

VPC/VRC W4M WATER

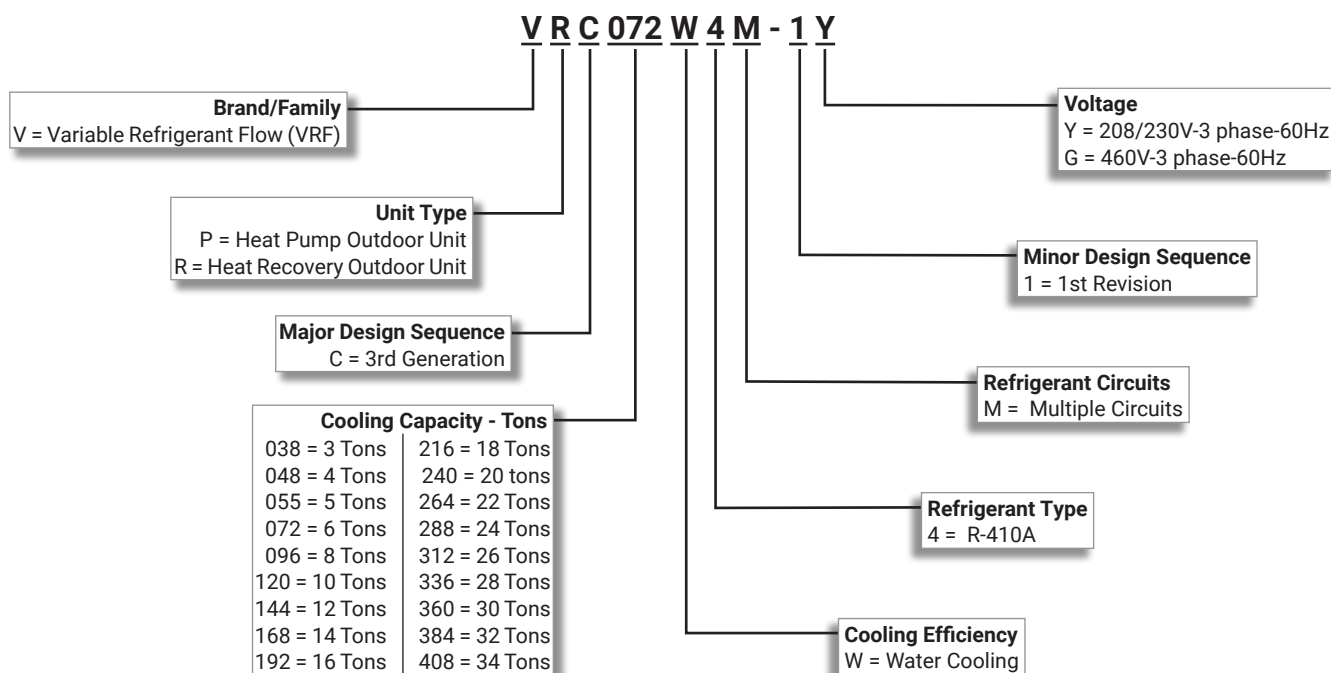
Heat Recovery / Heat Pump Outdoor Units | 208/230/460V | **R-410A** | 60Hz

3 to 34 tons

COMMERCIAL PRODUCT SPECIFICATIONS (EHB)


 ASHRAE
 Standard
90.1

MODEL NUMBER IDENTIFICATION



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Combinations

1) Outdoor units combination Table

System Model			Capacity (Ton)							
Capa. (Ton)	Model	No. of Modules	3	4	5	6	8	10	16	20
3	VPC038W4M-4P	1	1							
4	VPC048W4M-4P	1		1						
5	VPC055W4M-4P	1			1					

Premium energy efficiency type

System Model			Capacity (Ton)							
Capa.(Ton)	Model	No. of Modules	3	4	5	6	8	10	16	20
6	VRC072W4M-4*	1				1				
8	VRC096W4M-4*	1					1			
10	VRC120W4M-4*	1						1		
12	VRC144W4M-4*2	2				2				
14	VRC168W4M-4*2	2				1	1			
16	VRC192W4M-4*	1							1	
18	VRC216W4M-4*2	2					1	1		
22	VRC264W4M-4*2	2				1			1	
24	VRC288W4M-4*2	2					1		1	
28	VRC336W4M-4*3	3				2			1	
30	VRC360W4M-4*3	3				1	1		1	
32	VRC384W4M-4*3	3					2		1	

Combinations

1) Outdoor units combination Table

Premium compact type

System Model			Capacity (Ton)							
Capa.(Ton)	Model	No. of Modules	3	4	5	6	8	10	16	20
20	VRC240W4M-4*	1								1
26	VRC312W4M-4*2	2				1				1
28	VRC336W4M-4*2	2					1			1
30	VRC360W4M-4*2	2						1		1
34	VRC408W4M-4*3	3				1	1			1

NOTE

- Make sure to use an indoor unit that is compatible with Water-GEO.
- If the total capacity of the connected indoor units exceeds the indicated maximum capacity, cooling and heating capacity of the indoor unit may decrease.
- Total capacity of the connected indoor units can be allowed from 50% to 130% of the total outdoor unit capacity. $0.5 \times \Sigma(\text{Outdoor unit capacity}) \leq \text{Total capacity of the connected indoor units} \leq 1.3 \times \Sigma(\text{Outdoor unit capacity})$
- You can connect maximum 64 indoor units to the outdoor unit. Maximum quantity of connectable indoor unit is set to 64 since outdoor unit only support up to 64 communication address. Indoor unit address can be assigned from 0~63. If the indoor unit address was assigned from 64~79, E201 error will occur.
- Maximum 32 Wall-mount type indoor units with EEV can be connected.
- Do not install 1st-generation MCU and 2nd-generation MCU together.
 - 1st-generation MCU: MCU-S*NEE*N
 - 2nd-generation MCU: MSU-S*NEK2N, MCU-S4NEK3N, MCU-S1NEK1N

Specification

Type				Water	Water	Water	
Model Name				VPC038W4M-4P	VPC048W4M-4P	VPC055W4M-4P	
	Outdoor unit module 1			VPC038W4M-4P	VPC048W4M-4P	VPC055W4M-4P	
	Outdoor unit module 2						
	Outdoor unit module 3						
	Outdoor unit module 4						
Power Supply			ø, #, V, Hz	1, 2, 208~230, 60	1, 2, 208~230, 60	1, 2, 208~230, 60	
Mode			-	HP	HP	HP	
Performance	Ton		Ton	3	4	5	
	Capacity (Nominal) ^{1)*}	Cooling	Btu/h	38,200	47,800	54,600	
		Heating	Btu/h	42,600	54,600	61,400	
	Capacity (Rated) ^{2)*}	Cooling	Btu/h	38,000	48,000	54,500	
		Heating	Btu/h	42,000	54,000	61,000	
Maximum number of connectable indoor units			ea	6	8	9	
	Total capacity of the connected Indoor Units	Min.	Btu/h	19,100	23,900	27,300	
		Max.	Btu/h	49,700	62,100	71,000	
Power	Power Input (Nominal) ^{1)*}	Cooling	kW	2.09	2.66	3.27	
		Heating		2.03	2.70	3.18	
	Current	MCA	A	20	24	26	
		MOP		35	40	45	
Casing	Material	Body	-	EGI steel plate	EGI steel plate	EGI steel plate	
		Base	-	EGI steel plate	EGI steel plate	EGI steel plate	
Compressor	Type		-	Inverter Rotary	Inverter Rotary	Inverter Rotary	
	Output		kW × n	(2.82) x 1	(4.11) x 1	(4.11) x 1	
	Model Name		-	UG8T300FUBJUSG x 1	UG5T450FUEJXSG x 1	UG5T450FUEJXSG x 1	
	Oil	Type	-	PVE	PVE	PVE	
Initial Charge		Liter	1.2	1.7	1.7		
Condenser	Type		Type	PHE (Plate Heat Exchanger)	PHE (Plate Heat Exchanger)	PHE (Plate Heat Exchanger)	
	Pipe Size		ø, inch	NPT 1-1/4	NPT 1-1/4	NPT 1-1/4	
	Lost Head		kPa (ftAq)	25 (8.4)	20 (6.7)	28 (9.4)	
	Water Flow Rate		LPM (GPM)	40 (10.5)	50 (13.2)	60 (15.9)	
	Max. Pressure		Mpa (psi)	1.96 (285)	1.96 (285)	1.96 (285)	
Piping Connections	Liquid Pipe	Type		Braze connection	Braze connection	Braze connection	
		ø, mm		9.52	9.52	9.52	
		ø, inch		3/8	3/8	3/8	
	Gas Pipe	Type		Braze connection	Braze connection	Braze connection	
		ø, mm		15.88	19.05	19.05	
		ø, inch		5/8	3/4	3/4	
	Discharge Gas Pipe (HR)	ø, mm		-	-	-	
		ø, inch		-	-	-	
	Heat insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	
	Piping length (ODU-IDU)		Max.	m (ft)	75 (246)	75 (246)	75 (246)
	Piping length (1st Branch-IDU)		Max.	m (ft)	40 (131)	40 (131)	40 (131)
	Total piping length (System)		Max.	m (ft)	200 (656)	200 (656)	200 (656)
	Level difference (ODU in highest position)		Max.	m (ft)	30 (98)	30 (98)	30 (98)
	Level difference (IDU in highest position)		Max.	m (ft)	30 (98)	30 (98)	30 (98)
	Level difference (IDU-IDU)		Max.	m (ft)	15 (49)	15 (49)	15 (49)

Specification

Type				Water	Water	Water
Model Name				VPC038W4M-4P	VPC048W4M-4P	VPC055W4M-4P
	Outdoor unit module 1			VPC038W4M-4P	VPC048W4M-4P	VPC055W4M-4P
	Outdoor unit module 2					
	Outdoor unit module 3					
	Outdoor unit module 4					
Wiring connections	Communication	Min.	mm2	0.75	0.75	0.75
		Remark	-	F1, F2	F1, F2	F1, F2
Refrigerant	Type		-	R410A	R410A	R410A
	Factory Charging		kg (lbs)	1.1 (2.4)	1.6 (3.5)	1.6 (3.5)
Sound	Sound Pressure	Cooling	dB(A)	47	48	49
		Heating		49	50	51
	Sound Power			65	71	71
External Dimension	Net Weight		kg (lbs)	73 (161)	87 (191)	87 (191)
	Shipping Weight		kg (lbs)	80 (176)	94 (207)	94 (207)
	Net Dimensions (WxHxD)		mm	750x800x330	750x800x330	750x800x330
			inch	29.5x31.5x13.0	29.5x31.5x13.0	29.5x31.5x13.0
	Shipping Dimensions (WxHxD)		mm	812x950x392	812x950x392	812x950x392
			inch	31.9x37.4x15.4	31.9x37.4x15.4	31.9x37.4x15.4
Operating Temp. Range (Water Temp.)	Cooling		℃ (°F)	10~45 (50~113)	10~45 (50~113)	10~45 (50~113)
	Heating		℃ (°F)	10~45 (50~113)	10~45 (50~113)	10~45 (50~113)

NOTE

- Specification may be subject to change without prior notice.
- 1)* Nominal capacities are based on (Equivalent refrigerant piping : 25ft(7.5m), Level differences : 0ft(0m)
 - Cooling : Indoor temperature : 80°F(26.7°C) DB, 67°F(19.4°C) WB / Inlet water temperature : 85°F(29.4°C)
 - Heating : Indoor temperature : 70°F(21.1°C) DB, 60°F(15.6°C) WB / Inlet water temperature : 68°F(20°C)
- 2)* Rated capacities are based on (Equivalent refrigerant piping : 25ft(7.5m), Level differences : 0ft(0m)
 - Cooling : Indoor temperature : 80.6°F(27°C) DB, 66.2°F(19°C) WB / Inlet water temperature : 86°F(30°C)
 - Heating : Indoor temperature : 68°F(20°C) DB, 59°F(15°C) WB / Inlet water temperature : 68°F(20°C)
- Sound pressure level is obtained in an anechoic room.
 - Sound pressure level is a relative value, depending on the distance and acoustic environment.
 - Sound pressure level may differ depending on operation condition.
 - dBA = A-weighted sound pressure level
 - Reference acoustic pressure 0 dB = 20uPa
- Sound power level is an absolute value that a sound source generates.
 - dBA = A-weighted sound power level
 - Reference power : 1pW
 - Measured according to ISO 3741
- Sound values of multi combination are theoretical values based on sound results of individual installed units.
- These products contain R410A which is fluorinated greenhouse gas.
- Total capacity of the connected indoor units can be allowed from 50% to 130% of the total outdoor unit capacity. $0.5 \times \sum(\text{Outdoor unit capacity}) \leq \text{Total capacity of the connected indoor units} \leq 1.3 \times \sum(\text{Outdoor unit capacity})$
- You can connect maximum 64 indoor units to the outdoor unit. Maximum quantity of connectable indoor unit is set to 64 since outdoor unit only support up to 64 communication address. Indoor unit address can be assigned from indoor unit address was assigned from 64~79, E201 error will occur.0~63.
If the indoor unit address was assigned from 64~79, E201 error will occur.

Specification

Premium Energy Efficiency Type (208~230 V)

Type				Water	Water	Water	Water
Model Name				VRC072W4M-4Y	VRC096W4M-4Y	VRC120W4M-4Y	VRC144W4M-4Y2
	Outdoor unit module 1			VRC072W4M-4Y	VRC096W4M-4Y	VRC120W4M-4Y	VRC072W4M-4Y
	Outdoor unit module 2						VRC072W4M-4Y
	Outdoor unit module 3						
	Outdoor unit module 4						
Power Supply			ø, #, V, Hz	3, 3, 208~230, 60	3, 3, 208~230, 60	3, 3, 208~230, 60	3, 3, 208~230, 60
Mode			-	HP, HR	HP, HR	HP, HR	HP, HR
Performance	Ton		Ton	6	8	10	12
	Capacity (Nominal) ^{1)*}	Cooling	Btu/h	72,000	96,000	120,000	144,000
		Heating	Btu/h	81,000	108,000	135,000	162,000
	Capacity (Rated) ^{2)*}	Cooling	Btu/h	69,000	92,000	114,000	138,000
		Heating	Btu/h	77,000	103,000	129,000	154,000
Maximum number of connectable indoor units			ea	12	16	20	25
	Total capacity of the connected Indoor Units	Min.	Btu/h	36,000	48,000	60,000	72,000
		Max.	Btu/h	93,600	124,800	156,000	187,200
Power	Power Input (Nominal) ^{1)*}	Cooling	kW	3.15	4.27	8.50	6.30
		Heating		3.52	4.79	8.19	7.04
	Current	MCA	A	16	23	30	16 + 16
		MOP		25	40	50	25 + 25
Casing	Material	Body	-	EGI steel plate	EGI steel plate	EGI steel plate	EGI steel plate
		Base	-	EGI steel plate	EGI steel plate	EGI steel plate	EGI steel plate
Compressor	Type		-	Inverter Scroll	Inverter Scroll	Inverter Scroll	Inverter Scroll
	Output		kW × n	(4.96) x 1	(4.96) x 1	(4.96) x 1	(4.96) x 2
	Model Name		-	DS-GB052FBVASG x 1	DS-GB052FBVASG x 1	DS-GB052FBVASG x 1	DS-GB052FBVASG x 2
	Oil	Type	-	PVE	PVE	PVE	PVE
Initial Charge		Liter	3.9	3.9	3.9	3.9 x 2	
Condenser	Type		Type	PHE (Plate Heat Exchanger)	PHE (Plate Heat Exchanger)	PHE (Plate Heat Exchanger)	PHE(Plate Heat Exchanger)
	Pipe Size		ø, inch	NPT 1-1/4	NPT 1-1/4	NPT 1-1/4	NPT 1-1/4 x 2
	Lost Head		kPa (ftAq)	22 (7.3)	30 (10.0)	43 (14.4)	22 (7.3) + 22 (7.3)
	Water Flow Rate		LPM (GPM)	80 (21.1)	96 (25.4)	114 (30.1)	80 (21.1) + 80 (21.1)
	Max. Pressure		Mpa (psi)	1.96 (285)	1.96 (285)	1.96 (285)	1.96 (285)
Piping Connections	Liquid Pipe		Type	Braze connection	Braze connection	Braze connection	Braze connection
			ø, mm	9.52	9.52	12.7	12.7
			ø, inch	3/8"	3/8"	1/2"	1/2"
	Gas Pipe		Type	Braze connection	Braze connection	Braze connection	Braze connection
			ø, mm	19.05	22.22	28.58	28.58
			ø, inch	3/4"	7/8"	1 1/8"	1 1/8"
	Discharge Gas Pipe (HR)		ø, mm	15.88	19.05	22.22	22.22
			ø, inch	5/8"	3/4"	7/8"	7/8"
	Heat insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length (ODU-IDU)	Max.	m (ft)	170 (558)	170 (558)	170 (558)	170 (558)
	Piping length (1st Branch-IDU)	Max.	m (ft)	90 (295)	90 (295)	90 (295)	90 (295)
	Total piping length (System)	Max.	m (ft)	500 (1640)	500 (1640)	500 (1640)	500 (1640)
	Level difference (ODU in highest position)	Max.	m (ft)	50 (164)	50 (164)	50 (164)	50 (164)
	Level difference (IDU in highest position)	Max.	m (ft)	40 (131)	40 (131)	40 (131)	40 (131)
	Level difference (IDU-IDU)	Max.	m (ft)	50 (164)	50 (164)	50 (164)	50 (164)

Specification

Premium Energy Efficiency Type (208~230 V)

Type				Water	Water	Water	Water
Model Name				VRC072W4M-4Y	VRC096W4M-4Y	VRC120W4M-4Y	VRC144W4M-4Y2
	Outdoor unit module 1			VRC072W4M-4Y	VRC096W4M-4Y	VRC120W4M-4Y	VRC072W4M-4Y
	Outdoor unit module 2						VRC072W4M-4Y
	Outdoor unit module 3						
	Outdoor unit module 4						
Wiring connections	Communication	Min.	mm2	0.75	0.75	0.75	0.75
		Remark	-	F1, F2	F1, F2	F1, F2	F1, F2
Refrigerant	Type		-	R410A	R410A	R410A	R410A
	Factory Charging		kg (lbs)	5.5 (12.1)	5.8 (12.8)	6.0 (13.2)	5.5 (12.1) x 2
Sound	Sound Pressure	Cooling	dB(A)	48	48	50	51
		Heating		51	51	52	54
	Sound Power			70	70	70	73
External Dimension	Net Weight		kg (lbs)	160 (353)	160 (353)	160 (353)	160 (353) x 2
	Shipping Weight		kg (lbs)	167 (368)	167 (368)	167 (368)	167 (368) x 2
	Net Dimensions (WxHxD)		mm	770x1,000x545	770x1,000x545	770x1,000x545	(770x1,000x545) x 2
			inch	30.3x39.4x21.5	30.3x39.4x21.5	30.3x39.4x21.5	(30.3x39.4x21.5) x 2
	Shipping Dimensions (WxHxD)		mm	840x1,200x620	840x1,200x620	840x1,200x620	(840x1,200x620) x 2
			inch	33.1x47.2x24.4	33.1x47.2x24.4	33.1x47.2x24.4	(33.1x47.2x24.4) x 2
Operating Temp. Range (Water Temp.)	Cooling		℃ (℉)	10~45 (50~113)	10~45 (50~113)	10~45 (50~113)	10~45 (50~113)
	Heating		℃ (℉)	10~45 (50~113)	10~45 (50~113)	10~45 (50~113)	10~45 (50~113)

NOTE

- Specification may be subject to change without prior notice.
- 1)* Nominal capacities are based on (Equivalent refrigerant piping : 25ft(7.5m), Level differences : 0ft(0m)
 - Cooling : Indoor temperature : 80°F(26.7°C) DB, 67°F(19.4°C) WB / Inlet water temperature : 85°F(29.4°C)
 - Heating : Indoor temperature : 70°F(21.1°C) DB, 60°F(15.6°C) WB / Inlet water temperature : 68°F(20°C)
- 2)* Rated capacities are based on (Equivalent refrigerant piping : 25ft(7.5m), Level differences : 0ft(0m)
 - Cooling : Indoor temperature : 80.6°F(27°C) DB, 66.2°F(19°C) WB / Inlet water temperature : 86°F(30°C)
 - Heating : Indoor temperature : 68°F(20°C) DB, 59°F(15°C) WB / Inlet water temperature : 68°F(20°C)
- Sound pressure level is obtained in an anechoic room.
 - Sound pressure level is a relative value, depending on the distance and acoustic environment.
 - Sound pressure level may differ depending on operation condition.
 - dBA = A-weighted sound pressure level
 - Reference acoustic pressure 0 dB = 20uPa
- Sound power level is an absolute value that a sound source generates.
 - dBA = A-weighted sound power level
 - Reference power : 1pW
 - Measured according to ISO 3741
- Sound values of multi combination are theoretical values based on sound results of individual installed units.
- These products contain R410A which is fluorinated greenhouse gas.
- Total capacity of the connected indoor units can be allowed from 50% to 130% of the total outdoor unit capacity. $0.5 \times \sum(\text{Outdoor unit capacity}) \leq \text{Total capacity of the connected indoor units} \leq 1.3 \times \sum(\text{Outdoor unit capacity})$
- You can connect maximum 64 indoor units to the outdoor unit. Maximum quantity of connectable indoor unit is set to 64 since outdoor unit only support up to 64 communication address. Indoor unit address can be assigned from indoor unit address was assigned from 64~79, E201 error will occur.0~63.
If the indoor unit address was assigned from 64~79, E201 error will occur.

Specification

Premium Energy Efficiency Type (208~230 V)

Type				Water	Water	Water	
Model Name				VRC168W4M-4Y2	VRC192W4M-4Y	VRC216W4M-4Y2	
	Outdoor unit module 1			VRC072W4M-4Y	VRC192W4M-4Y	VRC096W4M-4Y	
	Outdoor unit module 2			VRC096W4M-4Y		VRC120W4M-4Y	
	Outdoor unit module 3						
	Outdoor unit module 4						
Power Supply			ø, #, V, Hz	3, 3, 208~230, 60	3, 3, 208~230, 60	3, 3, 208~230, 60	
Mode			-	HP, HR	HP, HR	HP, HR	
Performance	Ton		Ton	14	16	18	
	Capacity (Nominal) ^{1)*}	Cooling	Btu/h	168,000	192,000	216,000	
		Heating	Btu/h	189,000	216,000	243,000	
	Capacity (Rated) ^{2)*}	Cooling	Btu/h	160,000	184,000	206,000	
		Heating	Btu/h	180,000	206,000	232,000	
Maximum number of connectable indoor units			ea	29	33	37	
	Total capacity of the connected Indoor Units	Min.	Btu/h	84,000	96,000	108,000	
		Max.	Btu/h	218,400	249,600	280,800	
Power	Power Input (Nominal) ^{1)*}	Cooling	kW	7.42	15.20	12.77	
		Heating		8.31	13.39	12.98	
	Current	MCA	A	16 + 23	39.6	23 + 30	
		MOP		25 + 40	50	40 + 50	
	Casing	Material	Body	-	EGI steel plate	EGI steel plate	EGI steel plate
Base			-	EGI steel plate	EGI steel plate	EGI steel plate	
Compressor	Type		-	Inverter Scroll	Inverter Scroll	Inverter Scroll	
	Output		kW × n	(4.96) x 2	(4.96) x 2	(4.96) x 2	
	Model Name		-	DS-GB052FBVASG x 2	DS-GB052FBVASG x 2	DS-GB052FBVASG x 2	
	Oil	Type	-	PVE	PVE	PVE	
		Initial Charge	Liter	3.9 x 2	6.2	3.9 x 2	
Condenser	Type		Type	PHE(Plate Heat Exchanger)	PHE (Plate Heat Exchanger)	PHE (Plate Heat Exchanger)	
	Pipe Size		ø, inch	NPT 1-1/4 x 2	NPT 1-1/4	NPT 1-1/4 x 2	
	Lost Head		kPa (ftAq)	22 (7.3) + 30 (10.0)	54 (18.1)	30 (10.0) + 43 (14.4)	
	Water Flow Rate		LPM (GPM)	80 (21.1) + 96 (25.4)	190 (50.2)	96(25.4) + 114(30.1)	
	Max. Pressure		Mpa (psi)	1.96 (285)	1.96 (285)	1.96 (285)	
	Piping Connections	Liquid Pipe	Type		Braze connection	Braze connection	Braze connection
ø, mm				15.88	15.88	15.88	
ø, inch				5/8"	5/8"	5/8"	
Type				Braze connection	Braze connection	Braze connection	
Gas Pipe		ø, mm		28.58	28.58	28.58	
		ø, inch		1 1/8"	1 1/8"	1 1/8"	
		ø, mm		22.22	28.58	28.58	
Discharge Gas Pipe (HR)		ø, inch		7/8"	1 1/8"	1 1/8"	
		Heat insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
Piping length (ODU-IDU)		Max.	m (ft)	170 (558)	170 (558)	170 (558)	
Piping length (1st Branch-IDU)		Max.	m (ft)	90 (295)	90 (295)	90 (295)	
Total piping length (System)		Max.	m (ft)	500 (1640)	500 (1640)	500 (1640)	
Level difference (ODU in highest position)		Max.	m (ft)	50 (164)	50 (164)	50 (164)	
Level difference (IDU in highest position)		Max.	m (ft)	40 (131)	40 (131)	40 (131)	
Level difference (IDU-IDU)		Max.	m (ft)	50 (164)	50 (164)	50 (164)	

Specification

Premium Energy Efficiency Type (208~230 V)

Type				Water	Water	Water
Model Name				VRC168W4M-4Y2	VRC192W4M-4Y	VRC216W4M-4Y2
	Outdoor unit module 1			VRC072W4M-4Y	VRC192W4M-4Y	VRC096W4M-4Y
	Outdoor unit module 2			VRC096W4M-4Y		VRC120W4M-4Y
	Outdoor unit module 3					
	Outdoor unit module 4					
Wiring connections	Communication	Min.	mm2	0.75	0.75	0.75
		Remark	-	F1, F2	F1, F2	F1, F2
Refrigerant	Type		-	R410A	R410A	R410A
	Factory Charging		kg (lbs)	5.5(12.1) + 5.8(12.8)	9.8 (21.6)	5.8(12.8) + 6(13.2)
Sound	Sound Pressure	Cooling	dB(A)	51	51	52
		Heating		54	52	55
	Sound Power			73	73	73
External Dimension	Net Weight		kg (lbs)	160 (353) x 2	240 (529)	160 (353) x 2
	Shipping Weight		kg (lbs)	167 (368) x 2	250 (551)	167 (368) x 2
	Net Dimensions (WxHxD)		mm	(770x1,000x545) x 2	1,100x1,000x545	(770x1,000x545) x 2
			inch	(30.3x39.4x21.5) x 2	43.3x39.4x21.5	(30.3x39.4x21.5) x 2
	Shipping Dimensions (WxHxD)		mm	(840x1,200x620) x 2	1,170x1,200x620	(840x1,200x620) x 2
			inch	(33.1x47.2x24.4) x 2	46.1x47.2x24.4	(33.1x47.2x24.4) x 2
Operating Temp. Range (Water Temp.)	Cooling		℃ (°F)	10~45 (50~113)	10~45 (50~113)	10~45 (50~113)
	Heating		℃ (°F)	10~45 (50~113)	10~45 (50~113)	10~45 (50~113)

NOTE

- Specification may be subject to change without prior notice.
- 1)* Nominal capacities are based on (Equivalent refrigerant piping : 25ft(7.5m), Level differences : 0ft(0m)
 - Cooling : Indoor temperature : 80°F(26.7°C) DB, 67°F(19.4°C) WB / Inlet water temperature : 85°F(29.4°C)
 - Heating : Indoor temperature : 70°F(21.1°C) DB, 60°F(15.6°C) WB / Inlet water temperature : 68°F(20°C)
- 2)* Rated capacities are based on (Equivalent refrigerant piping : 25ft(7.5m), Level differences : 0ft(0m)
 - Cooling : Indoor temperature : 80.6°F(27°C) DB, 66.2°F(19°C) WB / Inlet water temperature : 86°F(30°C)
 - Heating : Indoor temperature : 68°F(20°C) DB, 59°F(15°C) WB / Inlet water temperature : 68°F(20°C)
- Sound pressure level is obtained in an anechoic room.
 - Sound pressure level is a relative value, depending on the distance and acoustic environment.
 - Sound pressure level may differ depending on operation condition.
 - dBA = A-weighted sound pressure level
 - Reference acoustic pressure 0 dB = 20uPa
- Sound power level is an absolute value that a sound source generates.
 - dBA = A-weighted sound power level
 - Reference power : 1pW
 - Measured according to ISO 3741
- Sound values of multi combination are theoretical values based on sound results of individual installed units.
- These products contain R410A which is fluorinated greenhouse gas.
- Total capacity of the connected indoor units can be allowed from 50% to 130% of the total outdoor unit capacity. $0.5 \times \sum(\text{Outdoor unit capacity}) \leq \text{Total capacity of the connected indoor units} \leq 1.3 \times \sum(\text{Outdoor unit capacity})$
- You can connect maximum 64 indoor units to the outdoor unit. Maximum quantity of connectable indoor unit is set to 64 since outdoor unit only support up to 64 communication address. Indoor unit address can be assigned from indoor unit address was assigned from 64~79, E201 error will occur.0~63.
If the indoor unit address was assigned from 64~79, E201 error will occur.

Specification

Premium Energy Efficiency Type (208~230 V)

Type				Water	Water	Water
Model Name				VRC264W4M-4Y2	VRC288W4M-4Y2	VRC336W4M-4Y3
	Outdoor unit module 1			VRC072W4M-4Y	VRC096W4M-4Y	VRC072W4M-4Y
	Outdoor unit module 2			VRC192W4M-4Y	VRC192W4M-4Y	VRC072W4M-4Y
	Outdoor unit module 3					VRC192W4M-4Y
	Outdoor unit module 4					
Power Supply			ø, #, V, Hz	3, 3, 208~230, 60	3, 3, 208~230, 60	3, 3, 208~230, 60
Mode			-	HP, HR	HP, HR	HP, HR
Performance	Ton		Ton	22	24	28
	Capacity (Nominal) ^{1)*}	Cooling	Btu/h	264,000	288,000	336,000
		Heating	Btu/h	297,000	324,000	378,000
	Capacity (Rated) ^{2)*}	Cooling	Btu/h	252,000	276,000	322,000
		Heating	Btu/h	282,000	308,000	360,000
Maximum number of connectable indoor units			ea	45	49	58
	Total capacity of the connected Indoor Units	Min.	Btu/h	132,000	144,000	168,000
		Max.	Btu/h	343,200	374,400	436,800
Power	Power Input (Nominal) ^{1)*}	Cooling	kW	18.35	19.47	21.50
		Heating		16.91	18.18	20.43
	Current	MCA	A	16 + 39.6	23 + 39.6	16 + 16 + 39.6
		MOP		25 + 50	40 + 50	25 + 25 + 50
Casing	Material	Body	-	EGI steel plate	EGI steel plate	EGI steel plate
		Base	-	EGI steel plate	EGI steel plate	EGI steel plate
Compressor	Type		-	Inverter Scroll	Inverter Scroll	Inverter Scroll
	Output		kW × n	(4.96) + (4.96 x 2)	(4.96) + (4.96 x 2)	(4.96) x 2 + (4.96 x 2)
	Model Name		-	DS-GB052FBVASG x 3	DS-GB052FBVASG x 3	DS-GB052FBVASG x 4
	Oil	Type	-	PVE	PVE	PVE
Initial Charge		Liter	3.9 + 6.2	3.9+6.2	(3.9)x2 + 6.2	
Condenser	Type		Type	PHE (Plate Heat Exchanger)	PHE (Plate Heat Exchanger)	PHE (Plate Heat Exchanger)
	Pipe Size		ø, inch	NPT 1-1/4 x 3	NPT 1-1/4 x 2	NPT 1-1/4 x 3
	Lost Head		kPa (ftAq)	22 (7.3) + 54 (18.1)	30 (10.0) + 54 (18.1)	22 (7.3) + 22 (7.3) + 54 (18.1)
	Water Flow Rate		LPM (GPM)	80 (21.1) + 190 (50.2)	96 (25.4) + 190 (50.2)	80 (21.1) + 80 (21.1) + 190 (50.2)
	Max. Pressure		Mpa (psi)	1.96 (285)	1.96 (285)	1.96 (285)
Piping Connections	Liquid Pipe	Type		Braze connection	Braze connection	Braze connection
		ø, mm		19.05	19.05	19.05
		ø, inch		3/4"	3/4"	3/4"
	Gas Pipe	Type		Braze connection	Braze connection	Braze connection
		ø, mm		34.92	34.92	34.92
		ø, inch		1 3/8"	1 3/8"	1 3/8"
	Discharge Gas Pipe (HR)	ø, mm		28.58	28.58	28.58
		ø, inch		1 1/8"	1 1/8"	1 1/8"
	Heat insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length (ODU-IDU)	Max.	m (ft)	170 (558)	170 (558)	170 (558)
	Piping length (1st Branch-IDU)	Max.	m (ft)	90 (295)	90 (295)	90 (295)
	Total piping length (System)	Max.	m (ft)	500 (1640)	500 (1640)	500 (1640)
	Level difference (ODU in highest position)	Max.	m (ft)	50 (164)	50 (164)	50 (164)
	Level difference (IDU in highest position)	Max.	m (ft)	40 (131)	40 (131)	40 (131)
Level difference (IDU-IDU)	Max.	m (ft)	50 (164)	50 (164)	50 (164)	
Wiring connections	Communication	Min.	mm2	0.75	0.75	0.75
		Remark	-	F1, F2	F1, F2	F1, F2

Specification

Premium Energy Efficiency Type (208~230 V)

Type				Water	Water	Water	
Model Name				VRC264W4M-4Y2	VRC288W4M-4Y2	VRC336W4M-4Y3	
	Outdoor unit module 1			VRC072W4M-4Y	VRC096W4M-4Y	VRC072W4M-4Y	
	Outdoor unit module 2			VRC192W4M-4Y	VRC192W4M-4Y	VRC072W4M-4Y	
	Outdoor unit module 3					VRC192W4M-4Y	
	Outdoor unit module 4						
Refrigerant	Type		-	R410A	R410A	R410A	
	Factory Charging		kg (lbs)	5.5 (12.1) + 9.8 (21.6)	5.8 (12.8) + 9.8 (21.6)	5.5 (12.1)x2 + 9.8 (21.6)	
Sound	Sound Pressure	Cooling	dB(A)	53	53	54	
		Heating		56	55	56	
	Sound Power			75	75	75	
External Dimension	Net Weight		kg (lbs)	160 (353) + 240 (529)	160 (353) + 240 (529)	160 (353)x2 + 240 (529)	
	Shipping Weight		kg (lbs)	167 (368) + 250 (551)	167 (368) + 250 (551)	167 (368)x2 + 250 (551)	
	Net Dimensions (WxHxD)			mm	(770x1,000x545) + (1,100x1,000x545)	(770x1,000x545) + (1,100x1,000x545)	(770x1,000x545)x2 + (1,100x1,000x545)
				inch	(30.3x39.4x21.5) + (43.3x39.4x21.5)	(30.3x39.4x21.5) + (43.3x39.4x21.5)	(30.3x39.4x21.5)x2 + (43.3x39.4x21.5)
	Shipping Dimensions (WxHxD)			mm	(840x1,200x620) + (1,170x1,200x620)	(840x1,200x620) + (1,170x1,200x620)	(840x1,200x620)x2 + (1,170x1,200x620)
				inch	(33.1x47.2x24.4) + (46.1x47.2x24.4)	(33.1x47.2x24.4) + (46.1x47.2x24.4)	(33.1x47.2x24.4)x2 + (46.1x47.2x24.4)
Operating Temp. Range (Water Temp.)	Cooling		℃ (°F)	10~45 (50~113)	10~45 (50~113)	10~45 (50~113)	
	Heating		℃ (°F)	10~45 (50~113)	10~45 (50~113)	10~45 (50~113)	

NOTE

- Specification may be subject to change without prior notice.
- 1)* Nominal capacities are based on (Equivalent refrigerant piping : 25ft(7.5m), Level differences : 0ft(0m)
 - Cooling : Indoor temperature : 80°F(26.7°C) DB, 67°F(19.4°C) WB / Inlet water temperature : 85°F(29.4°C)
 - Heating : Indoor temperature : 70°F(21.1°C) DB, 60°F(15.6°C) WB / Inlet water temperature : 68°F(20°C)
- 2)* Rated capacities are based on (Equivalent refrigerant piping : 25ft(7.5m), Level differences : 0ft(0m)
 - Cooling : Indoor temperature : 80.6°F(27°C) DB, 66.2°F(19°C) WB / Inlet water temperature : 86°F(30°C)
 - Heating : Indoor temperature : 68°F(20°C) DB, 59°F(15°C) WB / Inlet water temperature : 68°F(20°C)
- Sound pressure level is obtained in an anechoic room.
 - Sound pressure level is a relative value, depending on the distance and acoustic environment.
 - Sound pressure level may differ depending on operation condition.
 - dBA = A-weighted sound pressure level
 - Reference acoustic pressure 0 dB = 20uPa
- Sound power level is an absolute value that a sound source generates.
 - dBA = A-weighted sound power level
 - Reference power : 1pW
 - Measured according to ISO 3741
- Sound values of multi combination are theoretical values based on sound results of individual installed units.
- These products contain R410A which is fluorinated greenhouse gas.
- Total capacity of the connected indoor units can be allowed from 50% to 130% of the total outdoor unit capacity. $0.5 \times \sum(\text{Outdoor unit capacity}) \leq \text{Total capacity of the connected indoor units} \leq 1.3 \times \sum(\text{Outdoor unit capacity})$
- You can connect maximum 64 indoor units to the outdoor unit. Maximum quantity of connectable indoor unit is set to 64 since outdoor unit only support up to 64 communication address. Indoor unit address can be assigned from indoor unit address was assigned from 64~79, E201 error will occur. 0~63.
If the indoor unit address was assigned from 64~79, E201 error will occur.

Specification

Premium Energy Efficiency Type (208~230 V)

Type				Water	Water	
Model Name				VRC360W4M-4Y3	VRC384W4M-4Y3	
	Outdoor unit module 1			VRC072W4M-4Y	VRC096W4M-4Y	
	Outdoor unit module 2			VRC096W4M-4Y	VRC096W4M-4Y	
	Outdoor unit module 3			VRC192W4M-4Y	VRC192W4M-4Y	
	Outdoor unit module 4					
Power Supply			ø, #, V, Hz	3, 3, 208~230, 60	3, 3, 208~230, 60	
Mode			-	HP, HR	HP, HR	
Performance	Ton		Ton	30	32	
	Capacity (Nominal) ^{1)*}	Cooling	Btu/h	360,000	384,000	
		Heating	Btu/h	405,000	432,000	
	Capacity (Rated) ^{2)*}	Cooling	Btu/h	344,000	368,000	
		Heating	Btu/h	386,000	412,000	
Maximum number of connectable indoor units			ea	62	64	
	Total capacity of the connected Indoor Units	Min.	Btu/h	180,000	192,000	
		Max.	Btu/h	468,000	499,200	
Power	Power Input (Nominal) ^{1)*}	Cooling	kW	22.62	23.74	
		Heating		21.70	23.33	
	Current	MCA	A	16 + 23 + 39.6	23.0 + 23.0 + 39.6	
		MOP		25 + 40 + 50	40 + 40 + 50	
Casing	Material	Body	-	EGI steel plate	EGI steel plate	
		Base	-	EGI steel plate	EGI steel plate	
Compressor	Type		-	Inverter Scroll	Inverter Scroll	
	Output		kW × n	(4.96) x 2 + (4.96 x 2)	(4.96 x 2) x 3	
	Model Name		-	DS-GB052FBVASG x 4	DS-GB052FBVASG x 3	
	Oil	Type	-	PVE	PVE	
		Initial Charge	Liter	(3.9) x2 + 6.2	(3.9) x2 + 6.2	
Condenser	Type		Type	PHE (Plate Heat Exchanger)	PHE (Plate Heat Exchanger)	
	Pipe Size		ø, inch	NPT 1-1/4 x 3	NPT 1-1/4 x 2	
	Lost Head		kPa (ftAq)	22 (7.3) + 30 (10.0) + 54 (18.1)	30 (10.0) + 30 (10.0) + 54 (18.1)	
	Water Flow Rate		LPM (GPM)	80 (21.1) + 96 (25.4) + 190 (50.2)	96 (25.4) + 96 (25.4) + 190(50.2)	
	Max. Pressure		Mpa (psi)	1.96 (285)	1.96 (285)	
Piping Connections	Liquid Pipe	Type		Braze connection	Braze connection	
		ø, mm		19.05	19.05	
		ø, inch		3/4"	3/4"	
	Gas Pipe	Type		Braze connection	Braze connection	
		ø, mm		41.28	41.28	
		ø, inch		1 5/8"	1 5/8"	
	Discharge Gas Pipe (HR)	ø, mm		34.92	34.92	
		ø, inch		1 3/8"	1 3/8"	
	Heat insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	
	Piping length (ODU-IDU)		Max.	m (ft)	170 (558)	170 (558)
	Piping length (1st Branch-IDU)		Max.	m (ft)	90 (295)	90 (295)
	Total piping length (System)		Max.	m (ft)	500 (1640)	500 (1640)
	Level difference (ODU in highest position)		Max.	m (ft)	50 (164)	50 (164)
	Level difference (IDU in highest position)		Max.	m (ft)	40 (131)	40 (131)
	Level difference (IDU-IDU)		Max.	m (ft)	50 (164)	50 (164)
Wiring connections	Communication	Min.	mm2	0.75	0.75	
		Remark	-	F1,F2	F1,F2	

Specification

Premium Energy Efficiency Type (208~230 V)

Type				Water	Water
Model Name				VRC360W4M-4Y3	VRC384W4M-4Y3
	Outdoor unit module 1			VRC072W4M-4Y	VRC096W4M-4Y
	Outdoor unit module 2			VRC096W4M-4Y	VRC096W4M-4Y
	Outdoor unit module 3			VRC192W4M-4Y	VRC192W4M-4Y
	Outdoor unit module 4				
Refrigerant	Type		-	R410A	R410A
	Factory Charging		kg (lbs)	5.5 (12.1) + 5.8 (12.8) + 9.8 (21.6)	5.8 (12.8) + 5.8 (12.8) + 9.8 (21.6)
Sound	Sound Pressure	Cooling	dB(A)	54	54
		Heating		56	56
	Sound Power			76	76
External Dimension	Net Weight		kg (lbs)	160 (353)x2 + 240 (529)	160 (353) x 2 + 240(529)
	Shipping Weight		kg (lbs)	167 (368)x2 + 250 (551)	167 (368) x 2 + 250(551)
	Net Dimensions (WxHxD)		mm	(770x1,000x545)x2 + (1,100x1,000x545)	(770x1,000x545) x 2 + (1,100x1,000x545)
			inch	(30.3x39.4x21.5)x2 + (43.3x39.4x21.5)	(30.3x39.4x21.5) x 2 + (43.3x39.4x21.5)
	Shipping Dimensions (WxHxD)		mm	(840x1,200x620)x2 + (1,170x1,200x620)	(840x1,200x620) x 2 + (1,170x1,200x620)
			inch	(33.1x47.2x24.4)x2 + (46.1x47.2x24.4)	(33.1x47.2x24.4) x 2 + (46.1x47.2x24.4)
Operating Temp. Range (Water Temp.)	Cooling		℃ (°F)	10~45 (50~113)	10~45 (50~113)
	Heating		℃ (°F)	10~45 (50~113)	10~45 (50~113)

NOTE

- Specification may be subject to change without prior notice.
- 1)* Nominal capacities are based on (Equivalent refrigerant piping : 25ft(7.5m), Level differences : 0ft(0m)
 - Cooling : Indoor temperature : 80°F(26.7°C) DB, 67°F(19.4°C) WB / Inlet water temperature : 85°F(29.4°C)
 - Heating : Indoor temperature : 70°F(21.1°C) DB, 60°F(15.6°C) WB / Inlet water temperature : 68°F(20°C)
- 2)* Rated capacities are based on (Equivalent refrigerant piping : 25ft(7.5m), Level differences : 0ft(0m)
 - Cooling : Indoor temperature : 80.6°F(27°C) DB, 66.2°F(19°C) WB / Inlet water temperature : 86°F(30°C)
 - Heating : Indoor temperature : 68°F(20°C) DB, 59°F(15°C) WB / Inlet water temperature : 68°F(20°C)
- Sound pressure level is obtained in an anechoic room.
 - Sound pressure level is a relative value, depending on the distance and acoustic environment.
 - Sound pressure level may differ depending on operation condition.
 - dBA = A-weighted sound pressure level
 - Reference acoustic pressure 0 dB = 20uPa
- Sound power level is an absolute value that a sound source generates.
 - dBA = A-weighted sound power level
 - Reference power : 1pW
 - Measured according to ISO 3741
- Sound values of multi combination are theoretical values based on sound results of individual installed units.
- These products contain R410A which is fluorinated greenhouse gas.
- Total capacity of the connected indoor units can be allowed from 50% to 130% of the total outdoor unit capacity. $0.5 \times \sum(\text{Outdoor unit capacity}) \leq \text{Total capacity of the connected indoor units} \leq 1.3 \times \sum(\text{Outdoor unit capacity})$
- You can connect maximum 64 indoor units to the outdoor unit. Maximum quantity of connectable indoor unit is set to 64 since outdoor unit only support up to 64 communication address. Indoor unit address can be assigned from indoor unit address was assigned from 64~79, E201 error will occur.0~63.
If the indoor unit address was assigned from 64~79, E201 error will occur.

Specification

Premium Energy Efficiency Type (460 V)

Type				Water	Water	Water	Water	
Model Name				VRC072W4M-4G	VRC096W4M-4G	VRC120W4M-4G	VRC144W4M-4G2	
	Outdoor unit module 1			VRC072W4M-4G	VRC096W4M-4G	VRC120W4M-4G	VRC072W4M-4G	
	Outdoor unit module 2						VRC072W4M-4G	
	Outdoor unit module 3							
	Outdoor unit module 4							
Power Supply			ø, #, V, Hz	3, 3, 460, 60	3, 3, 460, 60	3, 3, 460, 60	3, 3, 460, 60	
Mode			-	HP, HR	HP, HR	HP, HR	HP, HR	
Performance	Ton		Ton	6	8	10	12	
	Capacity (Nominal) ^{1)*}	Cooling	Btu/h	72,000	96,000	120,000	144,000	
		Heating	Btu/h	81,000	108,000	135,000	162,000	
	Capacity (Rated) ^{2)*}	Cooling	Btu/h	69,000	92,000	114,000	138,000	
		Heating	Btu/h	77,000	103,000	129,000	154,000	
Maximum number of connectable indoor units			ea	12	16	20	25	
	Total capacity of the connected Indoor Units	Min.	Btu/h	36,000	48,000	60,000	72,000	
		Max.	Btu/h	93,600	124,800	156,000	187,200	
Power	Power Input (Nominal) ^{1)*}	Cooling	kW	3.15	4.27	6.99	6.30	
		Heating		3.52	4.79	7.49	7.04	
	Current	MCA	A	10	11	15.6	10 + 10	
		MOP		15	15	25	15 + 15	
Casing	Material	Body	-	EGI steel plate	EGI steel plate	EGI steel plate	EGI steel plate	
		Base	-	EGI steel plate	EGI steel plate	EGI steel plate	EGI steel plate	
Compressor	Type		-	Inverter Scroll	Inverter Scroll	Inverter Scroll	Inverter Scroll	
	Output		kW × n	(4.96) x 1	(4.96) x 1	(6.13) x 1	(4.96) x 2	
	Model Name		-	DS-GB052FAVBSG x 1	DS-GB052FAVBSG x 1	DS-GB066FAVBSG x 1	DS-GB052FAVBSG x 2	
	Oil	Type	-	PVE	PVE	PVE	PVE	
		Initial Charge	Liter	3.9	3.9	3.9	3.9 x 2	
Condenser	Type		Type	PHE (Plate Heat Exchanger)	PHE (Plate Heat Exchanger)	PHE (Plate Heat Exchanger)	PHE (Plate Heat Exchanger)	
	Pipe Size		ø, inch	NPT 1-1/4	NPT 1-1/4	NPT 1-1/4	NPT 1-1/4 x 2	
	Lost Head		kPa (ftAq)	22 (7.3)	30 (10.0)	43 (14.4)	22 (7.3) + 22 (7.3)	
	Water Flow Rate		LPM (GPM)	80 (21.1)	96 (25.4)	114 (30.1)	80 (21.1) + 80 (21.1)	
	Max. Pressure		Mpa (psi)	1.96 (285)	1.96 (285)	1.96 (285)	1.96 (285)	
Piping Connections	Liquid Pipe		Type	Braze connection	Braze connection	Braze connection	Braze connection	
			ø, mm	9.52	9.52	12.7	12.7	
			ø, inch	3/8"	3/8"	1/2"	1/2"	
	Gas Pipe		Type	Braze connection	Braze connection	Braze connection	Braze connection	
			ø, mm	19.05	22.22	28.58	28.58	
			ø, inch	3/4"	7/8"	1 1/8"	1 1/8"	
	Discharge Gas Pipe (HR)		ø, mm	15.88	19.05	22.22	22.22	
			ø, inch	5/8"	3/4"	7/8"	7/8"	
	Heat insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	
	Piping length (ODU-IDU)		Max.	m (ft)	170 (558)	170 (558)	170 (558)	170 (558)
	Piping length (1st Branch-IDU)		Max.	m (ft)	90 (295)	90 (295)	90 (295)	90 (295)
	Total piping length (System)		Max.	m (ft)	500 (1640)	500 (1640)	500 (1640)	500 (1640)
	Level difference (ODU in highest position)		Max.	m (ft)	50 (164)	50 (164)	50 (164)	50 (164)
	Level difference (IDU in highest position)		Max.	m (ft)	40 (131)	40 (131)	40 (131)	40 (131)
Level difference (IDU-IDU)		Max.	m (ft)	50 (164)	50 (164)	50 (164)	50 (164)	

Specification

Premium Energy Efficiency Type (460 V)

Type				Water	Water	Water	Water
Model Name				VRC072W4M-4G	VRC096W4M-4G	VRC120W4M-4G	VRC144W4M-4G2
	Outdoor unit module 1			VRC072W4M-4G	VRC096W4M-4G	VRC120W4M-4G	VRC072W4M-4G
	Outdoor unit module 2						VRC072W4M-4G
	Outdoor unit module 3						
	Outdoor unit module 4						
Wiring connections	Communication	Min.	mm2	0.75	0.75	0.75	0.75
		Remark	-	F1, F2	F1, F2	F1, F2	F1, F2
Refrigerant	Type		-	R410A	R410A	R410A	R410A
	Factory Charging		kg (lbs)	5.5 (12.1)	5.8 (12.8)	6.0 (13.2)	5.5 (12.1) x 2
Sound	Sound Pressure	Cooling	dB(A)	48	48	50	51
		Heating		51	51	52	54
	Sound Power			70	70	70	73
External Dimension	Net Weight		kg (lbs)	167(368)	167(368)	167(368)	167 (368) x 2
	Shipping Weight		kg (lbs)	174(384)	174(384)	174(384)	174 (384) x 2
	Net Dimensions (WxHxD)		mm	790x1,000x545	790x1,000x545	790x1,000x545	(790x1000x545) x 2
			inch	31.1x39.4x21.5	31.1x39.4x21.5	31.1x39.4x21.5	(31.1x39.4x21.5) x 2
	Shipping Dimensions (WxHxD)		mm	840x1,200x620	840x1,200x620	840x1,200x620	(840x1,200x620) x 2
			inch	33.1x47.2x24.4	33.1x47.2x24.4	33.1x47.2x24.4	(33.1x47.2x24.4) x 2
Operating Temp. Range (Water Temp.)	Cooling		℃ (℉)	10~45 (50~113)	10~45 (50~113)	10~45 (50~113)	10~45 (50~113)
	Heating		℃ (℉)	10~45 (50~113)	10~45 (50~113)	10~45 (50~113)	10~45 (50~113)

NOTE

- Specification may be subject to change without prior notice.
- 1)* Nominal capacities are based on (Equivalent refrigerant piping : 25ft(7.5m), Level differences : 0ft(0m)
 - Cooling : Indoor temperature : 80°F(26.7°C) DB, 67°F(19.4°C) WB / Inlet water temperature : 85°F(29.4°C)
 - Heating : Indoor temperature : 70°F(21.1°C) DB, 60°F(15.6°C) WB / Inlet water temperature : 68°F(20°C)
- 2)* Rated capacities are based on (Equivalent refrigerant piping : 25ft(7.5m), Level differences : 0ft(0m)
 - Cooling : Indoor temperature : 80.6°F(27°C) DB, 66.2°F(19°C) WB / Inlet water temperature : 86°F(30°C)
 - Heating : Indoor temperature : 68°F(20°C) DB, 59°F(15°C) WB / Inlet water temperature : 68°F(20°C)
- Sound pressure level is obtained in an anechoic room.
 - Sound pressure level is a relative value, depending on the distance and acoustic environment.
 - Sound pressure level may differ depending on operation condition.
 - dBA = A-weighted sound pressure level
 - Reference acoustic pressure 0 dB = 20uPa
- Sound power level is an absolute value that a sound source generates.
 - dBA = A-weighted sound power level
 - Reference power : 1pW
 - Measured according to ISO 3741
- Sound values of multi combination are theoretical values based on sound results of individual installed units.
- These products contain R410A which is fluorinated greenhouse gas.
- Total capacity of the connected indoor units can be allowed from 50% to 130% of the total outdoor unit capacity. $0.5 \times \sum(\text{Outdoor unit capacity}) \leq \text{Total capacity of the connected indoor units} \leq 1.3 \times \sum(\text{Outdoor unit capacity})$
- You can connect maximum 64 indoor units to the outdoor unit. Maximum quantity of connectable indoor unit is set to 64 since outdoor unit only support up to 64 communication address. Indoor unit address can be assigned from indoor unit address was assigned from 64~79, E201 error will occur. 0~63.
If the indoor unit address was assigned from 64~79, E201 error will occur.

Specification

Premium Energy Efficiency Type (460 V)

Type				Water	Water	Water
Model Name				VRC168W4M-4G2	VRC192W4M-4G	VRC216W4M-4G2
	Outdoor unit module 1			VRC072W4M-4G	VRC192W4M-4G	VRC096W4M-4G
	Outdoor unit module 2			VRC096W4M-4G		VRC120W4M-4G
	Outdoor unit module 3					
	Outdoor unit module 4					
Power Supply			ø, #, V, Hz	3, 3, 460, 60	3, 3, 460, 60	3, 3, 460, 60
Mode			-	HP, HR	HP, HR	HP, HR
Performance	Ton		Ton	14	16	18
	Capacity (Nominal) ¹⁾ *	Cooling	Btu/h	168,000	192,000	216,000
		Heating	Btu/h	189,000	216,000	243,000
	Capacity (Rated) ²⁾ *	Cooling	Btu/h	160,000	184,000	206,000
		Heating	Btu/h	180,000	206,000	232,000
Maximum number of connectable indoor units			ea	29	33	37
	Total capacity of the connected Indoor Units	Min.	Btu/h	84,000	96,000	108,000
		Max.	Btu/h	218,400	249,600	280,800
Power	Power Input (Nominal) ¹⁾ *	Cooling	kW	7.42	15.20	11.26
		Heating		8.31	13.39	12.28
	Current	MCA	A	10 + 11	26.2	11 + 15.6
		MOP		15 + 15	35	15 + 25
Casing	Material	Body	-	EGI steel plate	EGI steel plate	EGI steel plate
		Base	-	EGI steel plate	EGI steel plate	EGI steel plate
Compressor	Type		-	Inverter Scroll	Inverter Scroll	Inverter Scroll
	Output		kW × n	(4.96) x 2	(4.96) x 2	(4.96) + (6.13)
	Model Name		-	DS-GB052FAVB SG x 2	DS-GB052FAVB SG x 2	(DS-GB052FAVB SG x 1) + (DSGB066FAVB SG x 1)
	Oil	Type	-	PVE	PVE	PVE
Initial Charge		Liter	3.9 x 2	6.2	3.9 x 2	
Condenser	Type		Type	PHE (Plate Heat Exchanger)	PHE (Plate Heat Exchanger)	PHE (Plate Heat Exchanger)
	Pipe Size		ø, inch	NPT 1-1/4 x 2	NPT 1-1/4	NPT 1-1/4 x 2
	Lost Head		kPa (ftAq)	22 (7.3) + 30 (10.0)	54 (18.1)	30(10.0) + 43 (14.4)
	Water Flow Rate		LPM (GPM)	80 (21.1) + 96 (25.4)	190 (50.2)	96 (25.4) + 114 (30.1)
	Max. Pressure		Mpa (psi)	1.96 (285)	1.96 (285)	1.96 (285)
Piping Connections	Liquid Pipe	Type		Braze connection	Braze connection	Braze connection
		ø, mm		15.88	15.88	15.88
		ø, inch		5/8"	5/8"	5/8"
	Gas Pipe	Type		Braze connection	Braze connection	Braze connection
		ø, mm		28.58	28.58	28.58
		ø, inch		1 1/8"	1 1/8"	1 1/8"
	Discharge Gas Pipe (HR)	ø, mm		22.22	28.58	28.58
		ø, inch		7/8"	1 1/8"	1 1/8"
	Heat insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length (ODU-IDU)	Max.	m (ft)	170 (558)	170 (558)	170 (558)
	Piping length (1st Branch-IDU)	Max.	m (ft)	90 (295)	90 (295)	90 (295)
	Total piping length (System)	Max.	m (ft)	500 (1640)	500 (1640)	500 (1640)
	Level difference (ODU in highest position)	Max.	m (ft)	50 (164)	50 (164)	50 (164)
	Level difference (IDU in highest position)	Max.	m (ft)	40 (131)	40 (131)	40 (131)
Level difference (IDU-IDU)	Max.	m (ft)	50 (164)	50 (164)	50 (164)	

Specification

Premium Energy Efficiency Type (460 V)

Type				Water	Water	Water
Model Name				VRC168W4M-4G2	VRC192W4M-4G	VRC216W4M-4G2
	Outdoor unit module 1			VRC072W4M-4G	VRC192W4M-4G	VRC096W4M-4G
	Outdoor unit module 2			VRC096W4M-4G		VRC120W4M-4G
	Outdoor unit module 3					
	Outdoor unit module 4					
Wiring connections	Communication	Min.	mm2	0.75	0.75	0.75
		Remark	-	F1, F2	F1, F2	F1, F2
Refrigerant	Type		-	R410A	R410A	R410A
	Factory Charging		kg (lbs)	5.5 (12.1) + 5.8 (12.8)	9.8 (21.6)	5.8 (12.8) + 6 (13.2)
Sound	Sound Pressure	Cooling	dB(A)	51	51	52
		Heating		54	52	55
	Sound Power			73	73	73
External Dimension	Net Weight		kg (lbs)	167 (368) x 2	247(545)	167 (368) x 2
	Shipping Weight		kg (lbs)	174 (384) x 2	257(567)	174 (384) x 2
	Net Dimensions (WxHxD)		mm	(790x1000x545) x 2	1,120x1,000x545	(790x1,000x545) x 2
			inch	(31.1x39.4x21.5) x 2	44.1x39.4x21.5	(31.1x39.4x21.5) x 2
	Shipping Dimensions (WxHxD)		mm	(840x1,200x620) x 2	1,170x1,200x620	(840x1,200x620) x 2
			inch	(33.1x47.2x24.4) x 2	46.1x47.2x24.4	(33.1x47.2x24.4) x 2
Operating Temp. Range (Water Temp.)	Cooling		℃ (°F)	10~45 (50~113)	10~45 (50~113)	10~45 (50~113)
	Heating		℃ (°F)	10~45 (50~113)	10~45 (50~113)	10~45 (50~113)

NOTE

- Specification may be subject to change without prior notice.
- 1)* Nominal capacities are based on (Equivalent refrigerant piping : 25ft(7.5m), Level differences : 0ft(0m)
 - Cooling : Indoor temperature : 80°F(26.7°C) DB, 67°F(19.4°C) WB / Inlet water temperature : 85°F(29.4°C)
 - Heating : Indoor temperature : 70°F(21.1°C) DB, 60°F(15.6°C) WB / Inlet water temperature : 68°F(20°C)
- 2)* Rated capacities are based on (Equivalent refrigerant piping : 25ft(7.5m), Level differences : 0ft(0m)
 - Cooling : Indoor temperature : 80.6°F(27°C) DB, 66.2°F(19°C) WB / Inlet water temperature : 86°F(30°C)
 - Heating : Indoor temperature : 68°F(20°C) DB, 59°F(15°C) WB / Inlet water temperature : 68°F(20°C)
- Sound pressure level is obtained in an anechoic room.
 - Sound pressure level is a relative value, depending on the distance and acoustic environment.
 - Sound pressure level may differ depending on operation condition.
 - dBA = A-weighted sound pressure level
 - Reference acoustic pressure 0 dB = 20uPa
- Sound power level is an absolute value that a sound source generates.
 - dBA = A-weighted sound power level
 - Reference power : 1pW
 - Measured according to ISO 3741
- Sound values of multi combination are theoretical values based on sound results of individual installed units.
- These products contain R410A which is fluorinated greenhouse gas.
- Total capacity of the connected indoor units can be allowed from 50% to 130% of the total outdoor unit capacity. $0.5 \times \sum(\text{Outdoor unit capacity}) \leq \text{Total capacity of the connected indoor units} \leq 1.3 \times \sum(\text{Outdoor unit capacity})$
- You can connect maximum 64 indoor units to the outdoor unit. Maximum quantity of connectable indoor unit is set to 64 since outdoor unit only support up to 64 communication address. Indoor unit address can be assigned from indoor unit address was assigned from 64~79, E201 error will occur.0~63.
If the If the indoor unit address was assigned from 64~79, E201 error will occur.

Specification

Premium Energy Efficiency Type (460 V)

Type				Water	Water	Water
Model Name				VRC264W4M-4G2	VRC288W4M-4G2	VRC336W4M-4G3
	Outdoor unit module 1			VRC072W4M-4G	VRC096W4M-4G	VRC072W4M-4G
	Outdoor unit module 2			VRC192W4M-4G	VRC192W4M-4G	VRC072W4M-4G
	Outdoor unit module 3					VRC192W4M-4G
	Outdoor unit module 4					
Power Supply			ø, #, V, Hz	3, 3, 460, 60	3, 3, 460, 60	3, 3, 460, 60
Mode			-	HP, HR	HP, HR	HP, HR
Performance	Ton		Ton	22	24	28
	Capacity (Nominal) ^{1)*}	Cooling	Btu/h	264,000	288,000	336,000
		Heating	Btu/h	297,000	324,000	378,000
	Capacity (Rated) ^{2)*}	Cooling	Btu/h	252,000	276,000	322,000
		Heating	Btu/h	282,000	308,000	360,000
Maximum number of connectable indoor units			ea	45	49	58
	Total capacity of the connected Indoor Units	Min.	Btu/h	132,000	144,000	168,000
		Max.	Btu/h	343,200	374,400	436,800
Power	Power Input (Nominal) ^{1)*}	Cooling	kW	18.35	19.47	21.50
		Heating		16.91	18.18	20.43
	Current	MCA	A	10 + 26.2	11 + 26.2	10 + 10 + 26.2
		MOP		15 + 35	15 + 35	15 + 15 + 35
Casing	Material	Body	-	EGI steel plate	EGI steel plate	EGI steel plate
		Base	-	EGI steel plate	EGI steel plate	EGI steel plate
Compressor	Type		-	Inverter Scroll	Inverter Scroll	Inverter Scroll
	Output		kW × n	(4.96) + (4.96 x 2)	(4.96) + (4.96 x 2)	(4.96) x 2 + (4.96 x 2)
	Model Name		-	DS-GB052FAVBSG x 3	DS-GB052FAVBSG x 3	DS-GB052FAVBSG x 4
	Oil	Type	-	PVE	PVE	PVE
Initial Charge		Liter	3.9 + 6.2	3.9+6.2	(3.9)x2 + 6.2	
Condenser	Type		Type	PHE (Plate Heat Exchanger)	PHE (Plate Heat Exchanger)	PHE (Plate Heat Exchanger)
	Pipe Size		ø, inch	NPT 1-1/4 x 3	NPT 1-1/4 x 2	NPT 1-1/4 x 3
	Lost Head		kPa (ftAq)	22 (7.3) +54 (18.1)	30 (10.0) + 54 (18.1)	22 (7.3) + 22 (7.3) + 54 (18.1)
	Water Flow Rate		LPM (GPM)	80 (21.1) +190 (50.2)	96 (25.4) +190 (50.2)	80 (21.1) + 80 (21.1) + 190 (50.2)
	Max. Pressure		Mpa (psi)	1.96 (285)	1.96 (285)	1.96 (285)
Piping Connections	Liquid Pipe	Type		Braze connection	Braze connection	Braze connection
		ø, mm		19.05	19.05	19.05
		ø, inch		3/4"	3/4"	3/4"
	Gas Pipe	Type		Braze connection	Braze connection	Braze connection
		ø, mm		34.92	34.92	34.92
		ø, inch		1 3/8"	1 3/8"	1 3/8"
	Discharge Gas Pipe (HR)	ø, mm		28.58	28.58	28.58
		ø, inch		1 1/8"	1 1/8"	1 1/8"
	Heat insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length (ODU-IDU)	Max.	m (ft)	170 (558)	170 (558)	170 (558)
	Piping length (1st Branch-IDU)	Max.	m (ft)	90 (295)	90 (295)	90 (295)
	Total piping length (System)	Max.	m (ft)	500 (1640)	500 (1640)	500 (1640)
	Level difference (ODU in highest position)	Max.	m (ft)	50 (164)	50 (164)	50 (164)
	Level difference (IDU in highest position)	Max.	m (ft)	40 (131)	40 (131)	40 (131)
Level difference (IDU-IDU)	Max.	m (ft)	50 (164)	50 (164)	50 (164)	
Wiring connections	Communication	Min.	mm2	0.75	0.75	0.75
		Remark	-	F1, F2	F1, F2	F1, F2

Specification

Premium Energy Efficiency Type (460 V)

Type				Water	Water	Water
Model Name				VRC264W4M-4G2	VRC288W4M-4G2	VRC336W4M-4G3
	Outdoor unit module 1			VRC072W4M-4G	VRC096W4M-4G	VRC072W4M-4G
	Outdoor unit module 2			VRC192W4M-4G	VRC192W4M-4G	VRC072W4M-4G
	Outdoor unit module 3					VRC192W4M-4G
	Outdoor unit module 4					
Refrigerant	Type		-	R410A	R410A	R410A
	Factory Charging		kg (lbs)	5.5 (12.1) + 9.8 (21.6)	5.8 (12.8) + 9.8 (21.6)	5.5 (12.1)x2 + 9.8 (21.6)
Sound	Sound Pressure	Cooling	dB(A)	53	53	54
		Heating		56	55	56
	Sound Power			75	75	75
External Dimension	Net Weight		kg (lbs)	167 (368) + 247 (545)	167 (368) + 247 (545)	167 (384)x2 + 247 (545)
	Shipping Weight		kg (lbs)	174 (384) + 257 (567)	174 (384) + 257 (567)	174 (384)x2 + 257 (567)
	Net Dimensions (WxHxD)		mm	(790x1,000x545) + (1,120x1,000x545)	(790x1,000x545) + (1,120x1,000x545)	(790x1,000x545) x 2 + (1,120x1,000x545)
			inch	(31.1x39.4x21.5) + (44.1x39.4x21.5)	(31.1x39.4x21.5) + (44.1x39.4x21.5)	(31.1x39.4x21.5) x 2 + (44.1x39.4x21.5)
	Shipping Dimensions (WxHxD)		mm	(840x1,200x620) + (1,170x1,200x620)	(840x1,200x620) + (1,170x1,200x620)	(840x1,200x620) x 2 + (1,170x1,200x620)
			inch	(33.1x47.2x24.4) + (46.1x47.2x24.4)	(33.1x47.2x24.4) + (46.1x47.2x24.4)	(33.1x47.2x24.4) x 2 + (46.1x47.2x24.4)
Operating Temp. Range (Water Temp.)	Cooling		℃ (°F)	10~45 (50~113)	10~45 (50~113)	10~45 (50~113)
	Heating		℃ (°F)	10~45 (50~113)	10~45 (50~113)	10~45 (50~113)

NOTE

- Specification may be subject to change without prior notice.
- 1)* Nominal capacities are based on (Equivalent refrigerant piping : 25ft(7.5m), Level differences : 0ft(0m)
 - Cooling : Indoor temperature : 80°F(26.7°C) DB, 67°F(19.4°C) WB / Inlet water temperature : 85°F(29.4°C)
 - Heating : Indoor temperature : 70°F(21.1°C) DB, 60°F(15.6°C) WB / Inlet water temperature : 68°F(20°C)
- 2)* Rated capacities are based on (Equivalent refrigerant piping : 25ft(7.5m), Level differences : 0ft(0m)
 - Cooling : Indoor temperature : 80.6°F(27°C) DB, 66.2°F(19°C) WB / Inlet water temperature : 86°F(30°C)
 - Heating : Indoor temperature : 68°F(20°C) DB, 59°F(15°C) WB / Inlet water temperature : 68°F(20°C)
- Sound pressure level is obtained in an anechoic room.
 - Sound pressure level is a relative value, depending on the distance and acoustic environment.
 - Sound pressure level may differ depending on operation condition.
 - dBA = A-weighted sound pressure level
 - Reference acoustic pressure 0 dB = 20uPa
- Sound power level is an absolute value that a sound source generates.
 - dBA = A-weighted sound power level
 - Reference power : 1pW
 - Measured according to ISO 3741
- Sound values of multi combination are theoretical values based on sound results of individual installed units.
- These products contain R410A which is fluorinated greenhouse gas.
- Total capacity of the connected indoor units can be allowed from 50% to 130% of the total outdoor unit capacity. $0.5 \times \sum(\text{Outdoor unit capacity}) \leq \text{Total capacity of the connected indoor units} \leq 1.3 \times \sum(\text{Outdoor unit capacity})$
- You can connect maximum 64 indoor units to the outdoor unit. Maximum quantity of connectable indoor unit is set to 64 since outdoor unit only support up to 64 communication address. Indoor unit address can be assigned from indoor unit address was assigned from 64~79, E201 error will occur.0~63.
If the indoor unit address was assigned from 64~79, E201 error will occur.

Specification

Premium Energy Efficiency Type (460 V)

Type				Water	Water
Model Name				VRC360W4M-4G3	VRC384W4M-4G3
	Outdoor unit module 1			VRC072W4M-4G	VRC096W4M-4G
	Outdoor unit module 2			VRC096W4M-4G	VRC096W4M-4G
	Outdoor unit module 3			VRC192W4M-4G	VRC192W4M-4G
	Outdoor unit module 4				
Power Supply			ø, #, V, Hz	3, 3, 460, 60	3, 3, 460, 60
Mode			-	HP, HR	HP, HR
Performance	Ton		Ton	30	32
	Capacity (Nominal) ^{1)*}	Cooling	Btu/h	360,000	384,000
		Heating	Btu/h	405,000	432,000
	Capacity (Rated) ^{2)*}	Cooling	Btu/h	344,000	368,000
		Heating	Btu/h	386,000	412,000
Maximum number of connectable indoor units			ea	62	64
	Total capacity of the connected Indoor Units	Min.	Btu/h	180,000	192,000
		Max.	Btu/h	468,000	499,200
Power	Power Input (Nominal) ^{1)*}	Cooling	kW	22.62	23.74
		Heating		21.70	23.33
	Current	MCA	A	10 + 11 + 26.2	23.0 + 23.0 + 39.6
		MOP		15 + 15 + 35	15 + 15 + 35
Casing	Material	Body	-	EGI steel plate	EGI steel plate
		Base	-	EGI steel plate	EGI steel plate
Compressor	Type		-	Inverter Scroll	Inverter Scroll
	Output		kW × n	(4.96) × 2 + (4.96 × 2)	(4.96 × 2) × 3
	Model Name		-	DS-GB052FAVBSG × 4	DS-GB052FAVBSG × 3
	Oil	Type	-	PVE	PVE
		Initial Charge	Liter	(3.9)×2 + 6.2	(3.9) × 2 + 6.2
Condenser	Type		Type	PHE (Plate Heat Exchanger)	PHE (Plate Heat Exchanger)
	Pipe Size		ø, inch	NPT 1-1/4 × 3	NPT 1-1/4 × 2
	Lost Head		kPa (ftAq)	22 (7.3) + 30 (10.0) + 54 (18.1)	30 (10.0) + 30 (10.0) + 54 (18.1)
	Water Flow Rate		LPM (GPM)	80 (21.1) + 96 (25.4) + 190 (50.2)	96 (25.4) + 96 (25.4) + 190(50.2)
	Max. Pressure		Mpa (psi)	1.96 (285)	1.96 (285)
Piping Connections	Liquid Pipe	Type		Braze connection	Braze connection
		ø, mm		19.05	19.05
		ø, inch		3/4"	3/4"
	Gas Pipe	Type		Braze connection	Braze connection
		ø, mm		41.28	41.28
		ø, inch		1 5/8"	1 5/8"
	Discharge Gas Pipe (HR)	ø, mm		34.92	34.92
		ø, inch		1 3/8"	1 3/8"
	Heat insulation		-	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length (ODU-IDU)	Max.	m (ft)	170 (558)	170 (558)
	Piping length (1st Branch-IDU)	Max.	m (ft)	90 (295)	90 (295)
	Total piping length (System)	Max.	m (ft)	500 (1640)	500 (1640)
	Level difference (ODU in highest position)	Max.	m (ft)	50 (164)	50 (164)
	Level difference (IDU in highest position)	Max.	m (ft)	40 (131)	40 (131)
	Level difference (IDU-IDU)	Max.	m (ft)	50 (164)	50 (164)
Wiring connections	Communication	Min.	mm2	0.75	0.75
		Remark	-	F1, F2	F1, F2

Specification

Premium Energy Efficiency Type (460 V)

Type				Water	Water
Model Name				VRC360W4M-4G3	VRC384W4M-4G3
	Outdoor unit module 1			VRC072W4M-4G	VRC096W4M-4G
	Outdoor unit module 2			VRC096W4M-4G	VRC096W4M-4G
	Outdoor unit module 3			VRC192W4M-4G	VRC192W4M-4G
	Outdoor unit module 4				
Refrigerant	Type		-	R410A	R410A
	Factory Charging		kg (lbs)	5.5 (12.1) + 5.8 (12.8) + 9.8 (21.6)	5.8 (12.8) + 5.8 (12.8) + 9.8 (21.6)
Sound	Sound Pressure	Cooling	dB(A)	54	54
		Heating		56	56
	Sound Power			76	76
External Dimension	Net Weight		kg (lbs)	167 (384)x2 + 247 (545)	167(368) x 2 + 247 (545)
	Shipping Weight		kg (lbs)	174 (384)x2 + 257 (567)	174(384) x 2 + 257 (567)
	Net Dimensions (WxHxD)		mm	(790x1,000x545) x 2 + (1,120x1,000x545)	(790x1,000x545) x 2 + (1,120x1,000x545)
			inch	(31.1x39.4x21.5) x 2 + (44.1x39.4x21.5)	(31.1x39.4x21.5) x 2 + (44.1x39.4x21.5)
	Shipping Dimensions (WxHxD)		mm	(840x1,200x620) x 2 + (1,170x1,200x620)	(840x1,200x620) x 2 + (1,170x1,200x620)
			inch	(33.1x47.2x24.4) x 2 + (46.1x47.2x24.4)	(33.1x47.2x24.4) x 2 + (46.1x47.2x24.4)
Operating Temp. Range (Water Temp.)	Cooling		℃ (°F)	10~45 (50~113)	10~45 (50~113)
	Heating		℃ (°F)	10~45 (50~113)	10~45 (50~113)

NOTE

- Specification may be subject to change without prior notice.
- 1)* Nominal capacities are based on (Equivalent refrigerant piping : 25ft(7.5m), Level differences : 0ft(0m)
 - Cooling : Indoor temperature : 80°F(26.7°C) DB, 67°F(19.4°C) WB / Inlet water temperature : 85°F(29.4°C)
 - Heating : Indoor temperature : 70°F(21.1°C) DB, 60°F(15.6°C) WB / Inlet water temperature : 68°F(20°C)
- 2)* Rated capacities are based on (Equivalent refrigerant piping : 25ft(7.5m), Level differences : 0ft(0m)
 - Cooling : Indoor temperature : 80.6°F(27°C) DB, 66.2°F(19°C) WB / Inlet water temperature : 86°F(30°C)
 - Heating : Indoor temperature : 68°F(20°C) DB, 59°F(15°C) WB / Inlet water temperature : 68°F(20°C)
- Sound pressure level is obtained in an anechoic room.
 - Sound pressure level is a relative value, depending on the distance and acoustic environment.
 - Sound pressure level may differ depending on operation condition.
 - dBA = A-weighted sound pressure level
 - Reference acoustic pressure 0 dB = 20uPa
- Sound power level is an absolute value that a sound source generates.
 - dBA = A-weighted sound power level
 - Reference power : 1pW
 - Measured according to ISO 3741
- Sound values of multi combination are theoretical values based on sound results of individual installed units.
- These products contain R410A which is fluorinated greenhouse gas.
- Total capacity of the connected indoor units can be allowed from 50% to 130% of the total outdoor unit capacity. $0.5 \times \Sigma(\text{Outdoor unit capacity}) \leq \text{Total capacity of the connected indoor units} \leq 1.3 \times \Sigma(\text{Outdoor unit capacity})$
- You can connect maximum 64 indoor units to the outdoor unit. Maximum quantity of connectable indoor unit is set to 64 since outdoor unit only support up to 64 communication address. Indoor unit address can be assigned from indoor unit address was assigned from 64~79, E201 error will occur.0~63.
If the If the indoor unit address was assigned from 64~79, E201 error will occur.

Specification

Premium Compact Type (208~230 V)

Type				Water	Water	Water	Water
Model Name				VRC240W4M-4Y	VRC312W4M-4Y2	VRC336W4M-4Y2	VRC360W4M-4Y2
	Outdoor unit module 1			VRC240W4M-4Y	VRC072W4M-4Y	VRC096W4M-4Y	VRC120W4M-4Y
	Outdoor unit module 2				VRC240W4M-4Y	VRC240W4M-4Y	VRC240W4M-4Y
	Outdoor unit module 3						
	Outdoor unit module 4						
Power Supply			ø, #, V, Hz	3, 3, 208~230, 60	3, 3, 208~230, 60	3, 3, 208~230, 60	3, 3, 208~230, 60
Mode			-	HP, HR	HP, HR	HP, HR	HP, HR
Performance	Ton		Ton	20	26	28	30
	Capacity (Nominal) ^{1)*}	Cooling	Btu/h	240,000	312,000	336,000	360,000
		Heating	Btu/h	270,000	351,000	378,000	405,000
	Capacity (Rated) ^{2)*}	Cooling	Btu/h	228,000	298,000	320,000	342,000
		Heating	Btu/h	256,000	334,000	360,000	386,000
Maximum number of connectable indoor units			ea	41	54	58	62
	Total capacity of the connected Indoor Units	Min.	Btu/h	120,000	156,000	168,000	180,000
		Max.	Btu/h	312,000	405,600	436,800	468,000
Power	Power Input (Nominal) ^{1)*}	Cooling	kW	17.56	20.71	21.83	26.06
		Heating		13.30	16.82	18.09	21.49
	Current	MCA	A	66	16+66	23+66	30+66
		MOP		90	25+90	40+90	50+90
Casing	Material	Body	-	EGI steel plate	EGI steel plate	EGI steel plate	EGI steel plate
		Base	-	EGI steel plate	EGI steel plate	EGI steel plate	EGI steel plate
Compressor	Type		-	Inverter Scroll	Inverter Scroll	Inverter Scroll	Inverter Scroll
	Output		kW × n	6.13 x 2	(4.96) + (6.13 x 2)	(4.96) + (6.13 x 2)	(4.96) + (6.13 x 2)
	Model Name		-	DS4GJ5066EVASG x 2	(DS-GB052FBVASG x 1) + (DS4GJ5066EVASG x 2)	(DS-GB052FBVASG x 1) + (DS4GJ5066EVASG x 2)	(DS-GB052FBVASG x 1) + (DS4GJ5066EVASG x 2)
	Oil	Type	-	PVE	PVE	PVE	PVE
		Initial Charge	Liter	6.2	3.9 + 6.2	3.9 + 6.2	3.9 + 6.2
Condenser	Type		Type	PHE (Plate Heat Exchanger)	PHE (Plate Heat Exchanger)	PHE (Plate Heat Exchanger)	PHE (Plate Heat Exchanger)
	Pipe Size		ø, inch	NPT 2	(NPT 1-1/4) + (NPT 2)	(NPT 1-1/4) + (NPT 2)	(NPT 1-1/4) + (NPT 2)
	Lost Head		kPa (ftAq)	33 (11.0)	22 (7.3) + 33(11.0)	30 (10.0) + 33(11.0)	43 (14.4) + 33 (11.0)
	Water Flow Rate		LPM (GPM)	228 (60.2)	80 (21.1) + 228 (60.2)	96 (25.4) + 228 (60.2)	114 (30.1) + 228 (60.2)
	Max. Pressure		Mpa (psi)	1.96 (285)	1.96 (285)	1.96 (285)	1.96 (285)
Piping Connections	Liquid Pipe	Type		Braze connection	Braze connection	Braze connection	Braze connection
		ø, mm		15.88	19.05	19.05	19.05
		ø, inch		5/8"	3/4"	3/4"	3/4"
	Gas Pipe	Type		Braze connection	Braze connection	Braze connection	Braze connection
		ø, mm		28.58	34.92	34.92	41.28
		ø, inch		1 1/8"	1 3/8"	1 3/8"	1 5/8"
	Discharge Gas Pipe (HR)	ø, mm		28.58	28.58	28.58	34.92
		ø, inch		1 1/8"	1 1/8"	1 1/8"	1 3/8"
	Heat insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length (ODU-IDU)	Max.	m (ft)	170 (558)	170 (558)	170 (558)	170 (558)
	Piping length (1st Branch-IDU)	Max.	m (ft)	90 (295)	90 (295)	90 (295)	90 (295)
	Total piping length (System)	Max.	m (ft)	500 (1640)	500 (1640)	500 (1640)	500 (1640)
	Level difference (ODU in highest position)	Max.	m (ft)	50 (164)	50 (164)	50 (164)	50 (164)
	Level difference (IDU in highest position)	Max.	m (ft)	40 (131)	40 (131)	40 (131)	40 (131)
Level difference (IDU-IDU)	Max.	m (ft)	50 (164)	50 (164)	50 (164)	50 (164)	
Wiring connections	Communication	Min.	mm2	0.75	0.75	0.75	0.75
		Remark	-	F1, F2	F1, F2	F1, F2	F1, F2

Specification

Premium Compact Type (208~230 V)

Type			Water	Water	Water	Water
Model Name			VRC240W4M-4Y	VRC312W4M-4Y2	VRC336W4M-4Y2	VRC360W4M-4Y2
	Outdoor unit module 1		VRC240W4M-4Y	VRC072W4M-4Y	VRC096W4M-4Y	VRC120W4M-4Y
	Outdoor unit module 2			VRC240W4M-4Y	VRC240W4M-4Y	VRC240W4M-4Y
	Outdoor unit module 3					
	Outdoor unit module 4					
Refrigerant	Type	-	R410A	R410A	R410A	R410A
	Factory Charging	kg (lbs)	11.0 (24.3)	5.5 (12.1) + 11.0 (24.3)	5.8 (12.8) + 11.0 (24.3)	6.0 (13.2) + 11.0 (24.3)
Sound	Sound Pressure	Cooling	55	56	56	57
		Heating	57	58	58	59
	Sound Power		74	76	76	76
External Dimension	Net Weight		kg (lbs)	274 (604)	167(368) + 274 (604)	167(368) + 274 (604)
	Shipping Weight		kg (lbs)	284 (626)	174(384) + 284 (626)	174(384) + 284 (626)
	Net Dimensions (WxHxD)	mm	1,100x1,000x545	(770x1,000x545) + (1,100x1,000x545)	(770x1,000x545) + (1,100x1,000x545)	(770x1,000x545) + (1,100x1,000x545)
		inch	43.3x39.4x21.5	(30.3x39.4x21.5) + (43.3x39.4x21.5)	(30.3x39.4x21.5) + (43.3x39.4x21.5)	(30.3x39.4x21.5) + (43.3x39.4x21.5)
	Shipping Dimensions (WxHxD)	mm	1,170x1,200x620	(840x1,200x620) + (1,170x1,200x620)	(840x1,200x620) + (1,170x1,200x620)	(840x1,200x620) + (1,170x1,200x620)
		inch	46.1x47.2x24.4	(33.1x47.2x24.4) + (46.1x47.2x24.4)	(33.1x47.2x24.4) + (46.1x47.2x24.4)	(33.1x47.2x24.4) + (46.1x47.2x24.4)
Operating Temp. Range (Water Temp.)	Cooling		℃ (°F)	10~45 (50~113)	10~45 (50~113)	10~45 (50~113)
	Heating		℃ (°F)	10~45 (50~113)	10~45 (50~113)	10~45 (50~113)

NOTE

- Specification may be subject to change without prior notice.
- 1)* Nominal capacities are based on (Equivalent refrigerant piping : 25ft(7.5m), Level differences : 0ft(0m)
 - Cooling : Indoor temperature : 80°F(26.7°C) DB, 67°F(19.4°C) WB / Inlet water temperature : 85°F(29.4°C)
 - Heating : Indoor temperature : 70°F(21.1°C) DB, 60°F(15.6°C) WB / Inlet water temperature : 68°F(20°C)
- 2)* Rated capacities are based on (Equivalent refrigerant piping : 25ft(7.5m), Level differences : 0ft(0m)
 - Cooling : Indoor temperature : 80.6°F(27°C) DB, 66.2°F(19°C) WB / Inlet water temperature : 86°F(30°C)
 - Heating : Indoor temperature : 68°F(20°C) DB, 59°F(15°C) WB / Inlet water temperature : 68°F(20°C)
- Sound pressure level is obtained in an anechoic room.
 - Sound pressure level is a relative value, depending on the distance and acoustic environment.
 - Sound pressure level may differ depending on operation condition.
 - dBA = A-weighted sound pressure level
 - Reference acoustic pressure 0 dB = 20uPa
- Sound power level is an absolute value that a sound source generates.
 - dBA = A-weighted sound power level
 - Reference power : 1pW
 - Measured according to ISO 3741
- Sound values of multi combination are theoretical values based on sound results of individual installed units.
- These products contain R410A which is fluorinated greenhouse gas.
- Total capacity of the connected indoor units can be allowed from 50% to 130% of the total outdoor unit capacity. $0.5 \times \Sigma(\text{Outdoor unit capacity}) \leq \text{Total capacity of the connected indoor units} \leq 1.3 \times \Sigma(\text{Outdoor unit capacity})$
- You can connect maximum 64 indoor units to the outdoor unit. Maximum quantity of connectable indoor unit is set to 64 since outdoor unit only support up to 64 communication address. Indoor unit address can be assigned from indoor unit address was assigned from 64~79, E201 error will occur.0~63.
If the indoor unit address was assigned from 64~79, E201 error will occur.

Specification

Premium Compact Type (208~230 V)

Type				Water	
Model Name				VRC408W4M-4Y3	
	Outdoor unit module 1			VRC072W4M-4Y	
	Outdoor unit module 2			VRC096W4M-4Y	
	Outdoor unit module 3			VRC240W4M-4Y	
	Outdoor unit module 4				
Power Supply			ø, #, V, Hz	3, 3, 208~230, 60	
Mode			-	HP, HR	
Performance	Ton		Ton	34	
	Capacity (Nominal) ^{1)*}	Cooling	Btu/h	408,000	
		Heating	Btu/h	459,000	
	Capacity (Rated) ^{2)*}	Cooling	Btu/h	390,000	
		Heating	Btu/h	436,000	
Maximum number of connectable indoor units			ea	64	
	Total capacity of the connected Indoor Units	Min.	Btu/h	204,000	
		Max.	Btu/h	530,400	
Power	Power Input (Nominal) ^{1)*}	Cooling	kW	24.98	
		Heating		21.61	
	Current	MCA	A	16+23+66	
		MOP		25+40+90	
Casing	Material	Body	-	EGI steel plate	
		Base	-	EGI steel plate	
Compressor	Type		-	Inverter Scroll	
	Output		kW × n	(4.96) × 2 + (6.13 × 2)	
	Model Name		-	(DS-GB052FBVASG × 2) + (DS4GJ5066EVASG × 2)	
	Oil	Type	-	PVE	
Initial Charge		Liter	(3.9) × 2 + 6.2		
Condenser	Type		Type	PHE (Plate Heat Exchanger)	
	Pipe Size		ø, inch	(NPT 1-1/4) × 2 + (NPT 2)	
	Lost Head		kPa (ftAq)	22 (7.3) + 30 (10.0) + 33(11.0)	
	Water Flow Rate		LPM (GPM)	80 (21.1) + 96 (25.4) + 228 60.2)	
	Max. Pressure		Mpa (psi)	1.96 (285)	
Piping Connections	Liquid Pipe	Type		Braze connection	
		ø, mm		19.05	
		ø, inch		3/4"	
	Gas Pipe	Type		Braze connection	
		ø, mm		41.28	
		ø, inch		1 5/8"	
	Discharge Gas Pipe (HR)	ø, mm		34.92	
		ø, inch		1 3/8"	
	Heat insulation		-	Both liquid and gas pipes	
	Piping length (ODU-IDU)	Max.	m (ft)	170 (558)	
	Piping length (1st Branch-IDU)	Max.	m (ft)	90 (295)	
	Total piping length (System)	Max.	m (ft)	500 (1640)	
	Level difference (ODU in highest position)	Max.	m (ft)	50 (164)	
	Level difference (IDU in highest position)	Max.	m (ft)	40 (131)	
	Level difference (IDU-IDU)	Max.	m (ft)	50 (164)	
Wiring connections	Communication	Min.	mm2	0.75	
		Remark	-	F1, F2	

Specification

Premium Compact Type (208~230 V)

Type				Water	
Model Name				VRC408W4M-4Y3	
	Outdoor unit module 1			VRC072W4M-4Y	
	Outdoor unit module 2			VRC096W4M-4Y	
	Outdoor unit module 3			VRC240W4M-4Y	
	Outdoor unit module 4				
Refrigerant	Type		-	R410A	
	Factory Charging		kg (lbs)	5.5 (12.1) + 5.8 (12.8) + 11.0 (24.3)	
Sound	Sound Pressure	Cooling	dB(A)	57	
		Heating		59	
	Sound Power			77	
External Dimension	Net Weight		kg (lbs)	167 (368) x 2 + 274 (604)	
	Shipping Weight		kg (lbs)	174 (384) x 2 + 284 (626)	
	Net Dimensions (WxHxD)		mm	(770x1,000x545) x 2 + (1,100x1,000x545)	
			inch	(30.3x39.4x21.5) x 2 + (43.3x39.4x21.5)	
	Shipping Dimensions (WxHxD)		mm	(840x1,200x620) x 2 + (1,170x1,200x620)	
			inch	(33.1x47.2x24.4) x 2 + (46.1x47.2x24.4)	
Operating Temp. Range (Water Temp.)	Cooling		℃ (°F)	10~45 (50~113)	
	Heating		℃ (°F)	10~45 (50~113)	

NOTE

- Specification may be subject to change without prior notice.
- 1)* Nominal capacities are based on (Equivalent refrigerant piping : 25ft(7.5m), Level differences : 0ft(0m)
 - Cooling : Indoor temperature : 80°F(26.7°C) DB, 67°F(19.4°C) WB / Inlet water temperature : 85°F(29.4°C)
 - Heating : Indoor temperature : 70°F(21.1°C) DB, 60°F(15.6°C) WB / Inlet water temperature : 68°F(20°C)
- 2)* Rated capacities are based on (Equivalent refrigerant piping : 25ft(7.5m), Level differences : 0ft(0m)
 - Cooling : Indoor temperature : 80.6°F(27°C) DB, 66.2°F(19°C) WB / Inlet water temperature : 86°F(30°C)
 - Heating : Indoor temperature : 68°F(20°C) DB, 59°F(15°C) WB / Inlet water temperature : 68°F(20°C)
- Sound pressure level is obtained in an anechoic room.
 - Sound pressure level is a relative value, depending on the distance and acoustic environment.
 - Sound pressure level may differ depending on operation condition.
 - dBA = A-weighted sound pressure level
 - Reference acoustic pressure 0 dB = 20uPa
- Sound power level is an absolute value that a sound source generates.
 - dBA = A-weighted sound power level
 - Reference power : 1pW
 - Measured according to ISO 3741
- Sound values of multi combination are theoretical values based on sound results of individual installed units.
- These products contain R410A which is fluorinated greenhouse gas.
- Total capacity of the connected indoor units can be allowed from 50% to 130% of the total outdoor unit capacity. $0.5 \times \Sigma(\text{Outdoor unit capacity}) \leq \text{Total capacity of the connected indoor units} \leq 1.3 \times \Sigma(\text{Outdoor unit capacity})$
- You can connect maximum 64 indoor units to the outdoor unit. Maximum quantity of connectable indoor unit is set to 64 since outdoor unit only support up to 64 communication address. Indoor unit address can be assigned from indoor unit address was assigned from 64~79, E201 error will occur. 0~63.
If the indoor unit address was assigned from 64~79, E201 error will occur.

Specification

Premium Compact Type (460 V)

Type				Water	Water	Water	Water
Model Name				VRC240W4M-4G	VRC312W4M-4G2	VRC336W4M-4G2	VRC360W4M-4G2
	Outdoor unit module 1			VRC240W4M-4G	VRC072W4M-4G	VRC096W4M-4G	VRC120W4M-4G
	Outdoor unit module 2				VRC240W4M-4G	VRC240W4M-4G	VRC240W4M-4G
	Outdoor unit module 3						
	Outdoor unit module 4						
Power Supply			ø, #, V, Hz	3, 3, 460, 60	3, 3, 460, 60	3, 3, 460, 60	3, 3, 460, 60
Mode			-	HP, HR	HP, HR	HP, HR	HP, HR
Performance	Ton		Ton	20	26	28	30
	Capacity (Nominal) ¹⁾ *	Cooling	Btu/h	240,000	312,000	336,000	360,000
		Heating	Btu/h	270,000	351,000	378,000	405,000
	Capacity (Rated) ²⁾ *	Cooling	Btu/h	228,000	298,000	320,000	342,000
		Heating	Btu/h	256,000	334,000	360,000	386,000
Maximum number of connectable indoor units			ea	41	54	58	62
	Total capacity of the connected Indoor Units	Min.	Btu/h	120,000	156,000	168,000	180,000
		Max.	Btu/h	312,000	405,600	436,800	468,000
Power	Power Input (Nominal) ¹⁾ *	Cooling	kW	17.56	20.71	21.83	24.55
		Heating		13.30	16.82	18.09	20.79
	Current	MCA	A	33	10+33	11+33	15.6+33
		MOP		45	15+45	15+45	25+45
Casing	Material	Body	-	EGI steel plate	EGI steel plate	EGI steel plate	EGI steel plate
		Base	-	EGI steel plate	EGI steel plate	EGI steel plate	EGI steel plate
Compressor	Type		-	Inverter Scroll	Inverter Scroll	Inverter Scroll	Inverter Scroll
	Output		kW × n	6.13 x 2	(4.96) + (6.13 x 2)	(4.96) + (6.13 x 2)	(6.13) + (6.13 x 2)
	Model Name		-	DS-GB066FAVB SG x 2	(DS-GB052FAVB SG x 1) + (DS-GB066FAVB SG x 2)	(DS-GB052FAVB SG x 1) + (DS-GB066FAVB SG x 2)	DS-GB066FAVB SG x 3
	Oil	Type	-	PVE	PVE	PVE	PVE
		Initial Charge	Liter	6.2	3.9 + 6.2	3.9 + 6.2	3.9 + 6.2
Condenser	Type		Type	PHE (Plate Heat Exchanger)	PHE (Plate Heat Exchanger)	PHE (Plate Heat Exchanger)	PHE (Plate Heat Exchanger)
	Pipe Size		ø, inch	NPT 2	(NPT 1-1/4) + (NPT 2)	(NPT 1-1/4) + (NPT 2)	(NPT 1-1/4) + (NPT 2)
	Lost Head		kPa (ftAq)	33(11.0)	22 (7.3) + 33 (11.0)	30 (10.0) + 33 (11.0)	43 (14.4) + 33 (11.0)
	Water Flow Rate		LPM (GPM)	228 (60.2)	80 (21.1) + 228 (60.2)	96 (25.4) + 228(60.2)	114 (30.1) + 228 (60.2)
	Max. Pressure		Mpa (psi)	1.96 (285)	1.96 (285)	1.96 (285)	1.96 (285)
Piping Connections	Liquid Pipe	Type		Braze connection	Braze connection	Braze connection	Braze connection
		ø, mm		15.88	19.05	19.05	19.05
		ø, inch		5/8"	3/4"	3/4"	3/4"
	Gas Pipe	Type		Braze connection	Braze connection	Braze connection	Braze connection
		ø, mm		28.58	34.92	34.92	41.28
		ø, inch		1 1/8"	1 3/8"	1 3/8"	1 5/8"
	Discharge Gas Pipe (HR)	ø, mm		28.58	28.58	28.58	34.92
		ø, inch		1 1/8"	1 1/8"	1 1/8"	1 3/8"
	Heat insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length (ODU-IDU)	Max.	m (ft)	170 (558)	170 (558)	170 (558)	170 (558)
	Piping length (1st Branch-IDU)	Max.	m (ft)	90 (295)	90 (295)	90 (295)	90 (295)
	Total piping length (System)	Max.	m (ft)	500 (1640)	500 (1640)	500 (1640)	500 (1640)
	Level difference (ODU in highest position)	Max.	m (ft)	50 (164)	50 (164)	50 (164)	50 (164)
	Level difference (IDU in highest position)	Max.	m (ft)	40 (131)	40 (131)	40 (131)	40 (131)
Level difference (IDU-IDU)	Max.	m (ft)	50 (164)	50 (164)	50 (164)	50 (164)	
Wiring connections	Communication	Min.	mm2	0.75	0.75	0.75	0.75
		Remark	-	F1, F2	F1, F2	F1, F2	F1, F2

Specification

Premium Compact Type (460 V)

Type			Water	Water	Water	Water
Model Name			VRC240W4M-4G	VRC312W4M-4G2	VRC336W4M-4G2	VRC360W4M-4G2
	Outdoor unit module 1		VRC240W4M-4G	VRC072W4M-4G	VRC096W4M-4G	VRC120W4M-4G
	Outdoor unit module 2			VRC240W4M-4G	VRC240W4M-4G	VRC240W4M-4G
	Outdoor unit module 3					
	Outdoor unit module 4					
Refrigerant	Type	-	R410A	R410A	R410A	R410A
	Factory Charging	kg (lbs)	11.0 (24.3)	5.5 (12.1) + 11.0 (24.3)	5.8 (12.8) + 11.0 (24.3)	6.0 (13.2) + 11.0 (24.3)
Sound	Sound Pressure	Cooling	55	56	56	57
		Heating	57	58	58	59
	Sound Power		74	76	76	76
External Dimension	Net Weight		kg (lbs)	277 (611)	167(368) + 277 (611)	167(368) + 277 (611)
	Shipping Weight		kg (lbs)	287 (633)	174(384) + 287 (633)	174(384) + 287 (633)
	Net Dimensions (WxHxD)	mm	1,120x1,000x545	(790x1,000x545) + (1,120x1,000x545)	(790x1,000x545) + (1,120x1,000x545)	(790x1,000x545) + (1,120x1,000x545)
		inch	44.1x39.4x21.5	(31.1x39.4x21.5) + (44.1x39.4x21.5)	(31.1x39.4x21.5) + (44.1x39.4x21.5)	(31.1x39.4x21.5) + (44.1x39.4x21.5)
	Shipping Dimensions (WxHxD)	mm	1,170x1,200x620	(840x1,200x620) + (1,170x1,200x620)	(840x1,200x620) + (1,170x1,200x620)	(840x1,200x620) + (1,170x1,200x620)
		inch	46.1x47.2x24.4	(33.1x47.2x24.4) + (46.1x47.2x24.4)	(33.1x47.2x24.4) + (46.1x47.2x24.4)	(33.1x47.2x24.4) + (46.1x47.2x24.4)
Operating Temp. Range (Water Temp.)	Cooling		℃ (°F)	10~45 (50~113)	10~45 (50~113)	10~45 (50~113)
	Heating		℃ (°F)	10~45 (50~113)	10~45 (50~113)	10~45 (50~113)

NOTE

- Specification may be subject to change without prior notice.
- 1)* Nominal capacities are based on (Equivalent refrigerant piping : 25ft(7.5m), Level differences : 0ft(0m)
 - Cooling : Indoor temperature : 80°F(26.7°C) DB, 67°F(19.4°C) WB / Inlet water temperature : 85°F(29.4°C)
 - Heating : Indoor temperature : 70°F(21.1°C) DB, 60°F(15.6°C) WB / Inlet water temperature : 68°F(20°C)
- 2)* Rated capacities are based on (Equivalent refrigerant piping : 25ft(7.5m), Level differences : 0ft(0m)
 - Cooling : Indoor temperature : 80.6°F(27°C) DB, 66.2°F(19°C) WB / Inlet water temperature : 86°F(30°C)
 - Heating : Indoor temperature : 68°F(20°C) DB, 59°F(15°C) WB / Inlet water temperature : 68°F(20°C)
- Sound pressure level is obtained in an anechoic room.
 - Sound pressure level is a relative value, depending on the distance and acoustic environment.
 - Sound pressure level may differ depending on operation condition.
 - dBA = A-weighted sound pressure level
 - Reference acoustic pressure 0 dB = 20uPa
- Sound power level is an absolute value that a sound source generates.
 - dBA = A-weighted sound power level
 - Reference power : 1pW
 - Measured according to ISO 3741
- Sound values of multi combination are theoretical values based on sound results of individual installed units.
- These products contain R410A which is fluorinated greenhouse gas.
- Total capacity of the connected indoor units can be allowed from 50% to 130% of the total outdoor unit capacity. $0.5 \times \Sigma(\text{Outdoor unit capacity}) \leq \text{Total capacity of the connected indoor units} \leq 1.3 \times \Sigma(\text{Outdoor unit capacity})$
- You can connect maximum 64 indoor units to the outdoor unit. Maximum quantity of connectable indoor unit is set to 64 since outdoor unit only support up to 64 communication address. Indoor unit address can be assigned from indoor unit address was assigned from 64~79, E201 error will occur.0~63.
If the indoor unit address was assigned from 64~79, E201 error will occur.

Specification

Premium Compact Type (460 V)

Type				Water		
Model Name				VRC408W4M-4G3		
	Outdoor unit module 1			VRC072W4M-4G		
	Outdoor unit module 2			VRC096W4M-4G		
	Outdoor unit module 3			VRC240W4M-4G		
	Outdoor unit module 4					
Power Supply			ø, #, V, Hz	3, 3, 460, 60		
Mode			-	HP, HR		
Performance	Ton		Ton	34		
	Capacity (Nominal) ^{1)*}	Cooling	Btu/h	408,000		
		Heating	Btu/h	459,000		
	Capacity (Rated) ^{2)*}	Cooling	Btu/h	390,000		
		Heating	Btu/h	436,000		
Maximum number of connectable indoor units			ea	64		
	Total capacity of the connected Indoor Units	Min.	Btu/h	204,000		
		Max.	Btu/h	530,400		
Power	Power Input (Nominal) ^{1)*}	Cooling	kW	24.98		
		Heating		21.61		
	Current	MCA	A	10+11+33		
		MOP		15+15+45		
Casing	Material	Body	-	EGi steel plate		
		Base	-	EGi steel plate		
Compressor	Type		-	Inverter Scroll		
	Output		kW × n	(4.96) × 2 + (6.13 × 2)		
	Model Name		-	(DS-GB052FAVBSG × 2) + (DS-GB066FAVBSG × 2)		
	Oil	Type	-	PVE		
		Initial Charge	Liter	(3.9) × 2 + 6.2		
Condenser	Type		Type	PHE (Plate Heat Exchanger)		
	Pipe Size		ø, inch	(NPT 1-1/4) × 2 + (NPT 2)		
	Lost Head		kPa (ftAq)	22 (7.3) + 30 (10.0) + 33 (11.0)		
	Water Flow Rate		LPM (GPM)	80 (21.1) + 96 (25.4) + 228 (60.2)		
	Max. Pressure		Mpa (psi)	1.96 (285)		
Piping Connections	Liquid Pipe	Type		Braze connection		
		ø, mm		19.05		
		ø, inch		3/4"		
	Gas Pipe	Type		Braze connection		
		ø, mm		41.28		
		ø, inch		1 5/8"		
	Discharge Gas Pipe (HR)	ø, mm		34.92		
		ø, inch		1 3/8"		
	Heat insulation		-	Both liquid and gas pipes		
	Piping length (ODU-IDU)		Max.	m (ft)	170 (558)	
	Piping length (1st Branch-IDU)		Max.	m (ft)	90 (295)	
	Total piping length (System)		Max.	m (ft)	500 (1640)	
	Level difference (ODU in highest position)		Max.	m (ft)	50 (164)	
Level difference (IDU in highest position)		Max.	m (ft)	40 (131)		
Level difference (IDU-IDU)		Max.	m (ft)	50 (164)		
Wiring connections	Communication	Min.	mm2	0.75		
		Remark	-	F1, F2		

Specification

Premium Compact Type (460 V)

Type				Water
Model Name				VRC408W4M-4G3
	Outdoor unit module 1			VRC072W4M-4G
	Outdoor unit module 2			VRC096W4M-4G
	Outdoor unit module 3			VRC240W4M-4G
	Outdoor unit module 4			
Refrigerant	Type		-	R410A
	Factory Charging		kg (lbs)	5.5 (12.1) + 5.8 (12.8) + 11.0 (24.3)
Sound	Sound Pressure	Cooling	dB(A)	57
		Heating		59
	Sound Power			77
External Dimension	Net Weight		kg (lbs)	167(368) x 2 + 277 (611)
	Shipping Weight		kg (lbs)	174(384) x 2 + 287 (633)
	Net Dimensions (WxHxD)		mm	(790x1,000x545) x 2 + (1,120x1,000x545)
			inch	(31.1x39.4x21.5) x 2 + (44.1x39.4x21.5)
	Shipping Dimensions (WxHxD)		mm	(840x1,200x620) x 2 + (1,170x1,200x620)
			inch	(33.1x47.2x24.4) x 2 + (46.1x47.2x24.4)
Operating Temp. Range (Water Temp.)	Cooling		℃ (°F)	10~45 (50~113)
	Heating		℃ (°F)	10~45 (50~113)

NOTE

- Specification may be subject to change without prior notice.
- 1)* Nominal capacities are based on (Equivalent refrigerant piping : 25ft(7.5m), Level differences : 0ft(0m)
 - Cooling : Indoor temperature : 80°F(26.7°C) DB, 67°F(19.4°C) WB / Inlet water temperature : 85°F(29.4°C)
 - Heating : Indoor temperature : 70°F(21.1°C) DB, 60°F(15.6°C) WB / Inlet water temperature : 68°F(20°C)
- 2)* Rated capacities are based on (Equivalent refrigerant piping : 25ft(7.5m), Level differences : 0ft(0m)
 - Cooling : Indoor temperature : 80.6°F(27°C) DB, 66.2°F(19°C) WB / Inlet water temperature : 86°F(30°C)
 - Heating : Indoor temperature : 68°F(20°C) DB, 59°F(15°C) WB / Inlet water temperature : 68°F(20°C)
- Sound pressure level is obtained in an anechoic room.
 - Sound pressure level is a relative value, depending on the distance and acoustic environment.
 - Sound pressure level may differ depending on operation condition.
 - dBA = A-weighted sound pressure level
 - Reference acoustic pressure 0 dB = 20uPa
- Sound power level is an absolute value that a sound source generates.
 - dBA = A-weighted sound power level
 - Reference power : 1pW
 - Measured according to ISO 3741
- Sound values of multi combination are theoretical values based on sound results of individual installed units.
- These products contain R410A which is fluorinated greenhouse gas.
- Total capacity of the connected indoor units can be allowed from 50% to 130% of the total outdoor unit capacity. $0.5 \times \Sigma(\text{Outdoor unit capacity}) \leq \text{Total capacity of the connected indoor units} \leq 1.3 \times \Sigma(\text{Outdoor unit capacity})$
- You can connect maximum 64 indoor units to the outdoor unit. Maximum quantity of connectable indoor unit is set to 64 since outdoor unit only support up to 64 communication address. Indoor unit address can be assigned from indoor unit address was assigned from 64~79, E201 error will occur. 0~63.
If the indoor unit address was assigned from 64~79, E201 error will occur.

Electric Characteristics

Capacity	Model	Power Supply				Voltage Range		Current [A]	
Ton		Ø	#	Voltage	Hz	Min. (-10%)	Max. (+10%)	MCA	MOP
3	VPC038W4M-4P	1	2	208~230	60	187.2	253	20.0	35
4	VPC048W4M-4P	1	2	208~230	60	187.2	253	24.0	40
5	VPC055W4M-4P	1	2	208~230	60	187.2	253	26.0	45

Premium Energy Efficiency Type

Capacity	Model	Power Supply				Voltage Range		Current [A]	
Ton		Ø	#	Voltage	Hz	Min. (-10%)	Max. (+10%)	MCA	MOP
6	VRC072W4M-4Y	3	3	208~230	60	187.2	253	16.0	25
8	VRC096W4M-4Y	3	3	208~230	60	187.2	253	23.0	40
10	VRC120W4M-4Y	3	3	208~230	60	187.2	253	30.0	50
12	VRC144W4M-4Y2	3	3	208~230	60	187.2	253	32.0	50
14	VRC168W4M-4Y2	3	3	208~230	60	187.2	253	39.0	65
16	VRC192W4M-4Y	3	3	208~230	60	187.2	253	39.6	50
18	VRC216W4M-4Y2	3	3	208~230	60	187.2	253	53.0	90
22	VRC264W4M-4Y2	3	3	208~230	60	187.2	253	55.6	75
24	VRC288W4M-4Y2	3	3	208~230	60	187.2	253	62.6	90
28	VRC336W4M-4Y3	3	3	208~230	60	187.2	253	71.6	100
30	VRC360W4M-4Y3	3	3	208~230	60	187.2	253	78.6	115
32	VRC384W4M-4Y3	3	3	208~230	60	187.2	253	79.2	100

Electric Characteristics

Premium Energy Efficiency Type

Capacity	Model	Power Supply				Voltage Range		Current [A]	
Ton		Ø	#	Voltage	Hz	Min. (-10%)	Max. (+10%)	MCA	MOP
6	VRC072W4M-4G	3	3	460	60	414	506	10.0	15
8	VRC096W4M-4G	3	3	460	60	414	506	11.0	15
10	VRC120W4M-4G	3	3	460	60	414	506	15.6	25
12	VRC144W4M-4G2	3	3	460	60	414	506	20.0	30
14	VRC168W4M-4G2	3	3	460	60	414	506	21.0	30
16	VRC192W4M-4G	3	3	460	60	414	506	26.2	35
18	VRC216W4M-4G2	3	3	460	60	414	506	26.6	40
22	VRC264W4M-4G2	3	3	460	60	414	506	36.2	50
24	VRC288W4M-4G2	3	3	460	60	414	506	37.2	50
28	VRC336W4M-4G3	3	3	460	60	414	506	46.2	65
30	VRC360W4M-4G3	3	3	460	60	414	506	47.2	65
32	VRC384W4M-4G3	3	3	460	60	414	506	52.4	70

Electric Characteristics

Premium Compact Type

Capacity	Model	Power Supply				Voltage Range		Current [A]	
Ton		Ø	#	Voltage	Hz	Min. (-10%)	Max. (+10%)	MCA	MOP
20	VRC240W4M-4Y	3	3	208~230	60	187.2	253	66.0	90
26	VRC312W4M-4Y2	3	3	208~230	60	187.2	253	82.0	115
28	VRC336W4M-4Y2	3	3	208~230	60	187.2	253	89.0	130
30	VRC360W4M-4Y2	3	3	208~230	60	187.2	253	96.0	140
34	VRC408W4M-4Y3	3	3	208~230	60	187.2	253	105.0	155

Capacity	Model	Power Supply				Voltage Range		Current [A]	
Ton		Ø	#	Voltage	Hz	Min. (-10%)	Max. (+10%)	MCA	MOP
20	VRC240W4M-4G	3	3	460	60	414	506	33.0	45
26	VRC312W4M-4G2	3	3	460	60	414	506	43.0	60
28	VRC336W4M-4G2	3	3	460	60	414	506	44.0	60
30	VRC360W4M-4G2	3	3	460	60	414	506	48.6	70
34	VRC408W4M-4G3	3	3	460	60	414	506	54.0	75

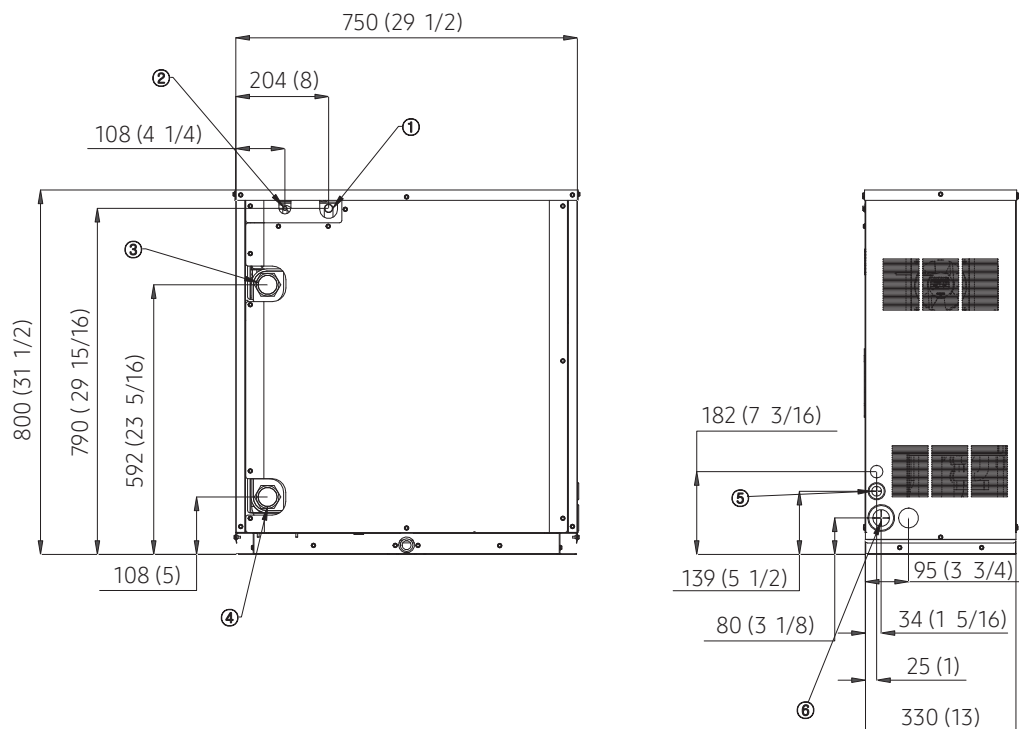
NOTE

- MCA : Minimum Circuit Ampere (A)
- MOP : Maxium Overcurrent Protective Device (A)
- Select wire based on the value of MCA

Dimensional Drawing

VPC038/048/055W4M-4P (3, 4, 5Ton)

Unit : mm (inches)

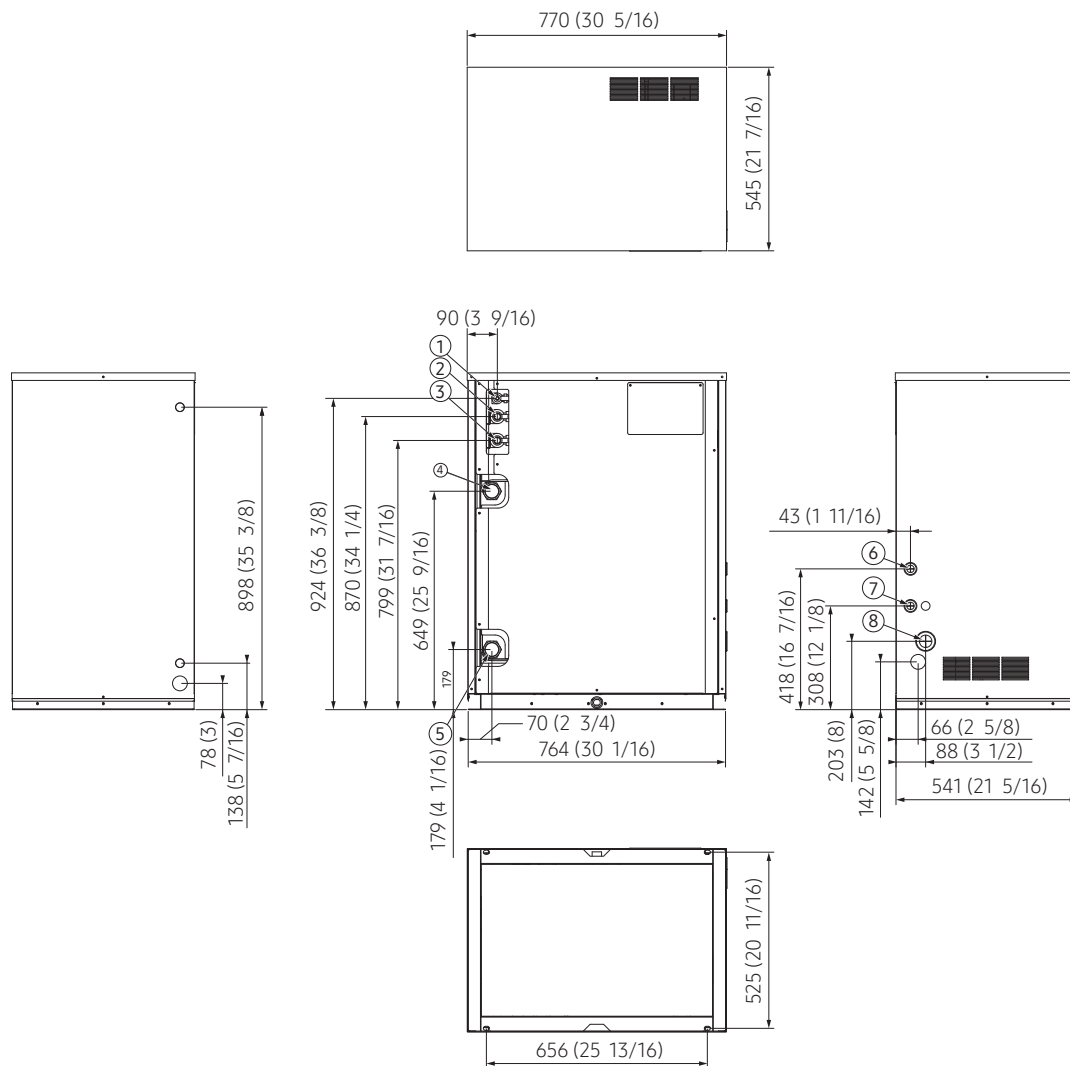


No.	Name	Description	No.	Name	Description
①	Gas ref. pipe	15.88 (5/8")	④	Water inlet pipe	NPT 1-1/4
②	Liquid ref. pipe	9.52 (3/8")	⑤	Communication wiring	-
③	Water outlet pipe	NPT 1-1/4	⑥	Power wiring	-

Dimensional Drawing

VRC072/096/120W4M-4Y (6, 8, 10Ton)

Unit : mm (inches)

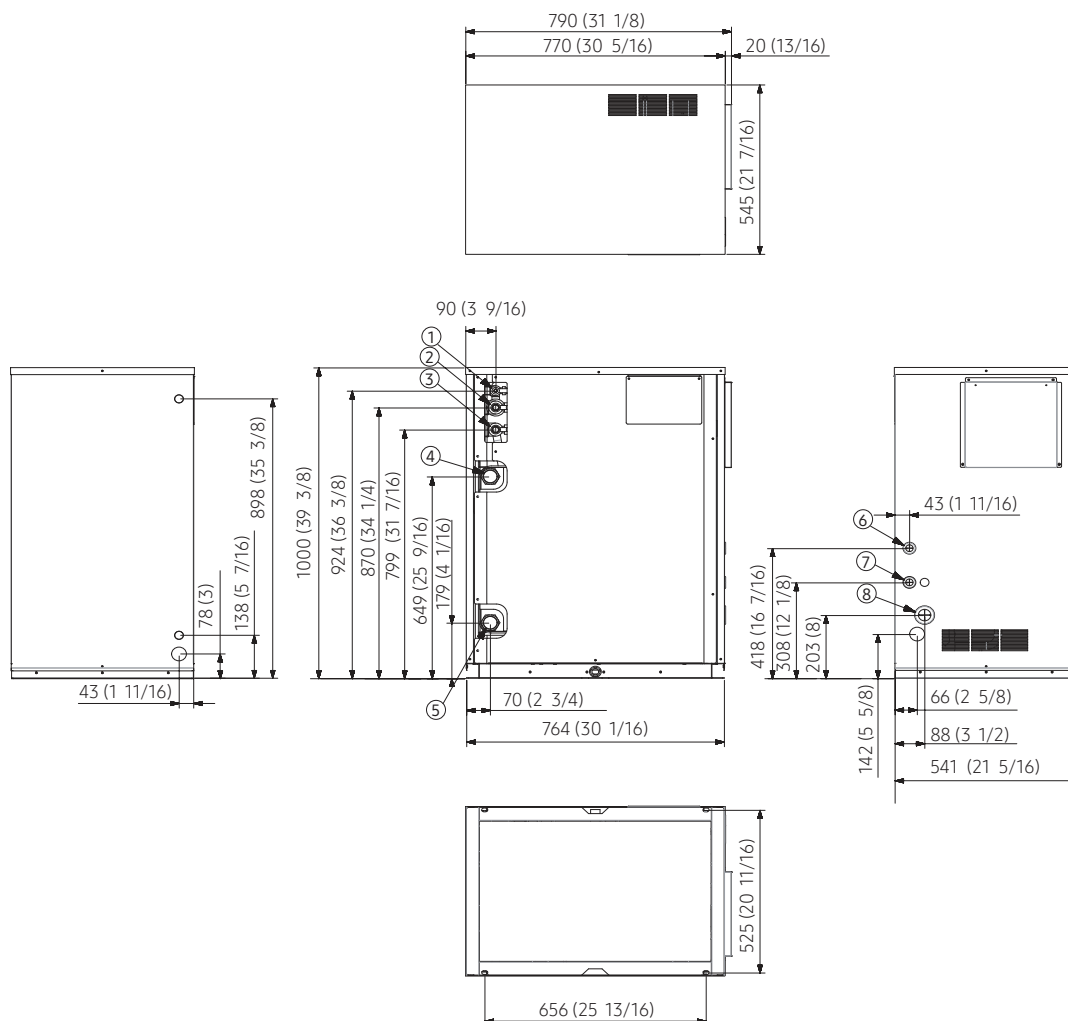


No.	Name	Description			No.	Name	Description		
		6Ton	8Ton	10Ton			6Ton	8Ton	10Ton
①	Liquid ref. pipe	9.52 (3/8")	9.52 (3/8")	12.70 (1/2")	⑤	Water inlet pipe	NPT 1-1/4		
②	High pressure gas ref. pipe	15.88 (5/8")	19.05 (3/4")	19.05 (3/4")	⑥	Communication wiring	-		
③	Low pressure gas ref. pipe	19.05 (3/4")	22.22 (7/8")	28.58 (1 1/8")	⑦	External contact wiring	-		
④	Water outlet pipe	NPT 1-1/4			⑧	Power wiring	-		

Dimensional Drawing

VRC072/096/120W4M-4G (6, 8, 10Ton)

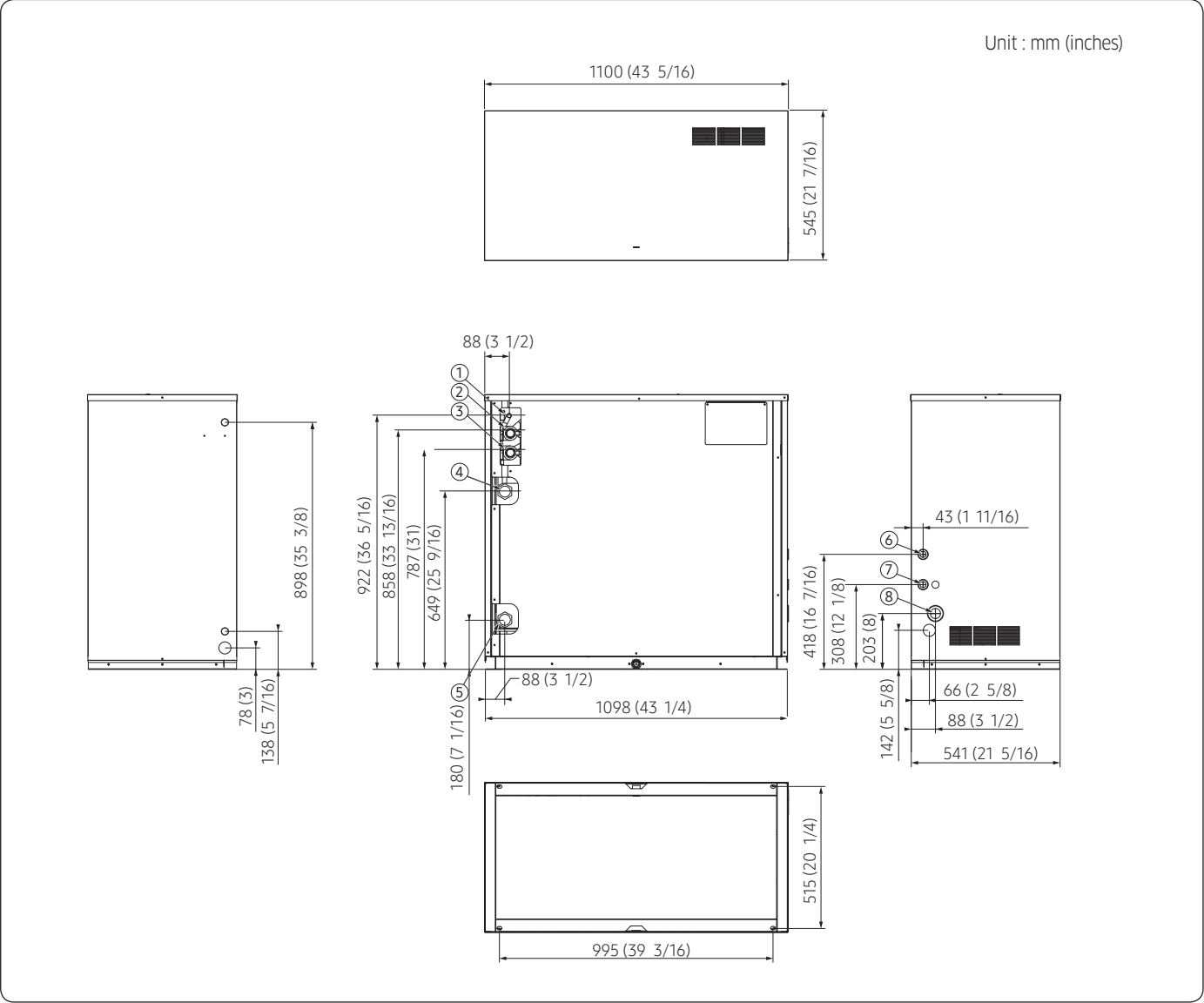
Unit : mm (inches)



No.	Name	Description			No.	Name	Description		
		6Ton	8Ton	10Ton			6Ton	8Ton	10Ton
①	Liquid ref. pipe	9.52 (3/8")	9.52 (3/8")	12.70 (1/2")	⑤	Water inlet pipe	NPT 1-1/4		
②	High pressure gas ref. pipe	15.88 (5/8")	19.05 (3/4")	19.05 (3/4")	⑥	Communication wiring	-		
③	Low pressure gas ref. pipe	19.05 (3/4")	22.22 (7/8")	28.58 (1 1/8")	⑦	External contact wiring	-		
④	Water outlet pipe	NPT 1-1/4			⑧	Power wiring	-		

Dimensional Drawing

VRC192W4M-4Y (16Ton)

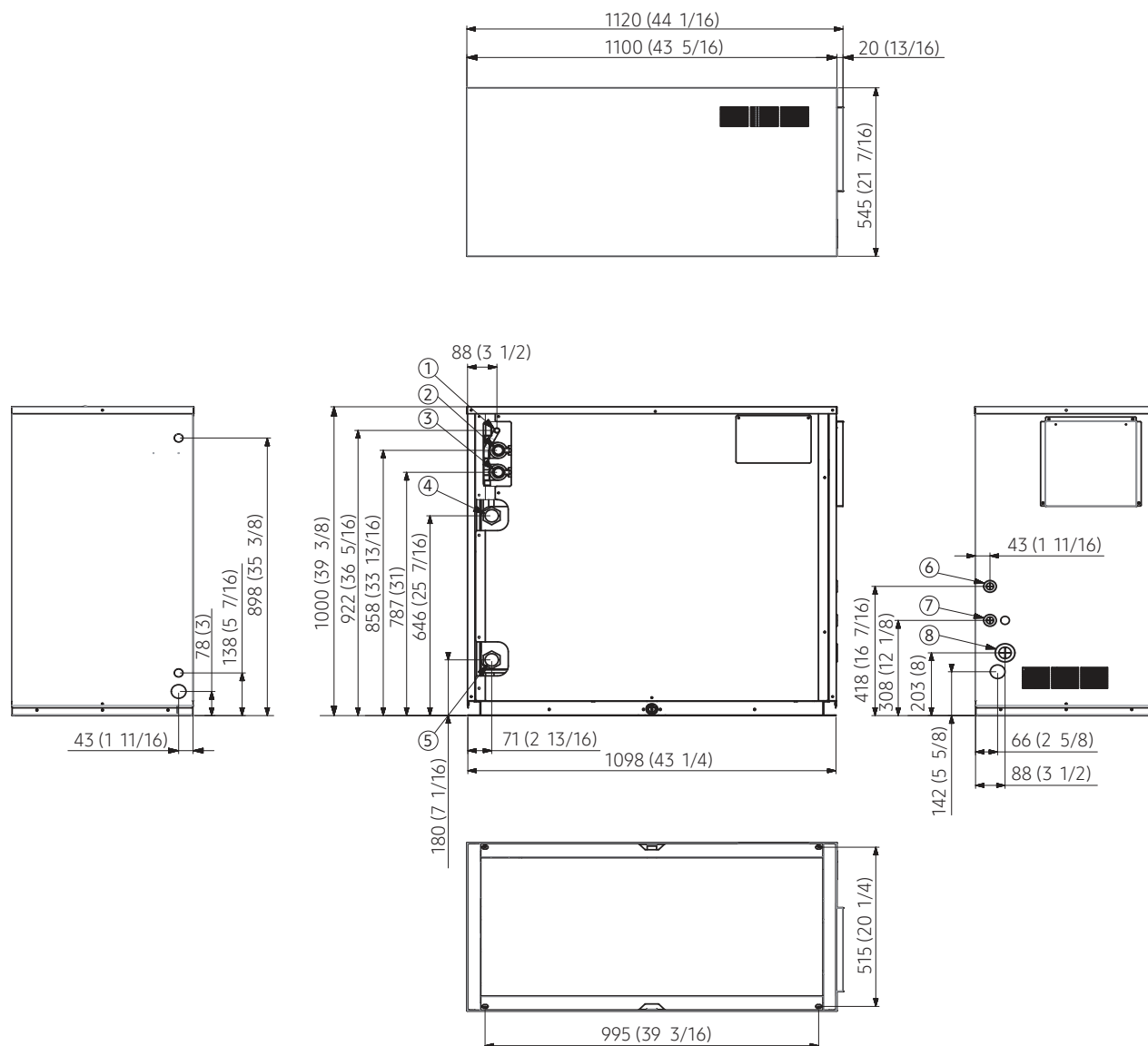


No.	Name	Description	No.	Name	Description
①	Liquid ref. pipe	15.88 (5/8")	⑤	Water inlet pipe	NPT 1-1/4
②	High pressure gas ref. pipe	28.58 (1 1/8")	⑥	Communication wiring	-
③	Low pressure gas ref. pipe	28.58 (1 1/8")	⑦	External contact wiring	-
④	Water outlet pipe	NPT 1-1/4	⑧	Power wiring	-

Dimensional Drawing

VRC192W4M-4G (16Ton)

Unit : mm (inches)

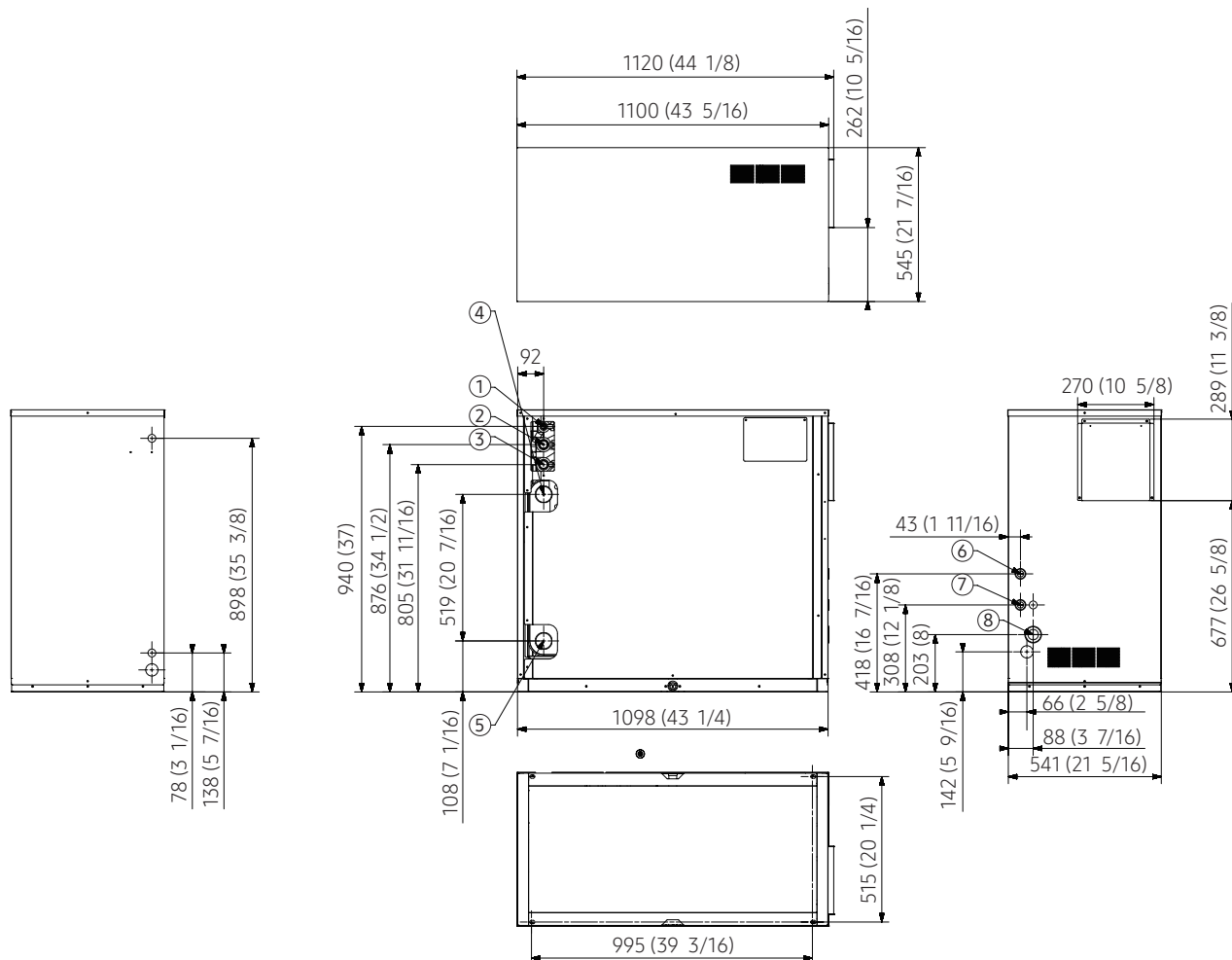


No.	Name	Description	No.	Name	Description
①	Liquid ref. pipe	Ø 19.05 (3/4")	⑤	Water inlet pipe	NPT 1-1/4
②	Gas ref. pipe	Ø 31.75 (1 1/4")	⑥	Communication wiring	-
③	High pressure gas ref. pipe	Ø 31.75 (1 1/4")	⑦	External contact wiring	-
④	Water outlet pipe	NPT 1-1/4	⑧	Power wiring	-

Dimensional Drawing

VRC240W4M-4G (20Ton)

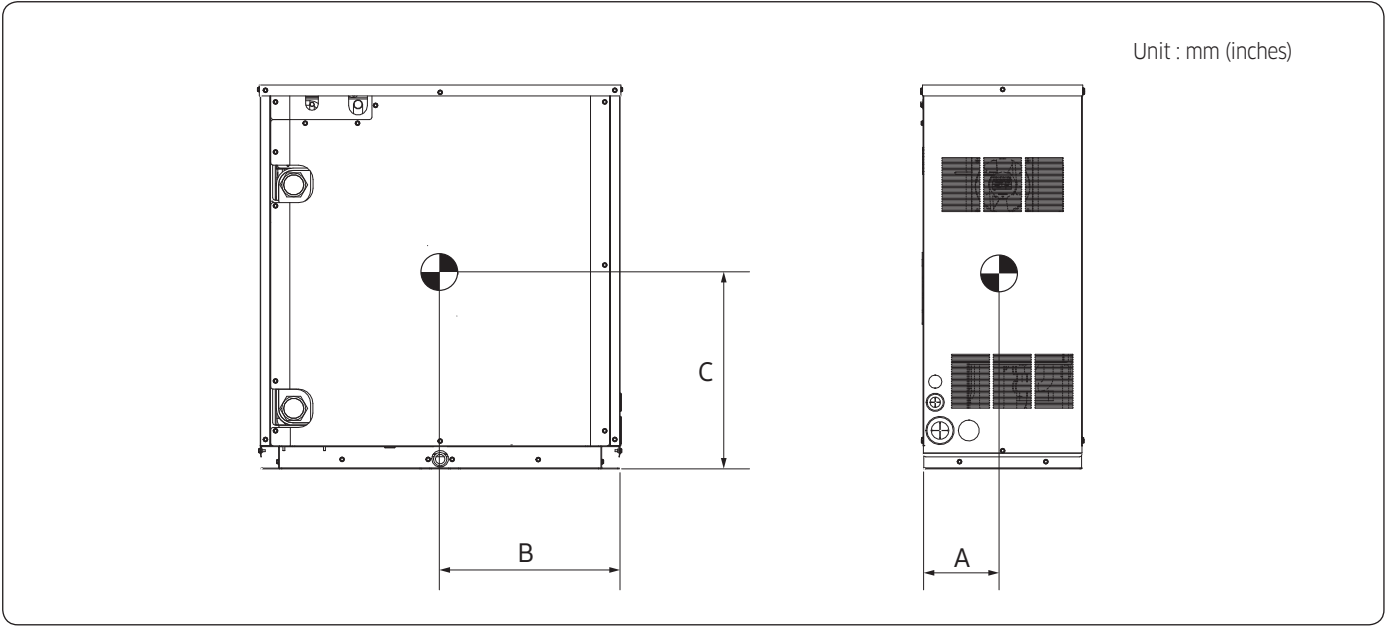
Unit : mm (inches)



No.	Name	Description	No.	Name	Description
①	Liquid ref. pipe	15.88 (5/8")	⑤	Water inlet pipe	NPT 2"
②	Gas ref. pipe	28.58 (1 1/8")	⑥	Communication wiring	-
③	High pressure gas ref. pipe	28.58 (1 1/8")	⑦	External contact wiring	-
④	Water outlet pipe	NPT 2"	⑧	Power wiring	-

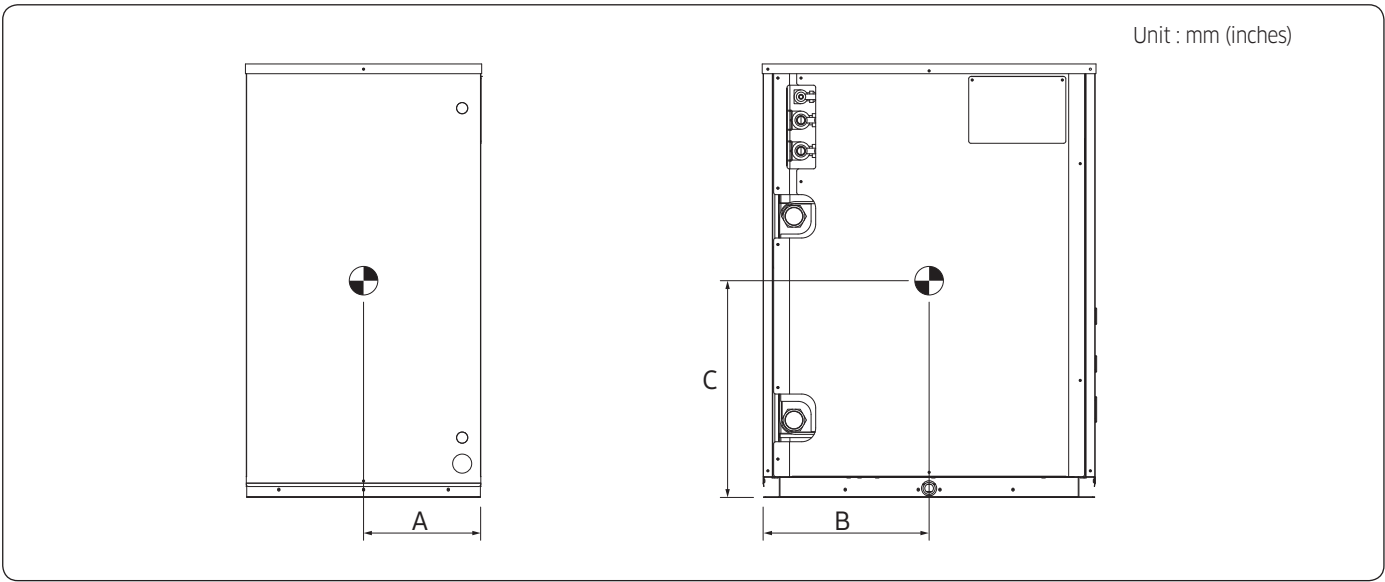
Center of Gravity

VPC038/048/055W4M-4P (3, 4, 5Ton)



Model	A	B	C
VPC038/048/055W4M-4P	130 (5 1/8)	340 (13 3/8)	300 (11 13/16)

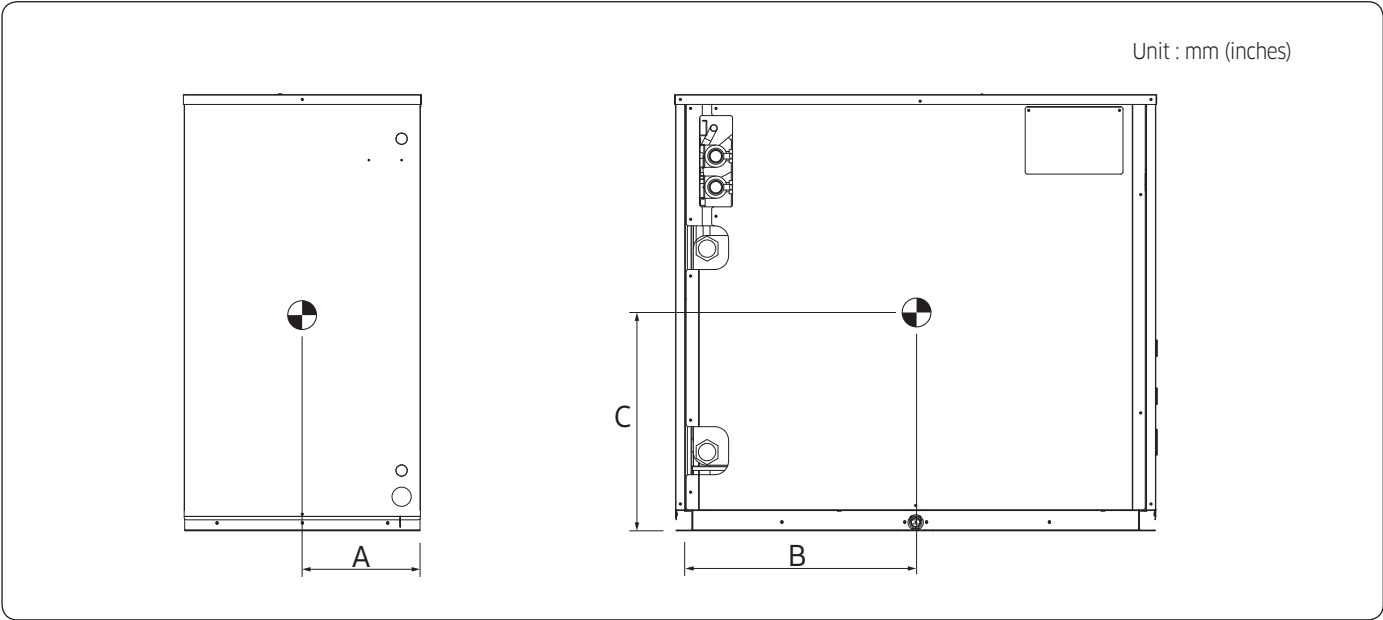
VRC072/096/120W4M-4* (6, 8, 10Ton)



Model	A	B	C
VRC072/096/120W4M-4*	211 (8 5/16)	345 (13 9/16)	353 (13 3/8)

Center of Gravity

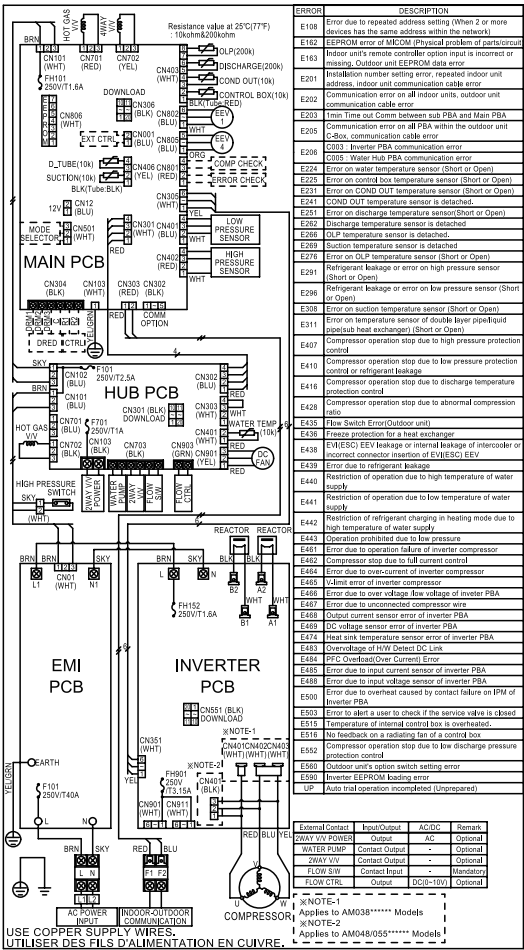
VRC192W4M-4*, VRC240W4M-4* (16, 20Ton)



Model	A	B	C
VRC192W4M-4*	210 (8 5/16)	476 (18 3/4)	353 (14 1/4)
VRC240W4M-4*	206 (8 1/8)	461 (18 3/16)	390 (15 3/8)

Electrical Wiring Diagram

VPC038/048/055W4M-4P



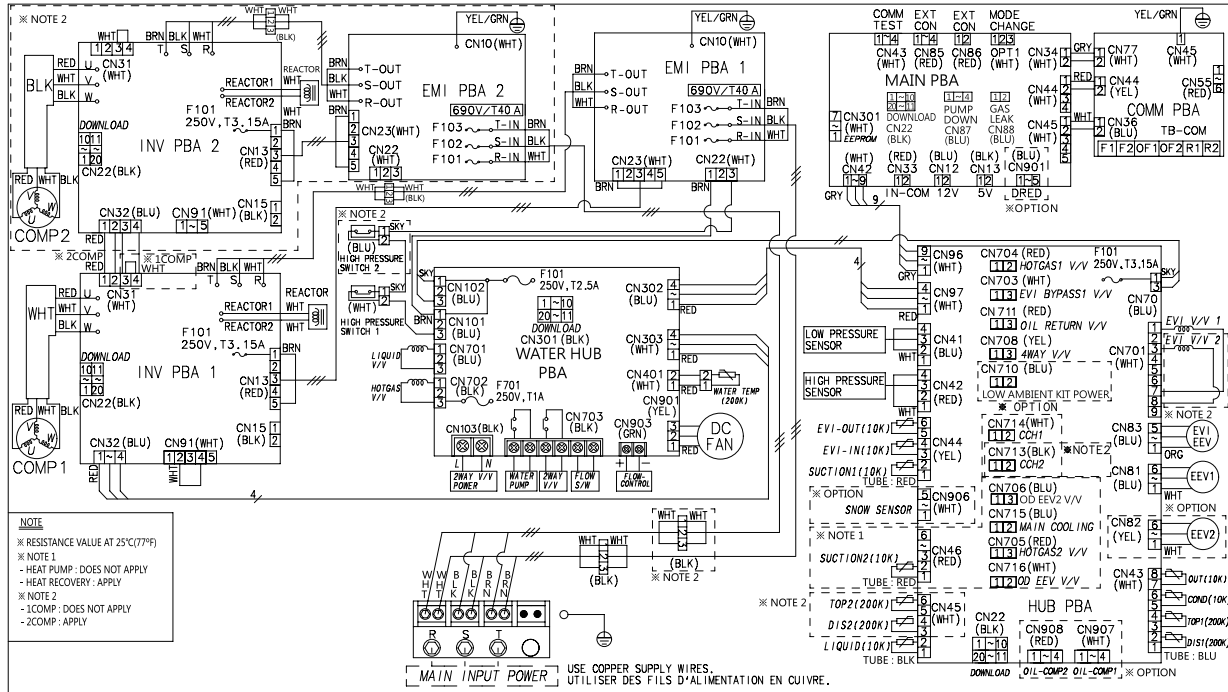
EMI PCB	Printed circuit board(EMI)	HOT GAS	Solenoid valve(HOT GAS)
INVERTER PCB	Printed circuit board(inverter)	4WAY V/V	Solenoid valve(4WAY)
MAIN PCB	Printed circuit board(main)	OLP(200k)	Thermistor (OLP)
HUB PCB	Printed circuit board(hub)	DISCHARGE(200k)	Thermistor (DISCHARGE)
EEV1	electronic expansion valve 1	CONDOUT(200k)	Thermistor (CONDOUT)
EEV4	electronic expansion valve 4	CONTROL BOX(10k)	Thermistor (CONTROL BOX)
WATER TEMP(10k)	Thermistor (WATER TEMP)	EVI EEV	electronic expansion valve(EVI)
OLP(200k)	Thermistor (OLP)	EVI V/V 1	Solenoid valve(Enhanced Vapor Injection_1)
EVI EEV	electronic expansion valve(EVI)	EVI V/V 2	Solenoid valve(Enhanced Vapor Injection_2)

NOTE

- This wiring diagram applies only to the water-cooled.
- Colors BLK: black, RED: red, BLU: blue, WHT: white, YEL: yellow, BRN: brown, SKY: skyblue , ORG: orange, GRN: green
- When operating, don't short circuit the protection device (High Pressure switch)
- For connection wiring indoor-outdoor transmission F1-F2, outdoor-outdoor transmission OF1-OF2, refer to the installation manual.
- ⊕ Protective earth(screw) , □□□□ connector, $\overline{\text{N}}$: The wire quantity

Electrical Wiring Diagram

VRC072/096/120/192W4M-4Y



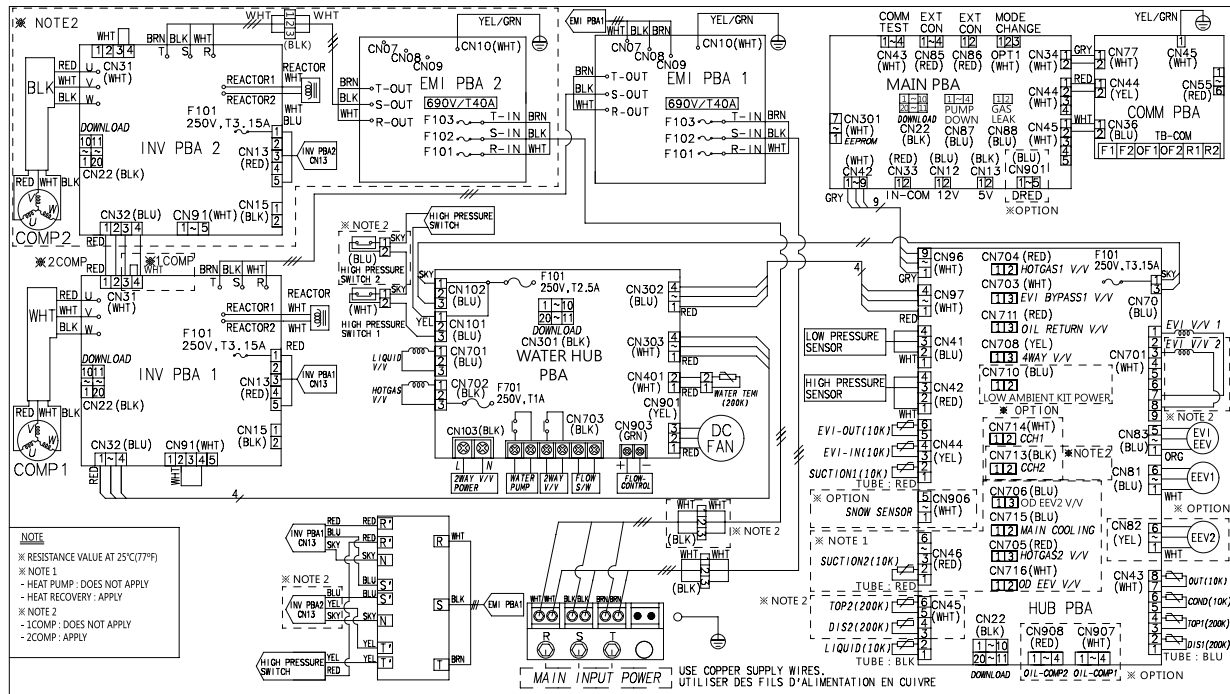
INV PBA1	Printed circuit board(inverter1)	EEV1	electronic expansion valve 1	LIQUID(10K)	Thermistor LIQUID(10K)
INV PBA2	Printed circuit board(inverter2)	EEV2	electronic expansion valve 2	HOTGAS1 V/V	Solenoid valve(HOTGAS1)
EMI PBA1	Printed circuit board(emi1)	EVI-OUT(10K)	Thermistor (Enhanced Vapor Injection_out)	EVI BYPASS V/V	Solenoid valve(EVI BYPASS)
EMI PBA2	Printed circuit board(emi1)	EVI-IN(10K)	Thermistor (Enhanced Vapor Injection_in)	RETURN V/V	Solenoid valve(RETURN)
FAN PBA	Printed circuit board(fan motor)	SUCTION1(10K)	Thermistor (SUCTION1)	4WAY V/V	Solenoid valve(4WAY)
MAIN PBA	Printed circuit board(main)	SUCTION2(10K)	Thermistor (SUCTION2)	CCH1	Crank Case Heater (Compressor1)
HUB PBA	Printed circuit board(hub)	SNOW SENSOR	SNOW SENSOR	CCH2	Crank Case Heater (Compressor1)
COMM PBA	Printed circuit board(communication)	OIL-COMP1	Oil-Sensor(Compressor1)	MAIN COOLING	Solenoid valve(Main cooling)
COMP1	Motor (compressor1)	OIL-COMP2	Oil-Sensor(Compressor2)	HOTGAS2 V/V	Solenoid valve(HOTGAS2)
COMP2	Motor (compressor2)	OUT(10K)	Thermistor (Air)	OD EEV V/V	Solenoid valve(OD EEV)
FAN1	Motor (fan1)	COND(10K)	Thermistor (COND)	F101	FUSE(inverterPBA)
FAN2	Motor (fan2)	TOP2(200K)	Thermistor (Coproressor2 TOP)	690V/T40A	FUSE(EMI PBA)
EVI V/V 1	Solenoid valve(Enhanced Vapor Injection_1)	DIS1(200K)	Thermistor DIS1(200K)	MODE CHANGE	Connector (remote switching cool/heat selector)
EVI V/V 2	Solenoid valve(Enhanced Vapor Injection_2)	DIS2(200K)	Thermistor DIS2(200K)	EXT CON	Connector (Output EXT CON)
EVI EEV	electronic expansion valve(EVI)	LIQUID(10K)	Thermistor LIQUID(10K)	ERROR/COMP EXT	Connector (Output ERROR/COMP EXT CON)

NOTE

- This wiring diagram applies only to the water-cooled.
- Colors BLK: black, RED: red, BLU: blue, WHT: white, YEL: yellow, BRN: brown, SKY: skyblue , ORG: orange, GRN: green
- When operating, don't short circuit the protection device (High Pressure switch)
- For connection wiring indoor-outdoor transmission F1-F2, outdoor-outdoor transmission OF1-OF2, refer to the installation manual.
- Protective earth(screw) , connector, : The wire quantity

Electrical Wiring Diagram

VRC072/096/120/192W4M-4G



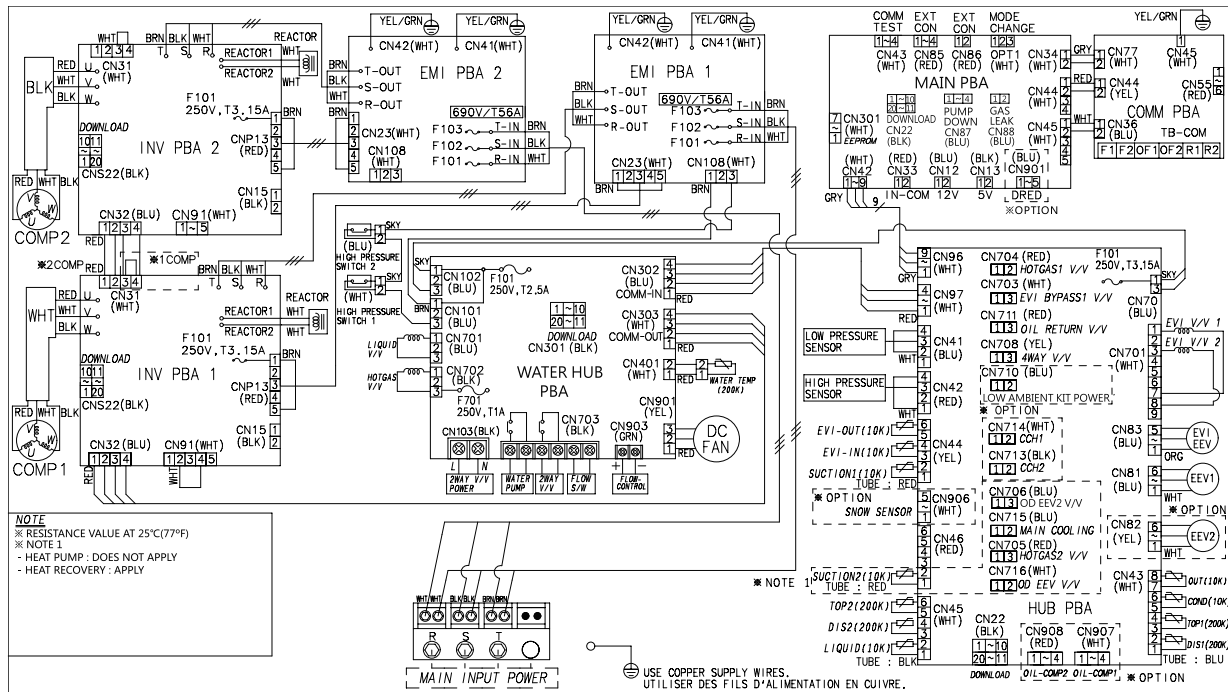
INV PBA1	Printed circuit board(inverter1)	EEV1	electronic expansion valve 1	LIQUID(10K)	Thermistor LIQUID(10K)
INV PBA2	Printed circuit board(inverter2)	EEV2	electronic expansion valve 2	HOTGAS1 V/V	Solenoid valve(HOTGAS1)
EMI PBA1	Printed circuit board(emi1)	EVI-OUT(10K)	Thermistor (Enhanced Vapor Injection.out)	EVI BYPASS V/V	Solenoid valve(EVI BYPASS)
EMI PBA2	Printed circuit board(emi1)	EVI-IN(10K)	Thermistor (Enhanced Vapor Injection.in)	RETURN V/V	Solenoid valve(RETURN)
FAN PBA	Printed circuit board(fan motor)	SUCTTION1(10K)	Thermistor (SUCTTION1)	4WAY V/V	Solenoid valve(4WAY)
MAIN PBA	Printed circuit board(main)	SUCTTION2(10K)	Thermistor (SUCTTION2)	CCH1	Crank Case Heater (Compressor1)
HUB PBA	Printed circuit board(hub)	SNOW SENSOR	SNOW SENSOR	CCH2	Crank Case Heater (Compressor1)
COMM PBA	Printed circuit board(communication)	OIL-COMP1	Oil-Sensor(Compressor1)	MAIN COOLING	Solenoid valve(Main cooling)
COMP1	Motor (compressor1)	OIL-COMP2	Oil-Sensor(Compressor2)	HOTGAS2 V/V	Solenoid valve(HOTGAS2)
COMP2	Motor (compressor2)	OUT(10K)	Thermistor (Air)	OD EEV V/V	Solenoid valve(OD EEV)
FAN1	Motor (fan1)	COND(10K)	Thermistor (COND.)	F101	FUSE(inverterPBA)
FAN2	Motor (fan2)	TOP2(200K)	Thermistor (Copressor2 TOP)	690V/T40A	FUSE(EMI PBA)
EVI V/V 1	Solenoid valve(Enhanced Vapor Injection.1)	DIS1(200K)	Thermistor DIS1(200K)	MODE CHANGE	Connector (remote switching cool/heat selector)
EVI V/V 2	Solenoid valve(Enhanced Vapor Injection.2)	DIS2(200K)	Thermistor DIS2(200K)	EXT CON	Connector (Output EXT CON)
EVI EEV	electronic expansion valve(EVI)	LIQUID(10K)	Thermistor LIQUID(10K)	ERROR/COMP EXT	Connector (Output ERROR/COMP EXT CON)

NOTE

- This wiring diagram applies only to the water-cooled.
- Colors BLK: black, RED: red, BLU: blue, WHT: white, YEL: yellow, BRN: brown, SKY: skyblue, ORG: orange, GRN: green
- When operating, don't short circuit the protection device (High Pressure switch)
- For connection wiring indoor-outdoor transmission F1-F2, outdoor-outdoor transmission OF1-OF2, refer to the installation manual.
- ⊕ Protective earth(screw), □□□ connector, $\frac{N}{\text{---}}$: The wire quantity

Electrical Wiring Diagram

VRC240W4M-4Y



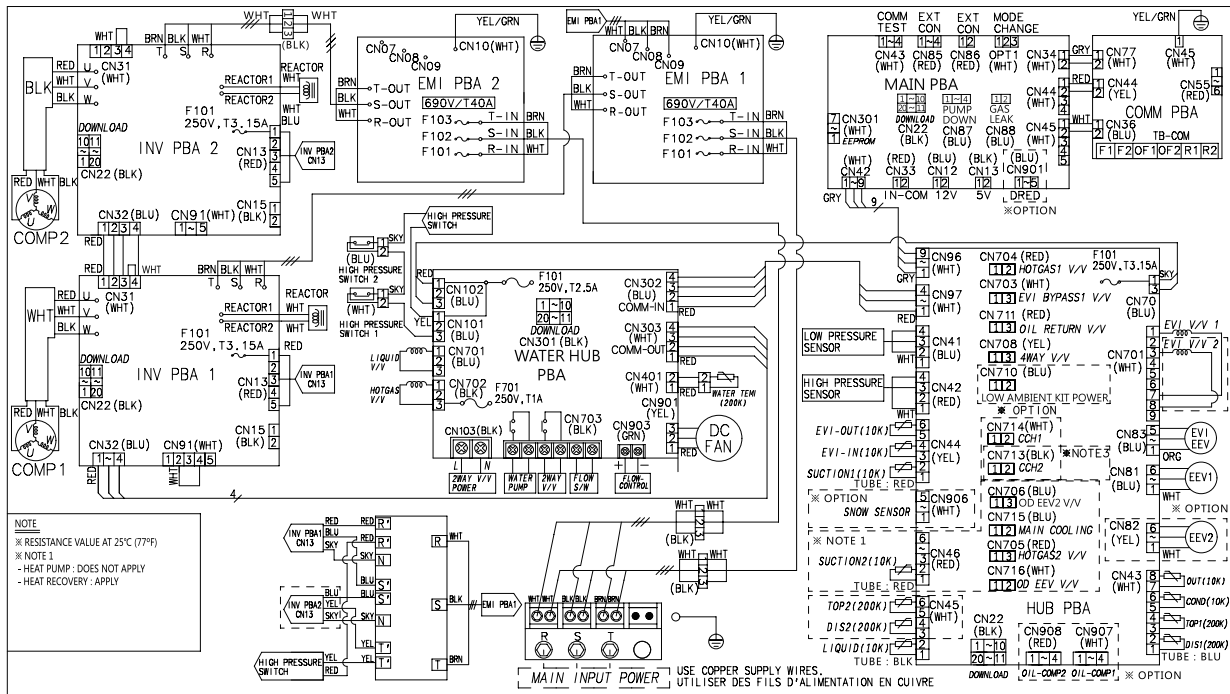
INV PBA1	Printed circuit board(inverter1)	EEV1	electronic expansion valve 1	LIQUID(10K)	Thermistor LIQUID(10K)
INV PBA2	Printed circuit board(inverter2)	EEV2	electronic expansion valve 2	HOTGAS1 V/V	Solenoid valve(HOTGAS1)
EMI PBA1	Printed circuit board(emi1)	EVI-OUT(10K)	Thermistor (Enhanced Vapor Injection_out)	EVI BYPASS V/V	Solenoid valve(EVI BYPASS)
EMI PBA2	Printed circuit board(emi1)	EVI-IN(10K)	Thermistor (Enhanced Vapor Injection_in)	RETURN V/V	Solenoid valve(RETURN)
FAN PBA	Printed circuit board(fan motor)	SUCTTION1(10K)	Thermistor (SUCTTION1)	4WAY V/V	Solenoid valve(4WAY)
MAIN PBA	Printed circuit board(main)	SUCTTION2(10K)	Thermistor (SUCTTION2)	CCH1	Crank Case Heater (Compressor1)
HUB PBA	Printed circuit board(hub)	SNOW SENSOR	SNOW SENSOR	CCH2	Crank Case Heater (Compressor1)
COMM PBA	Printed circuit board(communication)	OIL-COMP1	Oil-Sensor(Compressor1)	MAIN COOLING	Solenoid valve(Main cooling)
COMP1	Motor (compressor1)	OIL-COMP2	Oil-Sensor(Compressor2)	HOTGAS2 V/V	Solenoid valve(HOTGAS2)
COMP2	Motor (compressor2)	OUT(10K)	Thermistor (Air)	OD EEV V/V	Solenoid valve(OD EEV)
FAN1	Motor (fan1)	COND(10K)	Thermistor (COND)	F101	FUSE(inverterPBA)
FAN2	Motor (fan2)	TOP2(200K)	Thermistor (Coproressor2 TOP)	690V/T56A	FUSE(EMI PBA)
EVI V/V 1	Solenoid valve(Enhanced Vapor Injection_1)	DIS1(200K)	Thermistor DIS1(200K)	MODE CHANGE	Connector (remote switching cool/heat selector)
EVI V/V 2	Solenoid valve(Enhanced Vapor Injection_2)	DIS2(200K)	Thermistor DIS2(200K)	EXT CON	Connector (Output EXT CON)
EVI EEV	electronic expansion valve(EVI)	LIQUID(10K)	Thermistor LIQUID(10K)	ERROR/COMP EXT	Connector (Output ERROR/COMP EXT CON)

NOTE

- This wiring diagram applies only to the water-cooled.
- Colors BLK: black, RED: red, BLU: blue, WHT: white, YEL: yellow, BRN: brown, SKY: skyblue , ORG: orange, GRN: green
- When operating, don't short circuit the protection device (High Pressure switch)
- For connection wiring indoor-outdoor transmission F1-F2, outdoor-outdoor transmission OF1-OF2, refer to the installation manual.
- ⏏ Protective earth(screw) , connector, $\frac{N}{\times}$: The wire quantity

Electrical Wiring Diagram

VRC240W4M-4G



INV PBA1	Printed circuit board(inverter1)	EEV1	electronic expansion valve 1	LIQUID(10K)	Thermistor LIQUID(10K)
INV PBA2	Printed circuit board(inverter2)	EEV2	electronic expansion valve 2	HOTGAS1 V/V	Solenoid valve(HOTGAS1)
EMI PBA1	Printed circuit board(emi1)	EVI-OUT(10K)	Thermistor (Enhanced Vapor Injection,out)	EVI BYPASS V/V	Solenoid valve(EVI BYPASS)
EMI PBA2	Printed circuit board(emi1)	EVI-IN(10K)	Thermistor (Enhanced Vapor Injection,in)	RETURN V/V	Solenoid valve(RETURN)
FAN PBA	Printed circuit board(fan motor)	SUCTION1(10K)	Thermistor (SUCTION1)	4WAY V/V	Solenoid valve(4WAY)
MAIN PBA	Printed circuit board(main)	SUCTION2(10K)	Thermistor (SUCTION2)	CCH1	Crank Case Heater (Compressor1)
HUB PBA	Printed circuit board(hub)	SNOW SENSOR	SNOW SENSOR	CCH2	Crank Case Heater (Compressor1)
COMM PBA	Printed circuit board(communication)	OIL-COMP1	Oil-Sensor(Compressor1)	MAIN COOLING	Solenoid valve(Main cooling)
COMP1	Motor (compressor1)	OIL-COMP2	Oil-Sensor(Compressor2)	HOTGAS2 V/V	Solenoid valve(HOTGAS2)
COMP2	Motor (compressor2)	OUT(10K)	Thermistor (Air)	OD EEV V/V	Solenoid valve(OD EEV)
FAN1	Motor (fan1)	COND(10K)	Thermistor (COND.)	F101	FUSE(inverterPBA)
FAN2	Motor (fan2)	TOP2(200K)	Thermistor (Copressor2 TOP)	690V/T40A	FUSE(EMI PBA)
EVI V/V 1	Solenoid valve(Enhanced Vapor Injection_1)	DIS1(200K)	Thermistor DIS1(200K)	MODE CHANGE	Connector (remote switching cool/heat selector)
EVI V/V 2	Solenoid valve(Enhanced Vapor Injection_2)	DIS2(200K)	Thermistor DIS2(200K)	EXT CON	Connector (Output EXT CON)
EVI EEV	electronic expansion valve(EVI)	LIQUID(10K)	Thermistor LIQUID(10K)	ERROR/COMP EXT	Connector (Output ERROR/COMP EXT CON)

NOTE

- This wiring diagram applies only to the water-cooled.
- Colors BLK: black, RED: red, BLU: blue, WHT: white, YEL: yellow, BRN: brown, SKY: skyblue, ORG: orange, GRN: green
- When operating, don't short circuit the protection device (High Pressure switch)
- For connection wiring indoor-outdoor transmission F1-F2, outdoor-outdoor transmission OF1-OF2, refer to the installation manual.
- ⊕ Protective earth(screw), □□□□ connector, $\frac{N}{\times}$: The wire quantity

Sound Data

Summary

Capacity	Model	Sound Pressure (dBA)		Sound Power (dBA)
Ton		Cooling	Heating	
3	VPC038W4M-4P	47	49	65
4	VPC048W4M-4P	48	50	71
5	VPC055W4M-4P	49	51	71

Premium Energy Efficiency Type

Capacity	Model	Sound Pressure (dBA)		Sound Power (dBA)
Ton		Cooling	Heating	
6	VRC072W4M-4*	48	51	70
8	VRC096W4M-4*	48	51	70
10	VRC120W4M-4*	50	52	70
12	VRC144W4M-4*2	51	54	73
14	VRC168W4M-4*2	51	54	73
16	VRC192W4M-4*	51	52	73
18	VRC216W4M-4*2	52	55	73
22	VRC264W4M-4*2	53	56	75
24	VRC288W4M-4*2	53	55	75
28	VRC336W4M-4*3	54	56	75
30	VRC360W4M-4*3	54	56	76
32	VRC384W4M-4*3	54	56	76

Sound Data

Summary

Premium Compact Type

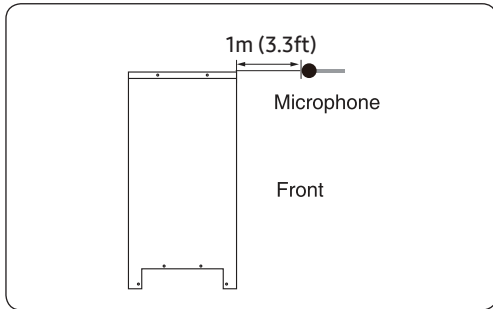
Capacity	Model	Sound Pressure (dBA)		Sound Power (dBA)
Ton		Cooling	Heating	
20	VRC240W4M-4*	55	57	74
26	VRC312W4M-4*2	56	58	76
28	VRC336W4M-4*2	56	58	76
30	VRC360W4M-4*2	57	59	76
34	VRC408W4M-4*3	57	59	77

NOTE

- Sound Pressure Level
 - Sound Pressure level is obtained in an anechoic room.
 - Sound Pressure level is a relative value, depending on the distance and acoustic environment.
 - Sound Pressure level may differ depending on operation condition.
 - dBA = A-weighted sound power level.
 - Reference acoustic pressure 0 dB = 20μPa
- Sound Power Level
 - Sound power level is an absolute value that a sound source generates.
 - dBA = A-weighted sound power level.
 - Reference power: 1pW.
 - Measured according to ISO 3741.

Sound Data

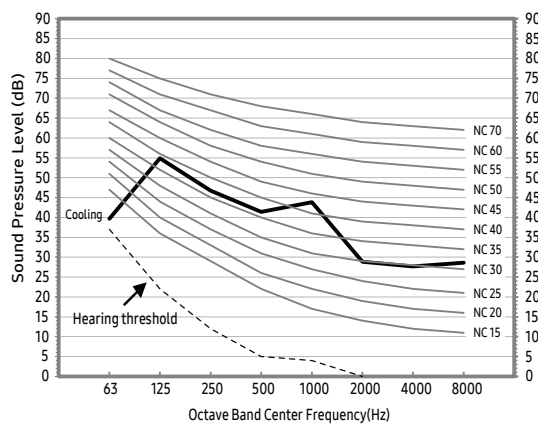
Sound Pressure level



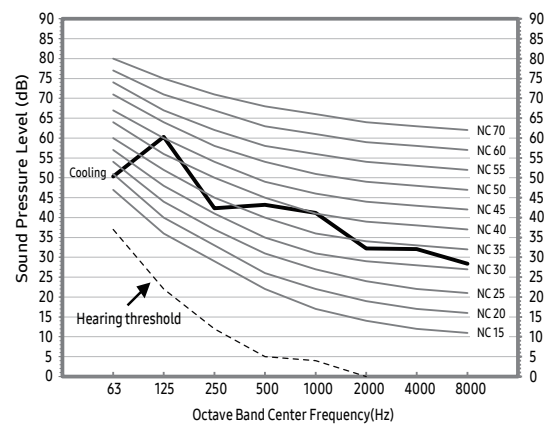
Model	dBA
VPC038W4M-4P	47
VPC048W4M-4P	48
VPC055W4M-4P	49
VRC072W4M-4*	48

NC Curve

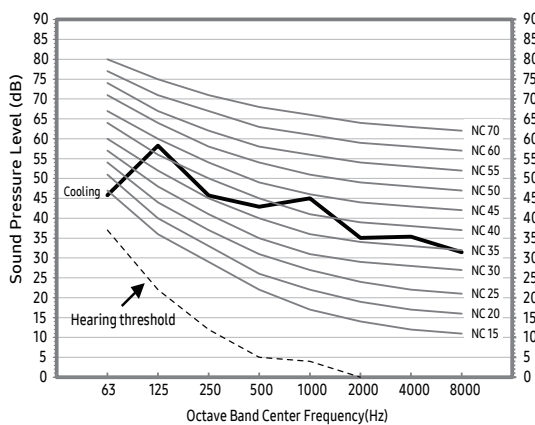
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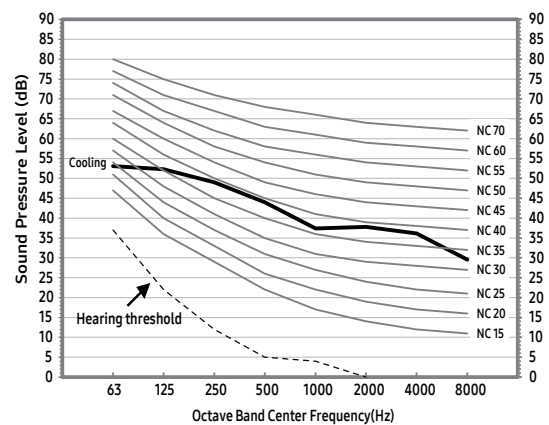
2) VPC048W4M-4P



3) VPC055W4M-4P



4) VRC072W4M-4*

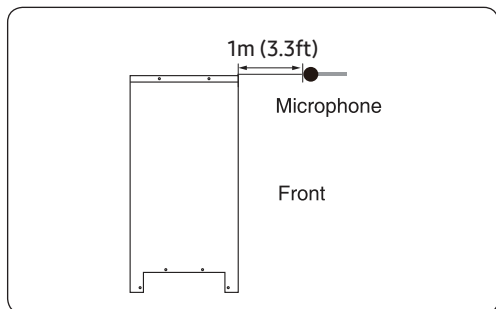


NOTE

- Specifications may be subject to change without prior notice.
 - Sound pressure level is obtained in an anechoic room.
 - Sound pressure level is a relative value, depending on the distance and acoustic environment.
 - Sound pressure level may differ depending on operation condition.
 - dBA = A weighted sound pressure level
 - Reference acoustic pressure 0 dB = 20μPa

Sound Data

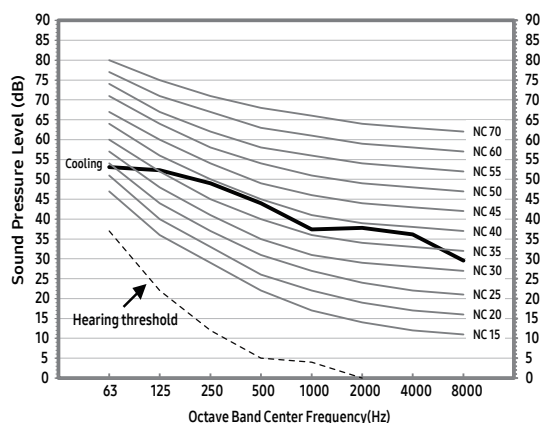
Sound Pressure level



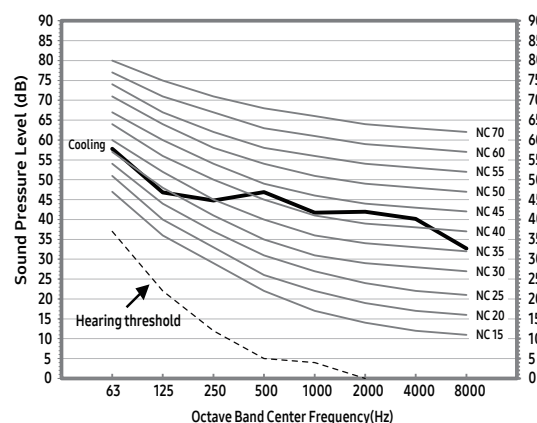
Model	dBA
VRC096W4M-4*	48
VRC120W4M-4*	50
VRC192W4M-4*	51
VRC240W4M-4*	55

NC Curve

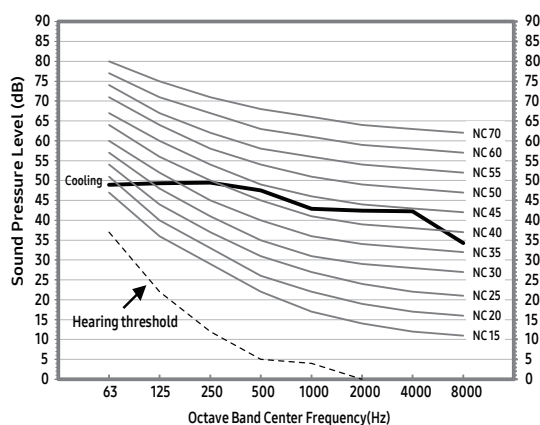
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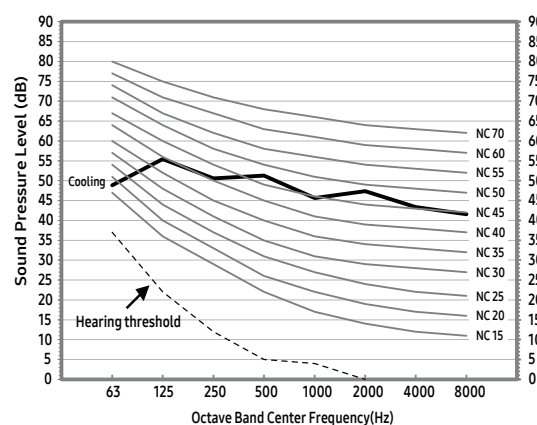
2) VRC120W4M-4*



3) VRC192W4M-4*



4) VRC240W4M-4*



NOTE

- Specifications may be subject to change without prior notice.
- Sound pressure level is obtained in an anechoic room.
- Sound pressure level is a relative value, depending on the distance and acoustic environment.
- Sound pressure level may differ depending on operation condition.
- dBA = A weighted sound pressure level
- Reference acoustic pressure 0 dB = 20μPa

Sound Data

Sound Power Level

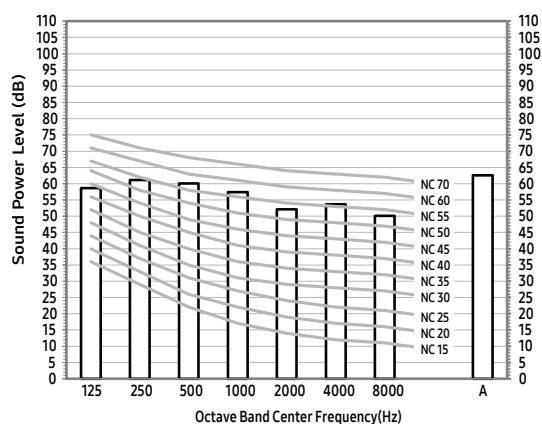
NOTE

- Specifications may be subject to change without prior notice
- Sound power level is an absolute value that a sound source generates.
- dBA = A-weighted sound power level.
- Reference power : 1pW.
- Measured according to ISO 3741.

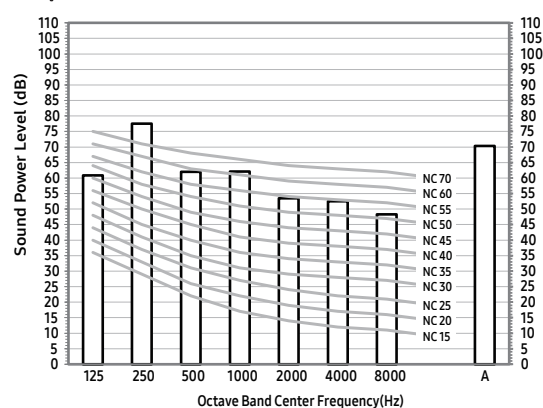
Unit : dB(A)

Model	Power
VPC038W4M-4P	65
VPC048W4M-4P	71
VPC055W4M-4P	71
VRC072W4M-4*	70

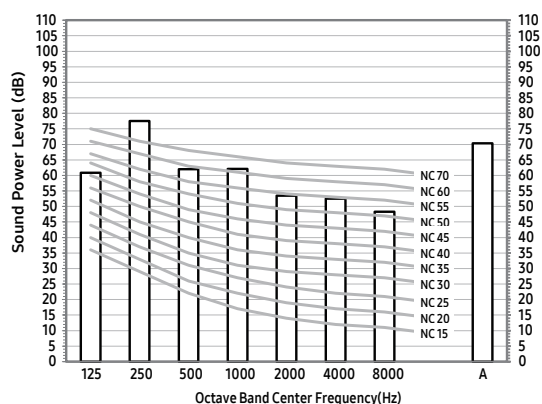
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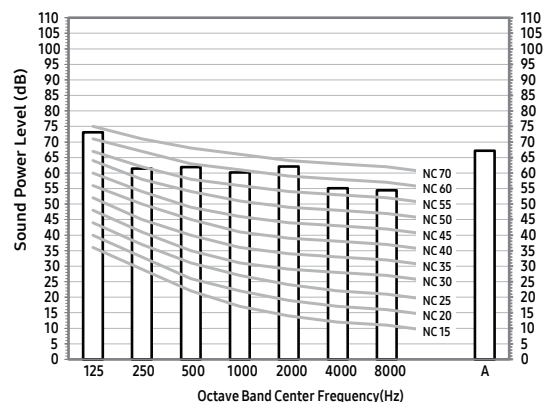
2) VPC048W4M-4P



3) VPC055W4M-4P



4) VRC072W4M-4*



Sound Data

Sound Power Level



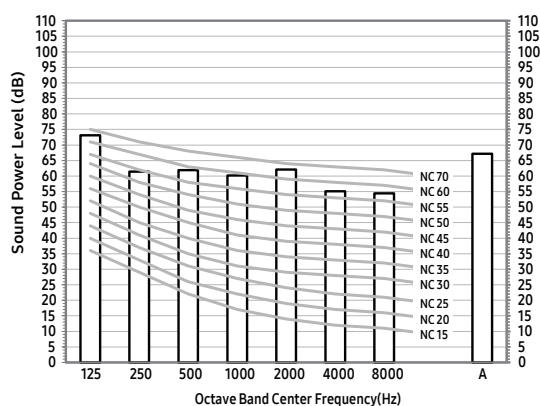
NOTE

- Specifications may be subject to change without prior notice
- Sound power level is an absolute value that a sound source generates.
- dBA = A-weighted sound power level.
- Reference power : 1pW.
- Measured according to ISO 3741.

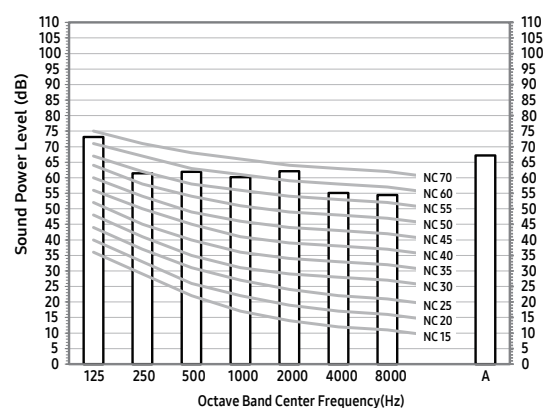
Unit : dB(A)

Model	Power
VRC096W4M-4*	70
VRC120W4M-4*	70
VRC192W4M-4*	73
VRC240W4M-4*	74

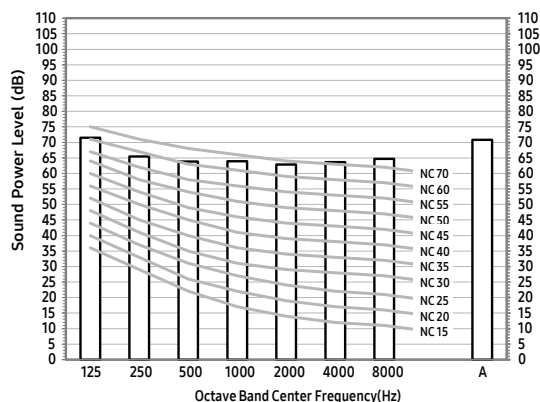
1) VRC096W4M-4*



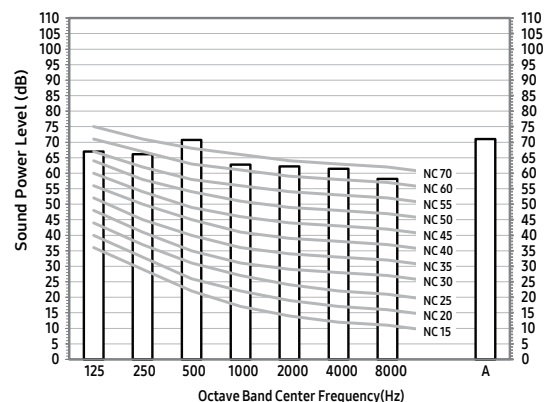
2) VRC120W4M-4*



3) VRC192W4M-4*

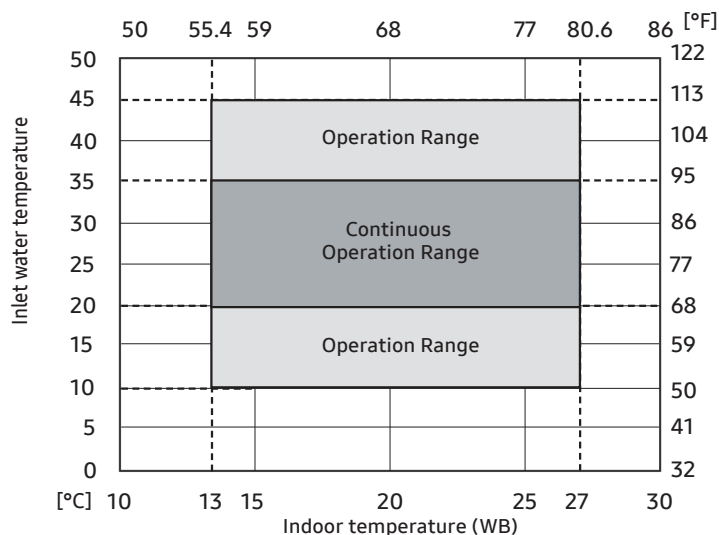


4) VRC240W4M-4*



Operating Range

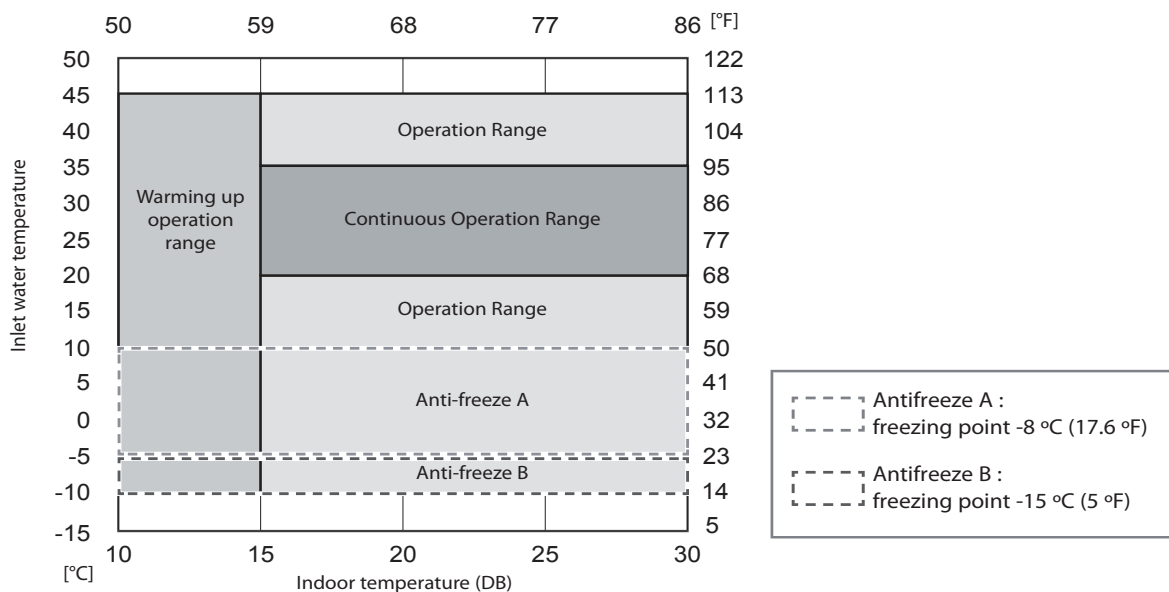
Cooling



NOTE

- In the range except for the continuous operation range, the protection control can be active depending on the heat source flow rate. (It is not a failure but a way of cycle protection against hot or cold water.)

Heating

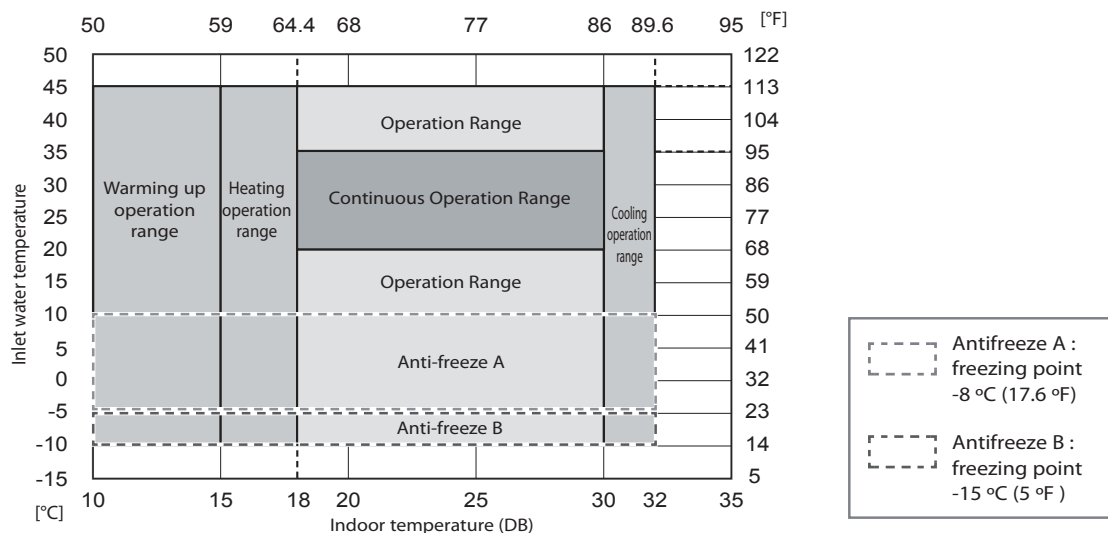


NOTE

- In the range except for the continuous operation range, the protection control can be active depending on the heat source flow rate. (It is not a failure but a way of cycle protection against hot or cold water.)
- For use in the antifreeze condition, the antifreeze concentration must be rigidly managed.

Operating Range

Heat Recovery



NOTE

- In the range except for the continuous operation range, the protection control can be active depending on the heat source flow rate. (It is not a failure but a way of cycle protection against hot or cold water.)
- For use in the antifreeze condition, the antifreeze concentration must be rigidly managed.

Design condition

Type	Circulating water	Operation	Intel water temperature (°C)	
			Main usage range	Usage range limit Note 3)
Heat source water	Water loop	Cooling	20 ~ 35 °C (68 ~ 95 °F)	10 ~ 45 °C (50 ~ 113 °F)
		Heating		
Ground heat source ¹⁾	Ground loop	Cooling	15 ~ 35 °C (59 ~ 95 °F)	10 ~ 45 °C (50 ~ 113 °F)
		Heating	5 ~ 25	-5 ~ 45 °C (23 ~ 113 °F)
				-10 ~ 45 °C (14 ~ 113 °F) Note 2)

Note 1): Anti-freeze must be used when temperature of water inlet for heating is below 10 °C (50 °F) or ground heat source is used. Maintain appropriate concentration level of anti-freeze according to temperature of water inlet.

Note 2): Strict management of anti-freeze concentration level is required. Consult Lennox before application.

Note 3): When inlet water temperature is outside of limit, consult Lennox before application.

Standard data for status of Anti-freeze [Based on temperature of anti-freeze at 15 °C (59 °F)]

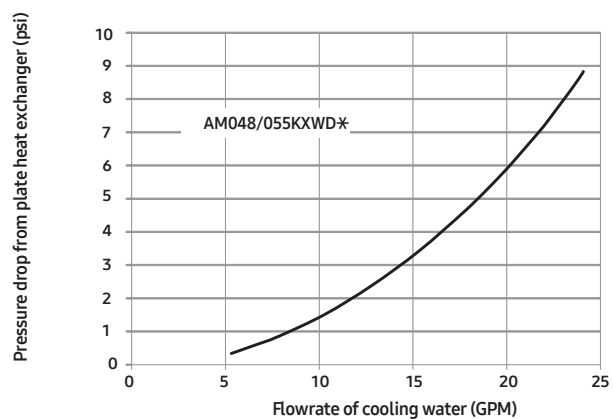
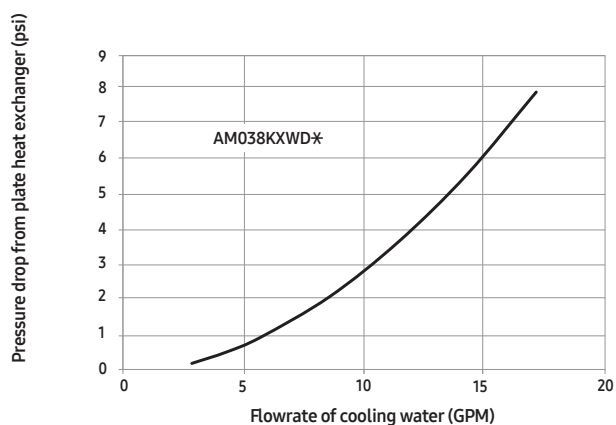
Type of anti-freeze [Based on 15 °C (59 °F)]	Concentration [% Wt.]	Freezing temperature [°C]		Density [kg/m ³]	
		°C	°F	kg/m ³	lb/ft ³
Ethylene glycol	10	-3.2	26.2	1014.87	63.4
	20	-7.8	18.0	1031.39	64.4
	30	-14.1	6.6	1047.07	65.4
	40	-22.3	-8.1	1061.65	66.3
Propylene glycol	10	-3.3	26.1	1009.75	63.0
	20	-7.1	19.2	1020.91	63.7
	30	-12.7	9.1	1030.51	64.3
	40	-21.1	-6.0	1038.65	64.8

Operating Range

Water Flow rate

VPC038/048/055W4M-4P

Flowrate of cooling water (GPM)				
Model name		VPC038W4M-4P	VPC048W4M-4P	VPC055W4M-4P
Standard condition	Cooling/Heating	10.5	13.2	15.9
Operation range	Cooling/Heating	6.3~12.7	7.9~15.9	9.5~19.0



NOTE

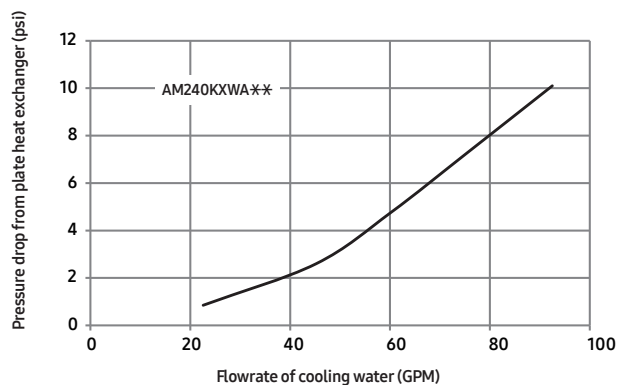
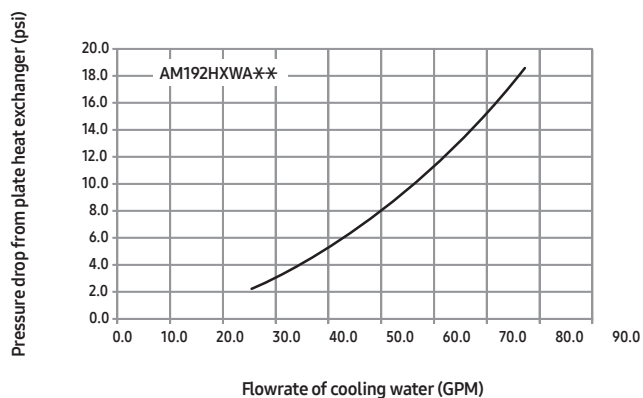
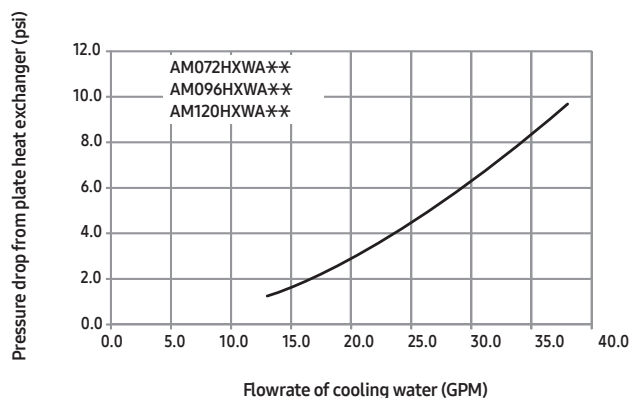
- When the amount of cooling water is out of the operation range, stop the outdoor unit and take care of the cause before re-start the operation (Operation range : 60~120 % of the standard amount of water flow)

Operating Range

Water Flow rate

VRC072/096/120/192/240W4M-4*

		Flowrate of cooling water (GPM)				
Model name		VRC072W4M-4*	VRC096W4M-4*	VRC120W4M-4*	VRC192W4M-4*	VRC240W4M-4*
Standard condition	Cooling/ Heating	21.1	25.4	30.1	50.2	60.2
Operation range	Cooling/ Heating	12.7 ~ 25.4	15.3 ~ 30.4	18 ~ 36.2	30.1 ~ 60.2	35.9 ~ 72.4

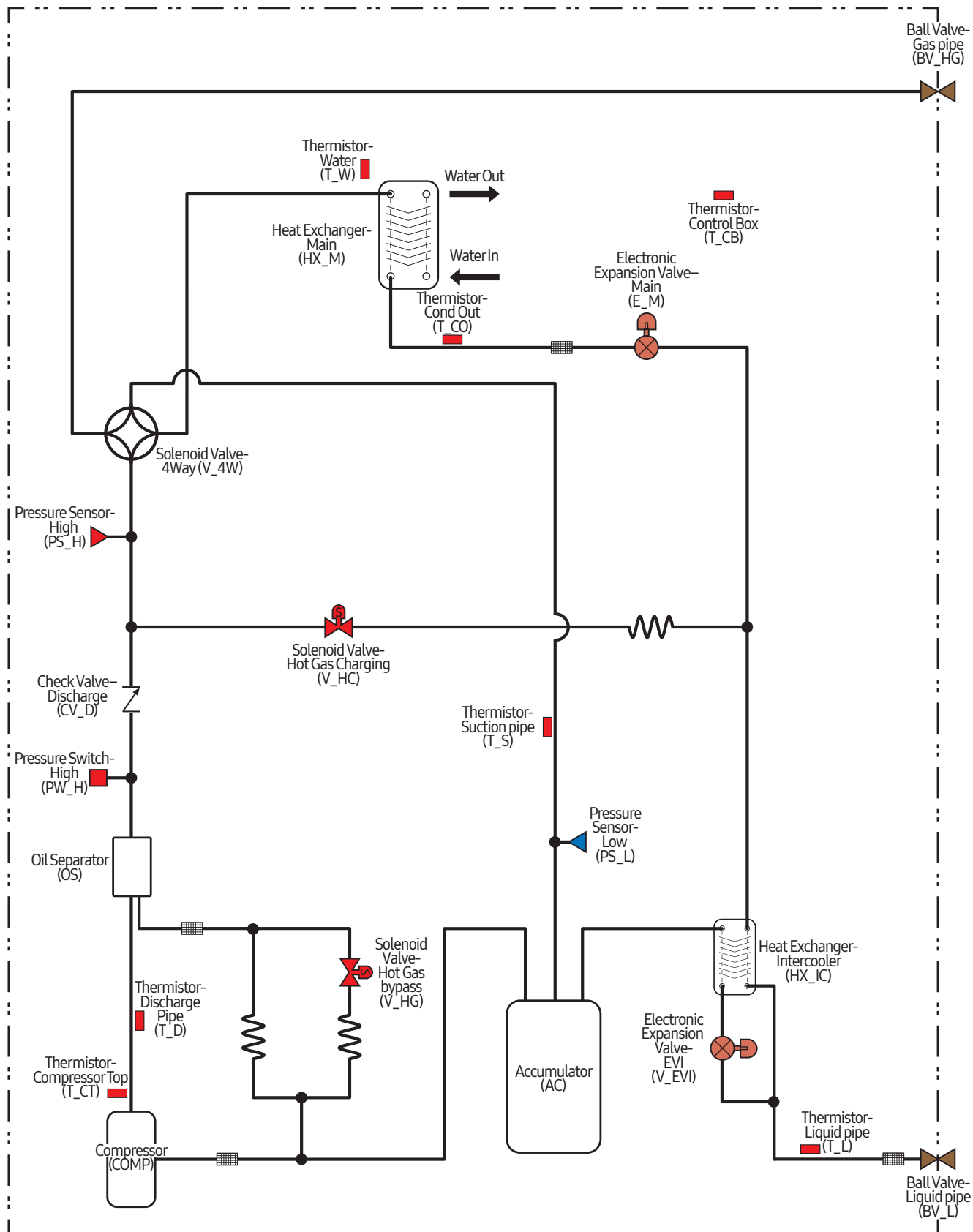


NOTE

- When the amount of cooling water is out of the operation range, stop the outdoor unit and take care of the cause before re-start the operation (Operation range : 60~120 % of the standard amount of water flow)

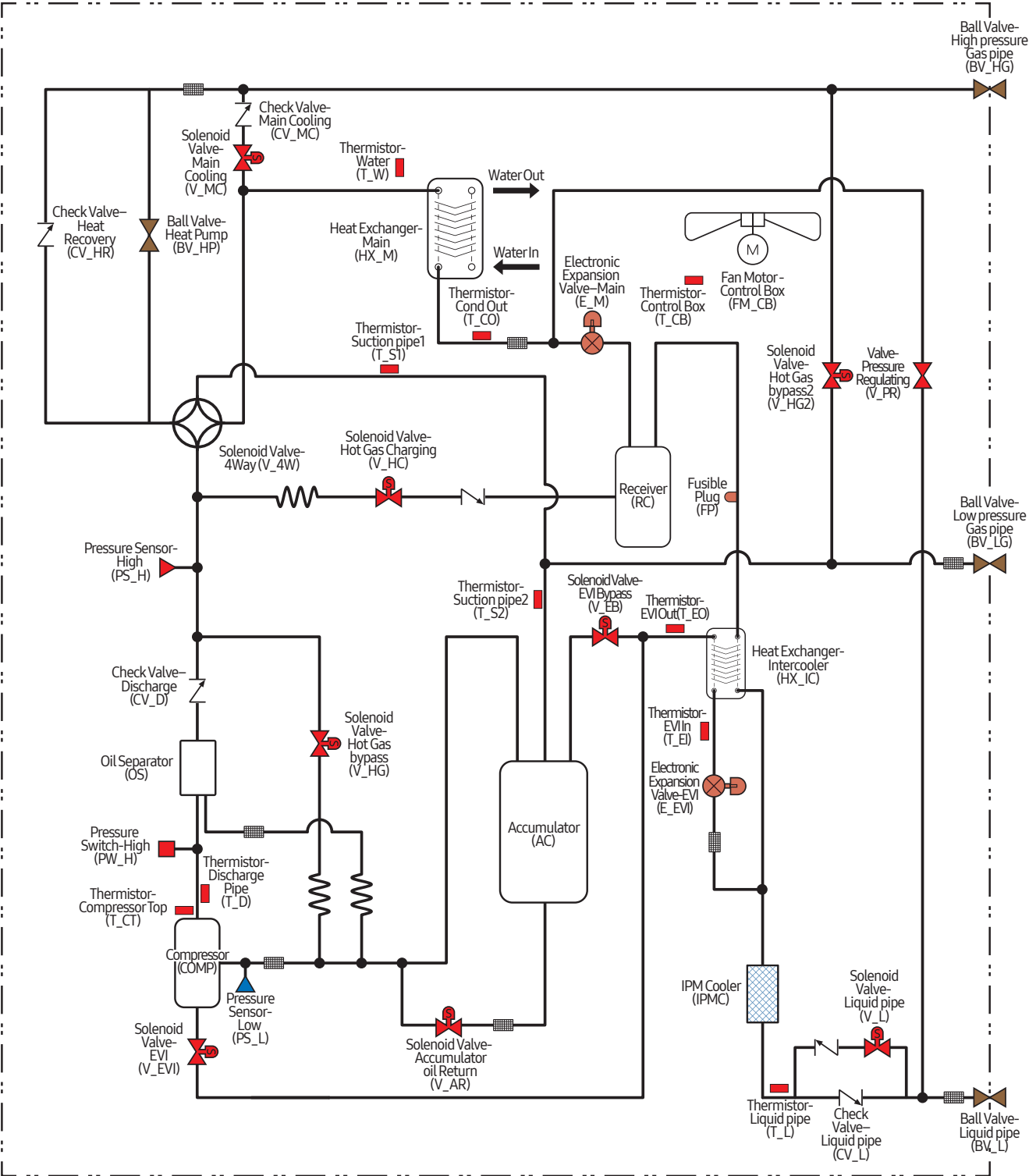
Piping Diagram

VPC038/048/055W4M-4P



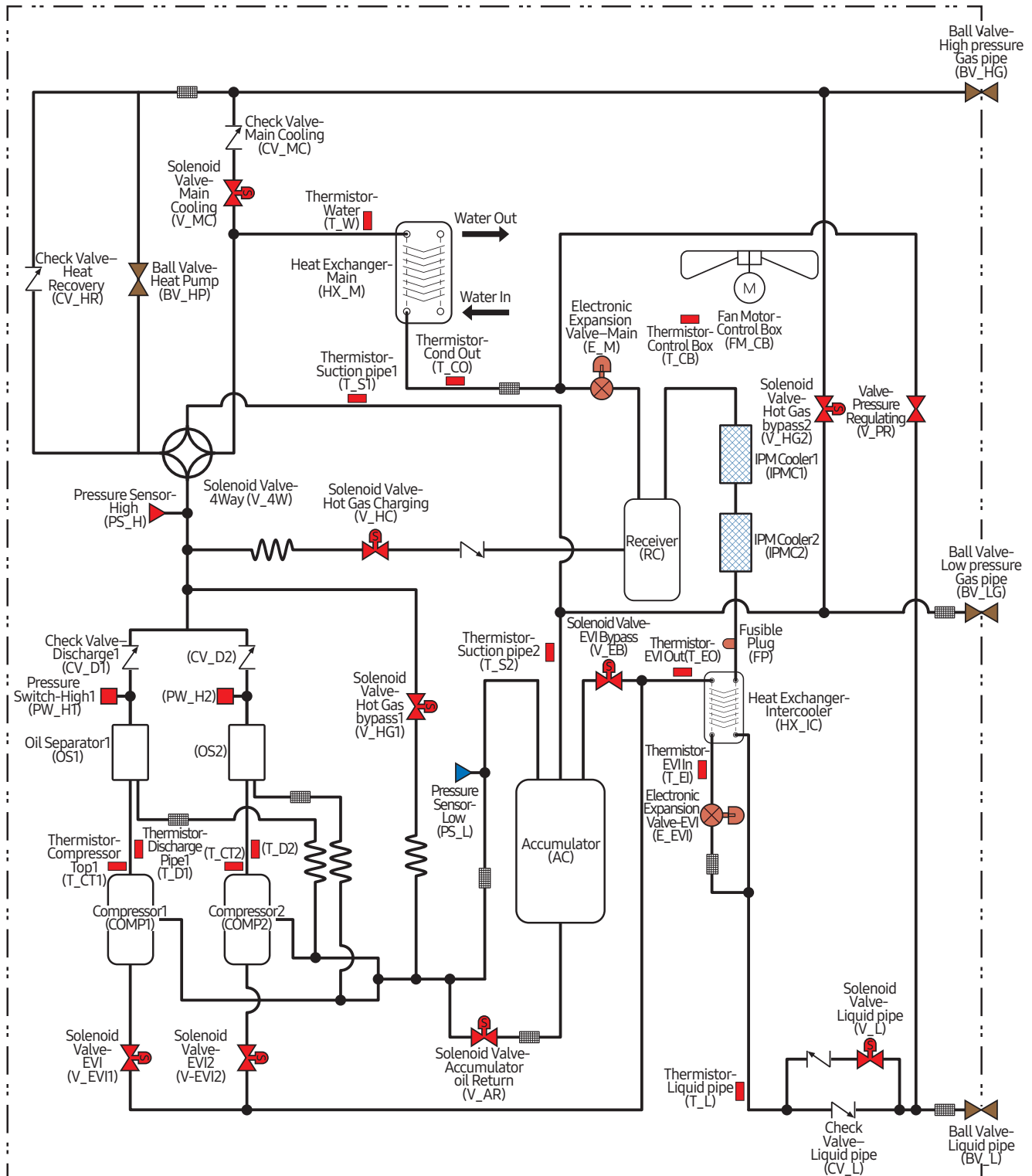
Piping Diagram

VRC072/096/120W4M-4*



Piping Diagram

VRC192W4M-4*



Installation Clearances

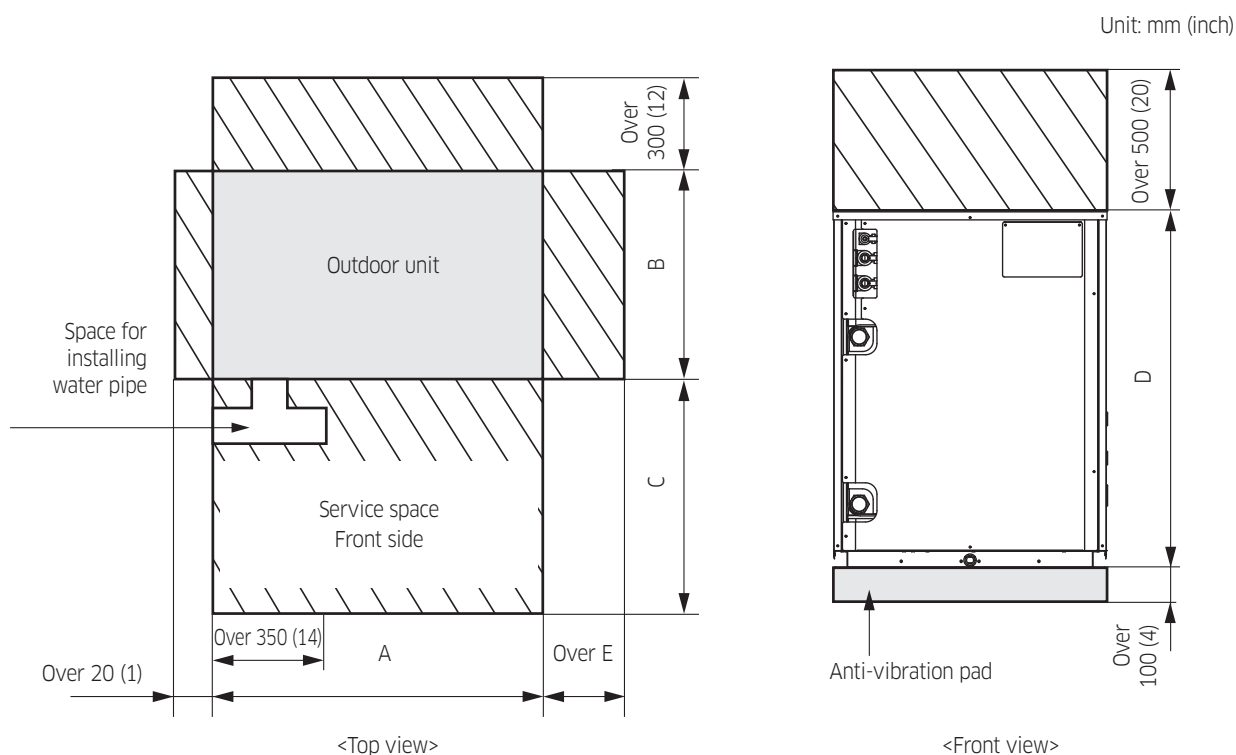
Space requirement for installation

Minimum space requirement for installation

- ▶ Secure minimum installation space as shown in the following figures, considering service area and path for people etc.
 - If the installation space is narrow, installer or other worker may get injured during work and may also cause problem to the product.
- ▶ If the conditions does not meet the space requirement in this manual, please contact qualified installation agent.
- ▶ You must check the required service clearance since it is different for each model.

Single installation

When the water pipe passes through top of the product

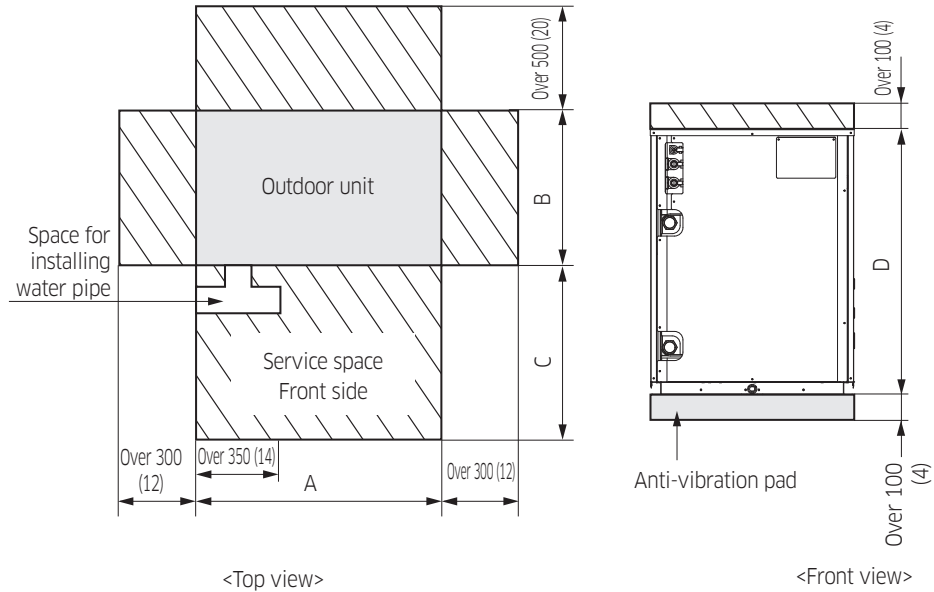


Installation Clearances

Space requirement for installation

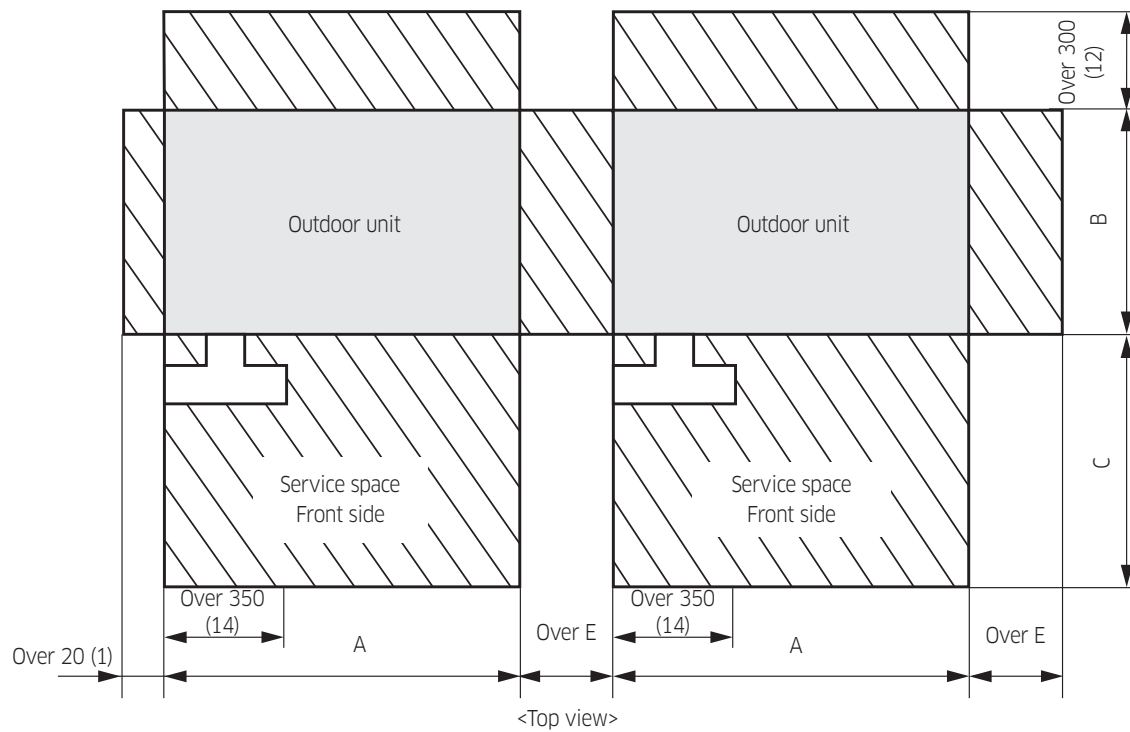
When the water pipe passes through back of the product

Unit: mm (inch)



Module or continuous installation

Unit: mm (inch)

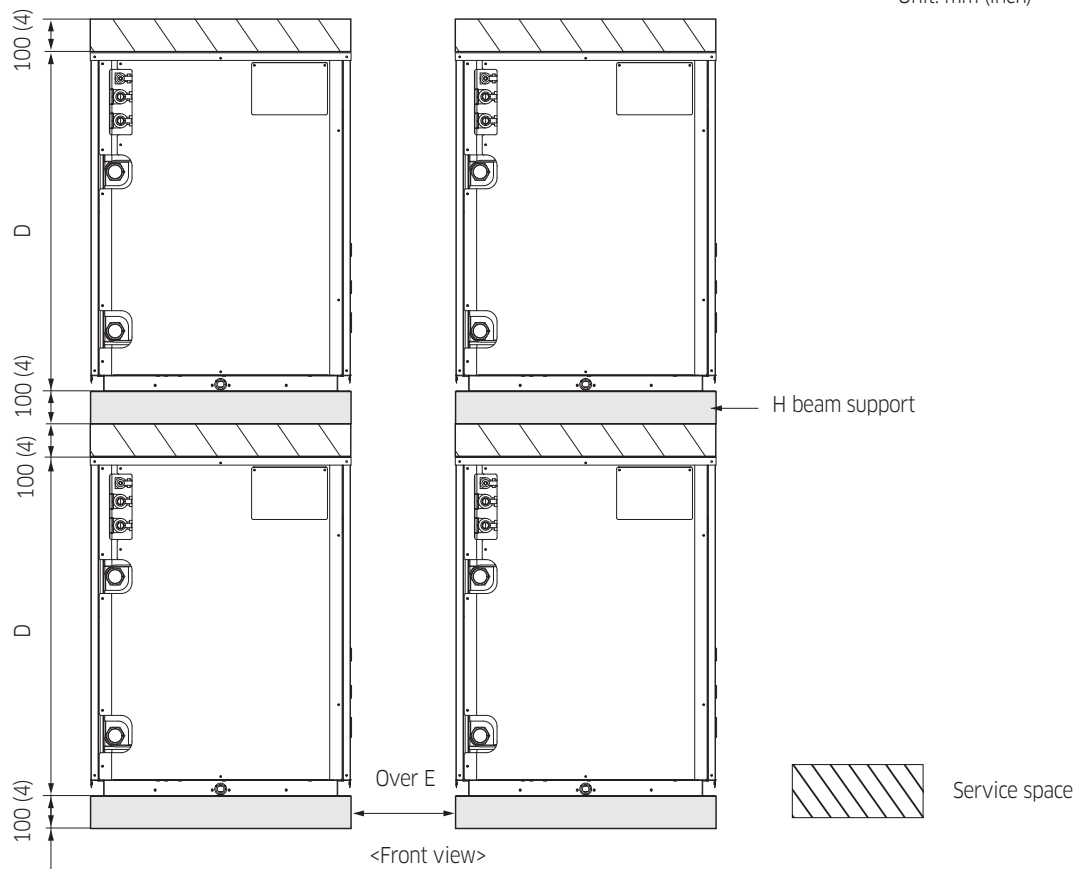


Installation Clearances

Space requirement for installation

Double installation

Unit: mm (inch)



- For the double installation, service space is required for the front, rear, and sides of the product. For the size of the service space, refer to the service space size of single, module or continuous installation.
- Clear enough space for E (space between outdoor units), so that water pipes connected to outdoor units does not block the front side of the outdoor units next to it.

Unit: mm (inch)

Model name of outdoor unit	A	B	C	D	E
VPC038/048/055W4M-4P	750 (29.5)	330 (13)	500 (19.7)	800 (31.5)	100 (4)
VRC072/096/120W4M-4Y	770 (30.3)	545 (21.5)	600 (23.6)	1000 (39.4)	100 (4)
VRC192/240W4M-4Y	1100 (43.3)	545 (21.5)	600 (23.6)	1000 (39.4)	100 (4)
VRC072/096/120W4M-4G	790 (31.1)	545 (21.5)	600 (23.6)	1000 (39.4)	300 (12)
VRC192/240W4M-4G	1120 (44.1)	545 (21.5)	600 (23.6)	1000 (39.4)	300 (12)



- If the outdoor unit is needed to be installed close to the walls unavoidably, prevent the vibration from being transferred to the walls with cushioning materials etc.



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