, non-heat pump or external system fault calls may result in the engineer's visit becoming chargeable.
17. Health and safety is paramount to us and if our engineers cannot gain safe access to the heat pump or an engineer cannot gain access to the property then our abortive charge may apply.
18. You may be required to pay a refundable deposit in respect of an engineer's visit, which will be returned in full if the diagnosed fault is covered by the guarantee.
19. This guarantee is in addition to, and does not affect, your statutory rights in relation to any product that is faulty or not as described. More information on your statutory rights can be obtained from Citizen's Advice at https://www.citizensadvice.org.uk/.
20. The use of any non-genuine Vaillant spare parts in any repair may invalidate the guarantee.
21. In registering the guarantee please note that Vaillant will share your personal data with its business partners in order to assist with the administration of the guarantee.
22. The guarantee is provided to you by Vaillant Group UK Limited, (registered in England with Company Registration No. 00294316) of Nottingham Road, Belper, Derbyshire, DE56 1JT. Should your heat pump develop a fault please contact your original installer or alternatively contact Vaillant Group Service on 0330 100 3540.
23. The guarantee is valid for installation in domestic dwellings in the United Kingdom and the Republic of Ireland, Isle of Man and Channel Islands.
24. The terms of this guarantee are subject to the laws of England and Wales and any dispute arising from this guarantee shall be decided under those laws and before a court or tribunal in England.

Renewables Department
Vaillant Group U.K Ltd
Ddi:+44 (0)330 100 3540 Fax: +44 (0) 1773 525946 e-mail: aftersales-uk@vaillant-group.com
Vaillant Group U.K.- Nottingham Rd - Belper - DE56 1JT

Vaillant ADVANCE

Mr Ashley Hurst
69
Cross Lane
Manchester
England
M18 8WA

25/07/2025

Dear Mr Hurst,

Congratulations on your Vaillant aroTHERM plus 5 kW purchase (Serial Number: 21251600100473811300106688N7)

We are pleased to advise that you have successfully registered a guarantee for your new product at 69, Cross Lane, Manchester, England, M18 8WA.

Your guarantee includes the following:

7 year guarantee including parts and labour from 21/07/2025 - 20/07/2032

Your guarantee also covers the following products:

• VRC SensoCOMFORT 720

The terms and conditions applicable for the guarantee period only are as shown overleaf.

In the event of a breakdown it is advisable to contact your installer to confirm that there is an appliance fault or alternatively, you can contact us on 0330 100 7681 quoting your full address. Lines are open 7 days a week except Christmas Day.

Your Vaillant product must be serviced annually by a fully qualified BPEC and preferable MCS certificated Engineer in accordance with the manufacturer's instructions. Service details must be recorded in the Benchmark logbook. Please note that the cost of the annual service is not included in the guarantee period.

If your installer does not provide an annual service agreement, you can call Vaillant to service your product on 0330 100 7681 where one of our dedicated service staff will be happy to assist you further.

You can also book a service visit online at www.vaillant.co.uk/homeowners/repairs-servicing

Thank you for choosing a Vaillant aroTHERM plus 5 kW.

Yours sincerely

Vaillant Group Service

Vaillant Group UK Ltd
Nottingham Road
Belper
Derbyshire DE56 1JT
T 0330 678 0878 **W** www.vaillant.co.uk

Registered office Nottingham Road, Belper, Derbyshire DE56 1JT. Registered in England No. 294316
Gas Safe Register is a registered trade mark of the HSE and is used under licence

Vaillant Group UK Limited ("Vaillant") Guarantee Terms and Conditions

To receive the full benefits of the guarantee the following terms and conditions must be followed or your claim may be rejected.

If your installer advises you of a heat pump fault, please contact Vaillant Group Service on 0330 100 3540.

1. The installation of your heat pump must be carried out by a suitably competent engineer with relevant valid certification.
2. The heat pump must be installed fully in accordance with the installation manual and these terms and conditions as well as all prevailing building control regulations and local regulations.
3. The Benchmark logbook must be completed by the installer at the point of installation and retained on site for inspection during an engineer's visit.
4. The guarantee will commence from the date of installation. To validate this Vaillant will require proof of purchase – i.e. an invoice or completed Benchmark logbook, without which the guarantee will commence from the date of manufacture, as shown on the heat pump data plate.
5. Please ensure that you register your heat pump with us within 30 days of it being installed, by providing us with the full 28-digit serial number of the heat pump and any other details that we reasonably require from you. Failure to register within this time period will result in the guarantee reverting to 12 months from the date of installation, provided that your Benchmark logbook has been completed in accordance with these terms and conditions. If your Benchmark logbook has not been completed in accordance with these terms and conditions, the guarantee will revert to 12 months from the date of manufacture of the heat pump. To register your guarantee and for further details go to our website at: www.vaillant.co.uk.
6. The heat pump should be serviced annually by either the Vaillant Service organisation or other suitably competent engineer with relevant valid certification in accordance with the manufacturer's instructions. If the heat pump has not been serviced annually the heat pump guarantee will become invalid.
7. The guarantee will cover all major components of the heat pump against manufacturing defects from the installation date, provided that the heat pump is not beyond economic repair. If the heat pump is beyond economic repair, the guarantee will not cover the replacement of such components.
8. If any spare parts are used as part of the services under the guarantee, those spare parts will be guaranteed for a period of 12 months (against defective material/faulty workmanship) and shall be replaced free of charge. Please note that the guarantee on any replacement parts does not extend the duration of the guarantee beyond the original term.
9. Invoices for attendance and repair of this heat pump by third parties will not be accepted for payment unless preauthorised in writing by Vaillant.
10. If a failure of the heat pump is caused by contaminated water or contaminated glycol in the system, this may result in the engineer's visit becoming chargeable.
11. Moving the heat pump to another property without our written consent may invalidate the guarantee.
12. Please ensure that:

    - your system has been flushed prior to heat pump installation, to ensure that there are no contaminates;
    - the water circulating within the heat pump is checked for hardness and salinity and correctly and fully inhibited prior to the installation of the heat pump;
    - the water circulating in the heat pump is maintained in a clean condition and kept correctly inhibited throughout the heat pump's life cycle;
    - relevant frost protection measures are in place (e.g. glycol, anti-frost valves); and
    - your heat pump is serviced each calendar year. The cost of the annual service is not included in the guarantee and service details must be recorded in the Benchmark logbook and made available for inspection during any engineer's visit.

13. The guarantee does not include cover for fair wear and tear, wilful damage, abnormal storage or working conditions, accidental damage or negligence by you or by any third party and failure by you or any third party to operate or use the heat pump in accordance with the operating instructions.
14. The guarantee does not cover installation in mobile leisure accommodation vehicles – i.e. boats, caravans etc.
15. The guarantee does not cover consequential losses relating to any other costs or expenses caused by or arising as a result of the breakdown of the heat pump.
16. All installation related, non-heat pump or external system fault calls may result in the engineer's visit becoming chargeable.
17. Health and safety is paramount to us and if our engineers cannot gain safe access to the heat pump or an engineer cannot gain access to the property then our abortive charge may apply.
18. You may be required to pay a refundable deposit in respect of an engineer's visit, which will be returned in full if the diagnosed fault is covered by the guarantee.
19. This guarantee is in addition to, and does not affect, your statutory rights in relation to any product that is faulty or not as described. More information on your statutory rights can be obtained from Citizen's Advice at https://www.citizensadvice.org.uk/.
20. The use of any non-genuine Vaillant spare parts in any repair may invalidate the guarantee.
21. In registering the guarantee please note that Vaillant will share your personal data with its business partners in order to assist with the administration of the guarantee.
22. The guarantee is provided to you by Vaillant Group UK Limited, (registered in England with Company Registration No. 00294316) of Nottingham Road, Belper, Derbyshire, DE56 1JT. Should your heat pump develop a fault please contact your original installer or alternatively contact Vaillant Group Service on 0330 100 3540.
23. The guarantee is valid for installation in domestic dwellings in the United Kingdom and the Republic of Ireland, Isle of Man and Channel Islands.
24. The terms of this guarantee are subject to the laws of England and Wales and any dispute arising from this guarantee shall be decided under those laws and before a court or tribunal in England.

Renewables Department
Vaillant Group U.K Ltd
Ddi:+44 (0)330 100 3540 Fax: +44 (0) 1773 525946 e-mail: aftersales-uk@vaillant-group.com
Vaillant Group U.K.- Nottingham Rd - Belper - DE56 1JT

Terms and Conditions for Boiler Guarantee extension

Products Covered: ecoTEC exclusive (green iQ): 800 series combination boilers and 627 system boiler ecoTEC plus: 800 series combination boilers, 600 series system boilers, 400 series open vented boilers

To receive the benefit of the boiler guarantee extension to 10 years the following terms and conditions must be followed or any claim against the guarantee will be rejected. These terms and conditions are in addition to the Vaillant standard terms and conditions as found on the Vaillant website: www.vaillant.co.uk.

• A Vaillant boiler protection kit (part number 0020278309 or part number 0020278310) must be used, and the following installation and servicing steps conducted in full:
• The heating system filter should be installed in the heating system pipework in line with the filterinstallation instructions enclosed in the pack.
• The heating system must be flushed, cleansed and inhibited in accordance with BS7593.
• In all instances a suitable corrosion inhibitor must be introduced into the clean primary water system as described in the manufacturer's instructions.
• It is essential that the pH level is as per manufacturer's instructions at all times– a litmus test kit is provided to confirm this and results must be noted in the relevant section below and upon yearly service in the comments section of the Benchmark logbook.
• The cleanliness of the heating system should be confirmed by use of a turbidity tube.
• The appliance and the system need to be serviced annually. The service process must be as described within the installation and maintenance instructions of the boiler and the Boiler Protection Kit.
• The effectiveness or strength of the inhibitor and consequent cleanliness of the heating system must checked every 2 years, action taken as appropriate, and noted in the Benchmark logbook.
• The boiler extended guarantee must be registered by an Advance Loyalty Club registered installer within 30 days of installing the appliance, together with the Boiler Protection Kit on the Advance Loyalty Club website or via the App.
• Failure to register within this time period will result in the guarantee reverting to standard Advance Loyalty Club guarantee levels.
• To register you must provide the full 28 digit serial number of the appliance and the full 28 digit serial number of the Boiler Protection Kit. The boiler serial number is clearly shown on the: boiler packaging, appliance data plate, removable stickers attached to the top of the boiler and the back of the control box.
• The boiler protection kit serial number is clearly shown on the product packaging.
• The extended guarantee will cover material and labour charges to repair or replace components within the boiler against manufacturing defects from the installation date, provided this is carried out by Vaillant or a Vaillant authorised Gas Safe registered engineer.
• Invoices for attendance and repair by third parties will not be accepted for payment by Vaillant.
• When claiming on the guarantee the following will be requested:
1. Proof of the date of installation
2. Proof that the appliance was correctly commissioned (completed Benchmark logbook, signed by the commissioning engineer)
3. Proof that the annual service has been completed to manufacturer's requirements.

Building Regulations Compliance Certificate

NAPIT has notified your local authority Building Control of the work detailed on this certificate. The Installer (named below) confirms that the work completed at the address shown below complies with parts 4 & 7 of the Building Regulations

Certificate Delivery Address

Mr Ashley Hurst
69 Cross Lane
MANCHESTER
M18 8WA

Installation Address

69 Cross Lane
MANCHESTER
Greater Manchester
M18 8NY

Schedule of Work:

Item	Qty	Item	Qty
Install one or more new circuits - House Dwelling	1	Install an unvented hot water storage vessel - House Dwelling	1

Certificate Number:	4521577
Completion Date:	24/07/2025
Membership Number:	66000
Installer Name:	EcoFuture Technology Limited

This certificate is issued by NAPIT Registration Ltd on behalf of the named installation company in accordance with Regulation 20 of the Building Regulations. Regulation 20(5) states that a certificate given in accordance with this regulation shall be evidence (but not conclusive evidence) that the requirements specified in the certificate have been complied with.

Information for the Householder

Authorised by the Department for Communities and Local Government, NAPIT Registration Limited (NAPIT) provides Competent Persons Registration Schemes for installers who meet the standards of work and competencies within their technical area.

As an approved member of NAPIT, your installer confirms that the installation detailed overleaf complies with parts 4 & 7 of the Building Regulations. You should be aware that not all work is required to be certificated and hence this certificate may only comprise some of the work undertaken for you. If the work you have had done is electrical you should also be provided with an Electrical Installation Certificate as required by the Wiring Regulations (BS7671).

If you are unsure about the quality or suitability of work carried out by your installer, you should, in the first instance attempt to resolve the issue with them. If the issue cannot be resolved with your installer and you wish to make an official complaint, please contact the NAPIT Customer Services department in writing. Further details relating to complaints can be found on the NAPIT website (see www.napit.org.uk).

In the event that the installer is no longer trading and work is found to be non-compliant with the Building Regulations, the following protections are in place for work in dwellings:

1. Microgeneration work will have been subject to a warranty required by the Renewable Energy Consumer Code (see www.recc.org.uk)

2. Work done under Green Deal financing will have been subject to guarantees as required by the Green Deal Code of Practice. (see http://gdorb.decc.gov.uk)

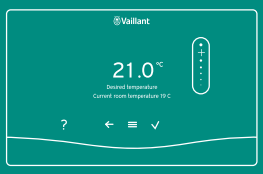
3. Work not covered by items 1 and 2 above, or any other policy put in place by the installer, is subject to the NAPIT Work Quality Guarantee. Under this guarantee, NAPIT will correct non-compliance with the Building Regulations for a period of up to six years from the date of installation (or the period of a product manufacturer's guarantee if this is shorter); provided work was carried out under contract and has been correctly notified to NAPIT. Terms and conditions apply (see www.napit.org.uk).

This Certificate remains the property of NAPIT and must be retained as evidence of compliance with the Building Regulations. In the event of the property being sold or ownership being transferred, please transfer this certificate to the new owner.

Heating Hot water Renewables

sensoCOMFORT

Basic Operating Instructions





Vaillant



Key Product Facts

- Weather compensating
- Intuitive interface
- Energy dashboard
- Control multiple heating circuits
- Time programme assistant
- App controlled (with the sensoNET internet gateway)
- Available wired or wireless
- Features a help button to guide you through the control

Setting the time and date

- Press the menu button 5 twice
- Use the scroll bar 2 to locate the settings menu
- Press the tick 4 button to select settings
- Then scroll to Language, Time and Display
- Set the correct date using the scroll bar and press
- Now select the time using the same step above

Setting up the weekly planner

- Press the menu button followed by the control button
- Select Zone you want to setup the programme for
- Select heating and weekly planner to setup
- Within here you can see when the heating is scheduled to turn on

Holiday mode

- Press the menu button
- Go to control and select absence
- Select the zone you want to set to away
- Input the time and date that you leave and return, with the scroll bar. During this time, the set back temperature will be set and not fall below this whilst you're away

Setting your time programmes

- Press the menu button followed by the help button 3
- Scroll and select Time Programme Assistant
- You will first be asked for your desired temperature
- You will then be asked a series of questions to generate a heating schedule

Temperature override

- Press the menu button
- Using the scroll bar, simply slide or tap to the desired temperature
- Select for how long you would like the override to set for
- If you ever want to remove the override, select the back button 6

Lock feature

- To prevent the control from being used, press the lock button 1 on top of the controller
- To deactivate the lock, press the button twice.
- For the wired controller, if you press and hold the button for a few seconds, this will perform a controller restart, without clearing any parameters. (if the controller has frozen for example)
- For the wireless controller, if you press and hold the lock button, this will start pairing mode with the receiver to link them together



Vaillant

Heating Hot water Renewables

Vaillant Group UK Ltd
Nottingham Road
Belper, Derbyshire
DE56 1JT

www.vaillant.co.uk

Follow Vaillant UK on

vaillanthomeuk

vaillanthomeuk

Useful contacts

Technical Enquiries

For technical assistance and renewable service:

Telephone: **0330 100 3540**

Email: **aftersales@vaillant.co.uk**

Fault codes can be found in the user manual and can be addressed with Vaillant's Technical team.

General Enquiries

If you have a general enquiry our friendly reception staff will happily point you in the right direction:

Telephone: **0345 602 2922**



EcoFuture

Renewables for your world

T: 0191 490 3308
E: hello@yourecofuture.com

www.yourecofuture.com

SOLAR PV · HEAT PUMPS · BATTERY STORAGE · EV CHARGING · MVHR