

Appendix 6



Product Specifications (cont.)

2-2-2 Outdoor Unit (Mono)

Model Name				Indoor Unit	AE200RNWMEG	AE200RNWMEG	AE200RNWMEG	AE200RNWMEG	AE260RNWMGG	AE260RNWMGG	AE260RNWMGG
				Outdoor Unit	AE050RXYDEG	AE080RXYDEG	AE120RXYDEG	AE160RXYDEG	AE080RXYDGG	AE120RXYDGG	AE160RXYDGG
Outdoor Unit & Tank Hydro Unit Figure											
System	Mode				Heat Pump (A2W)	Heat Pump (A2W)	Heat Pump (A2W)	Heat Pump (A2W)	Heat Pump (A2W)	Heat Pump (A2W)	Heat Pump (A2W)
	A2W Condition #1. (H A7/W35 C A35/W18)*1	Nominal Capacity	Heating	W	5,000	8,000	12,000	16,000	8,000	12,000	16,000
				Btu/h	17,100	27,300	40,900	54,600	27,300	40,900	54,600
		Cooling		W	5,000	7,500	12,000	14,000	7,500	12,000	14,000
				Btu/h	17,100	25,600	40,900	47,800	25,600	40,900	47,800
		Power Input (Nominal)	Heating	W	1,030	1,770	2,650	3,620	1,770	2,650	3,620
			Cooling		1,140	1,900	2,770	3,280	1,900	2,770	3,280
		Current Input (Nominal)	Heating	A	4.9	8.5	12.2	17.0	2.8	4.1	5.7
			Cooling		5.4	9.1	13.2	15.7	3.0	4.4	5.3
		COP (Nominal Heating)		W/W	4.85	4.52	4.53	4.42	4.52	4.53	4.42
		EER (Nominal Cooling)		W/W	4.39	3.95	4.33	4.27	3.95	4.33	4.27
		PdesignH (LWT 35℃)		W	5,500	8,000	13,000	16,000	8,000	13,000	16,000
		SCOP (35℃)		-	4.46	4.44	4.69	4.48	4.44	4.69	4.48
		SEER *2		-	3.98	4.52	5.22	5.31	4.52	5.22	5.31
	A7/W45	Capacity	Heating	W	4,800	7,400	11,700	15,400	7,400	11,700	15,400
		COP		W/W	3.69	3.49	3.68	3.43	3.49	3.68	3.43
	A7/W55	Capacity	Heating	W	4,300	7,100	11,300	15,000	7,100	11,300	15,000
		COP		W/W	2.83	2.81	3.03	2.90	2.81	3.03	2.90
	Performance (A2/W35)	Capacity	Heating	W	4,800	7,000	10,800	13,200	7,000	10,800	13,200
		COP		W/W	3.31	2.98	3.27	3.00	2.98	3.27	3.00
	Performance (A-7/W35)	Capacity	Heating	W	5,100	7,350	12,000	14,600	7,350	12,000	14,600
		COP		W/W	2.71	2.43	2.55	2.43	2.43	2.55	2.43
	Field Wiring	Tank Integrated Hydro Unit	MCA	A	22.70	22.70	22.70	22.70	3Φ 8.7 / 1Φ 14.0	3Φ 8.7 / 1Φ 14.0	3Φ 8.7 / 1Φ 14.0
			Max Current	A	22.70	22.70	22.70	22.70	3Φ 8.7 / 1Φ 14.0	3Φ 8.7 / 1Φ 14.0	3Φ 8.7 / 1Φ 14.0
			MFA	A	28.38	28.38	28.38	28.38	3Φ 10.9 / 1Φ 17.5	3Φ 10.9 / 1Φ 17.5	3Φ 10.9 / 1Φ 17.5
		Outdoor Unit	MCA	A	16.0	22	28	32	10	10	12
			Max Current	A	16.0	22	28	32	16.1	16.1	16.1
			MFA	A	20.0	27.5	35	40	16.1	16.1	16.1
	Water Connections	Water Flow Rate (Heating/Cooling)		LPM	14.4/14.4	23.1/21.6	34.6/34.6	46.2/40.4	23.1/21.6	34.6/34.6	46.2/40.4
		Water Pressure (Max)		bar	3	3	3	3	3	3	3
		Water Pipe	Inlet	Φ, mm	ø28	ø28	ø28	ø28	ø28	ø28	ø28
			Outlet	Φ, mm	ø28	ø28	ø28	ø28	ø28	ø28	ø28
		Leaving Water Temperature	Heating	℃	15~65	15~65	15~65	15~65	15~65	15~65	15~65
			Cooling	℃	5~25	5~25	5~25	5~25	5~25	5~25	5~25
	Refrigerant	Type		-	R32	R32	R32	R32	R32	R32	R32
		Control Method		-	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED
		Factory Charging		g	1,000	1,150	2,200	2,200	1,150	2,200	2,200
Hydro Unit	Power Supply			Φ, #, V, Hz	1Φ, 2Line, 220~240V, 50Hz	1Φ, 2Line, 220~240V, 50Hz	1Φ, 2Line, 220~240V, 50Hz	1Φ, 2Line, 220~240V, 50Hz	3Φ, 4Line, 380~415V, 50Hz 1Φ, 2Line, 220~240V, 50Hz	3Φ, 4Line, 380~415V, 50Hz 1Φ, 2Line, 220~240V, 50Hz	3Φ, 4Line, 380~415V, 50Hz 1Φ, 2Line, 220~240V, 50Hz
	Water Pump	Type (Model Name)		-	Centrifurugal (UPMM 25-9.5)	Centrifurugal (UPMM 25-9.5)	"Centrifurugal (UPMM 25-9.5)"	Centrifurugal (UPMM 25-9.5)	Centrifurugal (UPMM 25-9.5)	Centrifurugal (UPMM 25-9.5)	Centrifurugal (UPMM 25-9.5)
		Motor Input (Max)		W	100	100	100	100	100	100	100
		Number of Unit		EA	1	1	1	1	1	1	1

Product Specifications (cont.)

Model Name			Indoor Unit		AE200RNMWEG	AE200RNMWEG	AE200RNMWEG	AE200RNMWEG	AE260RNMWGG	AE260RNMWGG	AE260RNMWGG
			Outdoor Unit		AE050RXYDEG	AE080RXYDEG	AE120RXYDEG	AE160RXYDEG	AE080RXYDGG	AE120RXYDGG	AE160RXYDGG
Hydro Unit	Flow SENSOR	Type (Model Name)		-	FLOW SENSOR	FLOW SENSOR	FLOW SENSOR	FLOW SENSOR	FLOW SENSOR	FLOW SENSOR	FLOW SENSOR
		Min. flow rates		LPM	7.0	7.0	12.0	12.0	7.0	12.0	12.0
	Electric Heater			W	2,000	2,000	2,000	2,000	6,000	6,000	6,000
	Expansion Vessel			Liter	8	8	8	8	8	8	8
	Pressure Relief Valve			bar	2.9	2.9	2.9	2.9	2.9	2.9	2.9
	Air Purge Valve			Φ, inch	BSPP male 3/8"	BSPP male 3/8"	BSPP male 3/8"	BSPP male 3/8"	BSPP male 3/8"	BSPP male 3/8"	BSPP male 3/8"
	Sound *3	Sound Pressure	Heating Std	dB(A)	26	26	30	30	26	30	30
			Cooling Std	dB(A)	26	26	30	30	26	30	30
		Sound Power	Heating Std	dB(A)	40	40	44	44	40	44	44
	External Dimension	Net Weight		kg	130	130	130	130	140	140	140
		Shipping Weight		kg	142	142	142	142	152	152	152
		Net Dimensions (WxHxD)		mm	595x1800x700	595x1800x700	595x1800x700	595x1800x700	595x1800x700	595x1800x700	595x1800x700
		Shipping Dimensions (WxHxD)		mm	700 x 2,000 x 780	700 x 2,000 x 780	700 x 2,000 x 780	700 x 2,000 x 780	700 x 2,000 x 780	700 x 2,000 x 780	700 x 2,000 x 780
Power Supply			Φ, #, V, Hz	1Φ, 2Line, 220~240V, 50Hz	1Φ, 2Line, 220~240V, 50Hz	1Φ, 2Line, 220~240V, 50Hz	1Φ, 2Line, 220~240V, 50Hz	3Φ, 4Line, 380~415V, 50Hz	3Φ, 4Line, 380~415V, 50Hz	3Φ, 4Line, 380~415V, 50Hz	
Compressor	Type		-	BLDC Twin Rotary	BLDC Twin Rotary	BLDC Twin Rotary	BLDC Twin Rotary	BLDC Twin Rotary	BLDC Twin Rotary	BLDC Twin Rotary	
	Model		-	UB4TN8200FE4SS	UB8TN8265FJWSG	UB5TN5450FJXSG	UB5TN5450FJXSG	UB8TN8265FJWSG	UB5TN5450FJXSG	UB5TN5450FJXSG	
	Oil		-	POE	POE	POE	POE	POE	POE	POE	
Fan	Air Flow Rate	Cooling	CMM	51	66	99	118	66	99	118	
	Number of Unit		EA	1	1	2	2	1	2	2	
Base Heater			W	N/A	150	150	150	150	150	150	
Sound*3	Sound Pressure	Heating	dB(A)	45	48	50	52	48	50	52	
		Cooling	dB(A)	45	48	50	54	48	50	54	
	Sound Power	Heating	dB	61	63	64	66	63	64	66	
		Cooling	dB	62	64	65	68	64	65	68	
External Dimension	Net Weight		kg	58.5	76.0	110.0	110.0	75.0	111.0	111.0	
	Shipping Weight		kg	62.5	84.5	119.0	119.0	83.5	120.0	120.0	
	Net Dimensions (WxHxD)		mm	880 x 798 x 310	940 x 998 x 330	940 x 1,420 x 330	940 x 1,420 x 330	940 x 998 x 330	940 x 1,420 x 330	940 x 1,420 x 330	
	Shipping Dimensions (WxHxD)		mm	1,023x904x413	995 x 1,178 x 426	995 x 1,598 x 426	995 x 1,598 x 426	995 x 1,178 x 426	995 x 1,598 x 426	995 x 1,598 x 426	
Operating Temp. Range	Heating		℃	-25~35	-25~35	-25~35	-25~35	-25~35	-25~35	-25~35	
	Cooling		℃	10~46	10~46	10~46	10~46	10~46	10~46	10~46	
	DHW Tank		℃	-25~43	-25~43	-25~43	-25~43	-25~43	-25~43	-25~43	

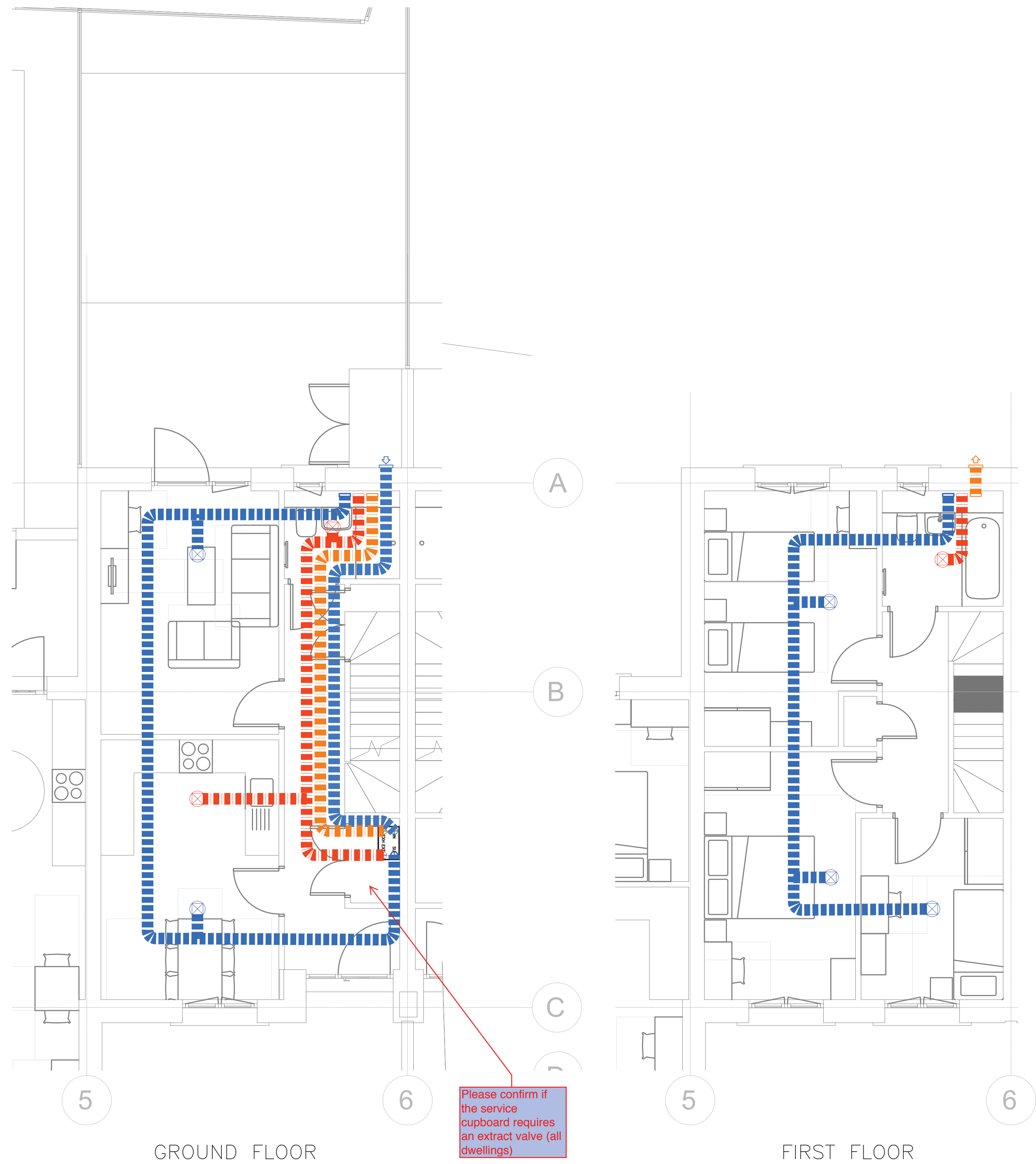
*1) A2W Condition #1 : (Heating) Water In/Out 30℃/35℃, Outdoor Air 7℃DB/6℃WB; (Cooling) Water In/Out 23℃/18℃, Outdoor Air 35℃DB.

*2) A2W Condition for ESEER(Cooling) at Water Out 18℃.

*3) Sound pressure was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

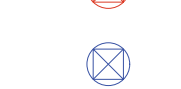
Appendix 7

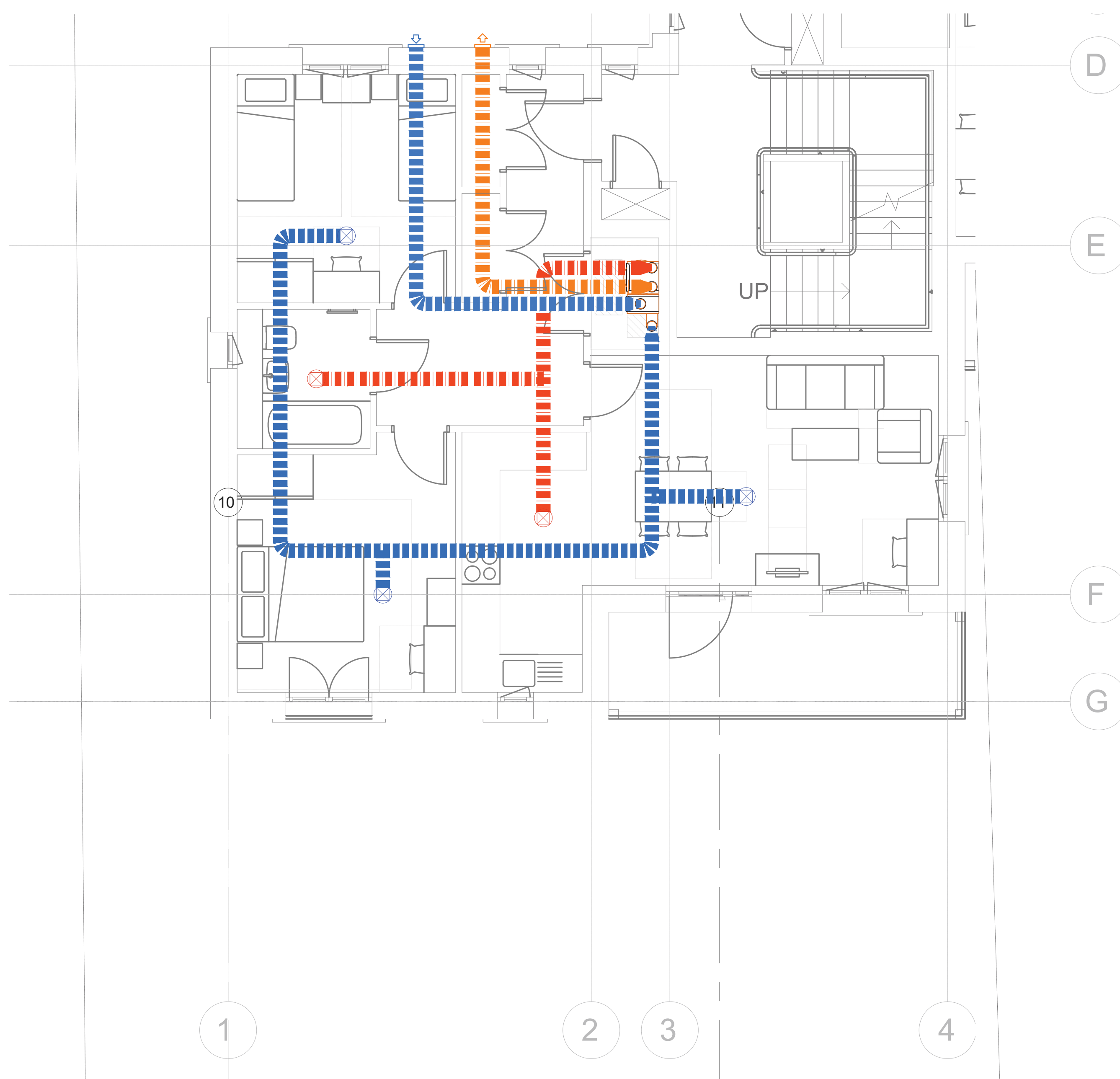




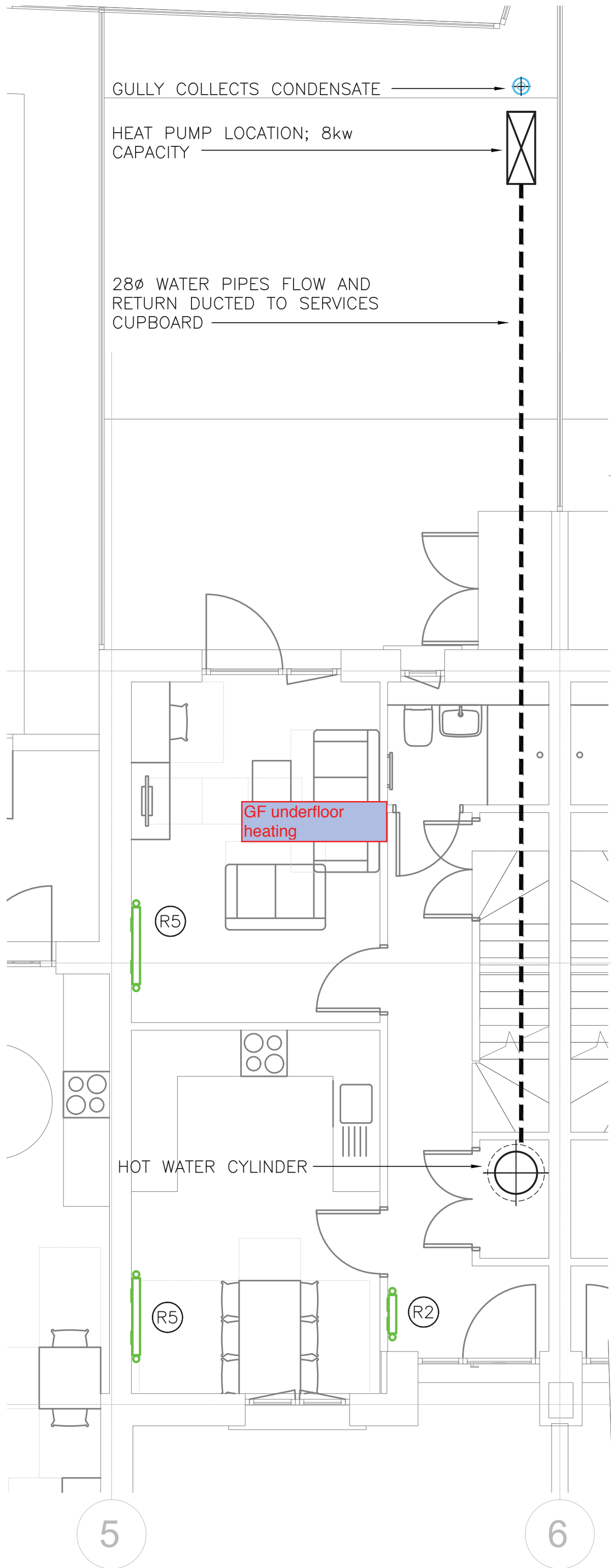
- LEGEND:
- 204x60mm EXTRACT DUCT
 - 204x60mm EXHAUST DUCT
 - 204x60mm SUPPLY AIR DUCT
 - 204x60mm INTAKE AIR DUCT
 - EXTRACT VALVE
 - SUPPLY VALVE
 - VECTAIRE MIDI MVHR UNIT

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NLY Building Services Ltd				
Email: info@nlybuildingservices.com			Website: www.nlybuildingservices.com	
CLIENT: FORMATION DESIGN AND BUILD				
PROJECT: WATTS CLOSE				
DRAWING TITLE: VENTILATION LAYOUT TYPICAL HOUSE				
DRAWING NO: P22017-SK-301		REV: P1		PROJECT Ref P22017
SCALE AT A1: 1:50		STATUS: PRELIMINARY		
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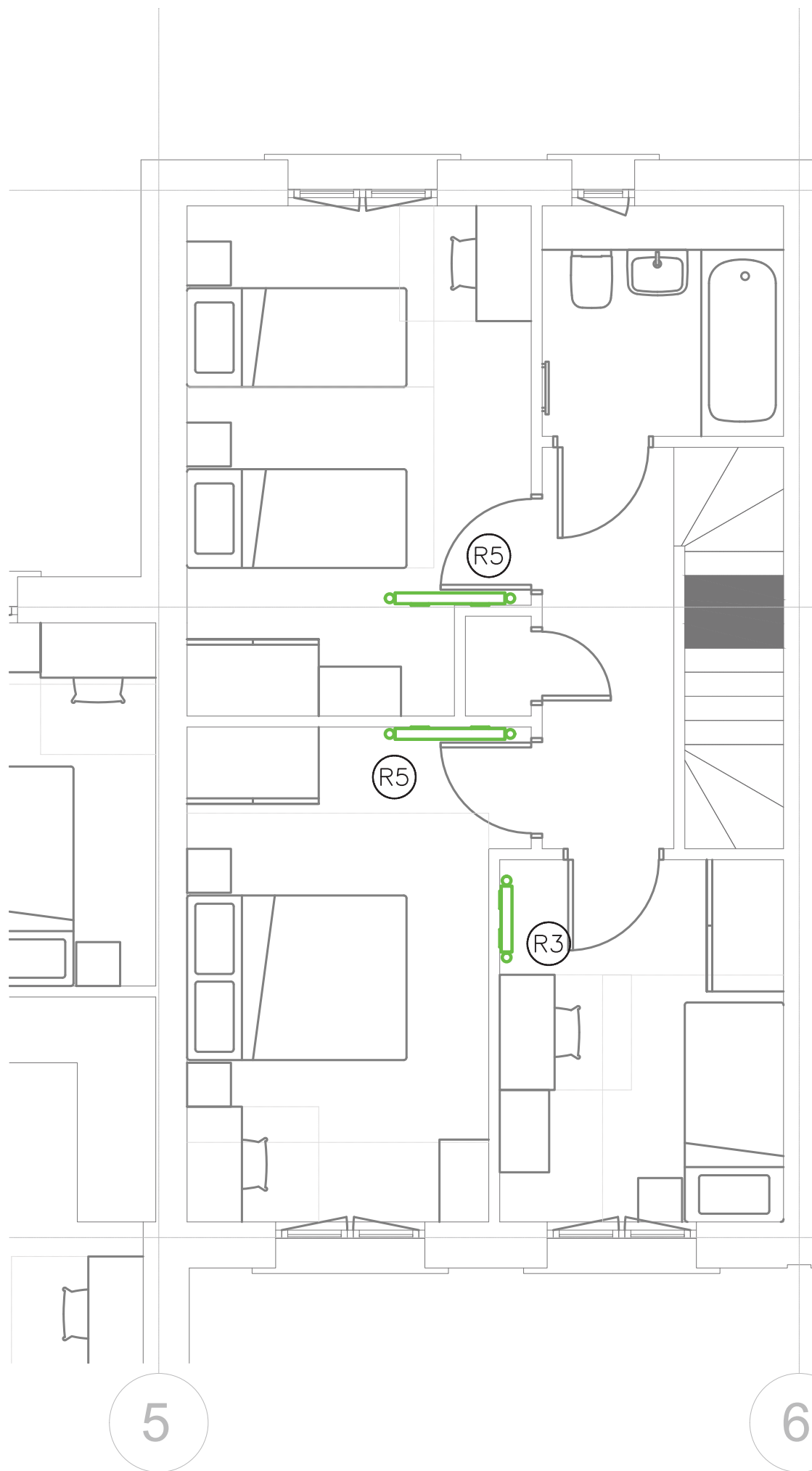
	220x90mm EXTRACT DUCT
	220x90mm EXHAUST DUCT
	220x90mm SUPPLY AIR DUCT
	220x90mm INTAKE AIR DUCT
	EXTRACT VALVE
	SUPPLY VALVE
	MODUL-AIR EAHP UNIT



REV		DATE		DRN		REVISION HISTORY:			CHK
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CLIENT: FORMATION DESIGN AND BUILD									
PROJECT: WATTS CLOSE									
DRAWING TITLE: VENTILATION LAYOUT TYPICAL FLAT									
DRAWING NO: P22017-SK-302					REV: P1		PROJECT Ref P22017		
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GROUND FLOOR



FIRST FLOOR

Product	Samsung 8kW Monobloc Heat Pump	Samsung 8kW Monobloc Heat Pump
Samsung Model Number	AE09RXYDEG/EU	AE09RXYDEG/EU
Leaving water temperatures (°C)	15-65	15-65
MCS listed SCOP @		
35°C	4.46	4.44
40°C	4.15	4.14
45°C	3.83	3.84
50°C	3.52	3.53
55°C	3.20	3.23
MCS cert No. with		
MIM-E03CN controller	007-CL0101(2)	007-CL0102(2)
230l climate hub tank	007-CL0101(1)	007-CL0102(1)
280l climate hub tank	N/A	007-CL0103(1)
ENA database Ref / Max current	HP_0906 / 16A	HP_0907 / 22A
Width	880	940
Depth	310	330
Height	798	998
Min water flowrate (l/min)	7	7
Max water flowrate (l/min)	48	48
Net weight (kg)	58.5	76
Sound power level dB(A)	61	63
Refrigerant charge (kg R32)	1.00	1.15

Capacity	Brand	ERP Type	Item Category Code	Product Group Code	Model
250 L	CYCLONE	IndirectUnvented	Stainless	CYCLONE	HG INDIRECT
Product Specification					
Actual capacity (Ltr)	247		Thermal insulation	DENSE PU FOAM	
Unit weight empty (kg)	67		Cylinder material	LDX 2101	
Unit weight full (kg)	316		Outer casing	COATED MILD STEEL	
No immersions	1		Coil material	316L STAINLESS STEEL	
Immersion spec	3kW@230V		Foam thickness	0	
Max mains water pressure (Bar)	10		Operating temp (C)	60	
Operating pressure (Bar)	7		Safety valve temp (C)	95	
Warranty terms (Year)	1Y		No heat exchangers	1	
Heat loss	2.14		Coil 1 rating (kW)	110.34	
Coil 1 surface area (m²)	3.2		Coil 1 max prim pressure (Bar)	3.5	
Coil 1 resistance (Bar)	.26				

RADIATOR SCHEDULE						
REF	OUTPUT (W)	HEIGHT (mm)	LENGTH (mm)	DEPTH (mm)	MANUFACTURER	MODEL
R1	276	600	400	112	STELRAD	COMPACT P+
R2	345	600	500	112	STELRAD	COMPACT P+
R3	414	600	600	112	STELRAD	COMPACT P+
R4	552	600	800	112	STELRAD	COMPACT P+
R5	690	600	1000	112	STELRAD	COMPACT P+
R6	828	600	1200	112	STELRAD	COMPACT P+
R7	966	600	1400	112	STELRAD	COMPACT P+

NOTES:

1. ALL HEATING FLOW AND RETURN PIPEWORK WITHIN APARTMENTS TO BE COPPER OR EQUAL AND APPROVED.
2. ALL RADIATORS TO BE FITTED WITH THERMOSTATIC RADIATOR VALVES (TRVs) WITH THE EXCEPTION OF RADIATORS MOUNTED IN THE SAME LOCATION AS WALL MOUNTED THERMOSTATS.
3. ALL HEATING PIPEWORK TO BE 15mmø UNLESS OTHERWISE STATED.
4. HEAT PUMP TO BE SAMSUNG 6th GEN R32.
5. HEATING CAPACITY 8kw.
6. CYLINDER TO BE JOULE CYCLONE WITH 250 litre CAPACITY

- (R1) RADIATOR REF. No.
- RADIATOR – SEE SCHEDULE FOR SIZES
- TOWEL RAIL
- CYCLONE HOT WATER CYCLINDER
- MONOBLOC HEAT PUMP

REV	DATE	DRN	REVISION HISTORY:	CHK
NLY Building Services Ltd				
Email: info@nlybuildingservices.com			Website: www.nlybuildingservices.com	
CLIENT: FORMATION DESIGN AND BUILD				
PROJECT: WATTS CLOSE				
DRAWING TITLE:				
HEATING LAYOUT TYPICAL HOUSE				
DRAWING NO: P22017-SK-101			REV: P1	PROJECT Ref P22017
SCALE AT A1: 1:50		STATUS: PRELIMINARY		
DATE: 14/09/2022		DRAWN BY: CD		CHECKED BY: NY
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- NOTES:
1. ALL HEATING FLOW AND RETURN PIPEWORK WITHIN APARTMENTS TO BE COPPER OR EQUAL AND APPROVED.
 2. ALL RADIATORS TO BE FITTED WITH THERMOSTATIC RADIATOR VALVES (TRVs) WITH THE EXCEPTION OF RADIATORS MOUNTED IN THE SAME LOCATION AS WALL MOUNTED THERMOSTATS.
 3. THERMOSTATS LOCATED ON LIGHTING AND SMALL POWER DRAWINGS.
 4. ALL HEATING PIPEWORK TO BE 15mmØ UNLESS OTHERWISE STATED.
 4. HEAT PUMP TO BE SAMSUNG 6TH GEN R32.
 5. HEATING CAPACITY 5KW.
 6. CYLINDER TO BE JOULE CYCLONE WITH 200 litre CAPACITY

(R1)

RADIATOR REF. No.

RADIATOR – SEE SCHEDULE FOR SIZES

TOWEL RAIL

MODUL-AIR EXHAUST AIR HEAT PUMP UNIT



RADIATOR SCHEDULE						
REF	OUTPUT (W)	HEIGHT (mm)	LENGTH (mm)	DEPTH (mm)	MANUFACTURER	MODEL
R1	276	600	400	112	STELRAD	COMPACT P+
R2	345	600	500	112	STELRAD	COMPACT P+
R3	414	600	600	112	STELRAD	COMPACT P+
R4	552	600	800	112	STELRAD	COMPACT P+
R5	690	600	1000	112	STELRAD	COMPACT P+
R6	828	600	1200	112	STELRAD	COMPACT P+
R7	966	600	1400	112	STELRAD	COMPACT P+

REV

DATE

DRN

REVISION HISTORY:

CHK

NLY

Building Services Ltd

Email: info@nlybuildingservices.com

Website: www.nlybuildingservices.com

CLIENT:

FORMATION
DESIGN AND BUILD

PROJECT:

WATTS CLOSE

DRAWING TITLE:

HEATING LAYOUT
TYPICAL FLAT

DRAWING NO:
P22017-SK-102

REV:
P1

PROJECT Ref
P22017

SCALE AT A1:
1:50

STATUS:
PRELIMINARY

DATE:
14/09/2022

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Appendix 8

