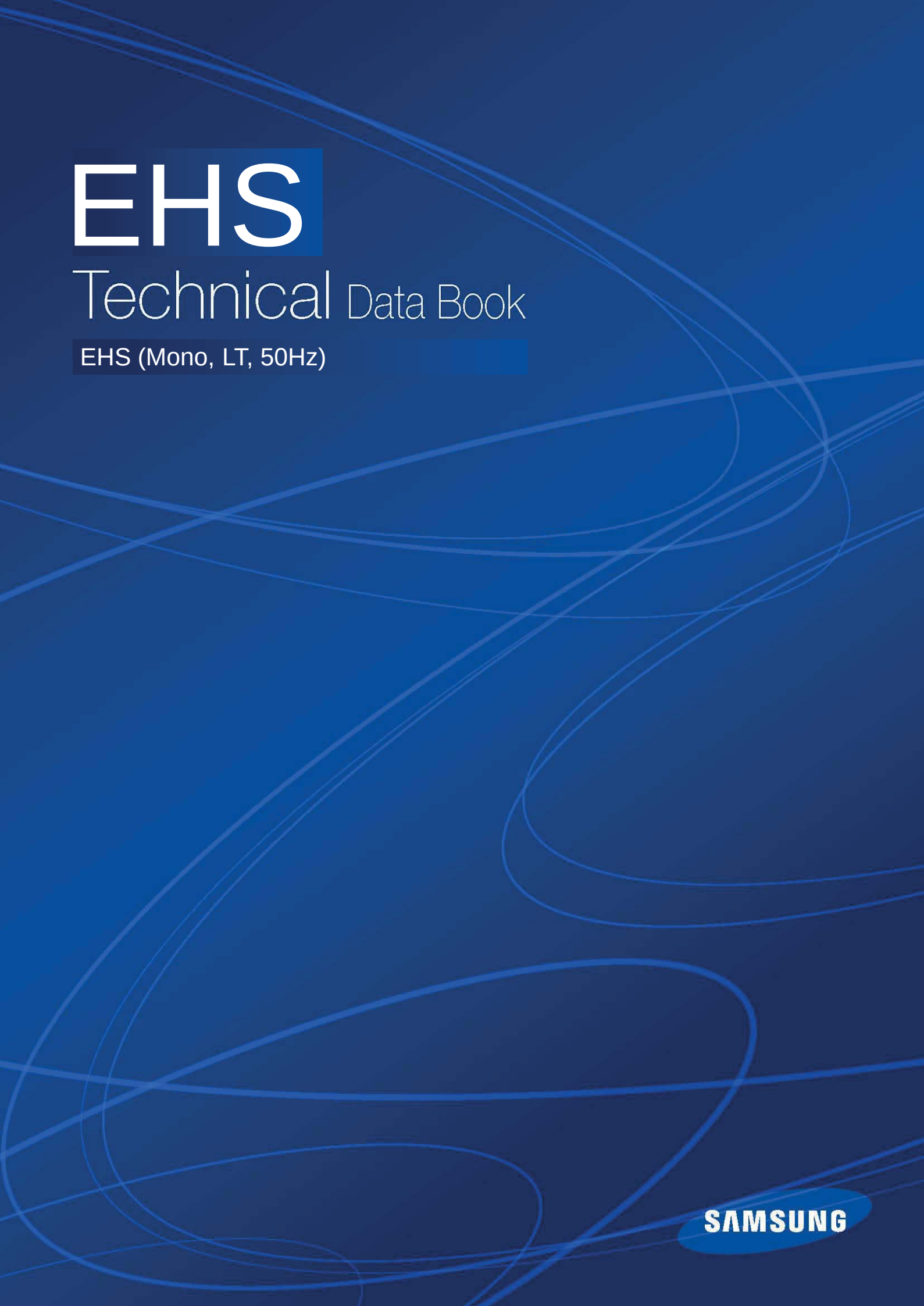




EHS

Technical Data Book

EHS (Mono, LT, 50Hz)

SAMSUNG

++++ Contents



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I. Products

1. Nomenclature	5
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1. Nomenclature

1-1. Outdoor Unit

Model Name

RC

090

M

H

X

E

A

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(1)

(2)

(3)

(4)

(5)

(6)

(7)

(Buyer)

(1) Classification		(4) Mode	
RC	EHS/CAC (Single)	H	Heat Pump
(2) Capacity -		(5) Refrigerant	
Liters or x 1/10 kW (3 digits)		X	R410A
(3) Product Notation		(6) Rating Voltage	
E	Eco Heating(Single)	E	1Φ, 220~240V, 50Hz
P	Eco Heating(Multi), TDM	G	3Φ, 380~415V, 50Hz
M	Mono	(7) Version	
		A~Z	Export

1. Nomenclature

1-2. Indoor Unit

Model Name

NH	200	C	H	X	E	A	/	000
(1)	(2)	(3)	(4)	(5)	(6)	(7)		(Buyer)

(1) Classification	
NH	Hydro Unit
	Water Tank / Cylinder Unit
	EHS Indoor Unit
(2) Capacity	
Liters or x 1/10 kW (3 digits)	
(3) Product Notation	
P	Hydro Unit
W	Water Tank
C	Cylinder Unit

(4) Mode	
H	Heat Pump
(5) Refrigerant	
X	R410A
(6) Rating Voltage	
E	1Φ, 220~240V, 50Hz
G	3Φ, 380~415V, 50Hz
(7) Version	
A~Z	Export

2. Line-up

2-1. Outdoor Unit

Mono Type	Capacity (kW)			
	9.0	12.0	14.0	16.0
1 Phase	 RC090MHXEA	 RC120MHXEA	 RC140MHXEA	 RC160MHXEA
3 Phases	-	 RC120MHXGA	 RC140MHXGA	 RC160MHXGA

2-2. Control Kit

Control Unit
 MIM-E03A

2-3. Cylinder Unit

Cylinder Unit	Capacity (Liters)	
	200	300
Standard	 NH200CHXEA	 NH300CHXEA

II. Specifications

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1. Specifications

1-1. Outdoor Unit

Model Name				RC090MHXEA	RC120MHXEA	RC140MHXEA	RC160MHXEA
Mode		-		Heat Pump (A2W Only)	Heat Pump (A2W Only)	Heat Pump (A2W Only)	Heat Pump (A2W Only)
Power Supply		Ø, #, V, Hz		1, 2, 220-240, 50	1, 2, 220-240, 50	1, 2, 220-240, 50	1, 2, 220-240, 50
Performance (A2W #1)	Nominal Capacity ^{*1)}	Heating (Min/Std/Max)	W	1,901 / 9,000 / 9,000	3,000 / 12,000 / 12,000	2,877 / 14,000 / 14,000	3,117 / 16,000 / 16,000
			Btu/h	6,500 / 30,700 / 30,700	10,200 / 40,900 / 40,900	9,800 / 47,800 / 47,800	10,600 / 54,600 / 54,600
		Cooling (Min/Std/Max)	W	2,419 / 10,000 / 10,000	3,971 / 13,500 / 13,500	4,138 / 16,000 / 16,000	3,923 / 17,000 / 17,000
			Btu/h	8,300 / 34,100 / 34,100	13,500 / 46,100 / 46,100	14,100 / 54,600 / 54,600	13,400 / 58,000 / 58,000
	Nominal Power Input ^{*1)}	Heating (Min/Std/Max)	W	442 / 2,090 / 2,090	653 / 2,610 / 2,610	662 / 3,220 / 3,220	742 / 3,810 / 3,810
		Cooling (Min/Std/Max)	W	692 / 2,860 / 2,860	1,197 / 4,070 / 4,070	1,378 / 5,330 / 5,330	1,352 / 5,860 / 5,860
	Nominal Current Input ^{*1)}	Heating (Min/Std/Max)	A	2.1 / 9.9 / 9.9	2.9 / 11.7 / 11.7	3.0 / 14.4 / 14.4	3.3 / 17.1 / 17.1
		Cooling (Min/Std/Max)	A	3.3 / 13.5 / 13.5	5.2 / 17.7 / 17.7	6.0 / 23.2 / 23.2	5.9 / 25.5 / 25.5
	COP(Heating) ^{*1)}		W/W	4.30	4.60	4.35	4.20
	EER(Cooling) ^{*1)}		W/W	3.50	3.32	3.00	2.90
	ESEER ^{*2)}		W/W	5.60	6.45	6.34	5.98
Performance (A2W, Low Temperature)	A2/W35	Heating Capacity	W	6,850	8,820	10,320	11,070
		COP	W	2.76	3.17	3.08	2.93
	A-7/W35	Heating Capacity	W	7,540	9,580	11,400	12,280
		COP	W	2.25	2.48	2.29	2.18
Electric Specification	MCA		A	22.0	28.0	30.0	32.0
	MFA		A	27.5	35.0	37.5	40.0
Water Side	Heat Exchanger	Type	-	Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate
		Quantity	-	1	1	1	1
	Required Water Pressure		bar	Max. 2.8	Max. 2.8	Max. 2.8	Max. 2.8
	Required Flow Rate		LPM	Min. 16.0	Min. 16.0	Min. 16.0	Min. 16.0
	Flow Switch (supplied with Control Kit & Cylinder Unit)		LPM	16 ± 1.5 (Magnetic, Decreasing)	16 ± 1.5 (Magnetic, Decreasing)	16 ± 1.5 (Magnetic, Decreasing)	16 ± 1.5 (Magnetic, Decreasing)
	Piping Connections	In/Out	Φ, inch	1" (BSPP)	1" (BSPP)	1" (BSPP)	1" (BSPP)
Refrigerant Side	Compressor	Type	-	Rotary Inverter	Rotary Inverter	Rotary Inverter	Rotary Inverter
		Model	-	UG8T265FX	UG5T450FX	UG5T450FX	UG5T450FX
	Oil	Type	-	POE	POE	POE	POE
	Refrigerant	Type	-	R410A	R410A	R410A	R410A
		Factory Charging	g	1,400	2,200	2,200	2,200
Base Heater	Capacity	-	W	150	150	150	150
Sound	Sound Pressure ^{*3)}	Heating	dB(A)	50	50	52	53
		Cooling	dB(A)	51	51	53	54
	Sound Power		dB(A)	66	66	68	70
External Dimension	Weight	Net	kg	75	103	103	103
		Gross	kg	83	113	113	113
	Dimensions (WxHxD)	Net	mm	940x998x330	940x1,420x330	940x1,420x330	940x1,420x330
		Gross	mm	995x1,096x426	995x1,548x426	995x1,548x426	995x1,548x426
Operating Range	Ambient (A2W)	Heating	°C	-20~35	-20~35	-20~35	-20~35
		Cooling	°C	10~46	10~46	10~46	10~46
		DHW	°C	-20~43	-20~43	-20~43	-20~43
	Leaving Water	Heating	°C	25~55	25~55	25~55	25~55
		Cooling	°C	5~25	5~25	5~25	5~25

*1)~*2) A2W rating conditions in accordance with Eurovent Rating Standard for Liquid Chilling Packages 6/C/003-2008.

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

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

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

1. Specifications

1-1. Outdoor Unit

Model Name				RC120MHXGA	RC140MHXGA	RC160MHXGA
Mode		-		Heat Pump (A2W Only)	Heat Pump (A2W Only)	Heat Pump (A2W Only)
Power Supply		Ø, #, V, Hz		3, 4, 380-415, 50	3, 4, 380-415, 50	3, 4, 380-415, 50
Performance (A2W #1)	Nominal Capacity ^{*1)}	Heating (Min/Std/Max)	W	3,000 / 12,000 / 12,000	2,877 / 14,000 / 14,000	3,117 / 16,000 / 16,000
			Btu/h	10,200 / 40,900 / 40,900	9,800 / 47,800 / 47,800	10,600 / 54,600 / 54,600
		Cooling (Min/Std/Max)	W	3,971 / 13,500 / 13,500	4,138 / 16,000 / 16,000	3,923 / 17,000 / 17,000
			Btu/h	13,500 / 46,100 / 46,100	14,100 / 54,600 / 54,600	13,400 / 58,000 / 58,000
	Nominal Power Input ^{*1)}	Heating (Min/Std/Max)	W	653 / 2,610 / 2,610	662 / 3,220 / 3,220	742 / 3,810 / 3,810
		Cooling (Min/Std/Max)	W	1,150 / 3,910 / 3,910	1,358 / 5,250 / 5,250	1,318 / 5,710 / 5,710
	Nominal Current Input ^{*1)}	Heating (Min/Std/Max)	A	1.0 / 4.1 / 4.1	1.0 / 5.1 / 5.1	1.2 / 6.0 / 6.0
		Cooling (Min/Std/Max)	A	1.8 / 6.1 / 6.1	2.1 / 8.2 / 8.2	2.1 / 9.0 / 9.0
	COP(Heating) ^{*1)}		W/W	4.60	4.35	4.20
	EER(Cooling) ^{*1)}		W/W	3.45	3.05	2.98
	ESEER ^{*2)}		W/W	6.45	6.34	5.98
Performance (A2W, Low Temperature)	A2/W35	Heating Capacity	W	8,820	10,320	11,070
		COP	W	3.17	3.08	2.93
	A-7/W35	Heating Capacity	W	9,580	11,400	12,280
		COP	W	2.48	2.29	2.18
Electric Specification	MCA		A	10.0	11.0	12.0
	MFA		A	12.5	13.8	15.0
Water Side	Heat Exchanger	Type	-	Brazed Plate	Brazed Plate	Brazed Plate
		Quantity	-	1	1	1
	Required Water Pressure		bar	Max. 2.8	Max. 2.8	Max. 2.8
	Required Flow Rate		LPM	Min. 16.0	Min. 16.0	Min. 16.0
	Flow Switch (supplied with Control Kit & Cylinder Unit)		LPM	16 ± 1.5 (Magnetic, Decreasing)	16 ± 1.5 (Magnetic, Decreasing)	16 ± 1.5 (Magnetic, Decreasing)
	Piping Connections	In/Out	Φ, inch	1" (BSPP)	1" (BSPP)	1" (BSPP)
Refrigerant Side	Compressor	Type	-	Rotary Inverter	Rotary Inverter	Rotary Inverter
		Model	-	UG5T450FX	UG5T450FX	UG5T450FX
	Oil	Type	-	POE	POE	POE
		Type	-	R410A	R410A	R410A
Base Heater	Capacity	-	W	150	150	150
		-	W	150	150	150
Sound	Sound Pressure ^{*3)}	Heating	dB(A)	50	52	53
		Cooling	dB(A)	51	53	54
	Sound Power		dB(A)	66	68	70
External Dimension	Weight	Net	kg	103	103	103
		Gross	kg	113	113	113
	Dimensions (WxHxD)	Net	mm	940x1,420x330	940x1,420x330	940x1,420x330
		Gross	mm	995x1,548x426	995x1,548x426	995x1,548x426
Operating Range	Ambient (A2W)	Heating	°C	-20~35	-20~35	-20~35
		Cooling	°C	10~46	10~46	10~46
		DHW	°C	-20~43	-20~43	-20~43
	Leaving Water	Heating	°C	25~55	25~55	25~55
		Cooling	°C	5~25	5~25	5~25

*1)~*2) A2W rating conditions in accordance with Eurovent Rating Standard for Liquid Chilling Packages 6/C/003-2008.

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

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

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

1. Specifications

1-2. Control Kit

Model Name			MIM-E03A	
Use with		-	EHS Mono Type	
Power Supply		Ø/V/Hz	1, 2, 220-240, 50	
External Dimension	Weight	Net	kg	3.5
		Gross	kg	5.7
	Dimensions (WxHxD)	Net	mm	290x342x110
		Gross	mm	330x440x170
External Control	Booster Heater		-	AC 230V (Max 20A)
	Back up Heater / Boiler		-	AC 230V (Max 0.5A)
	Water Pump		-	AC 230V (Max 2A)
	2way or 3way Valve		-	AC 230V (Max 0.5A / 120W)
	Room Thermostat		-	AC 230V (Max 10mA)
	Solar Pump		-	AC 230V (Max 10mA)

1. Specifications

1-3. Cylinder Unit

Model Name			Standard	
			NH200CHXEA	NH300CHXEA
Pressure Vessel	Material Quality	-	AISI 444 / DIN 1.4521	
	Volume Capacity	Liter	196	287
Power Supply		Ø/V/Hz	1 / 220-240 / 50	
Electric Element	Capacity	kW	3.0	
	Material	-	Incoloy 825	
	Thermostat #1 (Auto)	°C	40-70 (60 preset)	
	Thermostat #2 (Manual)	°C	91	
Heating Coil	Material Quality	-	Duplex LDX 2101	
	Heating Area	m²	0.8	
Heating Coil for Solar	Material Quality	-	-	
	Heating Area	m²	-	
Insulation	Material Quality	-	PUR	
	Thickness	mm	40	
Insulation Jacket	Material Quality	-	Epoxy-coated mild steel-white	
Dimensions Overall	W x H x D	mm	692 x 1,200 x 702	692 x 1,600 x 702
Connections	Cold Water Inlet	mm	22	
	Hot Water Outlet	inch	3/4" (BSPP)	
	Flow & Return	mm	28	
	Sensor Poket(s)	mm	Ø8.05mm inside, 1/2"Thread	
Weight	Net	kg	67	80
	Gross	kg	-	-
Max. Water Temperature		°C	70	
Pre-plumbed Parts	Water Pump	-	Wilo RS 25/7	
	2way valve	-	Honeywell V4043	
	Temperature & Pressure Relief Valve	-	95°C & 10.0bar	
	Pressure Reducing Valve	bar	3.0	
	Relief Pressure	bar	2.1	
	Strainer	mesh	25	
Packaged Parts	Flow Switch	-	Sika VH9342	
Room thermostat & receiver	Wireless Room Thermostat	-	Danfoss TP5000 Si RF	
	RF Receiver for Thermostat	-	Danfoss RX1	
Timer controller			Danfoss FP715 Si	
Other	Packaging	-	Eco Foam-PUF	
	Adjustable Legs	pcs	3	

2. Capacity Tables

2-1. RC090/120/140/160MHXE* (1 Phase)

1) Maximum Heating Capacity (Peak Value)

LWT (Leaving Water Temp.), Tamb (Ambient Temp.), HC (Heating Capacity), PI (Power input)

RC090MHXE*	LWT (°C)	30		35		40		45		50		55	
	Tamb (°C)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)
	-20	6.27	3.03	6.29	3.28	6.31	3.53						
	-10	7.87	3.16	7.90	3.42	7.92	3.68	7.98	3.93	8.01	4.19	8.03	4.45
	-7	8.42	3.19	8.44	3.45	8.47	3.71	8.50	3.98	8.53	4.24	8.56	4.50
	2	8.14	2.48	7.95	2.68	7.75	2.87	7.55	3.07	7.35	3.26	7.16	3.46
	7	9.30	1.88	9.00	2.09	8.70	2.30	8.40	2.51	8.10	2.72	7.80	2.93
	15	10.69	1.84	10.34	2.04	10.00	2.25	9.65	2.45	9.31	2.66	8.96	2.87
	20	12.21	1.83	11.82	2.03	11.42	2.24	11.03	2.44	10.64	2.64	10.24	2.85
RC120MHXE*	LWT (°C)	30		35		40		45		50		55	
	Tamb (°C)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)
	-20	8.44	3.18	8.35	3.75	8.26	4.33						
	-10	10.59	3.31	10.48	3.91	10.37	4.51	10.26	5.11	10.15	5.71	10.13	6.37
	-7	11.33	3.34	11.21	3.95	11.09	4.55	10.97	5.16	10.86	5.77	10.74	6.38
	2	10.79	2.59	10.67	2.95	10.55	3.31	10.43	3.67	10.31	4.03	10.19	4.39
	7	12.30	2.29	12.00	2.61	11.70	2.94	11.40	3.26	11.10	3.59	10.80	3.91
	15	14.13	2.23	13.79	2.55	13.44	2.87	13.10	3.19	12.75	3.51	12.41	3.82
	20	16.15	2.22	15.76	2.54	15.36	2.85	14.97	3.17	14.57	3.48	14.18	3.80
RC140MHXE*	LWT (°C)	30		35		40		45		50		55	
	Tamb (°C)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)
	-20	10.18	4.51	10.02	4.88	9.86	5.25						
	-10	12.78	4.69	12.58	5.08	12.37	5.47	12.17	5.85	11.97	6.24	11.76	6.63
	-7	13.67	4.74	13.45	5.13	13.23	5.52	13.02	5.91	12.80	6.30	12.58	6.70
	2	13.08	3.28	12.80	3.69	12.52	4.09	12.24	4.50	11.96	4.91	11.68	5.31
	7	14.45	2.91	14.00	3.22	13.55	3.54	13.10	3.85	12.65	4.17	12.20	4.48
	15	16.60	2.84	16.09	3.15	15.57	3.46	15.05	3.77	14.53	4.07	14.02	4.38
	20	18.97	2.82	18.38	3.13	17.79	3.44	17.20	3.74	16.61	4.05	16.02	4.35
RC160MHXE*	LWT (°C)	30		35		40		45		50		55	
	Tamb (°C)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)
	-20	11.10	5.31	10.98	5.52	10.86	5.74						
	-10	13.93	5.53	13.78	5.75	13.63	5.98	13.48	6.20	13.32	6.42	13.17	6.65
	-7	14.90	5.58	14.74	5.81	14.57	6.04	14.41	6.26	14.25	6.49	14.09	6.72
	2	14.25	3.75	14.17	4.23	14.09	4.72	14.00	5.21	13.92	5.70	13.84	6.18
	7	16.45	3.43	16.00	3.81	15.55	4.20	15.10	4.58	14.65	4.97	14.20	5.35
	15	18.90	3.35	18.38	3.73	17.87	4.10	17.35	4.48	16.83	4.86	16.32	5.23
	20	21.60	3.33	21.01	3.70	20.42	4.08	19.83	4.45	19.24	4.83	18.64	5.20

1. Heating capacity : Capacity is according to Eurovent rating standard 6/C/003-2006 and valid for heated water range $\Delta t = 3 \sim 8^{\circ}\text{C}$

2. Cooling capacity : Capacity is according to Eurovent rating standard 6/C/003-2006 and valid for chilled water range $\Delta t = 3 \sim 8^{\circ}\text{C}$

3. Power input : Power input is according to Eurovent rating standard 6/C/003-2006.

4. Peak value : Tested without defrost operation in accordance with EN14511

5. Integrated value : Tested with defrost operation in accordance with EN14511

2. Capacity Tables

2-1. RC090/120/140/160MHXE* (1 Phase)

2) Maximum Heating Capacity (Integrated Value)

LWT (Leaving Water Temp.), Tamb (Ambient Temp.), HC (Heating Capacity), PI (Power input)

RC090MHXE*	LWT (°C)	30		35		40		45		50		55	
	Tamb (°C)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)
	-20	4.55	2.94	4.56	3.18	4.58	3.42						
	-10	7.06	3.06	7.08	3.31	7.10	3.57	7.13	3.82	7.15	4.07	7.17	4.32
	-7	7.52	3.10	7.54	3.35	7.57	3.61	7.59	3.86	7.62	4.12	7.64	4.37
	2	7.02	2.30	6.85	2.48	6.68	2.66	6.51	2.84	6.34	3.02	6.17	3.20
	7	9.30	1.88	9.00	2.09	8.70	2.30	8.40	2.51	8.10	2.72	7.80	2.93
	15	10.72	1.83	10.38	2.03	10.03	2.24	9.69	2.44	9.34	2.64	8.99	2.85
	20	12.29	1.82	11.89	2.03	11.49	2.23	11.10	2.43	10.70	2.64	10.30	2.84
RC120MHXE*	LWT (°C)	30		35		40		45		50		55	
	Tamb (°C)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)
	-20	7.21	3.11	7.14	3.68	7.06	4.25						
	-10	9.05	3.24	8.96	3.83	8.86	4.42	8.77	5.01	8.68	5.60	8.58	6.19
	-7	9.68	3.28	9.58	3.87	9.48	4.47	9.38	5.06	9.28	5.66	9.18	6.25
	2	8.92	2.44	8.82	2.78	8.72	3.12	8.62	3.46	8.52	3.80	8.42	4.14
	7	12.30	2.29	12.00	2.61	11.70	2.94	11.40	3.26	11.10	3.59	10.80	3.91
	15	14.13	2.23	13.79	2.55	13.44	2.87	13.10	3.19	12.75	3.51	12.41	3.82
	20	16.15	2.22	15.76	2.54	15.36	2.85	14.97	3.17	14.57	3.48	14.18	3.80
RC140MHXE*	LWT (°C)	30		35		40		45		50		55	
	Tamb (°C)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)
	-20	8.63	4.37	8.49	4.74	8.36	5.10						
	-10	10.83	4.55	10.66	4.93	10.49	5.31	10.31	5.68	10.14	6.06	9.97	6.44
	-7	11.59	4.60	11.40	4.98	11.22	5.36	11.03	5.74	10.85	6.12	10.66	6.50
	2	10.55	2.98	10.32	3.35	10.10	3.72	9.87	4.09	9.65	4.46	9.42	4.83
	7	14.45	2.91	14.00	3.22	13.55	3.54	13.10	3.85	12.65	4.17	12.20	4.48
	15	16.60	2.84	16.09	3.15	15.57	3.46	15.05	3.77	14.53	4.07	14.02	4.38
	20	18.97	2.82	18.38	3.13	17.79	3.44	17.20	3.74	16.61	4.05	16.02	4.35
RC160MHXE*	LWT (°C)	30		35		40		45		50		55	
	Tamb (°C)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)
	-20	9.25	5.15	9.15	5.36	9.05	5.57						
	-10	11.61	5.37	11.48	5.58	11.36	5.80	11.23	6.02	11.10	6.24	10.98	6.45
	-7	12.42	5.42	12.28	5.64	12.15	5.86	12.01	6.08	11.88	6.30	11.74	6.52
	2	11.14	3.35	11.07	3.78	11.01	4.22	10.94	4.65	10.88	5.09	10.81	5.52
	7	16.45	3.43	16.00	3.81	15.55	4.20	15.10	4.58	14.65	4.97	14.20	5.35
	15	18.90	3.35	18.38	3.73	17.87	4.10	17.35	4.48	16.83	4.86	16.32	5.23
	20	21.60	3.33	21.01	3.70	20.42	4.08	19.83	4.45	19.24	4.83	18.64	5.20

1. Heating capacity : Capacity is according to Eurovent rating standard 6/C/003-2006 and valid for heated water range $\Delta t = 3 \sim 8^{\circ}\text{C}$

2. Cooling capacity : Capacity is according to Eurovent rating standard 6/C/003-2006 and valid for chilled water range $\Delta t = 3 \sim 8^{\circ}\text{C}$

3. Power input : Power input is according to Eurovent rating standard 6/C/003-2006.

4. Peak value : Tested without defrost operation in accordance with EN14511

5. Integrated value : Tested with defrost operation in accordance with EN14511

2. Capacity Tables

2-1. RC090/120/140/160MHXE* (1 Phase)

3) Maximum Cooling Capacity

LWT (Leaving Water Temp.), Tamb (Ambient Temp.), CC (Cooling Capacity), PI (Power input)

RC090MHXE*	Tamb (°C)	20		25		30		35		40		45	
	LWT (°C)	CC(kW)	PI(kW)	CC(kW)	PI(kW)	CC(kW)	PI(kW)	CC(kW)	PI(kW)	CC(kW)	PI(kW)	CC(kW)	PI(kW)
	7	8.44	2.32	8.30	2.46	7.98	2.59	7.50	2.73	6.68	2.70	5.89	2.96
	10	9.21	2.35	9.05	2.49	8.71	2.63	8.18	2.77	7.29	2.73	6.42	3.00
	13	9.97	2.38	9.81	2.52	9.44	2.66	8.86	2.80	7.89	2.77	6.96	3.04
	15	10.48	2.40	10.31	2.54	9.92	2.68	9.32	2.82	8.30	2.79	7.31	3.07
	18	11.25	2.43	11.06	2.57	10.65	2.72	10.00	2.86	8.90	2.82	7.85	3.11
	21	12.02	2.46	11.82	2.60	11.37	2.75	10.68	2.90	9.51	2.86	8.38	3.14
	25	13.04	2.50	12.82	2.65	12.34	2.79	11.59	2.94	10.32	2.91	9.10	3.20
RC120MHXE*	Tamb (°C)	20		25		30		35		40		45	
	LWT (°C)	CC(kW)	PI(kW)	CC(kW)	PI(kW)	CC(kW)	PI(kW)	CC(kW)	PI(kW)	CC(kW)	PI(kW)	CC(kW)	PI(kW)
	7	11.28	2.76	11.15	3.00	10.73	3.34	10.00	3.77	9.26	4.08	7.86	4.10
	10	12.78	2.82	12.43	3.06	11.77	3.40	10.82	3.84	9.92	4.13	8.49	4.13
	13	14.28	2.89	13.83	3.12	13.07	3.46	12.02	3.90	10.89	4.18	9.12	4.16
	15	15.28	2.93	14.77	3.16	13.96	3.50	12.85	3.94	11.62	4.23	9.53	4.19
	18	16.78	2.99	15.99	3.23	14.89	3.56	13.50	4.07	11.93	4.27	10.16	4.22
	21	18.28	3.06	17.47	3.29	16.37	3.62	14.96	4.05	13.54	4.34	10.79	4.25
	25	20.28	3.14	19.32	3.37	17.86	3.70	16.51	4.13	14.91	4.47	11.62	4.30
RC140MHXE*	Tamb (°C)	20		25		30		35		40		45	
	LWT (°C)	CC(kW)	PI(kW)	CC(kW)	PI(kW)	CC(kW)	PI(kW)	CC(kW)	PI(kW)	CC(kW)	PI(kW)	CC(kW)	PI(kW)
	7	13.91	3.90	13.74	4.23	13.27	4.61	12.50	5.06	11.09	4.91	9.75	5.50
	10	15.43	3.94	15.17	4.28	14.41	4.71	13.45	5.18	11.98	4.95	10.39	5.50
	13	16.95	3.99	16.54	4.34	15.82	4.77	14.81	5.25	13.09	4.99	11.03	5.51
	15	18.00	4.04	17.54	4.39	16.79	4.82	15.74	5.30	14.03	5.03	11.46	5.52
	18	19.52	4.10	18.64	4.45	17.47	4.89	16.00	5.33	14.15	5.13	12.10	5.60
	21	21.36	4.15	20.58	4.52	19.51	5.02	18.14	5.49	15.95	5.25	12.74	5.60
	25	23.17	4.22	22.42	4.63	21.34	5.18	20.35	5.66	17.84	5.50	13.59	5.61
RC160MHXE*	Tamb (°C)	20		25		30		35		40		45	
	LWT (°C)	CC(kW)	PI(kW)	CC(kW)	PI(kW)	CC(kW)	PI(kW)	CC(kW)	PI(kW)	CC(kW)	PI(kW)	CC(kW)	PI(kW)
	7	14.74	4.55	14.49	4.82	13.95	5.09	13.10	5.35	11.67	5.29	10.28	5.82
	10	16.08	4.59	15.84	4.89	15.10	5.19	14.16	5.49	12.58	5.37	10.96	5.82
	13	17.42	4.64	17.10	4.96	16.47	5.29	15.55	5.62	13.85	5.44	11.63	5.83
	15	18.31	4.70	18.08	5.03	17.56	5.37	16.73	5.70	14.73	5.48	12.08	5.84
	18	19.65	4.75	19.07	5.11	18.18	5.47	17.00	5.86	14.83	5.59	12.76	5.85
	21	21.83	4.81	21.24	5.19	20.34	5.58	19.15	5.97	16.73	5.72	13.44	5.85
	25	23.86	4.88	23.76	5.20	22.63	5.71	21.84	6.14	18.63	6.04	14.34	5.87

1. Heating capacity : Capacity is according to Eurovent rating standard 6/C/003-2006 and valid for heated water range $\Delta t = 3 \sim 8^{\circ}\text{C}$
2. Cooling capacity : Capacity is according to Eurovent rating standard 6/C/003-2006 and valid for chilled water range $\Delta t = 3 \sim 8^{\circ}\text{C}$
3. Power input : Power input is according to Eurovent rating standard 6/C/003-2006.

2. Capacity Tables

2-2. RC120/140/160MHXG* (3 Phase)

1) Maximum Heating Capacity (Peak Value)

LWT (Leaving Water Temp.), Tamb (Ambient Temp.), HC (Heating Capacity), PI (Power input)

RC120MHXGA	LWT (°C)	30		35		40		45		50		55	
	Tamb (°C)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)
	-20	8.44	3.18	8.35	3.75	8.26	4.33						
	-10	10.59	3.31	10.48	3.91	10.37	4.51	10.26	5.11	10.15	5.71	10.13	6.37
	-7	11.33	3.34	11.21	3.95	11.09	4.55	10.97	5.16	10.86	5.77	10.74	6.38
	2	10.79	2.59	10.67	2.95	10.55	3.31	10.43	3.67	10.31	4.03	10.19	4.39
	7	12.30	2.29	12.00	2.61	11.70	2.94	11.40	3.26	11.10	3.59	10.80	3.91
	15	14.13	2.23	13.79	2.55	13.44	2.87	13.10	3.19	12.75	3.51	12.41	3.82
	20	16.15	2.22	15.76	2.54	15.36	2.85	14.97	3.17	14.57	3.48	14.18	3.80
RC140MHXGA	LWT (°C)	30		35		40		45		50		55	
	Tamb (°C)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)
	-20	10.18	4.51	10.02	4.88	9.86	5.25						
	-10	12.78	4.69	12.58	5.08	12.37	5.47	12.17	5.85	11.97	6.24	11.76	6.63
	-7	13.67	4.74	13.45	5.13	13.23	5.52	13.02	5.91	12.80	6.30	12.58	6.70
	2	13.08	3.28	12.80	3.69	12.52	4.09	12.24	4.50	11.96	4.91	11.68	5.31
	7	14.45	2.91	14.00	3.22	13.55	3.54	13.10	3.85	12.65	4.17	12.20	4.48
	15	16.60	2.84	16.09	3.15	15.57	3.46	15.05	3.77	14.53	4.07	14.02	4.38
	20	18.97	2.82	18.38	3.13	17.79	3.44	17.20	3.74	16.61	4.05	16.02	4.35
RC160MHXGA	LWT (°C)	30		35		40		45		50		55	
	Tamb (°C)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)
	-20	11.10	5.31	10.98	5.52	10.86	5.74						
	-10	13.93	5.53	13.78	5.75	13.63	5.98	13.48	6.20	13.32	6.42	13.17	6.65
	-7	14.90	5.58	14.74	5.81	14.57	6.04	14.41	6.26	14.25	6.49	14.09	6.72
	2	14.25	3.75	14.17	4.23	14.09	4.72	14.00	5.21	13.92	5.70	13.84	6.18
	7	16.45	3.43	16.00	3.81	15.55	4.20	15.10	4.58	14.65	4.97	14.20	5.35
	15	18.90	3.35	18.38	3.73	17.87	4.10	17.35	4.48	16.83	4.86	16.32	5.23
	20	21.60	3.33	21.01	3.70	20.42	4.08	19.83	4.45	19.24	4.83	18.64	5.20

1. Heating capacity : Capacity is according to Eurovent rating standard 6/C/003-2006 and valid for heated water range $\Delta t = 3 \sim 8^{\circ}\text{C}$
2. Cooling capacity : Capacity is according to Eurovent rating standard 6/C/003-2006 and valid for chilled water range $\Delta t = 3 \sim 8^{\circ}\text{C}$
3. Power input : Power input is according to Eurovent rating standard 6/C/003-2006.
4. Peak value : Tested without defrost operation in accordance with EN14511
5. Integrated value : Tested with defrost operation in accordance with EN14511

2. Capacity Tables

2-2. RC120/140/160MHXG* (3 Phase)

2) Maximum Heating Capacity (Integrated Value)

LWT (Leaving Water Temp.), Tamb (Ambient Temp.), HC (Heating Capacity), PI (Power input)

RC120MHXGA	LWT (°C)	30		35		40		45		50		55	
	Tamb (°C)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)
	-20	7.21	3.11	7.14	3.68	7.06	4.25						
	-10	9.05	3.24	8.96	3.83	8.86	4.42	8.77	5.01	8.68	5.60	8.58	6.19
	-7	9.68	3.28	9.58	3.87	9.48	4.47	9.38	5.06	9.28	5.66	9.18	6.25
	2	8.92	2.44	8.82	2.78	8.72	3.12	8.62	3.46	8.52	3.80	8.42	4.14
	7	12.30	2.29	12.00	2.61	11.70	2.94	11.40	3.26	11.10	3.59	10.80	3.91
	15	14.13	2.23	13.79	2.55	13.44	2.87	13.10	3.19	12.75	3.51	12.41	3.82
	20	16.15	2.22	15.76	2.54	15.36	2.85	14.97	3.17	14.57	3.48	14.18	3.80
6.45RC140MHXGA	LWT (°C)	30		35		40		45		50		55	
	Tamb (°C)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)
	-20	8.63	4.37	8.49	4.74	8.36	5.10						
	-10	10.83	4.55	10.66	4.93	10.49	5.31	10.31	5.68	10.14	6.06	9.97	6.44
	-7	11.59	4.60	11.40	4.98	11.22	5.36	11.03	5.74	10.85	6.12	10.66	6.50
	2	10.55	2.98	10.32	3.35	10.10	3.72	9.87	4.09	9.65	4.46	9.42	4.83
	7	14.45	2.91	14.00	3.22	13.55	3.54	13.10	3.85	12.65	4.17	12.20	4.48
	15	16.60	2.84	16.09	3.15	15.57	3.46	15.05	3.77	14.53	4.07	14.02	4.38
	20	18.97	2.82	18.38	3.13	17.79	3.44	17.20	3.74	16.61	4.05	16.02	4.35
RC160MHXGA	LWT (°C)	30		35		40		45		50		55	
	Tamb (°C)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)	HC(kW)	PI(kW)
	-20	9.25	5.15	9.15	5.36	9.05	5.57						
	-10	11.61	5.37	11.48	5.58	11.36	5.80	11.23	6.02	11.10	6.24	10.98	6.45
	-7	12.42	5.42	12.28	5.64	12.15	5.86	12.01	6.08	11.88	6.30	11.74	6.52
	2	11.14	3.35	11.07	3.78	11.01	4.22	10.94	4.65	10.88	5.09	10.81	5.52
	7	16.45	3.43	16.00	3.81	15.55	4.20	15.10	4.58	14.65	4.97	14.20	5.35
	15	18.90	3.35	18.38	3.73	17.87	4.10	17.35	4.48	16.83	4.86	16.32	5.23
	20	21.60	3.33	21.01	3.70	20.42	4.08	19.83	4.45	19.24	4.83	18.64	5.20

1. Heating capacity : Capacity is according to Eurovent rating standard 6/C/003-2006 and valid for heated water range $\Delta t = 3 \sim 8^{\circ}\text{C}$
2. Cooling capacity : Capacity is according to Eurovent rating standard 6/C/003-2006 and valid for chilled water range $\Delta t = 3 \sim 8^{\circ}\text{C}$
3. Power input : Power input is according to Eurovent rating standard 6/C/003-2006.
4. Peak value : Tested without defrost operation in accordance with EN14511
5. Integrated value : Tested with defrost operation in accordance with EN14511

2. Capacity Tables

2-2. RC120/140/160MHXG* (3 Phase)

3) Maximum Cooling Capacity

LWT (Leaving Water Temp.), Tamb (Ambient Temp.), CC (Cooling Capacity), PI (Power input)

RC120MHXGA	Tamb (°C)	20		25		30		35		40		45	
	LWT (°C)	CC(kW)	PI(kW)	CC(kW)	PI(kW)	CC(kW)	PI(kW)	CC(kW)	PI(kW)	CC(kW)	PI(kW)	CC(kW)	PI(kW)
	7	11.28	2.70	11.15	2.93	10.73	3.27	10.00	3.70	9.26	3.99	7.86	4.01
	10	12.78	2.76	12.43	2.99	11.77	3.33	10.82	3.76	9.92	4.04	8.49	4.04
	13	14.28	2.83	13.83	3.06	13.07	3.39	12.02	3.82	10.89	4.09	9.12	4.08
	15	15.28	2.87	14.77	3.10	13.96	3.42	12.85	3.85	11.62	4.14	9.53	4.10
	18	16.78	2.93	15.99	3.16	14.89	3.48	13.50	3.91	11.93	4.18	10.16	4.13
	21	18.28	2.99	17.47	3.22	16.37	3.54	14.96	3.97	13.54	4.25	10.79	4.16
	25	20.28	3.08	19.32	3.30	17.86	3.62	16.51	4.04	14.91	4.37	11.62	4.21
RC140MHXGA	Tamb (°C)	20		25		30		35		40		45	
	LWT (°C)	CC(kW)	PI(kW)	CC(kW)	PI(kW)	CC(kW)	PI(kW)	CC(kW)	PI(kW)	CC(kW)	PI(kW)	CC(kW)	PI(kW)
	7	13.91	3.82	13.74	4.14	13.27	4.51	12.50	5.00	11.09	4.80	9.75	5.38
	10	15.43	3.86	15.17	4.19	14.41	4.61	13.45	5.07	11.98	4.84	10.39	5.39
	13	16.95	3.90	16.54	4.24	15.82	4.66	14.81	5.14	13.09	4.88	11.03	5.39
	15	18.00	3.96	17.54	4.29	16.79	4.71	15.74	5.18	14.03	4.93	11.46	5.40
	18	19.52	4.01	18.64	4.35	17.47	4.79	16.00	5.25	14.15	5.02	12.10	5.47
	21	21.36	4.06	20.58	4.43	19.51	4.91	18.14	5.37	15.95	5.14	12.74	5.48
	25	23.17	4.13	22.42	4.53	21.34	5.07	20.35	5.54	17.84	5.38	13.59	5.49
RC160MHXGA	Tamb (°C)	20		25		30		35		40		45	
	LWT (°C)	CC(kW)	PI(kW)	CC(kW)	PI(kW)	CC(kW)	PI(kW)	CC(kW)	PI(kW)	CC(kW)	PI(kW)	CC(kW)	PI(kW)
	7	14.74	4.45	14.49	4.71	13.95	4.98	13.10	5.24	11.67	5.18	10.28	5.69
	10	16.08	4.49	15.84	4.78	15.10	5.08	14.16	5.37	12.58	5.26	10.96	5.70
	13	17.42	4.54	17.10	4.86	16.47	5.18	15.55	5.50	13.85	5.32	11.63	5.71
	15	18.31	4.60	18.08	4.92	17.56	5.25	16.73	5.58	14.73	5.36	12.08	5.71
	18	19.65	4.65	19.07	5.00	18.18	5.36	17.00	5.71	14.83	5.47	12.76	5.72
	21	21.83	4.71	21.24	5.08	20.34	5.46	19.15	5.84	16.73	5.60	13.44	5.73
	25	23.86	4.78	23.76	5.09	22.63	5.59	21.84	6.01	18.63	5.91	14.34	5.74

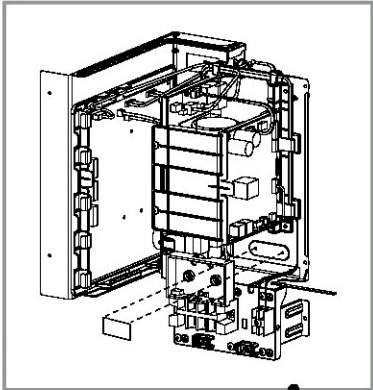
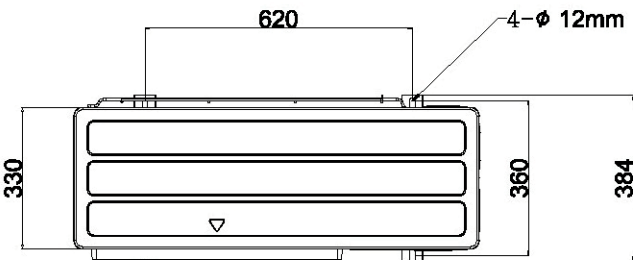
1. Heating capacity : Capacity is according to Eurovent rating standard 6/C/003-2006 and valid for heated water range $\Delta t = 3 \sim 8^{\circ}\text{C}$
2. Cooling capacity : Capacity is according to Eurovent rating standard 6/C/003-2006 and valid for chilled water range $\Delta t = 3 \sim 8^{\circ}\text{C}$
3. Power input : Power input is according to Eurovent rating standard 6/C/003-2006.

3. Dimensional Drawings

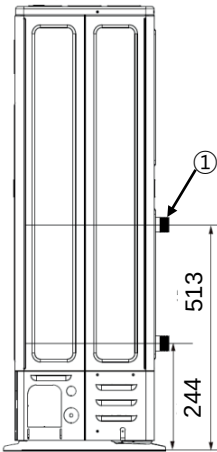
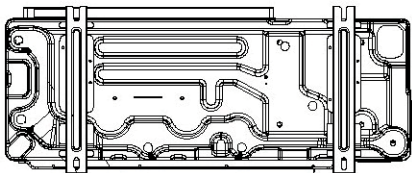
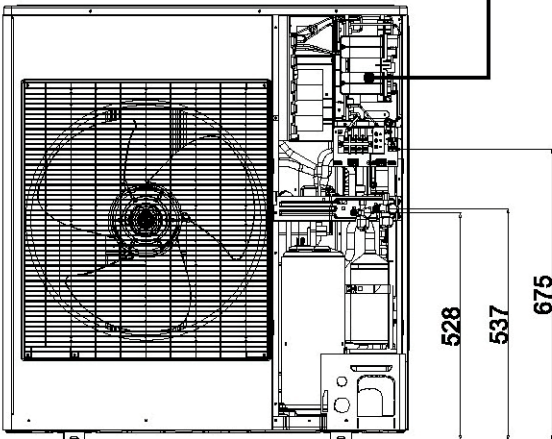
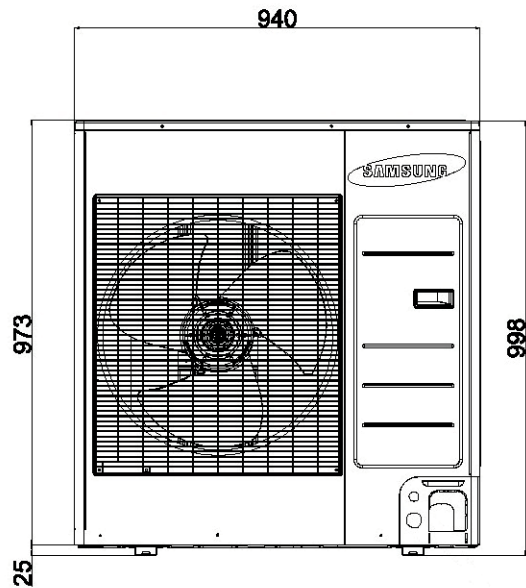
3-1. Outdoor Unit

1) RC090MHX*

(Unit : mm)



Interface Module
Installation (Option)



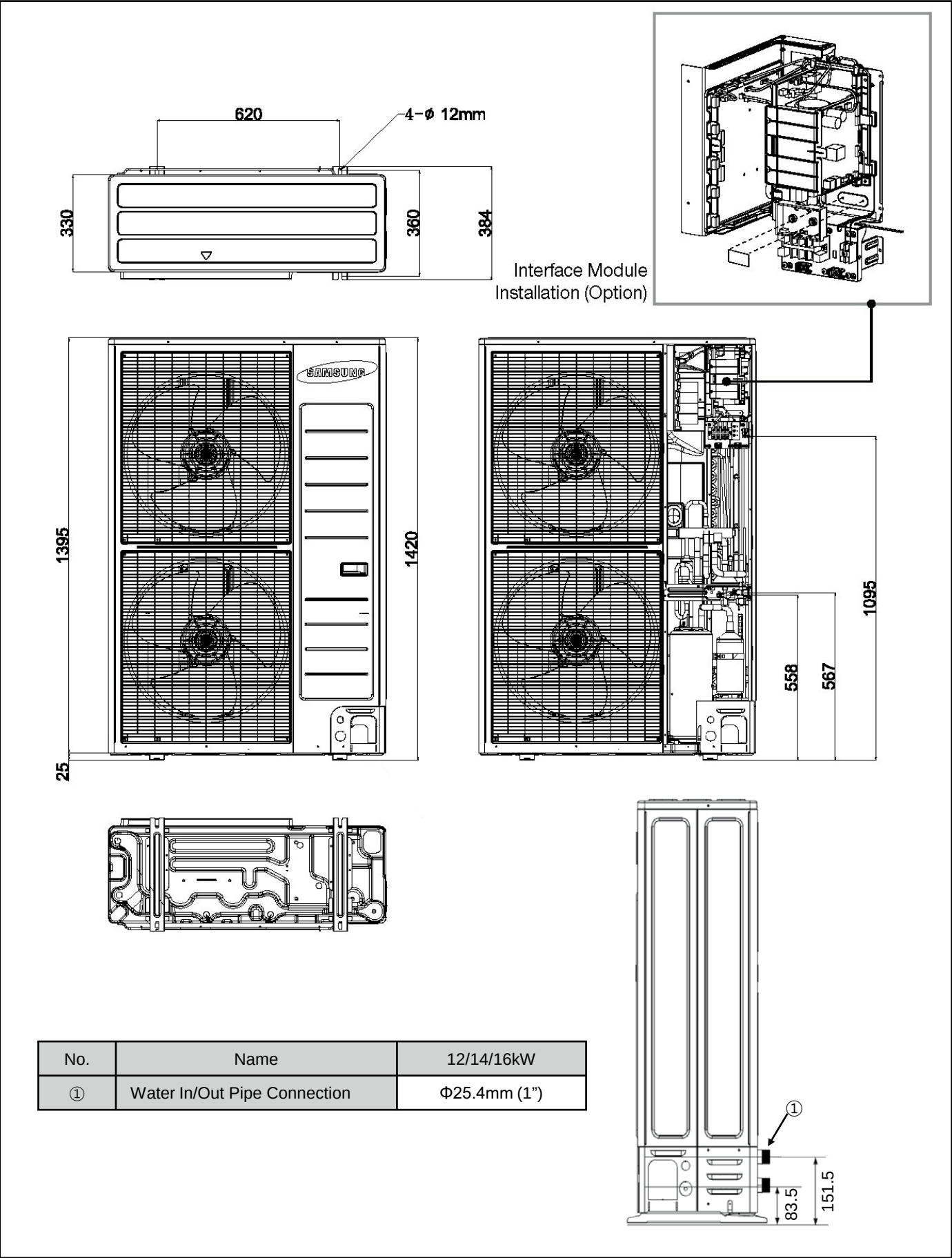
No.	Name	9kW
①	Water In/Out Pipe Connection	Φ25.4mm (1")

3. Dimensional Drawings

3-1. Outdoor Unit

2) RC120/140/160MHX*

(Unit : mm)

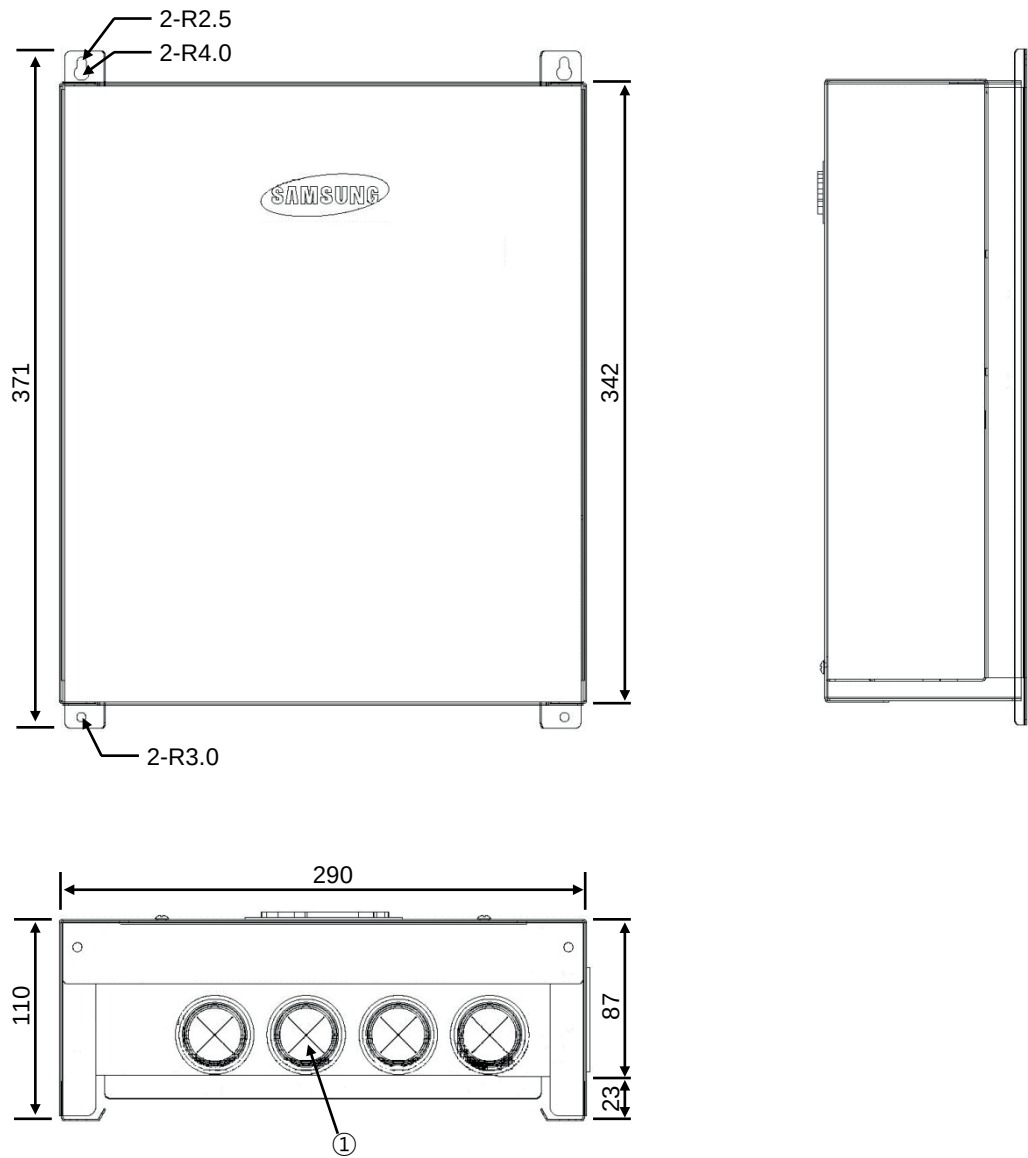


3. Dimensional Drawings

3-2. Control Kit

1) MIM-E03A

(Unit : mm)



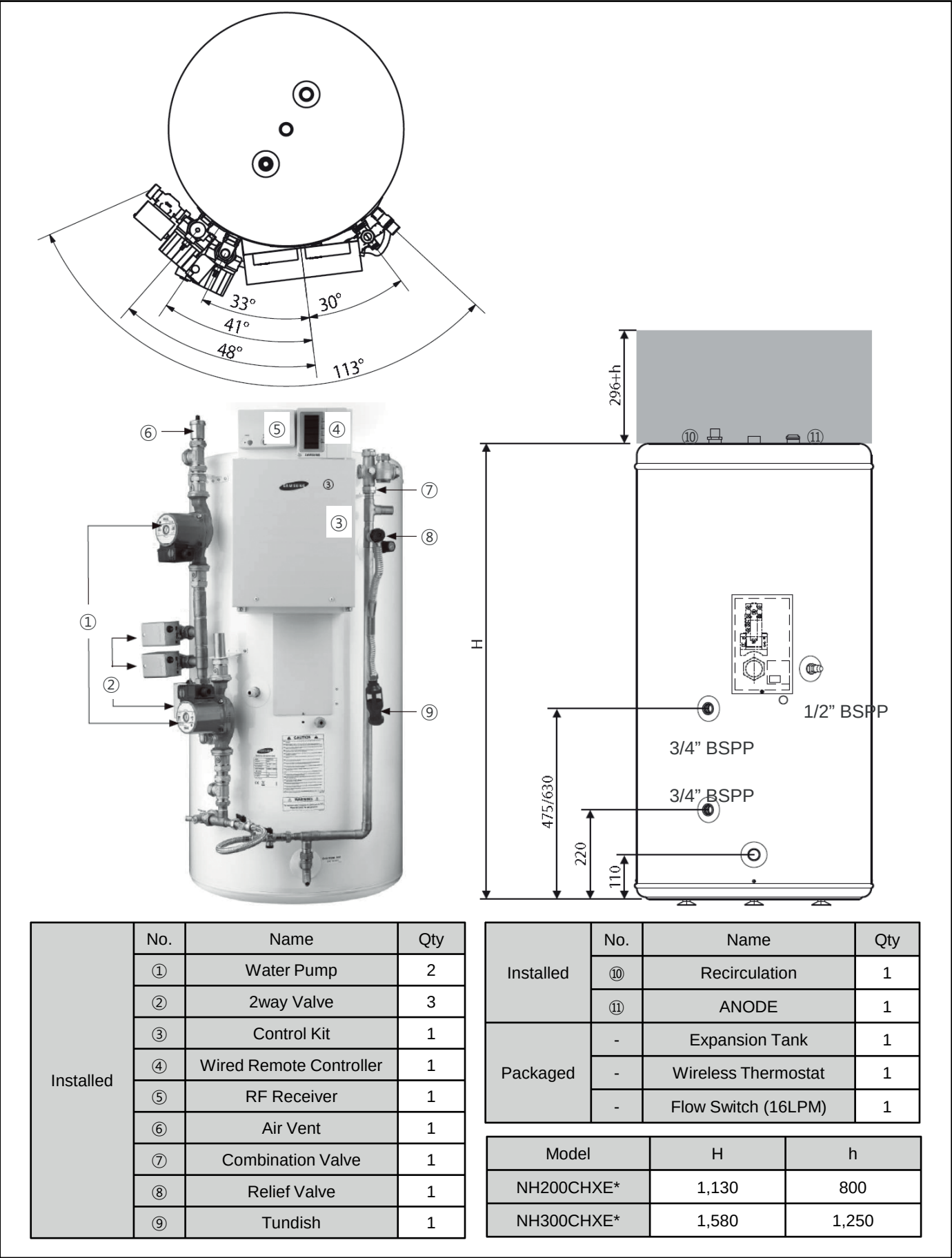
No.	Name	MIM-E03A
①	Conduit for Wiring (Rubber)	Φ27mm x 4

3. Dimensional Drawings

3-3. Cylinder Unit

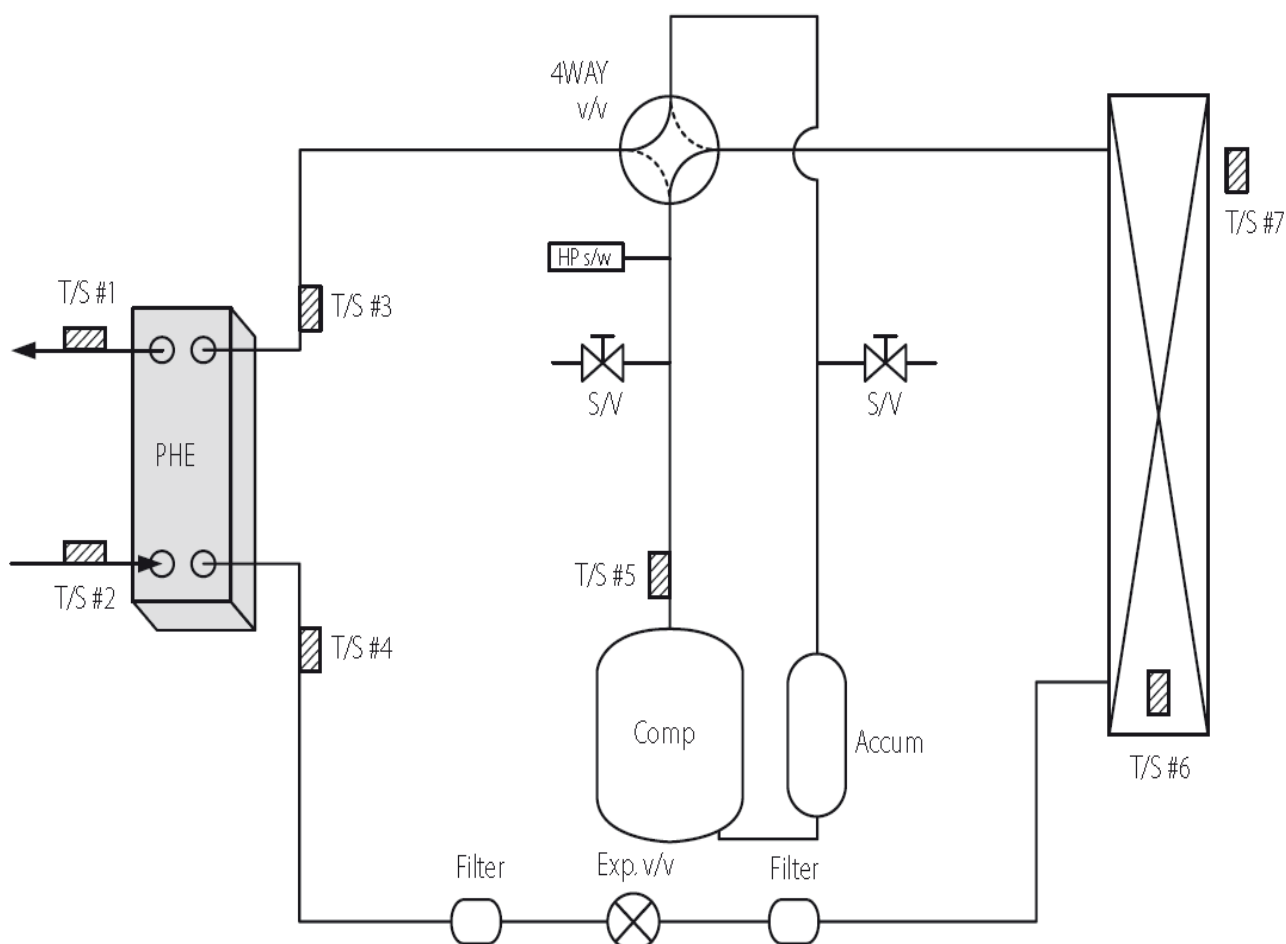
1) NH200/300CHX*

(Unit : mm)



4. Piping Diagrams

4-1. RC090/120/140/160MHX*

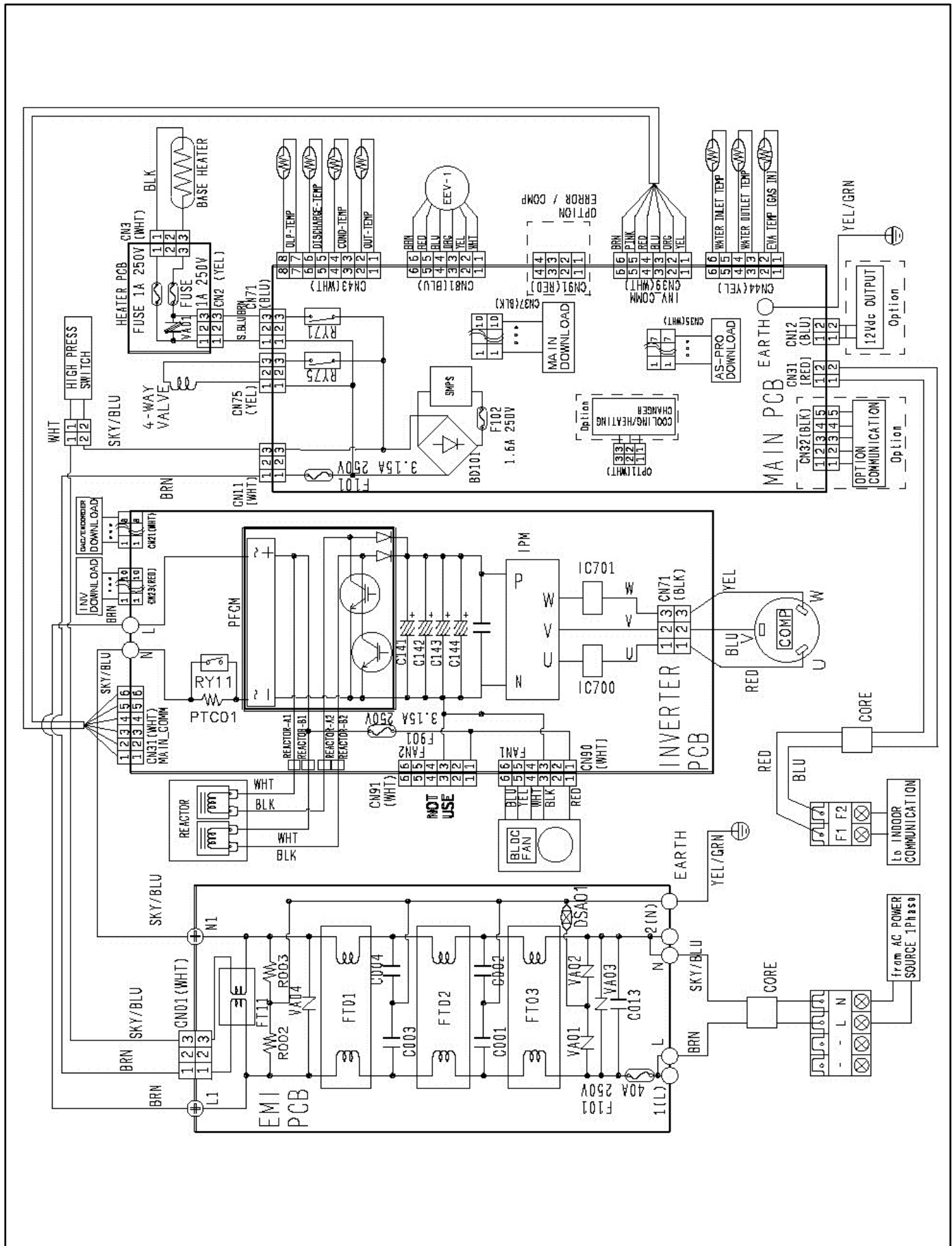


No.	Name	Description
①	PHE	Plate heat exchanger
②	T/S #1	For water outlet temperature sensor
③	T/S #2	For water inlet temperature sensor
④	T/S #3	For PHE in temperature sensor
⑤	T/S #4	For PHE out temperature sensor
⑥	T/S #5	For discharge temperature sensor
⑦	T/S #6	For condenser temperature sensor
⑧	T/S #7	For ambient temperature sensor
⑨	S/V	Service valve 1/4 inch
⑩	Accum.	Accumulator
⑪	Exp. v/v	Expansion valve
⑫	HP s/w	High pressure switch

5. Wiring Diagrams

5-1. Outdoor Unit

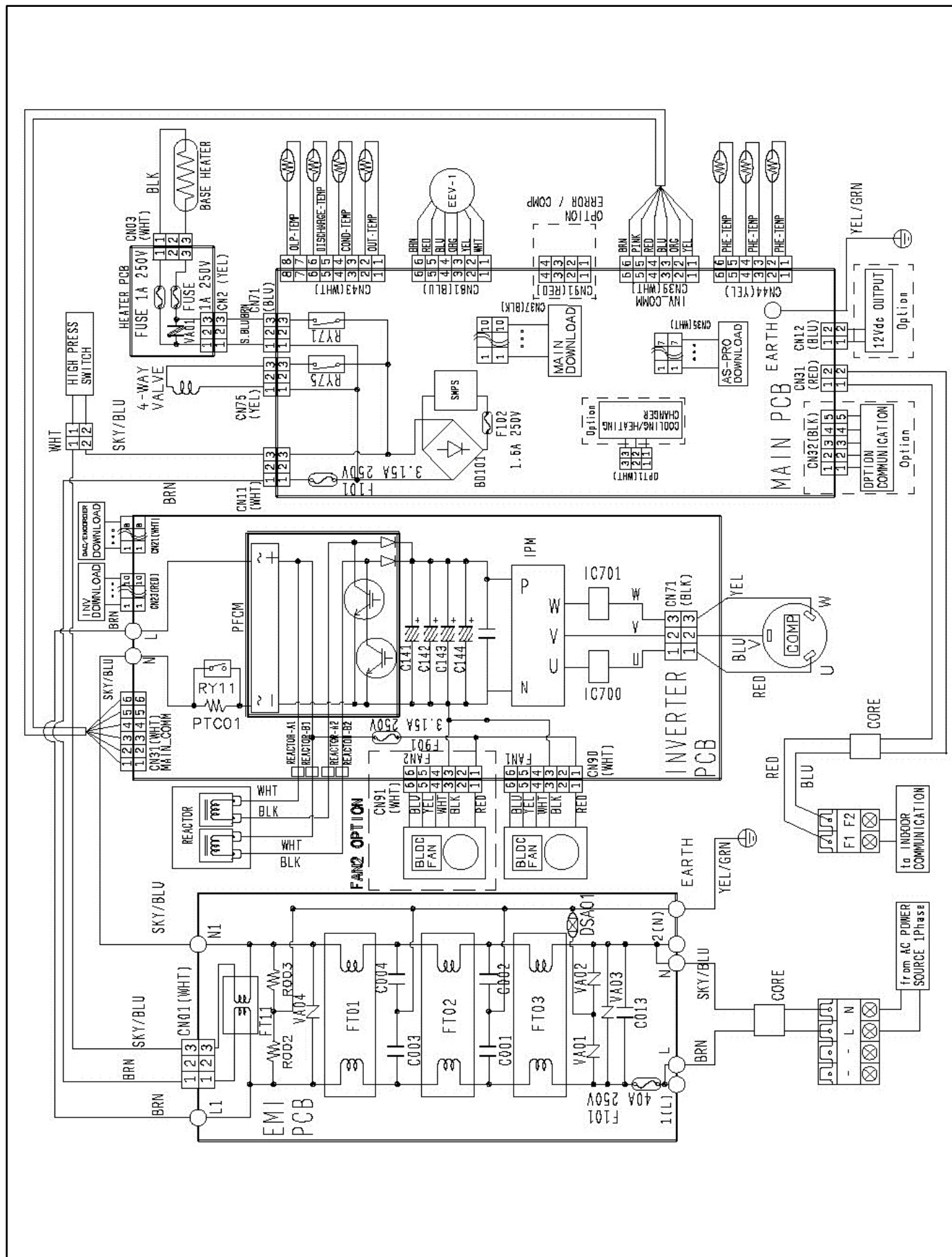
1) RC090MHXE*



5. Wiring Diagrams

5-1. Outdoor Unit

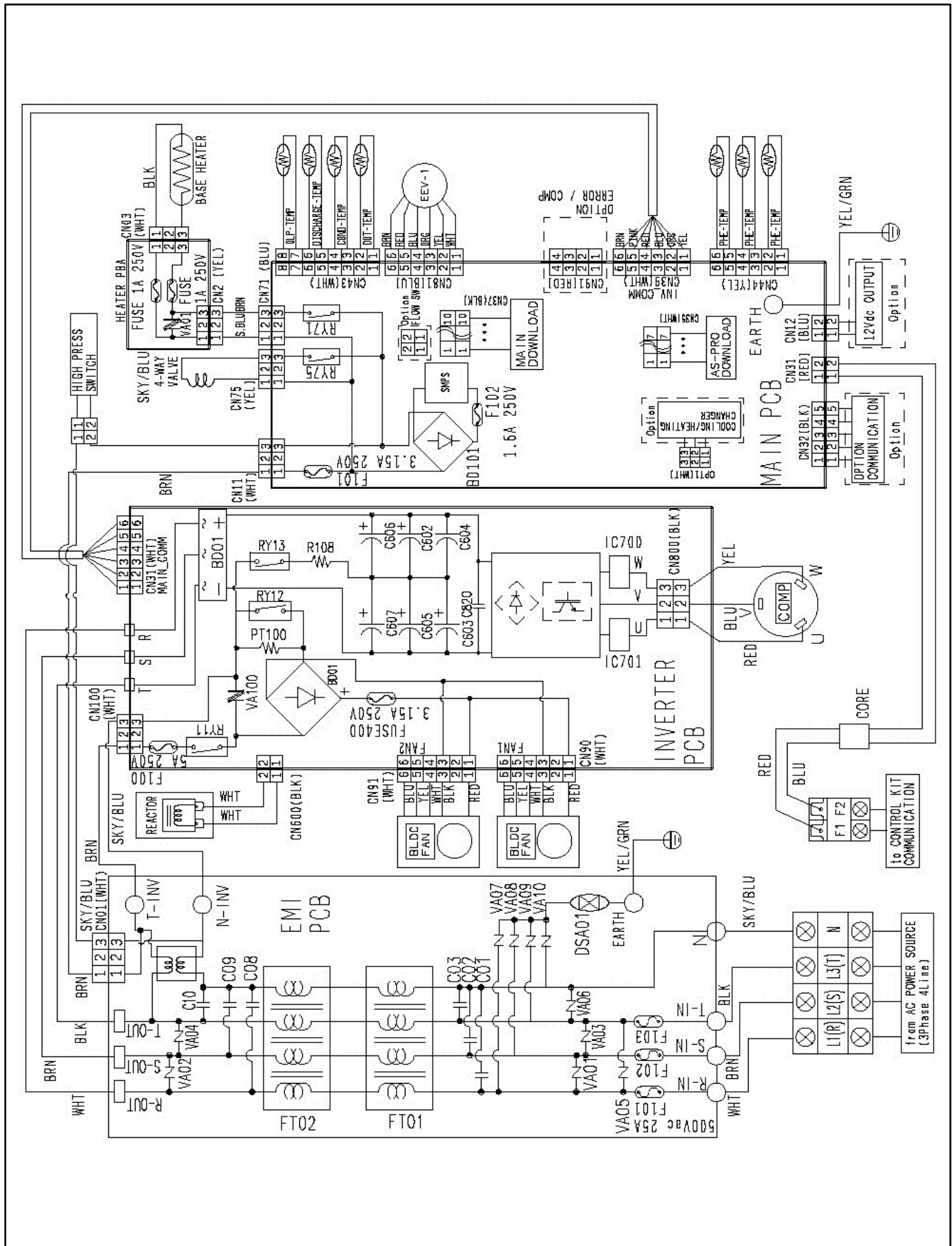
2) RC120/140/160MHXE*



5. Wiring Diagrams

5-1. Outdoor Unit

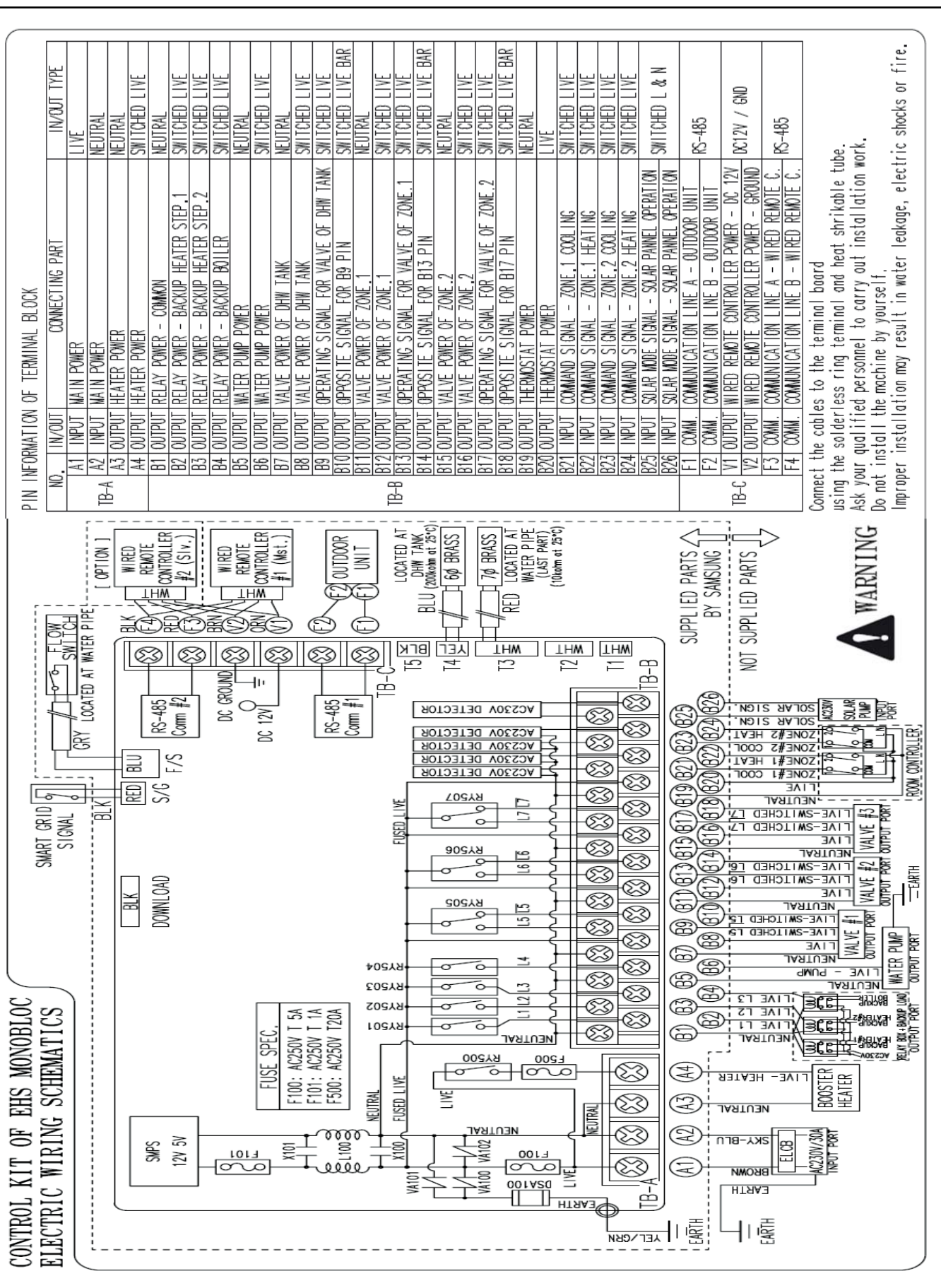
3) RC120/140/160MHXG*



5. Wiring Diagrams

5-2. Control Kit

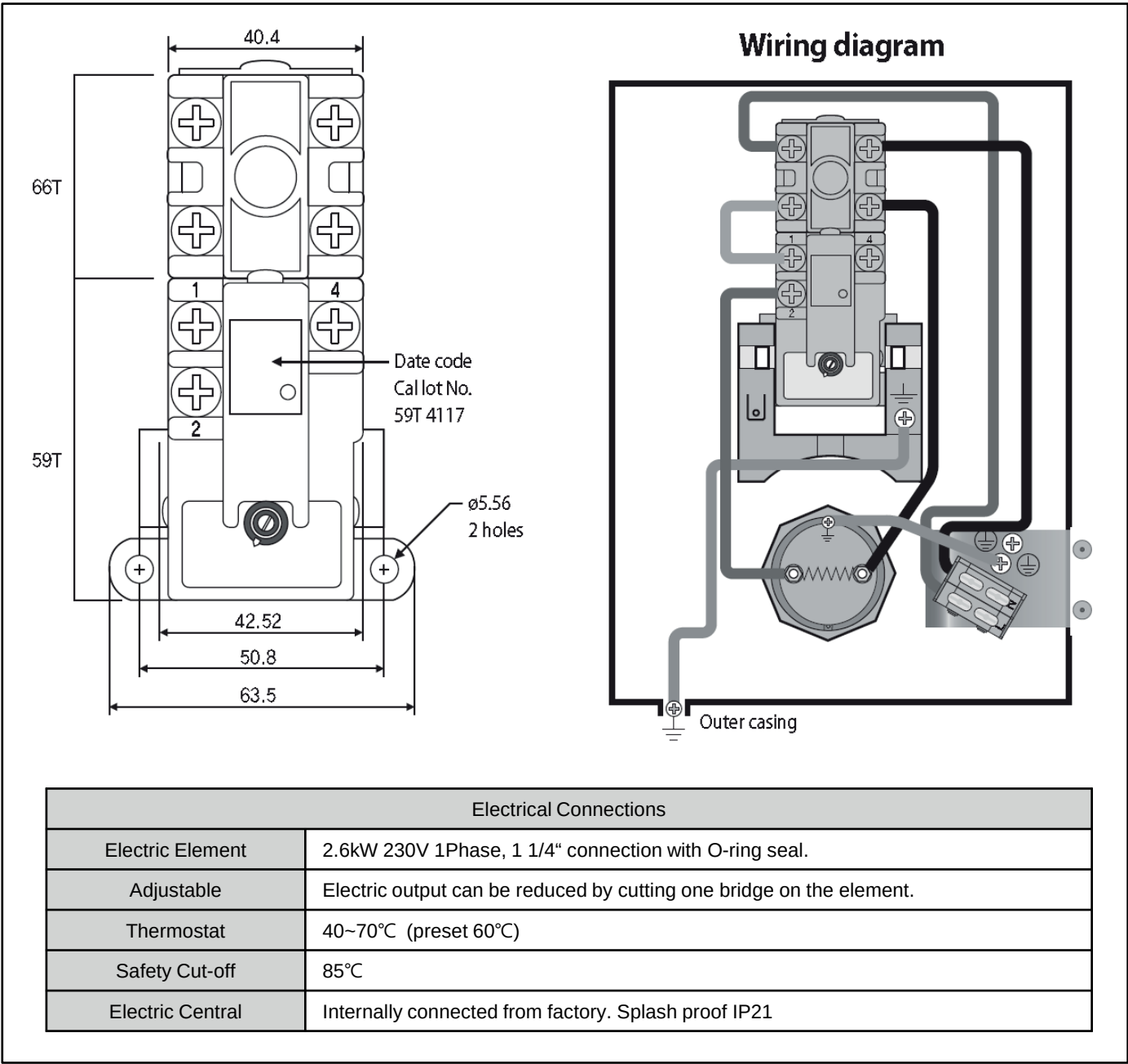
1) MIM-E03A



5. Wiring Diagrams

5-3. Cylinder Unit

1) NH200/300CHXE*



6. Electric Specifications

6-1. Outdoor Unit

Product	Model Name	Rated		Voltage Range		MCA	MFA	Fuse cut-off Current
		Hz	Volts	Min.	Max.			Total fuse in unit
Mono	RC090MHXE*	50	220-240	198	264	22.0	27.5	40A
	RC120MHXE*	50	220-240	198	264	28.0	35.0	40A
	RC140MHXE*	50	220-240	198	264	30.0	37.5	40A
	RC160MHXE*	50	220-240	198	264	32.0	40.0	40A
	RC120MHXG*	50	380-415	342	456.5	10.0	12.5	25A
	RC140MHXG*	50	380-415	342	456.5	11.0	13.8	25A
	RC160MHXG*	50	380-415	342	456.5	12.0	15.0	25A

※ Notes

- Voltage range
 - Units are suitable for use on electrical systems where voltage supplied to unit terminal is below or above listed range limits.
- Maximum allowable voltage variation between phases is 2%.
- Wire size & type must comply with the applicable local and national code.
 - Wire size : Based on the value of MCA.
 - Supply cords of parts of appliances for outdoor use shall not be lighter than polychloroprene sheathed flexible cord (Code designation IEC : 60245 IEC 57 / CENELEC : H05RN-F)
- MFA is used to select the circuit breaker and the ground fault circuit interrupter(earth leakage circuit breaker).
- MCA represents maximum input current.
- MFA represents capacity which may accept MCA.
- Equipment complying with IEC 61000-3-12.

※ Abbreviations

- MCA : Min. Circuit Amps. (A)
- MFA : Max. Fuse Amps. (A)

6-2. Control Kit

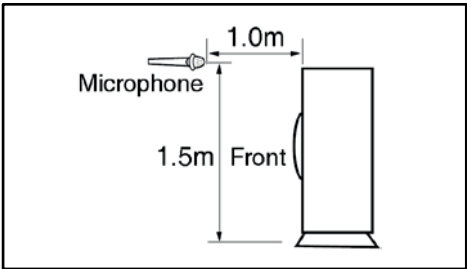
Product	Model Name	Load	Power supply	Power cable	Max. Length	Type GL
				mm ² , wires	m	A
Control Kit	MIM-E03A	No Heater (Water Pump, Valve, Wired RMC)	1Φ, 220~240V, 50Hz	1.5 / 3	< 10m	10
				2.5 / 3	10m < L< 20m	10
		Booster Heater (3kW)		4.0 / 3	< 10m	20
				6.0 / 3	10m < L< 20m	20
		Booster Heater (~3kW) + Backup Heater (~3kW)		6.0 / 3	< 10m	40
				8.0 / 3	10m < L< 20m	40

※ Notes

- For power cable, use the grade H07RN-F materials in 1Φ system.
- If you connect Backup Heater at separated power cable, you can reduce wire size. (Refer to the indoor unit installation manual)

7. Sound Pressure Level

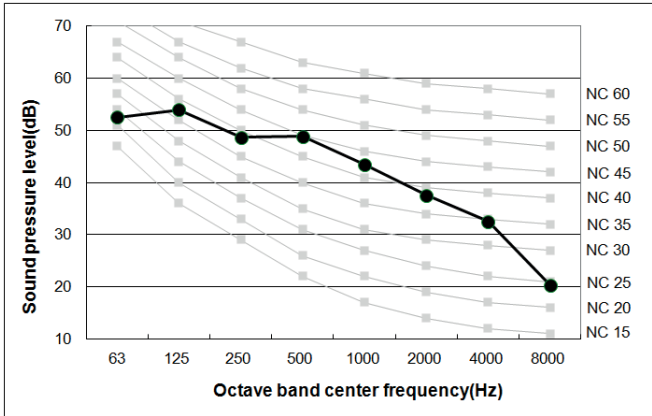
7-1. Operation Sound Level



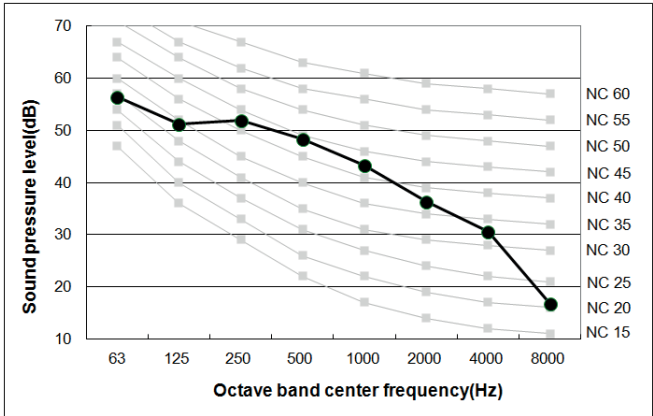
Model	Unit (dB(A))	
	Heating	Cooling
RC090MHX*	50	51
RC120MHX*	50	51
RC140MHX*	52	53
RC160MHX*	53	54

7-2. NC Curve

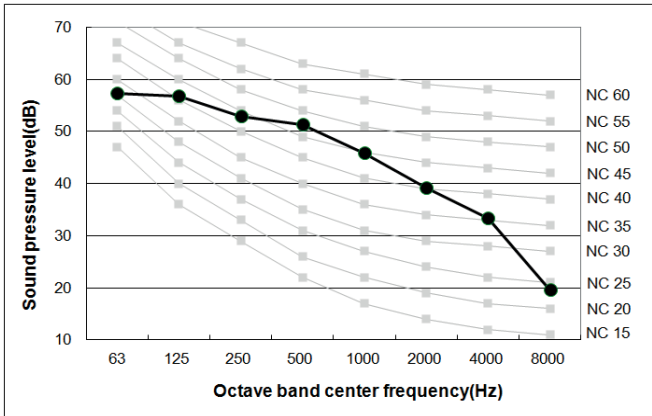
1) RC090MHX*



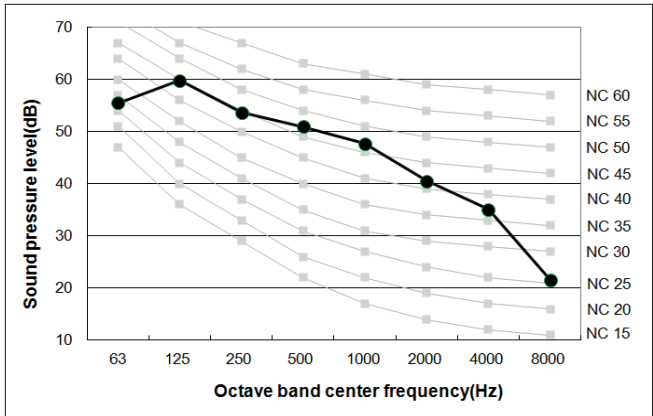
2) RC120MHX*



3) RC140MHX*



4) RC160MHX*



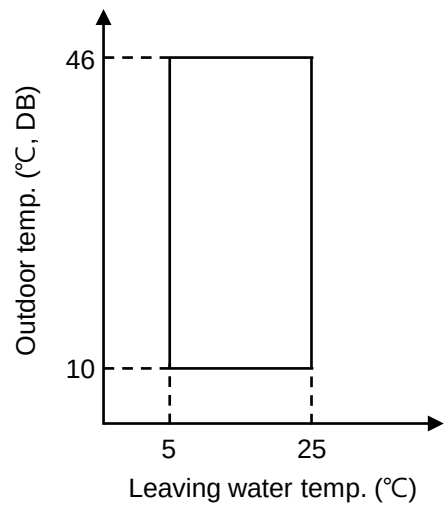
※ Notes

1. These operation sound value were obtained in an anechoic room. Sound pressure level will vary depending on a range of factors such as the construction of the particular room where the equipment is installed.
2. Operation sound level may differ depending on operation and ambient conditions.

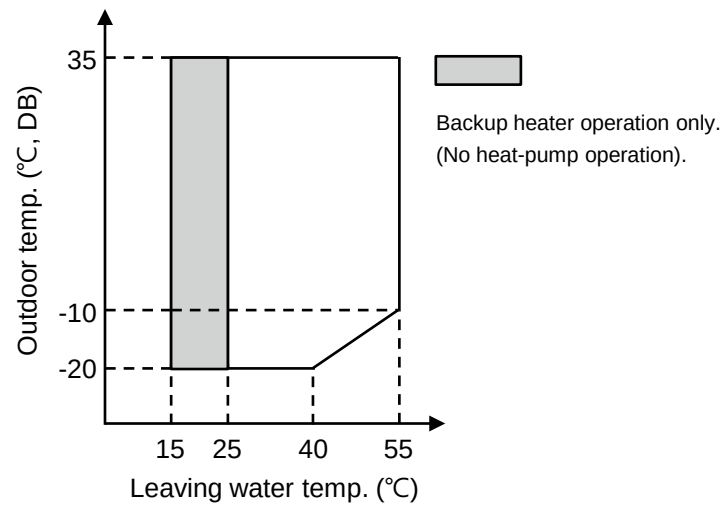
8. Operation Range

8-1. Outdoor Unit

1) Cooling



2) Heating



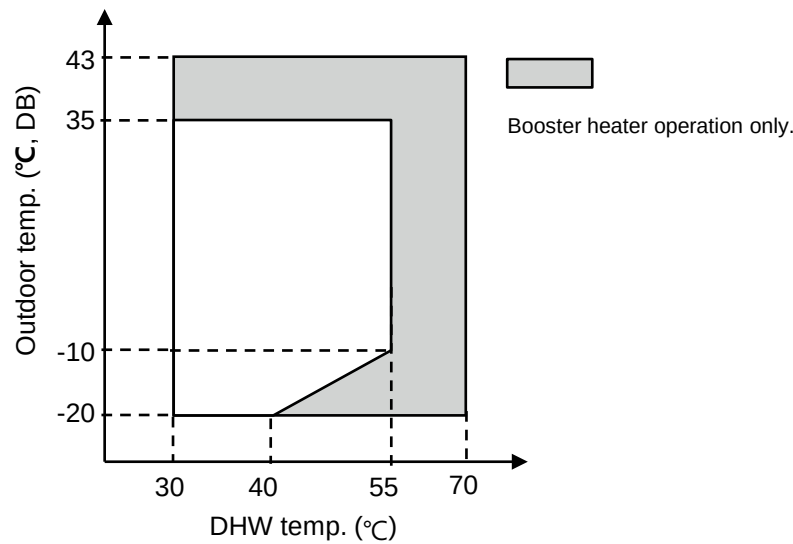
Outdoor Unit		Water Temp. (°C)			Water Flow Rates (LPM)			Air Temp. (°C, DB/WB)		
		Min	Std	Max	Min	Std	Max	Min	Std	Max
Controller	Cooling	5	-	25						
	Heating	15	-	55						
Cooling	Inlet	-	23 (12 ^{*2})	30	16 (12 ^{*1})	(Δ 5°C)	58 (42 ^{*1})	10/-	35/24	46/27
	Outlet	5	18 (7 ^{*2})	25						
Heating	Inlet	5	30 (40 ^{*2})	-				-20/-	7/6 (-7/-8 ^{*3})	35/24
	Outlet	25(15 ^{*4})	35 (45 ^{*2})	55						

*1) Figures in brackets are for 9kW model.
*2) Figures in brackets are based on Eurovent Test Condition #2
*3) Figures in brackets are based on NF PAC Low Temp. Heating Condition.
*4) Figures in brackets are based on back up heater operation only.

8. Operation Range

8-2. Cylinder Unit

1) DHW Mode

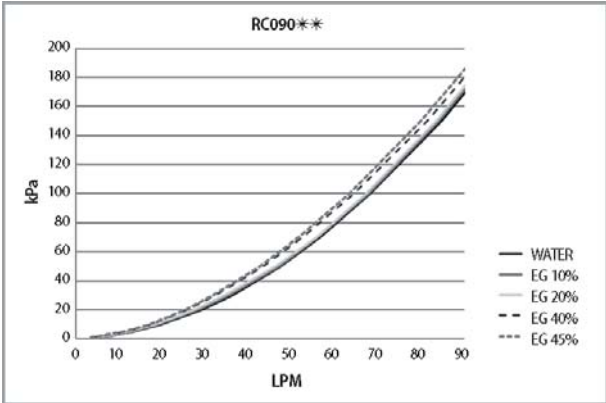


Cylinder Unit		Water Temp. (°C)			Water Flow Rates (LPM)			Air Temp. (°C, DB/WB)		
		Min	Std	Max	Min	Std	Max	Min	Std	Max
Controller	DHW	30	-	70						
Cooling	Outlet	30	-	70	-	-	-	-20/-	-	43/26

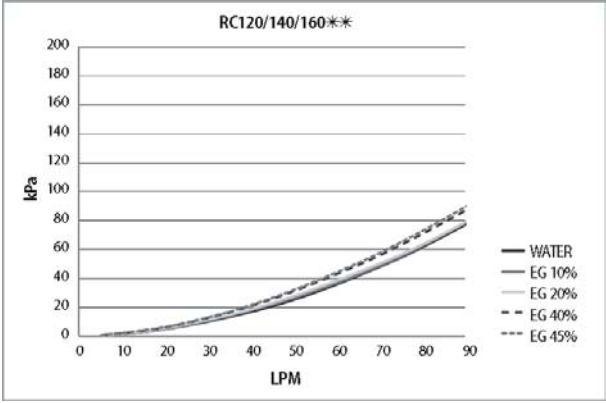
9. Hydraulic Performance

9-1. Correction Graph

1) RC090MHX*

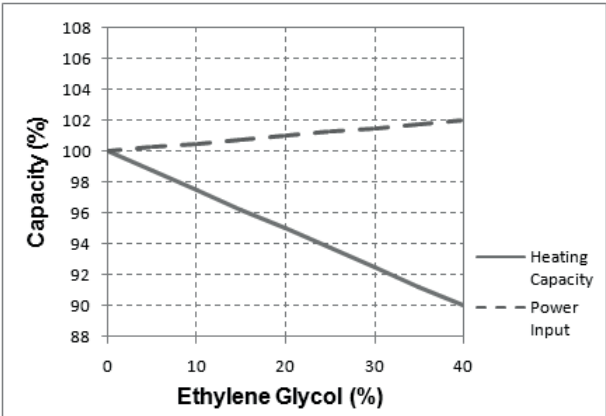


2) RC120/140/160MHX*

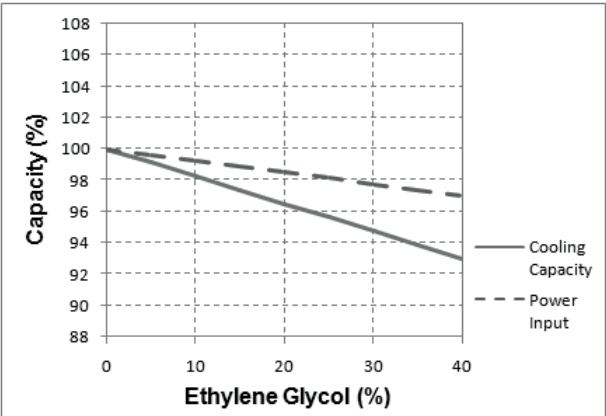


9-2. Capacity Correction

1) Heating



2) Cooling



- ※ Notes
- 1. To ensure correct operation and predict the expected performance, this graph can be used.
 - 2. Flow and resistance characteristic is dependent on anti-freezer concentration.
 - 3. Tested with Ethylene Glycol.

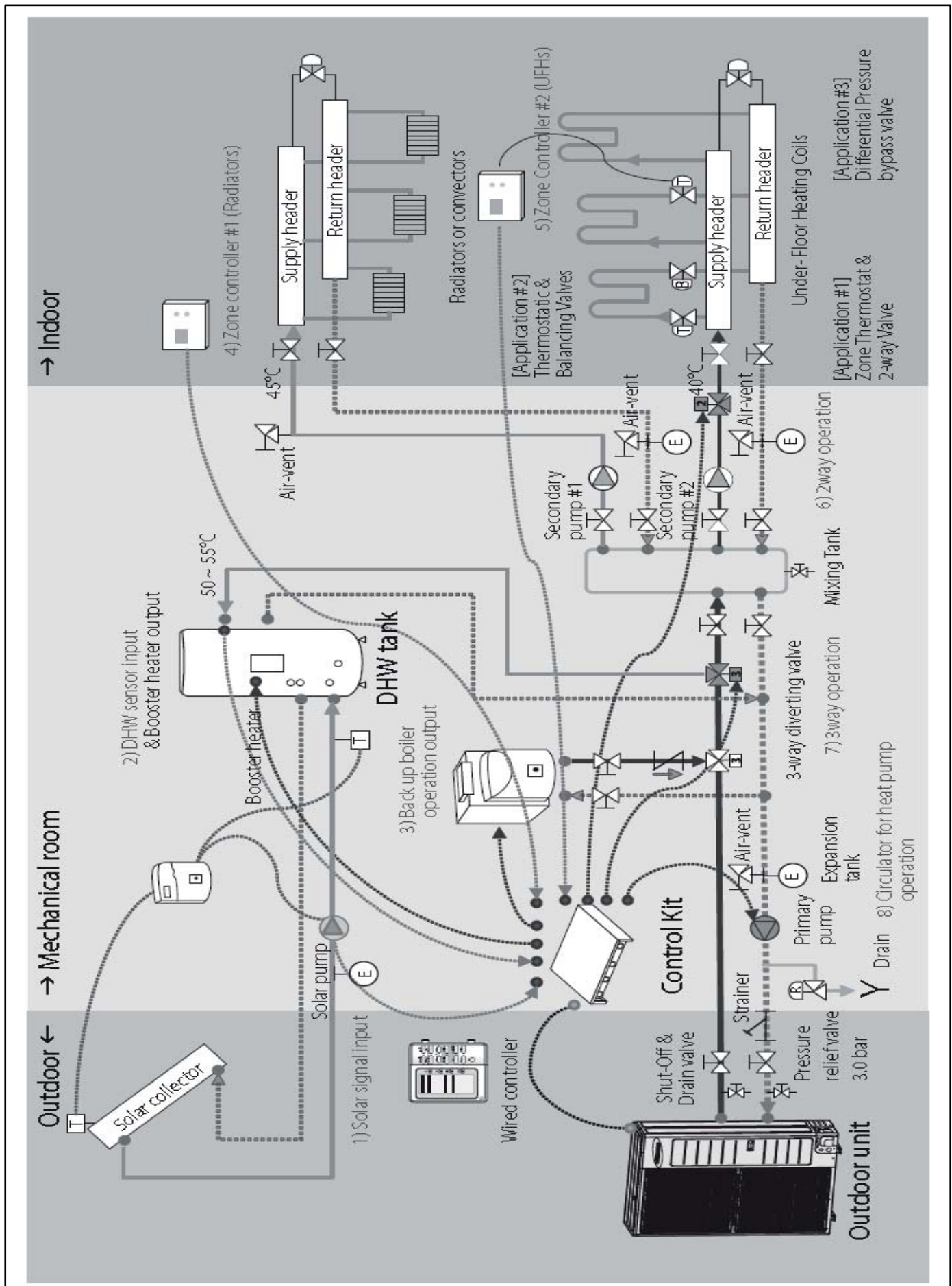
- ※ Abbreviations
- 1. EG : Ethylene Glycol

III. Application

1. Application Examples	35
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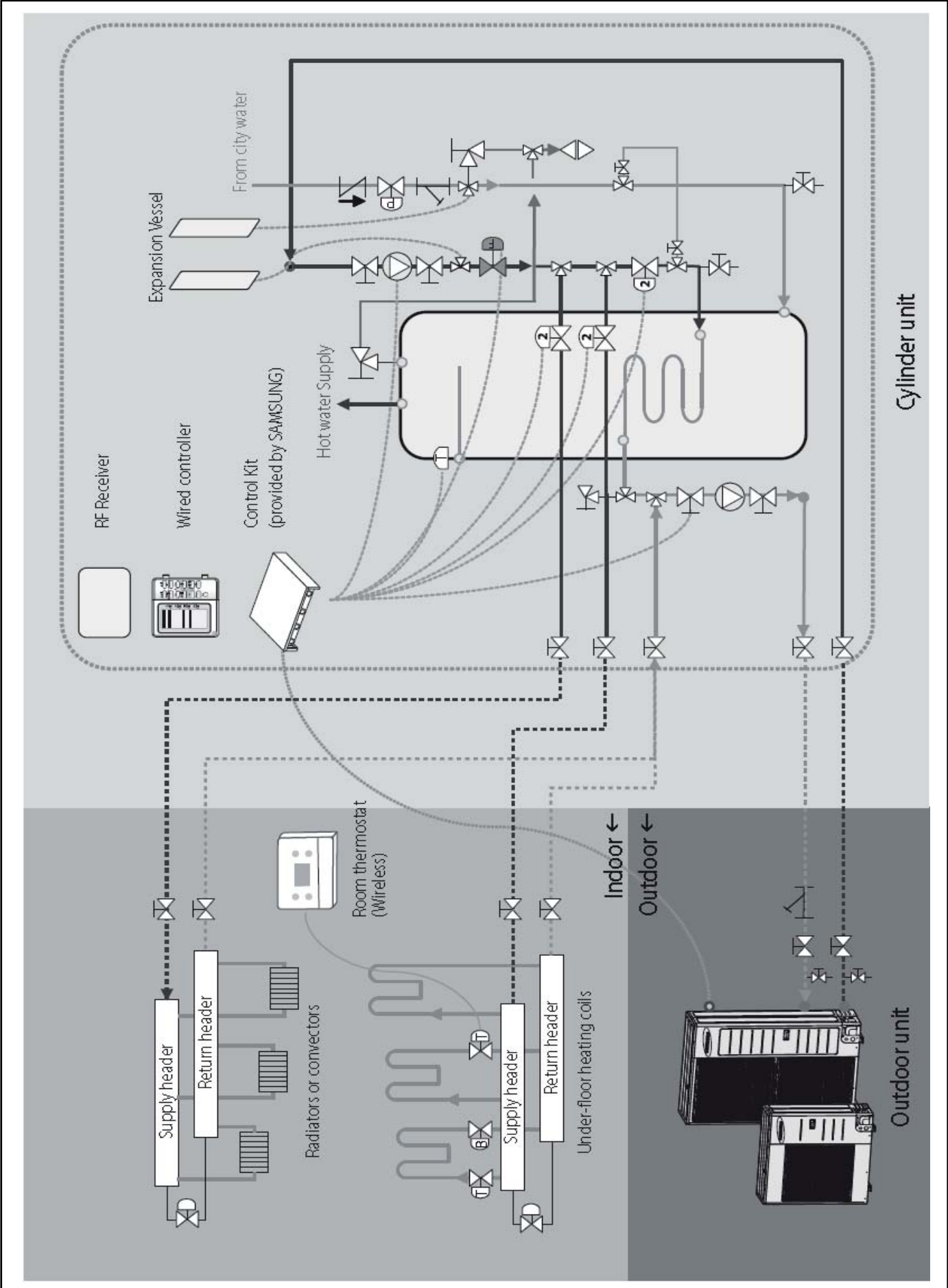
1. Application Examples

1-1. Outdoor Unit + Control Kit



1. Application Examples

2) Outdoor Unit + Cylinder Unit





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