

VPC S4M

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

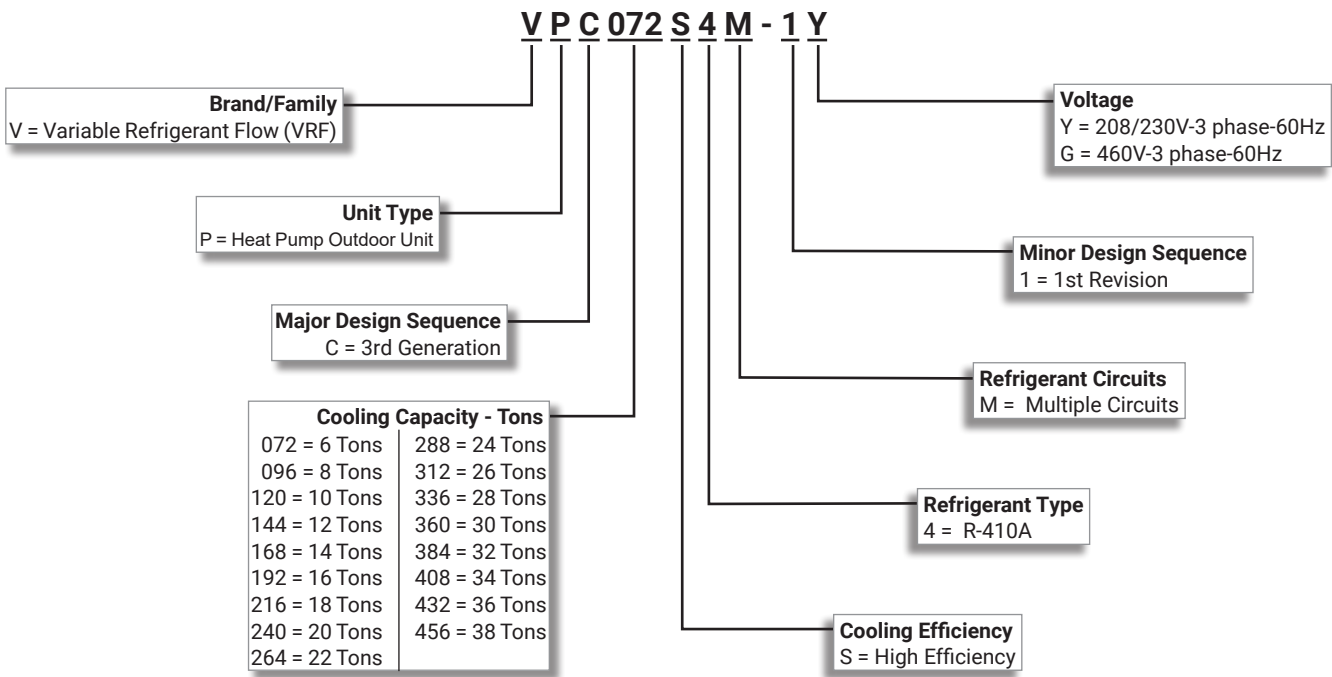
6 to 38 tons

COMMERCIAL
PRODUCT SPECIFICATIONS (EHB)



ASHRAE
Standard
90.1

MODEL NUMBER IDENTIFICATION



CONTENTS

AHRI Data	63
Center Of Gravity	39
Combination Table - Outdoor Units	3
Design Procedure & Combination Ratio	7
Dimensions	36
Electrical Data	35
Electrical Wiring	44
Installation Clearances	42
Model Number Identification.	1
Operation Range	57
Piping Diagram	59
Sound Power Levels	53
Sound Pressure Levels	49
Specifications	11

Combination Table : Outdoor units

(208~230V)

System Model			Capacity (Ton)							
Capa (Ton)	Model Name	Number of individual outdoor units								
			6	8	10	12	14	16	18	20
6	VPC072S4M-4Y	1	1							
8	VPC096S4M-4Y	1		1						
10	VPC120S4M-4Y	1			1					
12	VPC144S4M-4Y	1				1				
14	VPC168S4M-4Y	1					1			
16	VPC192S4M-4Y	1						1		
18	VPC216S4M-4Y	1							1	
20	VPC240S4M-4Y	1								1
22	VPC264S4M-4Y	2		1			1			
24	VPC288S4M-4Y	2		1				1		
26	VPC312S4M-4Y	2		1					1	
28	VPC336S4M-4Y	2		1						1
30	VPC360S4M-4Y	2			1					1
32	VPC384S4M-4Y	2						2		
34	VPC408S4M-4Y	2						1	1	
36	VPC432S4M-4Y	3			2			1		
38	VPC456S4M-4Y	3			1	1		1		

NOTE

- Make sure to use an indoor unit that is compatible with VPC outdoor unit.
- Indoor units can be connected within the range indicated in following table.
- If the total capacity of the connected indoor units exceeds the indicated maximum capacity, cooling and heating capacity of the indoor unit may decrease.
- The standard allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%.
Combination ratio of up to 184% is allowed depending on operation mode, minimum operation ratio and connected indoor unit models. LVSS2.0 design software supports designing over 130% based on system design. Refer to the "Design Procedure & Combination Ratio" section of this document for details
- ※ 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.

Combination Table : Outdoor units

(460V)

System Model			Capacity (Ton)							
Capa (Ton)	Model Name	Number of individual outdoor units								
			6	8	10	12	14	16	18	20
6	VPC072S4M-4G	1	1							
8	VPC096S4M-4G	1		1						
10	VPC120S4M-4G	1			1					
12	VPC144S4M-4G	1				1				
14	VPC168S4M-4G	1					1			
16	VPC192S4M-4G	1						1		
18	VPC216S4M-4G	1							1	
20	VPC240S4M-4G	1								1
22	VPC264S4M-4G	2		1			1			
24	VPC288S4M-4G	2		1				1		
26	VPC312S4M-4G	2		1					1	
28	VPC336S4M-4G	2		1						1
30	VPC360S4M-4G	2			1					1
32	VPC384S4M-4G	2						2		
34	VPC408S4M-4G	2						1	1	
36	VPC432S4M-4G	3			2			1		
38	VPC456S4M-4G	3			1	1		1		

NOTE

- Make sure to use an indoor unit that is compatible with VPC outdoor unit.
- Indoor units can be connected within the range indicated in following table.
- If the total capacity of the connected indoor units exceeds the indicated maximum capacity, cooling and heating capacity of the indoor unit may decrease.
- The standard allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%.
Combination ratio of up to 184% is allowed depending on operation mode, minimum operation ratio and connected indoor unit models. LVSS2.0 design software supports designing over 130% based on system design. Refer to the "Design Procedure & Combination Ratio" section of this document for details
- ※ 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.

Combination Table : Outdoor units

External Appearance

(208~230V)

Capa [TON]	Model Name	Model	Capa [TON]	Model Name	Model
6	VPC072S4M-4Y		24 26 28 30	VPC288S4M-4Y VPC312S4M-4Y VPC336S4M-4Y VPC360S4M-4Y	
8 10 12 14	VPC096S4M-4Y VPC120S4M-4Y VPC144S4M-4Y VPC168S4M-4Y		32 34	VPC384S4M-4Y VPC408S4M-4Y	
16 18 20	VPC192S4M-4Y VPC216S4M-4Y VPC240S4M-4Y				
22	VPC264S4M-4Y		36 38	VPC432S4M-4Y VPC456S4M-4Y	

Combination Table : Outdoor units

External Appearance

(460V)

Capa [TON]	Model Name	Model	Capa [TON]	Model Name	Model
6	VPC072S4M-4G		24 26 28 30	VPC288S4M-4G VPC312S4M-4G VPC336S4M-4G VPC360S4M-4G	
8 10 12 14	VPC096S4M-4G VPC120S4M-4G VPC144S4M-4G VPC168S4M-4G		32 34	VPC384S4M-4G VPC408S4M-4G	
16 18 20	VPC192S4M-4G VPC216S4M-4G VPC240S4M-4G				
22	VPC264S4M-4G		36 38	VPC432S4M-4G VPC456S4M-4G	

Design Procedure & Combination Ratio

Combination Ratio (Connection Ratio)

Definition of Combination Ratio, CR

$$CR = \frac{\text{Sum of Nominal Cooling Capacity of Indoor units}}{\text{Nominal Cooling Capacity of Outdoor unit}} * 100\%$$

Constraints of Allowable Combination Ratio

VPC systems are normally designed to utilize a CR 50% to 130% to ensure effective load balancing between indoor units and outdoor unit. As buildings have become more insulated, and usage and occupancy of buildings are highly variable, more buildings can realize a higher load balancing between IDUs and ODU, thus higher CR (>130%) is often required. If a system design exceeds 130%, risks associated to increased indoor sound level and reduced comfort levels should be considered. Therefore, when it is necessary to design a combination ratio exceeding 130%, the following conditions must be complied with: -

Design & Selection Procedure

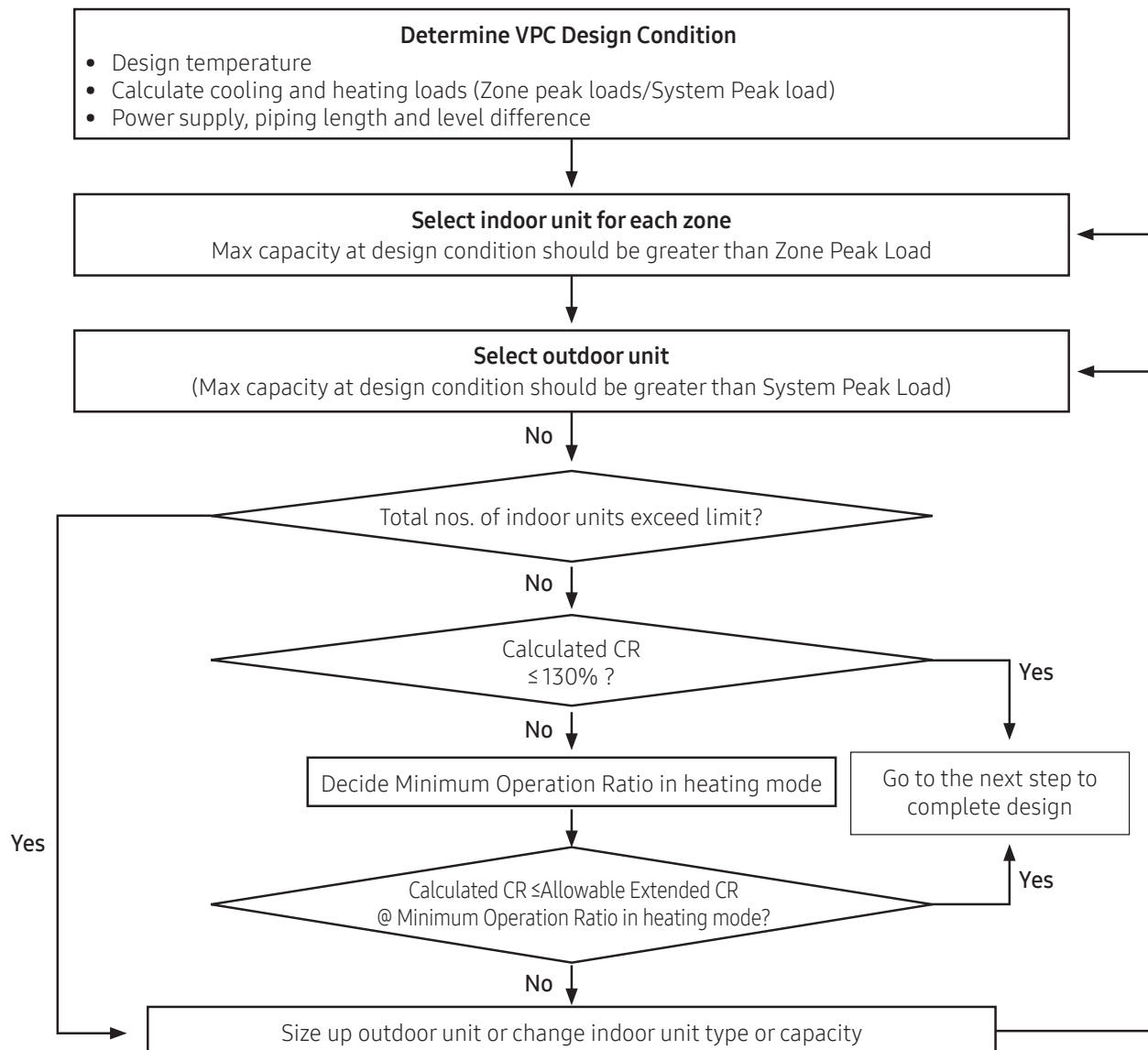


Fig.1 Design & Selection Procedure for Extended Combination Ratio

Design Procedure & Combination Ratio

Combination Ratio (Connection Ratio)

Satisfying cooling & heating comfort

The Maximum Capacity of outdoor unit at design condition calculated from Lennox capacity data table or design tool (LVSS 2.0) should always be the same or greater than System Peak Load (Block Load) defined in table 1.

Time	Room A	Room B	Room C	Room D	Room E	Room F	Total
	Music Room	Class room	Class room	Class room	Class room	Class room	
09:00	8.4	8.0	8.4	8.0	8.4	8.6	49.8
12:00	9.2	8.8	10.8	8.6	10.8	9.8	58.0
14:00	10.0	9.6	9.6	9.6	11.4	10.8	61.0
16:00	11.0	10.6	8.8	10.8	9.6	9.6	60.4
18:00	9.4	9.0	8.8	9.0	9.0	8.4	53.6

Table 1. Example of System Peak loads

- ▶ Zone Peak Loads (■): To satisfy the demand for each room any time
 - Sum of Zone peak Loads = 65.4kW (11.0 + 10.6 + 10.8 + 10.8 + 11.4 + 10.8)
- ▶ Block load (■): Total peak load at a given time of day.
 - Sum of Zone Peak Loads at 14:00 = 61.0kW



NOTE

- When a system combination ratio is over 130%, a max system capacity is the same as the published capacity in TDB capacity table at the combination ratio of 130%

Cooling Operation Only

When only cooling operation is used, CR is allowed up to 180% if the Max Capacity of outdoor unit is greater than System Peak Load (Block load) as shown table 2.

Outdoor unit	All capacities of H/P & H/R model
Indoor unit	All indoor unit types
Operation Condition	Cooling mode only
Allowable CR	180%

Table 2. Allowable CR in only cooling operation



NOTE

- Table 2 shows a standard for allowable CR of cooling only model. Lennox is not responsible for any problem caused by using a heating mode at the site with a system designed by table 2. If heating operation is required, extended CR design must follow section "Allowable CR limit to avoid abnormal sound level risks in heating operation."

Design Procedure & Combination Ratio

Combination Ratio (Connection Ratio)

Allowable CR limit to avoid abnormal sound level risks in heating operation

- If the CR exceeds 130%, in a specific case of heating operation, an indoor unit may have higher sound level than the level specified in the technical documents.
- In order to minimize the sound level, the system minimum operation ratio needs to be verified and considered as follows:

※ Operation Ratio(%), OR

- Heat Pump system, H/P

$$OR_{(H/P)} (\%) = \frac{\text{Sum of nominal capacity of indoor units running in heating mode}}{\text{Sum of nominal capacity of indoor units}} * 100\%$$

- Heat Recovery system, H/R

$$OR_{(H/R)} (\%) = \frac{\text{Sum of nominal capacity of indoor units running in both cooling & heating mode}}{\text{Sum of nominal capacity of indoor units}} * 100\%$$

The Minimum Operation Ratio should be determined during the project design stage using Fig. 2.

Outdoor unit	All capacities of H/P & H/R (Single, Dual and Triple Module Systems)		
Indoor unit	All indoor unit types' except Wall-Mounted		Wall-Mounted
Operation Ratio	Nominal Capacity ≤ 18kBtu/h	Nominal capacity > 18kBtu/h	All capacities
10%	150%	158%	141%
20%	161%	170%	155%
30%	171%	184%	173%

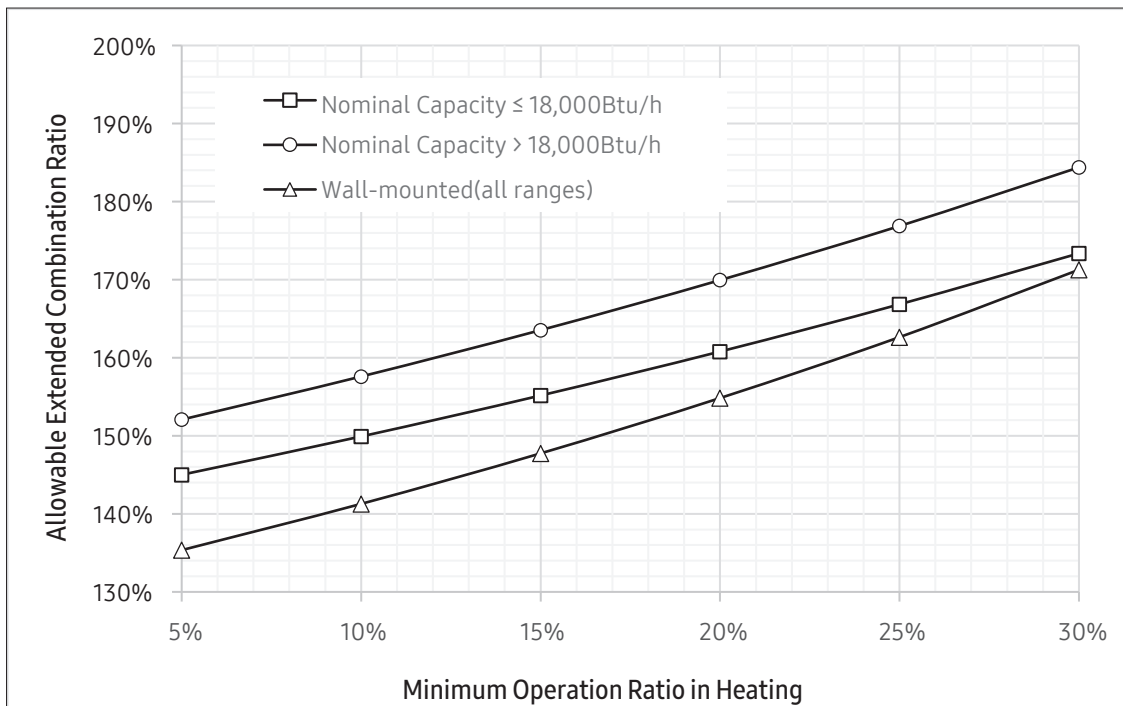


Fig. 2 Allowable CR with respect to indoor unit type as operation ratio increases

Design Procedure & Combination Ratio

Combination Ratio (Connection Ratio)

- The minimum operation ratio should be considered during the design stage.
- If a system has a mix of unit types or capacity, the lowest extended connection ratio curve must be utilized.
- In case that a designed Minimum Operation Ratio is less than 5% or more than 30%, the Allowable Extended CR must be considered as the value at 5% and 30%, respectively.
- *If one of following indoor unit types is included in a system, the CR cannot be extended beyond 130%.

Type of indoor unit	Limited by CR 130%
1Way Cassette / 4Way Cassette (600 x 600)	9kBtu/h or below
360 Cassette / Slim Duct (LSP duct)	12kBtu/h or below
4Way Cassette	18kBtu/h or below
Floor Standing (Exposed or Concealed)	18kBtu/h only
Ceiling Suspended	24kBtu/h only
Hydro unit (HE/HT)	All capacities



NOTE

- Lennox is not responsible for any issue, including abnormal noise that arises during heating operation due solely to the operation rate being lower than the designated combination ratio shown in Fig. 2. Please contact your local Lennox representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

Specification

(208~230V)

Model Name				VPC072S4M-4Y	VPC096S4M-4Y	VPC120S4M-4Y
Outdoor unit module 1				-	-	-
Outdoor unit module 2				-	-	-
Outdoor unit module 3				-	-	-
Power Supply			Ø, #, V, Hz	3, 3, 208~230, 60	3, 3, 208~230, 60	3, 3, 208~230, 60
Mode			-	Heat Pump	Heat Pump	Heat Pump
Performance	TON		TON	6	8	10
	1) Capacity (Nominal)	Cooling	Btu/h	72,000	96,000	120,000
		Heating	Btu/h	81,000	108,000	135,000
	Capacity (Rated)	Cooling	Btu/h	69,000	92,000	114,000
		Heating	Btu/h	77,000	103,000	129,000
Maximum number of connectable indoor units			EA	12	16	20
2) Total capacity of the connected Indoor Units		Min.	Btu/h	36,000	48,000	60,000
		Max.	Btu/h	93,600	124,800	156,000
Power	Current	MCA	A	28.0	36.0	40.8
		MOP	A	35	40	45
Casing	Material	Body	-	GI Steel Plate	GI Steel Plate	GI Steel Plate
		Base	-	GI Steel Plate	GI Steel Plate	GI Steel Plate
Heat Exchanger	Type		-	Fin & Tube	Fin & Tube	Fin & Tube
	Material	Fin	-	Al	Al	Al
		Tube	-	Cu	Cu	Cu
Fin Treatment			-	Anti-corrosion	Anti-corrosion	Anti-corrosion
Compressor	Type		-	Inverter Scroll x 1	Inverter Scroll x 2	Inverter Scroll x 2
	Output		kW x n	4.60 x 1	4.60 x 2	4.60 x 2
	Model Name		-	DS2GT7046EV* x 1	DS2GT7046EV* x 2	DS2GT7046EV* x 2
	Oil	Type	-	PVE	PVE	PVE
		Initial charge	cc x n	900 x 1	900 x 2	900 x 2
			fl oz x n	30.4 x 1	30.4 x 2	30.4 x 2
Fan	Type		-	Propeller	Propeller	Propeller
	Discharge direction		-	Top	Top	Top
	Quantity		EA	1	2	2
	Air Flow Rate		CFM (m³/min)	5,580 (158)	9,924 (281)	9,924 (281)
	External Static Pressure	Max.	mmAq	11	11	11
			Pa	110	110	110
			in Wg (Pa)	0.43 (107.87)	0.43 (107.87)	0.43 (107.87)
Fan Motor	Type		-	BLDC Motor	BLDC Motor	BLDC Motor
	Output		W x n	630 x 1	620 x 2	620 x 2
3) Piping Connections	Liquid Pipe		Type	Braze connection	Braze connection	Braze connection
			Φ, inch (mm)	3/8 (9.52)	3/8 (9.52)	1/2 (12.70)
	Gas Pipe		Type	Braze connection	Braze connection	Braze connection
			Φ, inch (mm)	3/4 (19.05)	7/8 (22.22)	1-1/8 (28.58)
	Heat Insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length (ODU-IDU)	Max. [Equiv.]	ft	656[722]	656[722]	656[722]
	Piping length (1st Branch-IDU)	Max.	ft	295	295	295
	Total piping length (System)	Max.	ft	3,281	3,281	3,281
	Level difference (ODU in highest position)	Max.	ft	361	361	361
	Level difference (IDU in highest position)	Max.	ft	361	361	361
	Level difference (IDU-IDU)	Max.	ft	164	164	164

Specification

(208~230V)

Model Name				VPC072S4M-4Y	VPC096S4M-4Y	VPC120S4M-4Y
	Outdoor unit module 1			-	-	-
	Outdoor unit module 2			-	-	-
	Outdoor unit module 3			-	-	-
Wiring Connections	Transmission Cable	Min.	AWG	18	18	18
		Remark	-	F1, F2	F1, F2	F1, F2
	Power supply intake			Both indoor and outdoor unit	Both indoor and outdoor unit	Both indoor and outdoor unit
Refrigerant	4) Type			R410A	R410A	R410A
	Factory Charging			13.7 (6.2)	17.6 (8.0)	17.6 (8.0)
Sound	5) Sound Pressure	Cooling	dB(A)	54.0	57.0	57.0
		Heating	dB(A)	58.0	59.0	60.0
	6) Sound Power			75.0	79.0	79.0
External Dimension	Net Weight			384 (174)	553 (251)	553 (251)
	Shipping Weight			414 (188)	591 (268)	591 (268)
	Net Dimensions (WxHxD)			mm	930 x 1,695 x 765	1,295 x 1,695 x 765
				inch	36-5/8 x 66-3/4 x 30-1/8	51 x 66-3/4 x 30-1/8
	Shipping Dimensions (WxHxD)			mm	998 x 1,887 x 829	1,363 x 1,887 x 829
				inch	39-5/16 x 74-5/16 x 32-11/16	53-11/16 x 74-5/16 x 32-11/16
7) Operating Temp. Range	Cooling			°F (°C)	5 ~ 122 (-15 ~ 50)	5 ~ 122 (-15 ~ 50)
	Heating			°F (°C)	-22 ~ 75 (-30 ~ 24)	-22 ~ 75 (-30 ~ 24)

NOTE

- Specification may be subject to change without prior notice.
- 1) Nominal capacities are based on (Equivalent refrigerant piping : 25ft, Level differences : 0ft);
 - Cooling : Indoor temperature 80°F DB, 67°F WB / Outdoor temperature 95°F DB, 75°F WB
 - Heating : Indoor temperature 70°F DB, 60°F WB / Outdoor temperature 47°F DB, 43°F WB
- 2) The standard allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%. Combination ratio of up to 184% is allowed depending on operation mode, minimum operation ratio and connected indoor unit models. LVSS 2.0 design software supports designing over 130% based on system design. Refer to the "Design Procedure & Combination Ratio" section of this document for details
- 3) If outdoor unit is located in a higher position than indoor unit, level difference is 361ft or under.
(If the level difference is higher than 164ft, the PDM kit should be installed)
*PDM kit: Pressure Drop Modulation kit
- 4) These products contain R410A which is fluorinated greenhouse gas.
- 5) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- 6) Sound power level is an absolute value that a sound source generates.
Sound pressure level is a relative value, depending on the distance and acoustic environment.
Sound values are obtained in an anechoic room.
Sound values of multi combination are theoretical values based on sound results of individual installed units.
- 7) Cooling operation is possible at -15°C(5°F) or higher if satisfied following conditions.
(If the outdoor temperature below -5°C(23°F), wind(snow) protection duct must be installed on the suction side of the heat exchanger and at least 50% capacity of the connected indoor units must be operated.) However, if the outdoor unit is installed below the indoor unit, cooling operation is possible only at -5°C(23°F) or higher.
- For more information regarding capacity correction, please refer to capacity tables.

Specification

(208~230V)

Model Name				VPC144S4M-4Y	VPC168S4M-4Y	VPC192S4M-4Y
Outdoor unit module 1				-	-	-
Outdoor unit module 2				-	-	-
Outdoor unit module 3				-	-	-
Power Supply			Ø, #, V, Hz	3, 3, 208~230, 60	3, 3, 208~230, 60	3, 3, 208~230, 60
Mode			-	Heat Pump	Heat Pump	Heat Pump
Performance	TON		TON	12	14	16
	1) Capacity (Nominal)	Cooling	Btu/h	144,000	168,000	192,000
		Heating	Btu/h	162,000	189,000	216,000
	Capacity (Rated)	Cooling	Btu/h	138,000	160,000	184,000
		Heating	Btu/h	154,000	180,000	206,000
Maximum number of connectable indoor units			EA	25	29	33
2) Total capacity of the connected Indoor Units		Min.	Btu/h	72,000	84,000	96,000
		Max.	Btu/h	187,200	218,400	249,600
Power	Current	MCA	A	52.6	54.4	60.0
		MOP	A	60	60	70
Casing	Material	Body	-	GI Steel Plate	GI Steel Plate	GI Steel Plate
		Base	-	GI Steel Plate	GI Steel Plate	GI Steel Plate
Heat Exchanger	Type		-	Fin & Tube	Fin & Tube	Fin & Tube
	Material	Fin	-	Al	Al	Al
		Tube	-	Cu	Cu	Cu
	Fin Treatment		-	Anti-corrosion	Anti-corrosion	Anti-corrosion
Compressor	Type		-	Inverter Scroll x 2	Inverter Scroll x 2	Inverter Scroll x 2
	Output		kW x n	4.60 x 2	6.45 x 2	6.45 x 2
	Model Name		-	DS2GT7046EV* x 2	DS4GT5066EV* x 2	DS4GT5066EV* x 2
	Oil	Type	-	PVE	PVE	PVE
		Initial charge	cc x n	900 x 2	1,100 x 2	1,100 x 2
			fl oz x n	30.4 x 2	37.2 x 2	37.2 x 2
Fan	Type		-	Propeller	Propeller	Propeller
	Discharge direction		-	Top	Top	Top
	Quantity		EA	2	2	2
	Air Flow Rate		CFM (m³/min)	10,171 (288)	10,665 (302)	12,855 (364)
	External Static Pressure	Max.	mmAq	11	11	8
			Pa	110	110	80
			in Wg (Pa)	0.43 (107.87)	0.43 (107.87)	0.31 (78.45)
Fan Motor	Type		-	BLDC Motor	BLDC Motor	BLDC Motor
	Output		W x n	620 x 2	620 x 2	630 x 2
3) Piping Connections	Liquid Pipe		Type	Braze connection	Braze connection	Braze connection
			Φ, inch (mm)	1/2 (12.70)	5/8 (15.88)	5/8 (15.88)
	Gas Pipe		Type	Braze connection	Braze connection	Braze connection
			Φ, inch (mm)	1-1/8 (28.58)	1-1/8 (28.58)	1-1/8 (28.58)
	Heat Insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length (ODU-IDU)	Max. [Equiv.]	ft	656[722]	656[722]	656[722]
	Piping length (1st Branch-IDU)	Max.	ft	295	295	295
	Total piping length (System)	Max.	ft	3,281	3,281	3,281
	Level difference (ODU in highest position)	Max.	ft	361	361	361
	Level difference (IDU in highest position)	Max.	ft	361	361	361
	Level difference (IDU-IDU)	Max.	ft	164	164	164

Specification

(208~230V)

Model Name				VPC144S4M-4Y	VPC168S4M-4Y	VPC192S4M-4Y
	Outdoor unit module 1			-	-	-
	Outdoor unit module 2			-	-	-
	Outdoor unit module 3			-	-	-
Wiring Connections	Transmission Cable	Min.	AWG	18	18	18
		Remark	-	F1, F2	F1, F2	F1, F2
	Power supply intake		-	Both indoor and outdoor unit	Both indoor and outdoor unit	Both indoor and outdoor unit
Refrigerant	4) Type		-	R410A	R410A	R410A
	Factory Charging		lbs (kg)	23.1 (10.5)	23.1 (10.5)	27.6 (12.5)
Sound	5) Sound Pressure	Cooling	dB(A)	60.0	60.0	63.0
		Heating	dB(A)	63.0	63.0	66.0
	6) Sound Power		dB(A)	81.0	83.0	85.0
External Dimension	Net Weight		lbs (kg)	595 (270)	644 (292)	822 (373)
	Shipping Weight		lbs (kg)	633 (287)	681 (309)	880 (399)
	Net Dimensions (WxHxD)		mm	1,295 x 1,695 x 765	1,295 x 1,695 x 765	1,860 x 1,695 x 765
			inch	51 x 66-3/4 x 30-1/8	51 x 66-3/4 x 30-1/8	73-1/4 x 66-3/4 x 30-1/8
	Shipping Dimensions (WxHxD)		mm	1,363 x 1,887 x 829	1,363 x 1,887 x 829	1,928 x 1,887 x 829
			inch	53-11/16 x 74-5/16 x 32-11/16	53-11/16 x 74-5/16 x 32-11/16	75-15/16 x 74-5/16 x 32-11/16
7) Operating Temp. Range	Cooling		°F (°C)	5 ~ 122 (-15 ~ 50)	5 ~ 122 (-15 ~ 50)	5 ~ 122 (-15 ~ 50)
	Heating		°F (°C)	-22 ~ 75 (-30 ~ 24)	-22 ~ 75 (-30 ~ 24)	-22 ~ 75 (-30 ~ 24)

NOTE

- Specification may be subject to change without prior notice.
- 1) Nominal capacities are based on (Equivalent refrigerant piping : 25ft, Level differences : 0ft);
 - Cooling : Indoor temperature 80°F DB, 67°F WB / Outdoor temperature 95°F DB, 75°F WB
 - Heating : Indoor temperature 70°F DB, 60°F WB / Outdoor temperature 47°F DB, 43°F WB
- 2) The standard allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%. Combination ratio of up to 184% is allowed depending on operation mode, minimum operation ratio and connected indoor unit models. LVSS 2.0 design software supports designing over 130% based on system design. Refer to the "Design Procedure & Combination Ratio" section of this document for details
- 3) If outdoor unit is located in a higher position than indoor unit, level difference is 361ft or under.
(If the level difference is higher than 164ft, the PDM kit should be installed)
*PDM kit: Pressure Drop Modulation kit
- 4) These products contain R410A which is fluorinated greenhouse gas.
- 5) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- 6) Sound power level is an absolute value that a sound source generates.
Sound pressure level is a relative value, depending on the distance and acoustic environment.
Sound values are obtained in an anechoic room.
Sound values of multi combination are theoretical values based on sound results of individual installed units.
- 7) Cooling operation is possible at -15°C(5°F) or higher if satisfied following conditions.
(If the outdoor temperature below -5°C(23°F), wind(snow) protection duct must be installed on the suction side of the heat exchanger and at least 50%capacity of the connected indoor units must be operated.) However, if the outdoor unit is installed below the indoor unit, cooling operation is possible only at -5°C(23°F) or higher.
- For more information regarding capacity correction, please refer to capacity tables.

Specification

(208~230V)

Model Name				VPC216S4M-4Y	VPC240S4M-4Y	VPC264S4M-4Y
Outdoor unit module 1				-	-	VPC096S4M-4Y
Outdoor unit module 2				-	-	VPC168S4M-4Y
Outdoor unit module 3				-	-	-
Power Supply			Ø, #, V, Hz	3, 3, 208~230, 60	3, 3, 208~230, 60	3, 3, 208~230, 60
Mode			-	Heat Pump	Heat Pump	Heat Pump
Performance	TON		TON	18	20	22
	1) Capacity (Nominal)	Cooling	Btu/h	216,000	240,000	264,000
		Heating	Btu/h	243,000	270,000	297,000
	Capacity (Rated)	Cooling	Btu/h	206,000	228,000	252,000
		Heating	Btu/h	232,000	258,000	282,000
Maximum number of connectable indoor units			EA	37	41	45
2) Total capacity of the connected Indoor Units		Min.	Btu/h	108,000	120,000	132,000
		Max.	Btu/h	280,800	312,000	343,200
Power	Current	MCA	A	64.0	68.0	-
		MOP	A	80	80	-
Casing	Material	Body	-	GI Steel Plate	GI Steel Plate	GI Steel Plate
		Base	-	GI Steel Plate	GI Steel Plate	GI Steel Plate
Heat Exchanger	Type		-	Fin & Tube	Fin & Tube	Fin & Tube
	Material	Fin	-	Al	Al	Al
		Tube	-	Cu	Cu	Cu
Fin Treatment			-	Anti-corrosion	Anti-corrosion	Anti-corrosion
Compressor	Type		-	Inverter Scroll x 2	Inverter Scroll x 2	Inverter Scroll x 4
	Output		kW x n	6.45 x 2	6.45 x 2	(4.60 x 2) x 1 + (6.45 x 2) x 1
	Model Name		-	DS4GT5066EV* x 2	DS4GT5066EV* x 2	(DS2GT7046EV* x 2) x 1 + (DS4GT5066EV* x 2) x 1
	Oil	Type	-	PVE	PVE	PVE
		Initial charge	cc x n	1,100 x 2	1,100 x 2	(900 x 2) x 1 + (1,100 x 2) x 1
	fl oz x n		37.2 x 2	37.2 x 2	(30.4 x 2) x 1 + (37.2 x 2) x 1	
Fan	Type		-	Propeller	Propeller	Propeller
	Discharge direction		-	Top	Top	Top
	Quantity		EA	2	2	4
	Air Flow Rate		CFM (m³/min)	13,314 (377)	13,773 (390)	9,924 x 1 + 10,665 x 1 (281 x 1 + 302 x 1)
	External Static Pressure	Max.	mmAq	8	8	11
			Pa	80	80	110
			in Wg (Pa)	0.31 (78.45)	0.31 (78.45)	0.43 (107.87)
Fan Motor	Type		-	BLDC Motor	BLDC Motor	BLDC Motor
	Output		W x n	630 x 2	630 x 2	(620 x 2) x 2
3) Piping Connections	Liquid Pipe		Type	Braze connection	Braze connection	Braze connection
			Φ, inch (mm)	5/8 (15.88)	5/8 (15.88)	3/4 (19.05)
	Gas Pipe		Type	Braze connection	Braze connection	Braze connection
			Φ, inch (mm)	1-1/8 (28.58)	1-3/8 (34.92)	1-3/8 (34.92)
	Heat Insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length (ODU-IDU)	Max. [Equiv.]	ft	656[722]	656[722]	656[722]
	Piping length (1st Branch-IDU)	Max.	ft	295	295	295
	Total piping length (System)	Max.	ft	3,281	3,281	3,281
	Level difference (ODU in highest position)	Max.	ft	361	361	361
	Level difference (IDU in highest position)	Max.	ft	361	361	361
	Level difference (IDU-IDU)	Max.	ft	164	164	164

Specification

(208~230V)

Model Name				VPC216S4M-4Y	VPC240S4M-4Y	VPC264S4M-4Y			
				Outdoor unit module 1			-	-	VPC096S4M-4Y
				Outdoor unit module 2			-	-	VPC168S4M-4Y
				Outdoor unit module 3			-	-	-
Wiring Connections	Transmission Cable	Min.	AWG	18	18	18			
		Remark	-	F1, F2	F1, F2	F1, F2			
	Power supply intake			-	Both indoor and outdoor unit	Both indoor and outdoor unit	Both indoor and outdoor unit		
Refrigerant	4) Type			-	R410A	R410A	R410A		
	Factory Charging			lbs (kg)	34.2 (15.5)	34.2 (15.5)	17.6 x 1 + 23.1 x 1 (8.0 x 1 + 10.5 x 1)		
Sound	5) Sound Pressure	Cooling	dB(A)	64.0	66.0	61.8			
		Heating	dB(A)	67.0	68.0	64.5			
	6) Sound Power			dB(A)	85.0	86.5	84.5		
External Dimension	Net Weight			lbs (kg)	842 (382)	842 (382)	553 x 1 + 644 x 1 (251 x 1 + 292 x 1)		
	Shipping Weight			lbs (kg)	900 (408)	900 (408)	591 x 1 + 681 x 1 (268 x 1 + 309 x 1)		
	Net Dimensions (WxHxD)			mm	1,860x 1,695 x 765	1,860x 1,695 x 765	(1,295 x 1,695 x 765) x 2		
				inch	73-1/4 x 66-3/4 x 30-1/8	73-1/4 x 66-3/4 x 30-1/8	(51 x 66-3/4 x 30-1/8) x 2		
	Shipping Dimensions (WxHxD)			mm	1,928 x 1,887x 829	1,928 x 1,887x 829	(1,363 x 1,887 x 829) x 2		
				inch	75-15/16 x 74-5/16 x 32-11/16	75-15/16 x 74-5/16 x 32-11/16	(53-11/16 x 74-5/16 x 32-11/16) x 2		
7) Operating Temp. Range	Cooling			°F (°C)	5 ~ 122 (-15 ~ 50)	5 ~ 122 (-15 ~ 50)	5 ~ 122 (-15 ~ 50)		
	Heating			°F (°C)	-22 ~ 75 (-30 ~ 24)	-22 ~ 75 (-30 ~ 24)	-22 ~ 75 (-30 ~ 24)		

NOTE

- Specification may be subject to change without prior notice.
- Nominal capacities are based on (Equivalent refrigerant piping : 25ft, Level differences : 0ft);
 - Cooling : Indoor temperature 80°F DB, 67°F WB / Outdoor temperature 95°F DB, 75°F WB
 - Heating : Indoor temperature 70°F DB, 60°F WB / Outdoor temperature 47°F DB, 43°F WB
- The standard allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%. Combination ratio of up to 184% is allowed depending on operation mode, minimum operation ratio and connected indoor unit models. LVSS2.0 design software supports designing over 130% based on system design. Refer to the "Design Procedure & Combination Ratio" section of this document for details
- If outdoor unit is located in a higher position than indoor unit, level difference is 361ft or under.
(If the level difference is higher than 164ft, the PDM kit should be installed)
*PDM kit: Pressure Drop Modulation kit
- These products contain R410A which is fluorinated greenhouse gas.
- Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- Sound power level is an absolute value that a sound source generates.
Sound pressure level is a relative value, depending on the distance and acoustic environment.
Sound values are obtained in an anechoic room.
Sound values of multi combination are theoretical values based on sound results of individual installed units.
- Cooling operation is possible at -15°C(5°F) or higher if satisfied following conditions.
(If the outdoor temperature below -5°C(23°F), wind(snow) protection duct must be installed on the suction side of the heat exchanger and at least 50%capacity of the connected indoor units must be operated.) However, if the outdoor unit is installed below the indoor unit, cooling operation is possible only at -5°C(23°F) or higher.
- For more information regarding capacity correction, please refer to capacity tables.

Specification

(208~230V)

Model Name				VPC288S4M-4Y	VPC312S4M-4Y	VPC336S4M-4Y
				VPC096S4M-4Y	VPC096S4M-4Y	VPC096S4M-4Y
				VPC192S4M-4Y	VPC216S4M-4Y	VPC240S4M-4Y
				-	-	-
Power Supply			Ø, #, V, Hz	3, 3, 208~230, 60	3, 3, 208~230, 60	3, 3, 208~230, 60
Mode			-	Heat Pump	Heat Pump	Heat Pump
Performance	TON		TON	24	26	28
	1) Capacity (Nominal)	Cooling	Btu/h	288,000	312,000	336,000
		Heating	Btu/h	324,000	351,000	378,000
	Capacity (Rated)	Cooling	Btu/h	274,000	298,000	320,000
		Heating	Btu/h	308,000	334,000	360,000
Maximum number of connectable indoor units			EA	49	54	58
2) Total capacity of the connected Indoor Units		Min.	Btu/h	144,000	156,000	168,000
		Max.	Btu/h	374,400	405,600	436,800
Power	Current	MCA	A	-	-	-
		MOP	A	-	-	-
Casing	Material	Body	-	GI Steel Plate	GI Steel Plate	GI Steel Plate
		Base	-	GI Steel Plate	GI Steel Plate	GI Steel Plate
Heat Exchanger	Type		-	Fin & Tube	Fin & Tube	Fin & Tube
	Material	Fin	-	Al	Al	Al
		Tube	-	Cu	Cu	Cu
	Fin Treatment		-	Anti-corrosion	Anti-corrosion	Anti-corrosion
Compressor	Type		-	Inverter Scroll x 4	Inverter Scroll x 4	Inverter Scroll x 4
	Output		kW x n	(4.60 x 2) x 1 + (6.45 x 2) x 1	(4.60 x 2) x 1 + (6.45 x 2) x 1	(4.60 x 2) x 1 + (6.45 x 2) x 1
	Model Name		-	(DS2GT7046EV* x 2) x 1 + (DS4GT5066EV* x 2) x 1	(DS2GT7046EV* x 2) x 1 + (DS4GT5066EV* x 2) x 1	(DS2GT7046EV* x 2) x 1 + (DS4GT5066EV* x 2) x 1
	Oil	Type	-	PVE	PVE	PVE
		Initial charge	cc x n fl oz x n	(900 x 2) x 1 + (1,100 x 2) x 1 (30.4 x 2) x 1 + (37.2 x 2) x 1	(900 x 2) x 1 + (1,100 x 2) x 1 (30.4 x 2) x 1 + (37.2 x 2) x 1	(900 x 2) x 1 + (1,100 x 2) x 1 (30.4 x 2) x 1 + (37.2 x 2) x 1
Fan	Type		-	Propeller	Propeller	Propeller
	Discharge direction		-	Top	Top	Top
	Quantity		EA	4	4	4
	Air Flow Rate		CFM (m³/min)	9,924 x 1 + 12,855 x 1 (281 x 1 + 364 x 1)	9,924 x 1 + 13,314 x 1 (281 x 1 + 377 x 1)	9,924 x 1 + 13,773 x 1 (281 x 1 + 390 x 1)
	External Static Pressure	Max.	mmAq	11	11	11
			Pa	110	110	110
			in Wg (Pa)	0.43 (107.87)	0.43 (107.87)	0.43 (107.87)
Fan Motor	Type		-	BLDC Motor	BLDC Motor	BLDC Motor
	Output		W x n	(620 x 2) x 1 + (630 x 2) x 1	(620 x 2) x 1 + (630 x 2) x 1	(620 x 2) x 1 + (630 x 2) x 1
3) Piping Connections	Liquid Pipe		Type	Braze connection	Braze connection	Braze connection
			Φ, inch (mm)	3/4 (19.05)	3/4 (19.05)	3/4 (19.05)
	Gas Pipe		Type	Braze connection	Braze connection	Braze connection
			Φ, inch (mm)	1-3/8 (34.92)	1-3/8 (34.92)	1-3/8 (34.92)
	Heat Insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length (ODU-IDU)	Max. [Equiv.]	ft	656[722]	656[722]	656[722]
	Piping length (1st Branch-IDU)	Max.	ft	295	295	295
	Total piping length (System)	Max.	ft	3,281	3,281	3,281
	Level difference (ODU in highest position)	Max.	ft	361	361	361
	Level difference (IDU in highest position)	Max.	ft	361	361	361
	Level difference (IDU-IDU)	Max.	ft	164	164	164

Specification

(208~230V)

Model Name				VPC288S4M-4Y	VPC312S4M-4Y	VPC336S4M-4Y
	Outdoor unit module 1			VPC096S4M-4Y	VPC096S4M-4Y	VPC096S4M-4Y
	Outdoor unit module 2			VPC192S4M-4Y	VPC216S4M-4Y	VPC240S4M-4Y
	Outdoor unit module 3			-	-	-
Wiring Connections	Transmission Cable	Min.	AWG	18	18	18
		Remark	-	F1, F2	F1, F2	F1, F2
	Power supply intake		-	Both indoor and outdoor unit	Both indoor and outdoor unit	Both indoor and outdoor unit
Refrigerant	4) Type		-	R410A	R410A	R410A
	Factory Charging		lbs (kg)	17.6 x 1 + 27.6 x 1 (8.0 x 1 + 12.5 x 1)	17.6 x 1 + 34.2 x 1 (8.0 x 1 + 15.5 x 1)	17.6 x 1 + 34.2 x 1 (8.0 x 1 + 15.5 x 1)
Sound	5) Sound Pressure	Cooling	dB(A)	64.0	64.8	66.5
		Heating	dB(A)	66.8	67.6	68.5
	6) Sound Power		dB(A)	86.0	86.0	87.2
External Dimension	Net Weight		lbs (kg)	553 x 1 + 822 x 1 (251 x 1 + 373 x 1)	553 x 1 + 842 x 1 (251 x 1 + 382 x 1)	553 x 1 + 842 x 1 (251 x 1 + 382 x 1)
	Shipping Weight		lbs (kg)	591 x 1 + 880 x 1 (268 x 1 + 399 x 1)	591 x 1 + 900 x 1 (268 x 1 + 408 x 1)	591 x 1 + 900 x 1 (268 x 1 + 408 x 1)
	Net Dimensions (WxHxD)		mm	(1,295 x 1,695 x 765) x 1 + (1,860 x 1,695 x 765) x 1	(1,295 x 1,695 x 765) x 1 + (1,860 x 1,695 x 765) x 1	(1,295 x 1,695 x 765) x 1 + (1,860 x 1,695 x 765) x 1
			inch	(51 x 66-3/4 x 30-1/8) x 1 + (73-1/4 x 66-3/4 x 30-1/8) x 1	(51 x 66-3/4 x 30-1/8) x 1 + (73-1/4 x 66-3/4 x 30-1/8) x 1	(51 x 66-3/4 x 30-1/8) x 1 + (73-1/4 x 66-3/4 x 30-1/8) x 1
	Shipping Dimensions (WxHxD)		mm	(1,363 x 1,887 x 829) x 1 + (1,928 x 1,887 x 829) x 1	(1,363 x 1,887 x 829) x 1 + (1,928 x 1,887 x 829) x 1	(1,363 x 1,887 x 829) x 1 + (1,928 x 1,887 x 829) x 1
			inch	(53-11/16 x 74-5/16 x 32-11/16) x 1 + (75-15/16 x 74-5/16 x 32-11/16) x 1	(53-11/16 x 74-5/16 x 32-11/16) x 1 + (75-15/16 x 74-5/16 x 32-11/16) x 1	(53-11/16 x 74-5/16 x 32-11/16) x 1 + (75-15/16 x 74-5/16 x 32-11/16) x 1
7) Operating Temp. Range	Cooling		°F (°C)	5 ~ 122 (-15 ~ 50)	5 ~ 122 (-15 ~ 50)	5 ~ 122 (-15 ~ 50)
	Heating		°F (°C)	-22 ~ 75 (-30 ~ 24)	-22 ~ 75 (-30 ~ 24)	-22 ~ 75 (-30 ~ 24)

NOTE

- Specification may be subject to change without prior notice.
- 1) Nominal capacities are based on (Equivalent refrigerant piping : 25ft, Level differences : 0ft);
 - Cooling : Indoor temperature 80°F DB, 67°F WB / Outdoor temperature 95°F DB, 75°F WB
 - Heating : Indoor temperature 70°F DB, 60°F WB / Outdoor temperature 47°F DB, 43°F WB
- 2) The standard allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%. Combination ratio of up to 184% is allowed depending on operation mode, minimum operation ratio and connected indoor unit models. LVSS2.0 design software supports designing over 130% based on system design. Refer to the "Design Procedure & Combination Ratio" section of this document for details
- 3) If outdoor unit is located in a higher position than indoor unit, level difference is 361ft or under.
(If the level difference is higher than 164ft, the PDM kit should be installed)
*PDM kit: Pressure Drop Modulation kit
- 4) These products contain R410A which is fluorinated greenhouse gas.
- 5) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- 6) Sound power level is an absolute value that a sound source generates.
Sound pressure level is a relative value, depending on the distance and acoustic environment.
Sound values are obtained in an anechoic room.
Sound values of multi combination are theoretical values based on sound results of individual installed units.
- 7) Cooling operation is possible at -15°C(5°F) or higher if satisfied following conditions.
(If the outdoor temperature below -5°C(23°F), wind(snow) protection duct must be installed on the suction side of the heat exchanger and at least 50%capacity of the connected indoor units must be operated.) However, if the outdoor unit is installed below the indoor unit, cooling operation is possible only at -5°C(23°F) or higher.
- For more information regarding capacity correction, please refer to capacity tables.

Specification

(208~230V)

Model Name				VPC360S4M-4Y	VPC384S4M-4Y	VPC408S4M-4Y
				VPC120S4M-4Y	VPC192S4M-4Y	VPC192S4M-4Y
				VPC240S4M-4Y	VPC192S4M-4Y	VPC216S4M-4Y
				-	-	-
Power Supply			Ø, #, V, Hz	3, 3, 208~230, 60	3, 3, 208~230, 60	3, 3, 208~230, 60
Mode			-	Heat Pump	Heat Pump	Heat Pump
Performance	TON		TON	30	32	34
	1) Capacity (Nominal)	Cooling	Btu/h	360,000	384,000	408,000
		Heating	Btu/h	405,000	432,000	459,000
	Capacity (Rated)	Cooling	Btu/h	342,000	366,000	388,000
		Heating	Btu/h	386,000	412,000	438,000
Maximum number of connectable indoor units			EA	62	64	64
2) Total capacity of the connected Indoor Units		Min.	Btu/h	180,000	192,000	204,000
		Max.	Btu/h	468,000	499,200	530,400
Power	Current	MCA	A	-	-	-
		MOP	A	-	-	-
Casing	Material	Body	-	GI Steel Plate	GI Steel Plate	GI Steel Plate
		Base	-	GI Steel Plate	GI Steel Plate	GI Steel Plate
Heat Exchanger	Type		-	Fin & Tube	Fin & Tube	Fin & Tube
	Material	Fin	-	Al	Al	Al
		Tube	-	Cu	Cu	Cu
	Fin Treatment		-	Anti-corrosion	Anti-corrosion	Anti-corrosion
Compressor	Type		-	Inverter Scroll x 4	Inverter Scroll x 4	Inverter Scroll x 4
	Output		kW x n	(4.60 x 2) x 1 + (6.45 x 2) x 1	(6.45 x 2) x 2	(6.45 x 2) x 2
	Model Name		-	(DS2GT7046EV* x 2) x 1 + (DS4GT5066EV* x 2) x 1	(DS4GT5066EV* x 2) x 2	(DS4GT5066EV* x 2) x 2
	Oil	Type	-	PVE	PVE	PVE
		Initial charge	cc x n	(900 x 2) x 1 + (1,100 x 2) x 1	(1,100 x 2) x 2	(1,100 x 2) x 2
			fl oz x n	(30.4 x 2) x 1 + (37.2 x 2) x 1	(37.2 x 2) x 2	(37.2 x 2) x 2
Fan	Type		-	Propeller	Propeller	Propeller
	Discharge direction		-	Top	Top	Top
	Quantity		EA	4	4	4
	Air Flow Rate		CFM (m³/min)	9,924 x 1 + 13,773 x 1 (281 x 1 + 390 x 1)	12,855 x 2 (364 x 2)	12,855 x 1 + 13,314x 1 (364 x 1 + 377 x 1)
	External Static Pressure	Max.	mmAq	11	8	8
			Pa	110	80	80
			in Wg (Pa)	0.43 (107.87)	0.31 (78.45)	0.31 (78.45)
Fan Motor	Type		-	BLDC Motor	BLDC Motor	BLDC Motor
	Output		W x n	(620 x 2) x 1 + (630 x 2) x 1	(630 x 2) x 2	(630 x 2) x 2
3) Piping Connections	Liquid Pipe		Type	Braze connection	Braze connection	Braze connection
			Φ, inch (mm)	3/4 (19.05)	3/4 (19.05)	3/4 (19.05)
	Gas Pipe		Type	Braze connection	Braze connection	Braze connection
			Φ, inch (mm)	1-5/8 (41.28)	1-5/8 (41.28)	1-5/8 (41.28)
	Heat Insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length (ODU-IDU)	Max. [Equiv.]	ft	656[722]	656[722]	656[722]
	Piping length (1st Branch-IDU)	Max.	ft	295	295	295
	Total piping length (System)	Max.	ft	3,281	3,281	3,281
	Level difference (ODU in highest position)	Max.	ft	361	361	361
	Level difference (IDU in highest position)	Max.	ft	361	361	361
	Level difference (IDU-IDU)	Max.	ft	164	164	164

Specification

(208~230V)

Model Name				VPC360S4M-4Y	VPC384S4M-4Y	VPC408S4M-4Y
	Outdoor unit module 1			VPC120S4M-4Y	VPC192S4M-4Y	VPC192S4M-4Y
	Outdoor unit module 2			VPC240S4M-4Y	VPC192S4M-4Y	VPC216S4M-4Y
	Outdoor unit module 3			-	-	-
Wiring Connections	Transmission Cable	Min.	AWG	18	18	18
		Remark	-	F1, F2	F1, F2	F1, F2
	Power supply intake			-	Both indoor and outdoor unit	Both indoor and outdoor unit
Refrigerant	4) Type			-	R410A	R410A
	Factory Charging			lbs (kg)	17.6 x 1 + 34.2 x 1 (8.0 x 1 + 15.5 x 1)	27.6 x 2 (12.5 x 2)
Sound	5) Sound Pressure	Cooling	dB(A)	66.5	66.0	66.5
		Heating	dB(A)	68.6	69.0	69.5
	6) Sound Power			dB(A)	87.2	88.0
External Dimension	Net Weight			lbs (kg)	553 x 1 + 842 x 1 (251 x 1 + 382 x 1)	822 x 2 (373 x 2)
	Shipping Weight			lbs (kg)	591 x 1 + 900 x 1 (268 x 1 + 408 x 1)	880 x 2 (399 x 2)
	Net Dimensions (WxHxD)			mm	(1,295 x 1,695 x 765) x 1 + (1,860 x 1,695 x 765) x 1	(1,860 x 1,695 x 765) x 2
				inch	(51 x 66-3/4 x 30-1/8) x 1 + (73-1/4 x 66-3/4 x 30-1/8) x 1	(73-1/4 x 66-3/4 x 30-1/8) x 2
	Shipping Dimensions (WxHxD)			mm	(1,363 x 1,887 x 829) x 1 + (1,928 x 1,887 x 829) x 1	(1,928 x 1,887 x 829) x 2
				inch	(53-11/16 x 74-5/16 x 32-11/16) x 1 + (75-15/16 x 74-5/16 x 32-11/16) x 1	(75-15/16 x 74-5/16 x 32-11/16) x 2
7) Operating Temp. Range	Cooling			°F (°C)	5 ~ 122 (-15 ~ 50)	5 ~ 122 (-15 ~ 50)
	Heating			°F (°C)	-22 ~ 75 (-30 ~ 24)	-22 ~ 75 (-30 ~ 24)

NOTE

- Specification may be subject to change without prior notice.
- 1) Nominal capacities are based on (Equivalent refrigerant piping : 25ft, Level differences : 0ft);
 - Cooling : Indoor temperature 80°F DB, 67°F WB / Outdoor temperature 95°F DB, 75°F WB
 - Heating : Indoor temperature 70°F DB, 60°F WB / Outdoor temperature 47°F DB, 43°F WB
- 2) The standard allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%. Combination ratio of up to 184% is allowed depending on operation mode, minimum operation ratio and connected indoor unit models. LVSS2.0 design software supports designing over 130% based on system design. Refer to the "Design Procedure & Combination Ratio" section of this document for details
- 3) If outdoor unit is located in a higher position than indoor unit, level difference is 361ft or under.
(If the level difference is higher than 164ft, the PDM kit should be installed)
*PDM kit: Pressure Drop Modulation kit
- 4) These products contain R410A which is fluorinated greenhouse gas.
- 5) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- 6) Sound power level is an absolute value that a sound source generates.
Sound pressure level is a relative value, depending on the distance and acoustic environment.
Sound values are obtained in an anechoic room.
Sound values of multi combination are theoretical values based on sound results of individual installed units.
- 7) Cooling operation is possible at -15°C(5°F) or higher if satisfied following conditions.
(If the outdoor temperature below -5°C(23°F), wind(snow) protection duct must be installed on the suction side of the heat exchanger and at least 50%capacity of the connected indoor units must be operated.) However, if the outdoor unit is installed below the indoor unit, cooling operation is possible only at -5°C(23°F) or higher.
- For more information regarding capacity correction, please refer to capacity tables.

Specification

(208~230V)

Model Name				VPC432S4M-4Y	VPC456S4M-4Y		
				Outdoor unit module 1		VPC120S4M-4Y	VPC120S4M-4Y
				Outdoor unit module 2		VPC120S4M-4Y	VPC144S4M-4Y
				Outdoor unit module 3		VPC192S4M-4Y	VPC192S4M-4Y
Power Supply			Ø, #, V, Hz	3, 3, 208~230, 60	3, 3, 208~230, 60		
Mode			-	Heat Pump	Heat Pump		
Performance	TON		TON	36	38		
	1) Capacity (Nominal)	Cooling	Btu/h	432,000	456,000		
		Heating	Btu/h	486,000	513,000		
	Capacity (Rated)	Cooling	Btu/h	412,000	436,000		
		Heating	Btu/h	462,000	488,000		
Maximum number of connectable indoor units			EA	64	64		
2) Total capacity of the connected Indoor Units		Min.	Btu/h	216,000	228,000		
		Max.	Btu/h	561,600	592,800		
Power	Current	MCA	A	-	-		
		MOP	A	-	-		
Casing	Material	Body	-	GI Steel Plate	GI Steel Plate		
		Base	-	GI Steel Plate	GI Steel Plate		
Heat Exchanger	Type		-	Fin & Tube	Fin & Tube		
	Material	Fin	-	Al	Al		
		Tube	-	Cu	Cu		
	Fin Treatment		-	Anti-corrosion	Anti-corrosion		
Compressor	Type		-	Inverter Scroll x 6	Inverter Scroll x 6		
	Output		kW x n	(4.39 x 2) x 2 + (6.45 x 2) x 1	(4.60 x 2) x 2 + (6.45 x 2) x 1		
	Model Name		-	(DS2GT7046EV* x 2) x 2 + (DS4GT5066EV* x 2) x 1	(DS2GT7046EV* x 2) x 2 + (DS4GT5066EV* x 2) x 1		
	Oil	Type	-	PVE	PVE		
		Initial charge	cc x n	(900 x 2) x 2 + (1,100 x 2) x 1	(900 x 2) x 2 + (1,100 x 2) x 1		
			fl oz x n	(30.4 x 2) x 2 + (37.2 x 2) x 1	(30.4 x 2) x 2 + (37.2 x 2) x 1		
Fan	Type		-	Propeller	Propeller		
	Discharge direction		-	Top	Top		
	Quantity		EA	6	6		
	Air Flow Rate		CFM (m³/min)	9,924 x 2 + 12,855 x 1 (281 x 2 + 364 x 1)	9,924 x1 + 10,171 x1 + 12,855 x1 (281 x 1 + 288 x 1 + 364 x 1)		
	External Static Pressure	Max.	mmAq	8	11		
			Pa	80	110		
			in Wg (Pa)	0.31 (78.45)	0.43 (107.87)		
Fan Motor	Type		-	BLDC Motor	BLDC Motor		
	Output		W x n	(620 x 2) x 2 + (630 x 2) x 1	(620 x 2) x 2 + (630 x 2) x 1		
3) Piping Connections	Liquid Pipe		Type	Braze connection	Braze connection		
			Φ, inch (mm)	3/4 (19.05)	3/4 (19.05)		
	Gas Pipe		Type	Braze connection	Braze connection		
			Φ, inch (mm)	1-5/8 (41.28)	1-5/8 (41.28)		
	Heat Insulation		-	Both liquid and gas pipes	Both liquid and gas pipes		
	Piping length (ODU-IDU)	Max. [Equiv.]	ft	656[722]	656[722]		
	Piping length (1st Branch-IDU)	Max.	ft	295	295		
	Total piping length (System)	Max.	ft	3,281	3,281		
	Level difference (ODU in highest position)	Max.	ft	361	361		
	Level difference (IDU in highest position)	Max.	ft	361	361		
	Level difference (IDU-IDU)	Max.	ft	164	164		

Specification

(208~230V)

Model Name				VPC432S4M-4Y	VPC456S4M-4Y
	Outdoor unit module 1			VPC120S4M-4Y	VPC120S4M-4Y
	Outdoor unit module 2			VPC120S4M-4Y	VPC144S4M-4Y
	Outdoor unit module 3			VPC192S4M-4Y	VPC192S4M-4Y
Wiring Connections	Transmission Cable	Min.	AWG	18	18
		Remark	-	F1, F2	F1, F2
	Power supply intake		-	Both indoor and outdoor unit	Both indoor and outdoor unit
Refrigerant	4) Type		-	R410A	R410A
	Factory Charging		lbs (kg)	17.6 x 2 + 27.6 x 1 (8.0 x 2 + 12.5 x 1)	17.6 x 1 + 23.1 x 1 + 27.6 x 1 (8.0 x 1 + 10.5 x 1 + 12.5 x 1)
Sound	5) Sound Pressure	Cooling	dB(A)	64.8	65.4
		Heating	dB(A)	67.8	68.4
	6) Sound Power		dB(A)	86.8	87.2
External Dimension	Net Weight		lbs (kg)	553 x 2 + 822 x 1 (251 x 2 + 373 x 1)	553 x 1 + 595 x 1 + 822 x 1 (251 x 1 + 270 x 1 + 373 x 1)
	Shipping Weight		lbs (kg)	591 x 2 + 880 x 1 (268 x 2 + 399 x 1)	591 x 1 + 633 x 1 + 880 x 1 (268 x 1 + 287 x 1 + 399 x 1)
	Net Dimensions (WxHxD)		mm	(1,295 x 1,695 x 765) x 2 + (1,860 x 1,695 x 765) x 1	(1,295 x 1,695 x 765) x 2 + (1,860 x 1,695 x 765) x 1
			inch	(51 x 66-3/4 x 30-1/8) x 2 + (73-1/4 x 66-3/4 x 30-1/8) x 1	(51 x 66-3/4 x 30-1/8) x 2 + (73-1/4 x 66-3/4 x 30-1/8) x 1
	Shipping Dimensions (WxHxD)		mm	(1,363 x 1,887 x 829) x 2 + (1,928 x 1,887 x 829) x 1	(1,363 x 1,887 x 829) x 2 + (1,928 x 1,887 x 829) x 1
			inch	(53-11/16 x 74-5/16 x 32-11/16) x 2 + (75-15/16 x 74-5/16 x 32-11/16) x 1	(53-11/16 x 74-5/16 x 32-11/16) x 2 + (75-15/16 x 74-5/16 x 32-11/16) x 1
7) Operating Temp. Range	Cooling		°F (°C)	5 ~ 122 (-15 ~ 50)	5 ~ 122 (-15 ~ 50)
	Heating		°F (°C)	-22 ~ 75 (-30 ~ 24)	-22 ~ 75 (-30 ~ 24)

NOTE

- Specification may be subject to change without prior notice.
- 1) Nominal capacities are based on (Equivalent refrigerant piping : 25ft, Level differences : 0ft);
 - Cooling : Indoor temperature 80°F DB, 67°F WB / Outdoor temperature 95°F DB, 75°F WB
 - Heating : Indoor temperature 70°F DB, 60°F WB / Outdoor temperature 47°F DB, 43°F WB
- 2) The standard allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%. Combination ratio of up to 184% is allowed depending on operation mode, minimum operation ratio and connected indoor unit models. LVSS2.0 design software supports designing over 130% based on system design. Refer to the "Design Procedure & Combination Ratio" section of this document for details
- 3) If outdoor unit is located in a higher position than indoor unit, level difference is 361ft or under.
(If the level difference is higher than 164ft, the PDM kit should be installed)
*PDM kit: Pressure Drop Modulation kit
- 4) These products contain R410A which is fluorinated greenhouse gas.
- 5) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- 6) Sound power level is an absolute value that a sound source generates.
Sound pressure level is a relative value, depending on the distance and acoustic environment.
Sound values are obtained in an anechoic room.
Sound values of multi combination are theoretical values based on sound results of individual installed units.
- 7) Cooling operation is possible at -15°C(5°F) or higher if satisfied following conditions.
(If the outdoor temperature below -5°C(23°F), wind(snow) protection duct must be installed on the suction side of the heat exchanger and at least 50%capacity of the connected indoor units must be operated.) However, if the outdoor unit is installed below the indoor unit, cooling operation is possible only at -5°C(23°F) or higher.
- For more information regarding capacity correction, please refer to capacity tables.

Specification

(460V)

Model Name				VPC072S4M-4G	VPC096S4M-4G	VPC120S4M-4G
Outdoor unit module 1				-	-	-
Outdoor unit module 2				-	-	-
Outdoor unit module 3				-	-	-
Power Supply			Ø, #, V, Hz	3, 3, 460, 60	3, 3, 460, 60	3, 3, 460, 60
Mode			-	Heat Pump	Heat Pump	Heat Pump
Performance	TON		TON	6	8	10
	1) Capacity (Nominal)	Cooling	Btu/h	72,000	96,000	120,000
		Heating	Btu/h	81,000	108,000	135,000
	Capacity (Rated)	Cooling	Btu/h	69,000	92,000	114,000
		Heating	Btu/h	77,000	103,000	129,000
Maximum number of connectable indoor units			EA	12	16	20
2) Total capacity of the connected Indoor Units		Min.	Btu/h	36,000	48,000	60,000
		Max.	Btu/h	93,600	124,800	156,000
Power	Current	MCA	A	15.0	18.0	19.4
		MOP	A	20	20	25
Casing	Material	Body	-	GI Steel Plate	GI Steel Plate	GI Steel Plate
		Base	-	GI Steel Plate	GI Steel Plate	GI Steel Plate
Heat Exchanger	Type		-	Fin & Tube	Fin & Tube	Fin & Tube
	Material	Fin	-	Al	Al	Al
		Tube	-	Cu	Cu	Cu
Fin Treatment			-	Anti-corrosion	Anti-corrosion	Anti-corrosion
Compressor	Type		-	Inverter Scroll x 1	Inverter Scroll x 2	Inverter Scroll x 2
	Output		kW x n	4.60 x 1	4.60 x 2	4.60 x 2
	Model Name		-	DS2GR7046FV* x 1	DS2GR7046FV* x 2	DS2GR7046FV* x 2
	Oil	Type	-	PVE	PVE	PVE
		Initial charge	cc x n	900 x 1	900 x 2	900 x 2
			fl oz x n	30.4 x 1	30.4 x 2	30.4 x 2
Fan	Type		-	Propeller	Propeller	Propeller
	Discharge direction		-	Top	Top	Top
	Quantity		EA	1	2	2
	Air Flow Rate		CFM (m³/min)	5,580 (158)	9,924 (281)	9,924 (281)
	External Static Pressure	Max.	mmAq	11	11	11
			Pa	110	110	110
			in Wg (Pa)	0.43 (107.87)	0.43 (107.87)	0.43 (107.87)
Fan Motor	Type		-	BLDC Motor	BLDC Motor	BLDC Motor
	Output		W x n	630 x 1	620 x 2	620 x 2
3) Piping Connections	Liquid Pipe		Type	Braze connection	Braze connection	Braze connection
			Φ, inch (mm)	3/8 (9.52)	3/8 (9.52)	1/2 (12.70)
	Gas Pipe		Type	Braze connection	Braze connection	Braze connection
			Φ, inch (mm)	3/4 (19.05)	7/8 (22.22)	1-1/8 (28.58)
	Heat Insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length (ODU-IDU)	Max. [Equiv.]	ft	656[722]	656[722]	656[722]
	Piping length (1st Branch-IDU)	Max.	ft	295	295	295
	Total piping length (System)	Max.	ft	3,281	3,281	3,281
	Level difference (ODU in highest position)	Max.	ft	361	361	361
	Level difference (IDU in highest position)	Max.	ft	361	361	361
	Level difference (IDU-IDU)	Max.	ft	164	164	164

Specification

(460V)

Model Name				VPC072S4M-4G	VPC096S4M-4G	VPC120S4M-4G
	Outdoor unit module 1			-	-	-
	Outdoor unit module 2			-	-	-
	Outdoor unit module 3			-	-	-
Wiring Connections	Transmission Cable	Min.	AWG	18	18	18
		Remark	-	F1, F2	F1, F2	F1, F2
	Power supply intake			Both indoor and outdoor unit	Both indoor and outdoor unit	Both indoor and outdoor unit
Refrigerant	4) Type			R410A	R410A	R410A
	Factory Charging			lbs (kg)	13.7 (6.2)	17.6 (8.0)
Sound	5) Sound Pressure	Cooling	dB(A)	54.0	57.0	57.0
		Heating	dB(A)	58.0	59.0	60.0
	6) Sound Power			dB(A)	75.0	79.0
External Dimension	Net Weight			lbs (kg)	401 (182)	571 (259)
	Shipping Weight			lbs (kg)	432 (196)	608 (276)
	Net Dimensions (WxHxD)			mm	930 x 1,695 x 765	1,295 x 1,695 x 765
				inch	36-5/8 x 66-3/4 x 30-1/8	51 x 66-3/4 x 30-1/8
	Shipping Dimensions (WxHxD)			mm	998 x 1,887 x 829	1,363 x 1,887x 829
				inch	39-5/16 x 74-5/16 x 32-11/16	53-11/16 x 74-5/16 x 32-11/16
7) Operating Temp. Range	Cooling			°F (°C)	5 ~ 122 (-15 ~ 50)	5 ~ 122 (-15 ~ 50)
	Heating			°F (°C)	-22 ~ 75 (-30 ~ 24)	-22 ~ 75 (-30 ~ 24)

NOTE

- Specification may be subject to change without prior notice.
- 1) Nominal capacities are based on (Equivalent refrigerant piping : 25ft, Level differences : 0ft);
 - Cooling : Indoor temperature 80°F DB, 67°F WB / Outdoor temperature 95°F DB, 75°F WB
 - Heating : Indoor temperature 70°F DB, 60°F WB / Outdoor temperature 47°F DB, 43°F WB
- 2) The standard allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%. Combination ratio of up to 184% is allowed depending on operation mode, minimum operation ratio and connected indoor unit models. LVSS2.0 design software supports designing over 130% based on system design. Refer to the "Design Procedure & Combination Ratio" section of this document for details
- 3) If outdoor unit is located in a higher position than indoor unit, level difference is 361ft or under.
(If the level difference is higher than 164ft, the PDM kit should be installed)
*PDM kit: Pressure Drop Modulation kit
- 4) These products contain R410A which is fluorinated greenhouse gas.
- 5) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- 6) Sound power level is an absolute value that a sound source generates.
Sound pressure level is a relative value, depending on the distance and acoustic environment.
Sound values are obtained in an anechoic room.
Sound values of multi combination are theoretical values based on sound results of individual installed units.
- 7) Cooling operation is possible at -15°C(5°F) or higher if satisfied following conditions.
(If the outdoor temperature below -5°C(23°F), wind(snow) protection duct must be installed on the suction side of the heat exchanger and at least 50%capacity of the connected indoor units must be operated.) However, if the outdoor unit is installed below the indoor unit, cooling operation is possible only at -5°C(23°F) or higher.
- For more information regarding capacity correction, please refer to capacity tables.

Specification

(460V)

Model Name				VPC144S4M-4G	VPC168S4M-4G	VPC192S4M-4G
		Outdoor unit module 1		-	-	-
		Outdoor unit module 2		-	-	-
		Outdoor unit module 3		-	-	-
Power Supply			Ø, #, V, Hz	3, 3, 460, 60	3, 3, 460, 60	3, 3, 460, 60
Mode			-	Heat Pump	Heat Pump	Heat Pump
Performance	TON		TON	12	14	16
	1) Capacity (Nominal)	Cooling	Btu/h	144,000	168,000	192,000
		Heating	Btu/h	162,000	189,000	216,000
	Capacity (Rated)	Cooling	Btu/h	138,000	160,000	184,000
		Heating	Btu/h	154,000	180,000	206,000
Maximum number of connectable indoor units			EA	25	29	33
2) Total capacity of the connected Indoor Units		Min.	Btu/h	72,000	84,000	96,000
		Max.	Btu/h	187,200	218,400	249,600
Power	Current	MCA	A	26.2	29.0	34.0
		MOP	A	35	35	40
Casing	Material	Body	-	GI Steel Plate	GI Steel Plate	GI Steel Plate
		Base	-	GI Steel Plate	GI Steel Plate	GI Steel Plate
Heat Exchanger	Type		-	Fin & Tube	Fin & Tube	Fin & Tube
	Material	Fin	-	Al	Al	Al
		Tube	-	Cu	Cu	Cu
Fin Treatment			-	Anti-corrosion	Anti-corrosion	Anti-corrosion
Compressor	Type		-	Inverter Scroll x 2	Inverter Scroll x 2	Inverter Scroll x 2
	Output		kW x n	4.60 x 2	6.67 x 2	6.67 x 2
	Model Name		-	DS2GR7046FV* x 2	DS4GR7066FV* x 2	DS4GR7066FV* x 2
	Oil	Type	-	PVE	PVE	PVE
		Initial charge	cc x n	900 x 2	1,100 x 2	1,100 x 2
			fl oz x n	30.4 x 2	37.2 x 2	37.2 x 2
Fan	Type		-	Propeller	Propeller	Propeller
	Discharge direction		-	Top	Top	Top
	Quantity		EA	2	2	2
	Air Flow Rate		CFM (m³/min)	10,171 (288)	10,665 (302)	12,855 (364)
	External Static Pressure	Max.	mmAq	11	11	8
			Pa	110	110	80
			in Wg (Pa)	0.43 (107.87)	0.43 (107.87)	0.31 (78.45)
Fan Motor	Type		-	BLDC Motor	BLDC Motor	BLDC Motor
	Output		W x n	620 x 2	620 x 2	630 x 2
3) Piping Connections	Liquid Pipe		Type	Braze connection	Braze connection	Braze connection
			Φ, inch (mm)	1/2 (12.70)	5/8 (15.88)	5/8 (15.88)
	Gas Pipe		Type	Braze connection	Braze connection	Braze connection
			Φ, inch (mm)	1-1/8 (28.58)	1-1/8 (28.58)	1-1/8 (28.58)
	Heat Insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length (ODU-IDU)	Max. [Equiv.]	ft	656[722]	656[722]	656[722]
	Piping length (1st Branch-IDU)	Max.	ft	295	295	295
	Total piping length (System)	Max.	ft	3,281	3,281	3,281
	Level difference (ODU in highest position)	Max.	ft	361	361	361
	Level difference (IDU in highest position)	Max.	ft	361	361	361
	Level difference (IDU-IDU)	Max.	ft	164	164	164

Specification

(460V)

Model Name				VPC144S4M-4G	VPC168S4M-4G	VPC192S4M-4G
	Outdoor unit module 1			-	-	-
	Outdoor unit module 2			-	-	-
	Outdoor unit module 3			-	-	-
Wiring Connections	Transmission Cable	Min.	AWG	18	18	18
		Remark	-	F1, F2	F1, F2	F1, F2
	Power supply intake			Both indoor and outdoor unit	Both indoor and outdoor unit	Both indoor and outdoor unit
Refrigerant	4) Type			R410A	R410A	R410A
	Factory Charging			23.1 (10.5)	23.1 (10.5)	27.6 (12.5)
Sound	5) Sound Pressure	Cooling	dB(A)	60.0	60.0	63.0
		Heating	dB(A)	63.0	63.0	66.0
	6) Sound Power			81.0	83.0	85.0
External Dimension	Net Weight			613 (278)	661 (300)	833 (378)
	Shipping Weight			650 (295)	699 (317)	891 (404)
	Net Dimensions (WxHxD)			mm	1,295 x 1,695 x 765	1,860 x 1,695 x 765
				inch	51 x 66-3/4 x 30-1/8	73-1/4 x 66-3/4 x 30-1/8
	Shipping Dimensions (WxHxD)			mm	1,363 x 1,887 x 829	1,928 x 1,887 x 829
				inch	53-11/16 x 74-5/16 x 32-11/16	75-15/16 x 74-5/16 x 32-11/16
7) Operating Temp. Range	Cooling			°F (°C)	5 ~ 122 (-15 ~ 50)	5 ~ 122 (-15 ~ 50)
	Heating			°F (°C)	-22 ~ 75 (-30 ~ 24)	-22 ~ 75 (-30 ~ 24)

NOTE

- Specification may be subject to change without prior notice.
- 1) Nominal capacities are based on (Equivalent refrigerant piping : 25ft, Level differences : 0ft);
 - Cooling : Indoor temperature 80°F DB, 67°F WB / Outdoor temperature 95°F DB, 75°F WB
 - Heating : Indoor temperature 70°F DB, 60°F WB / Outdoor temperature 47°F DB, 43°F WB
- 2) The standard allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%. Combination ratio of up to 184% is allowed depending on operation mode, minimum operation ratio and connected indoor unit models. LVSS2.0 design software supports designing over 130% based on system design. Refer to the "Design Procedure & Combination Ratio" section of this document for details
- 3) If outdoor unit is located in a higher position than indoor unit, level difference is 361ft or under.
(If the level difference is higher than 164ft, the PDM kit should be installed)
*PDM kit: Pressure Drop Modulation kit
- 4) These products contain R410A which is fluorinated greenhouse gas.
- 5) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- 6) Sound power level is an absolute value that a sound source generates.
Sound pressure level is a relative value, depending on the distance and acoustic environment.
Sound values are obtained in an anechoic room.
Sound values of multi combination are theoretical values based on sound results of individual installed units.
- 7) Cooling operation is possible at -15°C(5°F) or higher if satisfied following conditions.
(If the outdoor temperature below -5°C(23°F), wind(snow) protection duct must be installed on the suction side of the heat exchanger and at least 50% capacity of the connected indoor units must be operated.) However, if the outdoor unit is installed below the indoor unit, cooling operation is possible only at -5°C(23°F) or higher.
- For more information regarding capacity correction, please refer to capacity tables.

Specification

(460V)

Model Name				VPC216S4M-4G	VPC240S4M-4G	VPC264S4M-4G
Outdoor unit module 1				-	-	VPC096S4M-4G
Outdoor unit module 2				-	-	VPC168S4M-4G
Outdoor unit module 3				-	-	-
Power Supply			Ø, #, V, Hz	3, 3, 460, 60	3, 3, 460, 60	3, 3, 460, 60
Mode			-	Heat Pump	Heat Pump	Heat Pump
Performance	TON		TON	18	20	22
	1) Capacity (Nominal)	Cooling	Btu/h	216,000	240,000	264,000
		Heating	Btu/h	243,000	270,000	297,000
	Capacity (Rated)	Cooling	Btu/h	206,000	228,000	252,000
		Heating	Btu/h	232,000	258,000	282,000
Maximum number of connectable indoor units			EA	37	41	45
2) Total capacity of the connected Indoor Units		Min.	Btu/h	108,000	120,000	132,000
		Max.	Btu/h	280,800	312,000	343,200
Power	Current	MCA	A	38.0	40.0	-
		MOP	A	50	50	-
Casing	Material	Body	-	GI Steel Plate	GI Steel Plate	GI Steel Plate
		Base	-	GI Steel Plate	GI Steel Plate	GI Steel Plate
Heat Exchanger	Type		-	Fin & Tube	Fin & Tube	Fin & Tube
	Material	Fin	-	Al	Al	Al
		Tube	-	Cu	Cu	Cu
Fin Treatment			-	Anti-corrosion	Anti-corrosion	Anti-corrosion
Compressor	Type		-	Inverter Scroll x 2	Inverter Scroll x 2	Inverter Scroll x 4
	Output		kW x n	6.67 x 2	6.67 x 2	(4.60 x 2) x 1 + (6.67 x 2) x 1
	Model Name		-	DS4GR7066FV* x 2	DS4GR7066FV* x 2	(DS2GR7046FV* x 2) x 1 + (DS4GR7066FV* x 2) x 1
	Oil	Type	-	PVE	PVE	PVE
		Initial charge	cc x n	1,100 x 2	1,100 x 2	(900 x 2) x 1 + (1,100 x 2) x 1
	fl oz x n		37.2 x 2	37.2 x 2	(30.4 x 2) x 1 + (37.2 x 2) x 1	
Fan	Type		-	Propeller	Propeller	Propeller
	Discharge direction		-	Top	Top	Top
	Quantity		EA	2	2	4
	Air Flow Rate		CFM (m³/min)	13,314 (377)	13,773 (390)	9,924 x 1 + 10,665 x 1 (281 x 1 + 302 x 1)
	External Static Pressure	Max.	mmAq	8	8	11
			Pa	80	80	110
			in Wg (Pa)	0.31 (78.45)	0.31 (78.45)	0.43 (107.87)
Fan Motor	Type		-	BLDC Motor	BLDC Motor	BLDC Motor
	Output		W x n	630 x 2	630 x 2	(620 x 2) x 2
3) Piping Connections	Liquid Pipe		Type	Braze connection	Braze connection	Braze connection
			Ø, inch (mm)	5/8 (15.88)	5/8 (15.88)	3/4 (19.05)
	Gas Pipe		Type	Braze connection	Braze connection	Braze connection
			Ø, inch (mm)	1-1/8 (28.58)	1-3/8 (34.92)	1-3/8 (34.92)
	Heat Insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length (ODU-IDU)	Max. [Equiv.]	ft	656[722]	656[722]	656[722]
	Piping length (1st Branch-IDU)	Max.	ft	295	295	295
	Total piping length (System)	Max.	ft	3,281	3,281	3,281
	Level difference (ODU in highest position)	Max.	ft	361	361	361
	Level difference (IDU in highest position)	Max.	ft	361	361	361
	Level difference (IDU-IDU)	Max.	ft	164	164	164

Specification

(460V)

Model Name				VPC216S4M-4G	VPC240S4M-4G	VPC264S4M-4G
	Outdoor unit module 1			-	-	VPC096S4M-4G
	Outdoor unit module 2			-	-	VPC168S4M-4G
	Outdoor unit module 3			-	-	-
Wiring Connections	Transmission Cable	Min.	AWG	18	18	18
		Remark	-	F1, F2	F1, F2	F1, F2
	Power supply intake			-	Both indoor and outdoor unit	Both indoor and outdoor unit
Refrigerant	4) Type		-	R410A	R410A	R410A
	Factory Charging		lbs (kg)	34.2 (15.5)	34.2 (15.5)	17.6 x 1 + 23.1 x 1 (8.0 x 1 + 10.5 x 1)
Sound	5) Sound Pressure	Cooling	dB(A)	64.0	66.0	61.8
		Heating	dB(A)	67.0	68.0	64.5
	6) Sound Power		dB(A)	85.0	86.5	84.5
External Dimension	Net Weight		lbs (kg)	853 (387)	853 (387)	571 x 1 + 661 x 1 (259 x 1 + 300 x 1)
	Shipping Weight		lbs (kg)	911 (413)	911 (413)	608 x 1 + 699 x 1 (276 x 1 + 317 x 1)
	Net Dimensions (WxHxD)		mm	1,860x 1,695 x 765	1,860x 1,695 x 765	(1,295 x 1,695 x 765) x 2
			inch	73-1/4 x 66-3/4 x 30-1/8	73-1/4 x 66-3/4 x 30-1/8	(51 x 66-3/4 x 30-1/8) x 2
	Shipping Dimensions (WxHxD)		mm	1,928 x 1,887x 829	1,928 x 1,887x 829	(1,363 x 1,887 x 829) x 2
			inch	75-15/16 x 74-5/16 x 32-11/16	75-15/16 x 74-5/16 x 32-11/16	(53-11/16 x 74-5/16 x 32-11/16) x 2
7) Operating Temp. Range	Cooling		°F (°C)	5 ~ 122 (-15 ~ 50)	5 ~ 122 (-15 ~ 50)	5 ~ 122 (-15 ~ 50)
	Heating		°F (°C)	-22 ~ 75 (-30 ~ 24)	-22 ~ 75 (-30 ~ 24)	-22 ~ 75 (-30 ~ 24)

NOTE

- Specification may be subject to change without prior notice.
- Nominal capacities are based on (Equivalent refrigerant piping : 25ft, Level differences : 0ft);
 - Cooling : Indoor temperature 80°F DB, 67°F WB / Outdoor temperature 95°F DB, 75°F WB
 - Heating : Indoor temperature 70°F DB, 60°F WB / Outdoor temperature 47°F DB, 43°F WB
- The standard allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%. Combination ratio of up to 184% is allowed depending on operation mode, minimum operation ratio and connected indoor unit models. LVSS2.0 design software supports designing over 130% based on system design. Refer to the "Design Procedure & Combination Ratio" section of this document for details
- If outdoor unit is located in a higher position than indoor unit, level difference is 361ft or under.
(If the level difference is higher than 164ft, the PDM kit should be installed)
*PDM kit: Pressure Drop Modulation kit
- These products contain R410A which is fluorinated greenhouse gas.
- Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- Sound power level is an absolute value that a sound source generates.
Sound pressure level is a relative value, depending on the distance and acoustic environment.
Sound values are obtained in an anechoic room.
Sound values of multi combination are theoretical values based on sound results of individual installed units.
- Cooling operation is possible at -15°C(5°F) or higher if satisfied following conditions.
(If the outdoor temperature below -5°C(23°F), wind(snow) protection duct must be installed on the suction side of the heat exchanger and at least 50%capacity of the connected indoor units must be operated.) However, if the outdoor unit is installed below the indoor unit, cooling operation is possible only at -5°C(23°F) or higher.
- For more information regarding capacity correction, please refer to capacity tables.

Specification

(460V)

Model Name				VPC288S4M-4G	VPC312S4M-4G	VPC336S4M-4G
				VPC096S4M-4G	VPC096S4M-4G	VPC096S4M-4G
				VPC192S4M-4G	VPC216S4M-4G	VPC240S4M-4G
				-	-	-
Power Supply			Ø, #, V, Hz	3, 3, 460, 60	3, 3, 460, 60	3, 3, 460, 60
Mode			-	Heat Pump	Heat Pump	Heat Pump
Performance	TON		TON	24	26	28
	1) Capacity (Nominal)	Cooling	Btu/h	288,000	312,000	336,000
		Heating	Btu/h	324,000	351,000	378,000
	Capacity (Rated)	Cooling	Btu/h	274,000	298,000	320,000
		Heating	Btu/h	308,000	334,000	360,000
Maximum number of connectable indoor units			EA	49	54	58
2) Total capacity of the connected Indoor Units		Min.	Btu/h	144,000	156,000	168,000
		Max.	Btu/h	374,400	405,600	436,800
Power	Current	MCA	A	-	-	-
		MOP	A	-	-	-
Casing	Material	Body	-	GI Steel Plate	GI Steel Plate	GI Steel Plate
		Base	-	GI Steel Plate	GI Steel Plate	GI Steel Plate
Heat Exchanger	Type		-	Fin & Tube	Fin & Tube	Fin & Tube
	Material	Fin	-	Al	Al	Al
		Tube	-	Cu	Cu	Cu
	Fin Treatment		-	Anti-corrosion	Anti-corrosion	Anti-corrosion
Compressor	Type		-	Inverter Scroll x 4	Inverter Scroll x 4	Inverter Scroll x 4
	Output		kW x n	(4.60 x 2) x 1 + (6.67 x 2) x 1	(4.60 x 2) x 1 + (6.67 x 2) x 1	(4.60 x 2) x 1 + (6.67 x 2) x 1
	Model Name		-	(DS2GR7046FV* x 2) x 1 + (DS4GR7066FV* x 2) x 1	(DS2GR7046FV* x 2) x 1 + (DS4GR7066FV* x 2) x 1	(DS2GR7046FV* x 2) x 1 + (DS4GR7066FV* x 2) x 1
	Oil	Type	-	PVE	PVE	PVE
		Initial charge	cc x n	(900 x 2) x 1 + (1,100 x 2) x 1	(900 x 2) x 1 + (1,100 x 2) x 1	(900 x 2) x 1 + (1,100 x 2) x 1
			fl oz x n	(30.4 x 2) x 1 + (37.2 x 2) x 1	(30.4 x 2) x 1 + (37.2 x 2) x 1	(30.4 x 2) x 1 + (37.2 x 2) x 1
Fan	Type		-	Propeller	Propeller	Propeller
	Discharge direction		-	Top	Top	Top
	Quantity		EA	4	4	4
	Air Flow Rate		CFM (m³/min)	9,924 x 1 + 12,855 x 1 (281 x 1 + 364 x 1)	9,924 x 1 + 13,314 x 1 (281 x 1 + 377 x 1)	9,924 x 1 + 13,773 x 1 (281 x 1 + 390 x 1)
	External Static Pressure	Max.	mmAq	11	11	11
			Pa	110	110	110
			in Wg (Pa)	0.43 (107.87)	0.43 (107.87)	0.43 (107.87)
Fan Motor	Type		-	BLDC Motor	BLDC Motor	BLDC Motor
	Output		W x n	(620 x 2) x 1 + (630 x 2) x 1	(620 x 2) x 1 + (630 x 2) x 1	(620 x 2) x 1 + (630 x 2) x 1
3) Piping Connections	Liquid Pipe		Type	Braze connection	Braze connection	Braze connection
			Φ, inch (mm)	3/4 (19.05)	3/4 (19.05)	3/4 (19.05)
	Gas Pipe		Type	Braze connection	Braze connection	Braze connection
			Φ, inch (mm)	1-3/8 (34.92)	1-3/8 (34.92)	1-3/8 (34.92)
	Heat Insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length (ODU-IDU)	Max. [Equiv.]	ft	656[722]	656[722]	656[722]
	Piping length (1st Branch-IDU)	Max.	ft	295	295	295
	Total piping length (System)	Max.	ft	3,281	3,281	3,281
	Level difference (ODU in highest position)	Max.	ft	361	361	361
	Level difference (IDU in highest position)	Max.	ft	361	361	361
	Level difference (IDU-IDU)	Max.	ft	164	164	164

Specification

(460V)

Model Name				VPC288S4M-4G	VPC312S4M-4G	VPC336S4M-4G
	Outdoor unit module 1			VPC096S4M-4G	VPC096S4M-4G	VPC096S4M-4G
	Outdoor unit module 2			VPC192S4M-4G	VPC216S4M-4G	VPC240S4M-4G
	Outdoor unit module 3			-	-	-
Wiring Connections	Transmission Cable	Min.	AWG	18	18	18
		Remark	-	F1, F2	F1, F2	F1, F2
	Power supply intake			Both indoor and outdoor unit	Both indoor and outdoor unit	Both indoor and outdoor unit
Refrigerant	4) Type			R410A	R410A	R410A
	Factory Charging			lbs (kg)	lbs (kg)	lbs (kg)
Sound	5) Sound Pressure	Cooling	dB(A)	64.0	64.8	66.5
		Heating	dB(A)	66.8	67.6	68.5
	6) Sound Power			dB(A)	86.0	87.2
External Dimension	Net Weight			lbs (kg)	lbs (kg)	lbs (kg)
	Shipping Weight			lbs (kg)	lbs (kg)	lbs (kg)
	Net Dimensions (WxHxD)			mm	mm	mm
				inch	inch	inch
	Shipping Dimensions (WxHxD)			mm	mm	mm
				inch	inch	inch
7) Operating Temp. Range	Cooling			°F (°C)	°F (°C)	°F (°C)
	Heating			°F (°C)	°F (°C)	°F (°C)

NOTE

- Specification may be subject to change without prior notice.
- 1) Nominal capacities are based on (Equivalent refrigerant piping : 25ft, Level differences : 0ft);
 - Cooling : Indoor temperature 80°F DB, 67°F WB / Outdoor temperature 95°F DB, 75°F WB
 - Heating : Indoor temperature 70°F DB, 60°F WB / Outdoor temperature 47°F DB, 43°F WB
- 2) The standard allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%. Combination ratio of up to 184% is allowed depending on operation mode, minimum operation ratio and connected indoor unit models. LVSS2.0 design software supports designing over 130% based on system design. Refer to the "Design Procedure & Combination Ratio" section of this document for details
- 3) If outdoor unit is located in a higher position than indoor unit, level difference is 361ft or under.
(If the level difference is higher than 164ft, the PDM kit should be installed)
*PDM kit: Pressure Drop Modulation kit
- 4) These products contain R410A which is fluorinated greenhouse gas.
- 5) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- 6) Sound power level is an absolute value that a sound source generates.
Sound pressure level is a relative value, depending on the distance and acoustic environment.
Sound values are obtained in an anechoic room.
Sound values of multi combination are theoretical values based on sound results of individual installed units.
- 7) Cooling operation is possible at -15°C(5°F) or higher if satisfied following conditions.
(If the outdoor temperature below -5°C(23°F), wind(snow) protection duct must be installed on the suction side of the heat exchanger and at least 50%capacity of the connected indoor units must be operated.) However, if the outdoor unit is installed below the indoor unit, cooling operation is possible only at -5°C(23°F) or higher.
- For more information regarding capacity correction, please refer to capacity tables.

Specification

(460V)

Model Name				VPC360S4M-4G	VPC384S4M-4G	VPC408S4M-4G
				VPC120S4M-4G	VPC192S4M-4G	VPC192S4M-4G
				VPC240S4M-4G	VPC192S4M-4G	VPC216S4M-4G
				-	-	-
Power Supply			Ø, #, V, Hz	3, 3, 460, 60	3, 3, 460, 60	3, 3, 460, 60
Mode			-	Heat Pump	Heat Pump	Heat Pump
Performance	TON		TON	30	32	34
	1) Capacity (Nominal)	Cooling	Btu/h	360,000	384,000	408,000
		Heating	Btu/h	405,000	432,000	459,000
	Capacity (Rated)	Cooling	Btu/h	342,000	366,000	388,000
		Heating	Btu/h	386,000	412,000	438,000
Maximum number of connectable indoor units			EA	62	64	64
2) Total capacity of the connected Indoor Units		Min.	Btu/h	180,000	192,000	204,000
		Max.	Btu/h	468,000	499,200	530,400
Power	Current	MCA	A	-	-	-
		MOP	A	-	-	-
Casing	Material	Body	-	GI Steel Plate	GI Steel Plate	GI Steel Plate
		Base	-	GI Steel Plate	GI Steel Plate	GI Steel Plate
Heat Exchanger	Type		-	Fin & Tube	Fin & Tube	Fin & Tube
	Material	Fin	-	Al	Al	Al
		Tube	-	Cu	Cu	Cu
	Fin Treatment		-	Anti-corrosion	Anti-corrosion	Anti-corrosion
Compressor	Type		-	Inverter Scroll x 4	Inverter Scroll x 4	Inverter Scroll x 4
	Output		kW x n	(4.60 x 2) x 1 + (6.67 x 2) x 1	(6.67 x 2) x 2	(6.67 x 2) x 2
	Model Name		-	(DS2GR7046FV* x 2) x 1 + (DS4GR7066FV* x 2) x 1	(DS4GR7066FV* x 2) x 2	(DS4GR7066FV* x 2) x 2
	Oil	Type	-	PVE	PVE	PVE
		Initial charge	cc x n	(900 x 2) x 1 + (1,100 x 2) x 1	(1,100 x 2) x 2	(1,100 x 2) x 2
			fl oz x n	(30.4 x 2) x 1 + (37.2 x 2) x 1	(37.2 x 2) x 2	(37.2 x 2) x 2
Fan	Type		-	Propeller	Propeller	Propeller
	Discharge direction		-	Top	Top	Top
	Quantity		EA	4	4	4
	Air Flow Rate		CFM (m³/min)	9,924 x 1 + 13,773 x 1 (281 x 1 + 390 x 1)	12,855 x 2 (364 x 2)	12,855 x 1 + 13,314x 1 (364 x 1 + 377 x 1)
	External Static Pressure	Max.	mmAq	11	8	8
			Pa	110	80	80
			in Wg (Pa)	0.43 (107.87)	0.31 (78.45)	0.31 (78.45)
Fan Motor	Type		-	BLDC Motor	BLDC Motor	BLDC Motor
	Output		W x n	(620 x 2) x 1 + (630 x 2) x 1	(630 x 2) x 2	(630 x 2) x 2
3) Piping Connections	Liquid Pipe		Type	Braze connection	Braze connection	Braze connection
			Φ, inch (mm)	3/4 (19.05)	3/4 (19.05)	3/4 (19.05)
	Gas Pipe		Type	Braze connection	Braze connection	Braze connection
			Φ, inch (mm)	1-5/8 (41.28)	1-5/8 (41.28)	1-5/8 (41.28)
	Heat Insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length (ODU-IDU)	Max. [Equiv.]	ft	656[722]	656[722]	656[722]
	Piping length (1st Branch-IDU)	Max.	ft	295	295	295
	Total piping length (System)	Max.	ft	3,281	3,281	3,281
	Level difference (ODU in highest position)	Max.	ft	361	361	361
	Level difference (IDU in highest position)	Max.	ft	361	361	361
	Level difference (IDU-IDU)	Max.	ft	164	164	164

Specification

(460V)

Model Name				VPC360S4M-4G	VPC384S4M-4G	VPC408S4M-4G
	Outdoor unit module 1			VPC120S4M-4G	VPC192S4M-4G	VPC192S4M-4G
	Outdoor unit module 2			VPC240S4M-4G	VPC192S4M-4G	VPC216S4M-4G
	Outdoor unit module 3			-	-	-
Wiring Connections	Transmission Cable	Min.	AWG	18	18	18
		Remark	-	F1, F2	F1, F2	F1, F2
	Power supply intake			Both indoor and outdoor unit	Both indoor and outdoor unit	Both indoor and outdoor unit
Refrigerant	4) Type			R410A	R410A	R410A
	Factory Charging			lbs (kg)	lbs (kg)	lbs (kg)
Sound	5) Sound Pressure	Cooling	dB(A)	66.5	66.0	66.5
		Heating	dB(A)	68.6	69.0	69.5
	6) Sound Power			dB(A)	88.0	88.0
External Dimension	Net Weight			lbs (kg)	lbs (kg)	lbs (kg)
	Shipping Weight			lbs (kg)	lbs (kg)	lbs (kg)
	Net Dimensions (WxHxD)			mm		
				inch		
	Shipping Dimensions (WxHxD)			mm		
				inch		
7) Operating Temp. Range	Cooling			°F (°C)	°F (°C)	°F (°C)
	Heating			°F (°C)	°F (°C)	°F (°C)

NOTE

- Specification may be subject to change without prior notice.
- Nominal capacities are based on (Equivalent refrigerant piping : 25ft, Level differences : 0ft);
 - Cooling : Indoor temperature 80°F DB, 67°F WB / Outdoor temperature 95°F DB, 75°F WB
 - Heating : Indoor temperature 70°F DB, 60°F WB / Outdoor temperature 47°F DB, 43°F WB
- The standard allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%. Combination ratio of up to 184% is allowed depending on operation mode, minimum operation ratio and connected indoor unit models. LVSS2.0 design software supports designing over 130% based on system design. Refer to the "Design Procedure & Combination Ratio" section of this document for details
- If outdoor unit is located in a higher position than indoor unit, level difference is 361ft or under.
(If the level difference is higher than 164ft, the PDM kit should be installed)
*PDM kit: Pressure Drop Modulation kit
- These products contain R410A which is fluorinated greenhouse gas.
- Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- Sound power level is an absolute value that a sound source generates.
Sound pressure level is a relative value, depending on the distance and acoustic environment.
Sound values are obtained in an anechoic room.
Sound values of multi combination are theoretical values based on sound results of individual installed units.
- Cooling operation is possible at -15°C(5°F) or higher if satisfied following conditions.
(If the outdoor temperature below -5°C(23°F), wind(snow) protection duct must be installed on the suction side of the heat exchanger and at least 50%capacity of the connected indoor units must be operated.) However, if the outdoor unit is installed below the indoor unit, cooling operation is possible only at -5°C(23°F) or higher.
- For more information regarding capacity correction, please refer to capacity tables.

Specification

(460V)

Model Name				VPC432S4M-4G	VPC456S4M-4G
Outdoor unit module 1				VPC120S4M-4G	VPC120S4M-4G
Outdoor unit module 2				VPC120S4M-4G	VPC144S4M-4G
Outdoor unit module 3				VPC192S4M-4G	VPC192S4M-4G
Power Supply			Ø, #, V, Hz	3, 3, 460, 60	3, 3, 460, 60
Mode			-	Heat Pump	Heat Pump
Performance	TON		TON	36	38
	1) Capacity (Nominal)	Cooling	Btu/h	432,000	456,000
		Heating	Btu/h	486,000	513,000
	Capacity (Rated)	Cooling	Btu/h	412,000	436,000
		Heating	Btu/h	462,000	488,000
Maximum number of connectable indoor units			EA	64	64
2) Total capacity of the connected Indoor Units		Min.	Btu/h	216,000	228,000
		Max.	Btu/h	561,600	592,800
Power	Current	MCA	A	-	-
		MOP	A	-	-
Casing	Material	Body	-	GI Steel Plate	GI Steel Plate
		Base	-	GI Steel Plate	GI Steel Plate
Heat Exchanger	Type		-	Fin & Tube	Fin & Tube
	Material	Fin	-	Al	Al
		Tube	-	Cu	Cu
	Fin Treatment		-	Anti-corrosion	Anti-corrosion
Compressor	Type		-	Inverter Scroll x 6	Inverter Scroll x 6
	Output		kW x n	(4.39 x 2) x 2 + (6.67 x 2) x 1	(4.60 x 2) x 2 + (6.67 x 2) x 1
	Model Name		-	(DS2GR7046FV* x 2) x 2 + (DS4GR7066FV* x 2) x 1	(DS2GR7046FV* x 2) x 2 + (DS4GR7066FV* x 2) x 1
	Oil	Type	-	PVE	PVE
		Initial charge	cc x n	(900 x 2) x 2 + (1,100 x 2) x 1	(900 x 2) x 2 + (1,100 x 2) x 1
	fl oz x n		(30.4 x 2) x 2 + (37.2 x 2) x 1	(30.4 x 2) x 2 + (37.2 x 2) x 1	
Fan	Type		-	Propeller	Propeller
	Discharge direction		-	Top	Top
	Quantity		EA	6	6
	Air Flow Rate		CFM (m³/min)	9,924 x 2 + 12,855 x 1 (281 x 2 + 364 x 1)	9,924 x1 + 10,171x1 + 12,855 x1 (281 x 1 + 288 x 1 + 364 x 1)
	External Static Pressure	Max.	mmAq	8	11
			Pa	80	110
			in Wg (Pa)	0.31 (78.45)	0.43 (107.87)
Fan Motor	Type		-	BLDC Motor	BLDC Motor
	Output		W x n	(620 x 2) x 2 + (630 x 2) x 1	(620 x 2) x 2 + (630 x 2) x 1
3) Piping Connections	Liquid Pipe		Type	Braze connection	Braze connection
			Φ, inch (mm)	3/4 (19.05)	3/4 (19.05)
	Gas Pipe		Type	Braze connection	Braze connection
			Φ, inch (mm)	1-5/8 (41.28)	1-5/8 (41.28)
	Heat Insulation		-	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length (ODU-IDU)	Max. [Equiv.]	ft	656[722]	656[722]
	Piping length (1st Branch-IDU)	Max.	ft	295	295
	Total piping length (System)	Max.	ft	3,281	3,281
	Level difference (ODU in highest position)	Max.	ft	361	361
	Level difference (IDU in highest position)	Max.	ft	361	361
	Level difference (IDU-IDU)	Max.	ft	164	164

Specification

(460V)

Model Name				VPC432S4M-4G	VPC456S4M-4G
	Outdoor unit module 1			VPC120S4M-4G	VPC120S4M-4G
	Outdoor unit module 2			VPC120S4M-4G	VPC144S4M-4G
	Outdoor unit module 3			VPC192S4M-4G	VPC192S4M-4G
Wiring Connections	Transmission Cable	Min.	AWG	18	18
		Remark	-	F1, F2	F1, F2
	Power supply intake		-	Both indoor and outdoor unit	Both indoor and outdoor unit
Refrigerant	4) Type		-	R410A	R410A
	Factory Charging		lbs (kg)	17.6 x 2 + 27.6 x 1 (8.0 x 2 + 12.5 x 1)	17.6 x 1 + 23.1 x 1 + 27.6 x 1 (8.0 x 1 + 10.5 x 1 + 12.5 x 1)
Sound	5) Sound Pressure	Cooling	dB(A)	64.8	65.4
		Heating	dB(A)	67.8	68.4
	6) Sound Power		dB(A)	86.8	87.2
External Dimension	Net Weight		lbs (kg)	571 x 2 + 833 x 1 (259 x 2 + 378 x 1)	571 x 1 + 613 x 1 + 833 x 1 (259 x 1 + 278 x 1 + 378 x 1)
	Shipping Weight		lbs (kg)	608 x 2 + 891 x 1 (276 x 2 + 404 x 1)	608 x 1 + 650 x 1 + 891 x 1 (276 x 1 + 295 x 1 + 404 x 1)
	Net Dimensions (WxHxD)		mm	(1,295 x 1,695 x 765) x 2 + (1,860 x 1,695 x 765) x 1	(1,295 x 1,695 x 765) x 2 + (1,860 x 1,695 x 765) x 1
			inch	(51 x 66-3/4 x 30-1/8) x 2 + (73-1/4 x 66-3/4 x 30-1/8) x 1	(51 x 66-3/4 x 30-1/8) x 2 + (73-1/4 x 66-3/4 x 30-1/8) x 1
	Shipping Dimensions (WxHxD)		mm	(1,363 x 1,887 x 829) x 2 + (1,928 x 1,887 x 829) x 1	(1,363 x 1,887 x 829) x 2 + (1,928 x 1,887 x 829) x 1
			inch	(53-11/16 x 74-5/16 x 32-11/16) x 2 + (75-15/16 x 74-5/16 x 32-11/16) x 1	(53-11/16 x 74-5/16 x 32-11/16) x 2 + (75-15/16 x 74-5/16 x 32-11/16) x 1
7) Operating Temp. Range	Cooling		°F (°C)	5 ~ 122 (-15 ~ 50)	5 ~ 122 (-15 ~ 50)
	Heating		°F (°C)	-22 ~ 75 (-30 ~ 24)	-22 ~ 75 (-30 ~ 24)

NOTE

- Specification may be subject to change without prior notice.
- 1) Nominal capacities are based on (Equivalent refrigerant piping : 25ft, Level differences : 0ft);
 - Cooling : Indoor temperature 80°F DB, 67°F WB / Outdoor temperature 95°F DB, 75°F WB
 - Heating : Indoor temperature 70°F DB, 60°F WB / Outdoor temperature 47°F DB, 43°F WB
- 2) The standard allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%. Combination ratio of up to 184% is allowed depending on operation mode, minimum operation ratio and connected indoor unit models. LVSS2.0 design software supports designing over 130% based on system design. Refer to the "Design Procedure & Combination Ratio" section of this document for details
- 3) If outdoor unit is located in a higher position than indoor unit, level difference is 361ft or under.
(If the level difference is higher than 164ft, the PDM kit should be installed)
*PDM kit: Pressure Drop Modulation kit
- 4) These products contain R410A which is fluorinated greenhouse gas.
- 5) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- 6) Sound power level is an absolute value that a sound source generates.
Sound pressure level is a relative value, depending on the distance and acoustic environment.
Sound values are obtained in an anechoic room.
Sound values of multi combination are theoretical values based on sound results of individual installed units.
- 7) Cooling operation is possible at -15°C(5°F) or higher if satisfied following conditions.
(If the outdoor temperature below -5°C(23°F), wind(snow) protection duct must be installed on the suction side of the heat exchanger and at least 50%capacity of the connected indoor units must be operated.) However, if the outdoor unit is installed below the indoor unit, cooling operation is possible only at -5°C(23°F) or higher.
- For more information regarding capacity correction, please refer to capacity tables.

Electric Characteristics

(208~230V)

Capacity TON	Model Name	Power Supply		Module #1				Module #2				Module #3			
		Hz	Voltage	FLA[A]		MCA [A]	MOP [A]	FLA[A]		MCA [A]	MOP [A]	FLA[A]		MCA [A]	MOP [A]
				FAN1	FAN2			FAN1	FAN2			FAN1	FAN2		
6	VPC072S4M-4Y	60	208-230	4.6	-	28.0	35.0	-	-	-	-	-	-	-	-
8	VPC096S4M-4Y	60	208-230	4.2	4.2	36.0	40.0	-	-	-	-	-	-	-	-
10	VPC120S4M-4Y	60	208-230	4.2	4.2	40.8	45.0	-	-	-	-	-	-	-	-
12	VPC144S4M-4Y	60	208-230	4.2	4.2	52.6	60.0	-	-	-	-	-	-	-	-
14	VPC168S4M-4Y	60	208-230	4.2	4.2	54.4	60.0	-	-	-	-	-	-	-	-
16	VPC192S4M-4Y	60	208-230	4.6	4.6	60.0	70.0	-	-	-	-	-	-	-	-
18	VPC216S4M-4Y	60	208-230	4.6	4.6	64.0	80.0	-	-	-	-	-	-	-	-
20	VPC240S4M-4Y	60	208-230	4.6	4.6	68.0	80.0	-	-	-	-	-	-	-	-
22	VPC264S4M-4Y	60	208-230	4.2	4.2	36.0	40.0	4.2	4.2	54.4	60.0	-	-	-	-
24	VPC288S4M-4Y	60	208-230	4.2	4.2	36.0	40.0	4.6	4.6	60.0	70.0	-	-	-	-
26	VPC312S4M-4Y	60	208-230	4.2	4.2	36.0	40.0	4.6	4.6	64.0	80.0	-	-	-	-
28	VPC336S4M-4Y	60	208-230	4.2	4.2	36.0	40.0	4.6	4.6	68.0	80.0	-	-	-	-
30	VPC360S4M-4Y	60	208-230	4.2	4.2	40.8	45.0	4.6	4.6	68.0	80.0	-	-	-	-
32	VPC384S4M-4Y	60	208-230	4.6	4.6	60.0	70.0	4.6	4.6	60.0	70.0	-	-	-	-
34	VPC408S4M-4Y	60	208-230	4.6	4.6	60.0	70.0	4.6	4.6	64.0	80.0	-	-	-	-
36	VPC432S4M-4Y	60	208-230	4.2	4.2	40.8	45.0	4.2	4.2	40.8	45.0	4.6	4.6	60.0	70.0
38	VPC456S4M-4Y	60	208-230	4.2	4.2	40.8	45.0	4.2	4.2	52.6	60.0	4.6	4.6	60.0	70.0

(460V)

Capacity TON	Model Name	Power Supply		Module #1				Module #2				Module #3			
		Hz	Voltage	FLA[A]		MCA [A]	MOP [A]	FLA[A]		MCA [A]	MOP [A]	FLA[A]		MCA [A]	MOP [A]
				FAN1	FAN2			FAN1	FAN2			FAN1	FAN2		
6	VPC072S4M-4G	60	460	2.3	-	15.0	20.0	-	-	-	-	-	-	-	-
8	VPC096S4M-4G	60	460	2.1	2.1	18.0	25.0	-	-	-	-	-	-	-	-
10	VPC120S4M-4G	60	460	2.1	2.1	19.4	25.0	-	-	-	-	-	-	-	-
12	VPC144S4M-4G	60	460	2.1	2.1	26.2	35.0	-	-	-	-	-	-	-	-
14	VPC168S4M-4G	60	460	2.1	2.1	29.0	35.0	-	-	-	-	-	-	-	-
16	VPC192S4M-4G	60	460	2.3	2.3	34.0	50.0	-	-	-	-	-	-	-	-
18	VPC216S4M-4G	60	460	2.3	2.3	38.0	50.0	-	-	-	-	-	-	-	-
20	VPC240S4M-4G	60	460	2.3	2.3	40.0	50.0	-	-	-	-	-	-	-	-
22	VPC264S4M-4G	60	460	2.1	2.1	18.0	25.0	2.1	2.1	29.0	35.0	-	-	-	-
24	VPC288S4M-4G	60	460	2.1	2.1	18.0	25.0	2.3	2.3	34.0	50.0	-	-	-	-
26	VPC312S4M-4G	60	460	2.1	2.1	18.0	25.0	2.3	2.3	38.0	50.0	-	-	-	-
28	VPC336S4M-4G	60	460	2.1	2.1	18.0	25.0	2.3	2.3	40.0	50.0	-	-	-	-
30	VPC360S4M-4G	60	460	2.1	2.1	19.4	25.0	2.3	2.3	40.0	50.0	-	-	-	-
32	VPC384S4M-4G	60	460	2.3	2.3	34.0	50.0	2.3	2.3	34.0	50.0	-	-	-	-
34	VPC408S4M-4G	60	460	2.3	2.3	34.0	50.0	2.3	2.3	38.0	50.0	-	-	-	-
36	VPC432S4M-4G	60	460	2.1	2.1	19.4	25.0	2.1	2.1	19.4	25.0	2.3	2.3	34.0	40.0
38	VPC456S4M-4G	60	460	2.1	2.1	19.4	25.0	2.1	2.1	26.2	35.0	2.3	2.3	34.0	40.0

NOTE

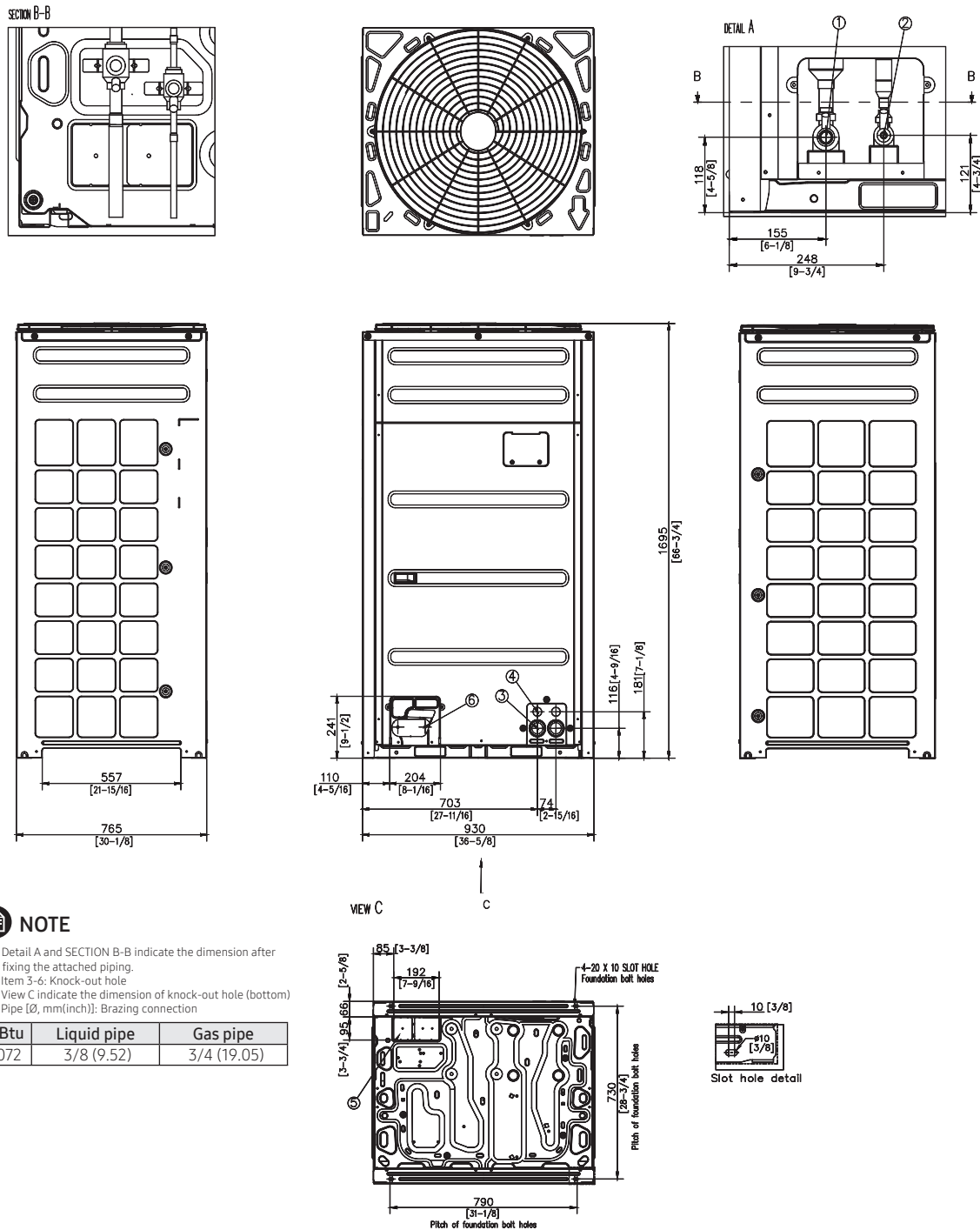
- Voltage Tolerance is $\pm 10\%$
- Maximum allowable voltage between phases is 2%
- Refer to module combination table for independent units information
- FLA : Full Load Ampere
- MCA : Minimum Circuit Ampere (A)
- MOP : Maximum Overcurrent Protective Device (A)

Dimensional Drawing

Outdoor unit

• VPC072S4M-4Y, VPC072S4M-4G

Unit: mm (inches)



NOTE

- 1 Detail A and SECTION B-B indicate the dimension after fixing the attached piping.
- 2 Item 3-6: Knock-out hole
- 3 View C indicate the dimension of knock-out hole (bottom)
- 4 Pipe Ø, mm(inch): Brazing connection

kBtu	Liquid pipe	Gas pipe
072	3/8 (9.52)	3/4 (19.05)

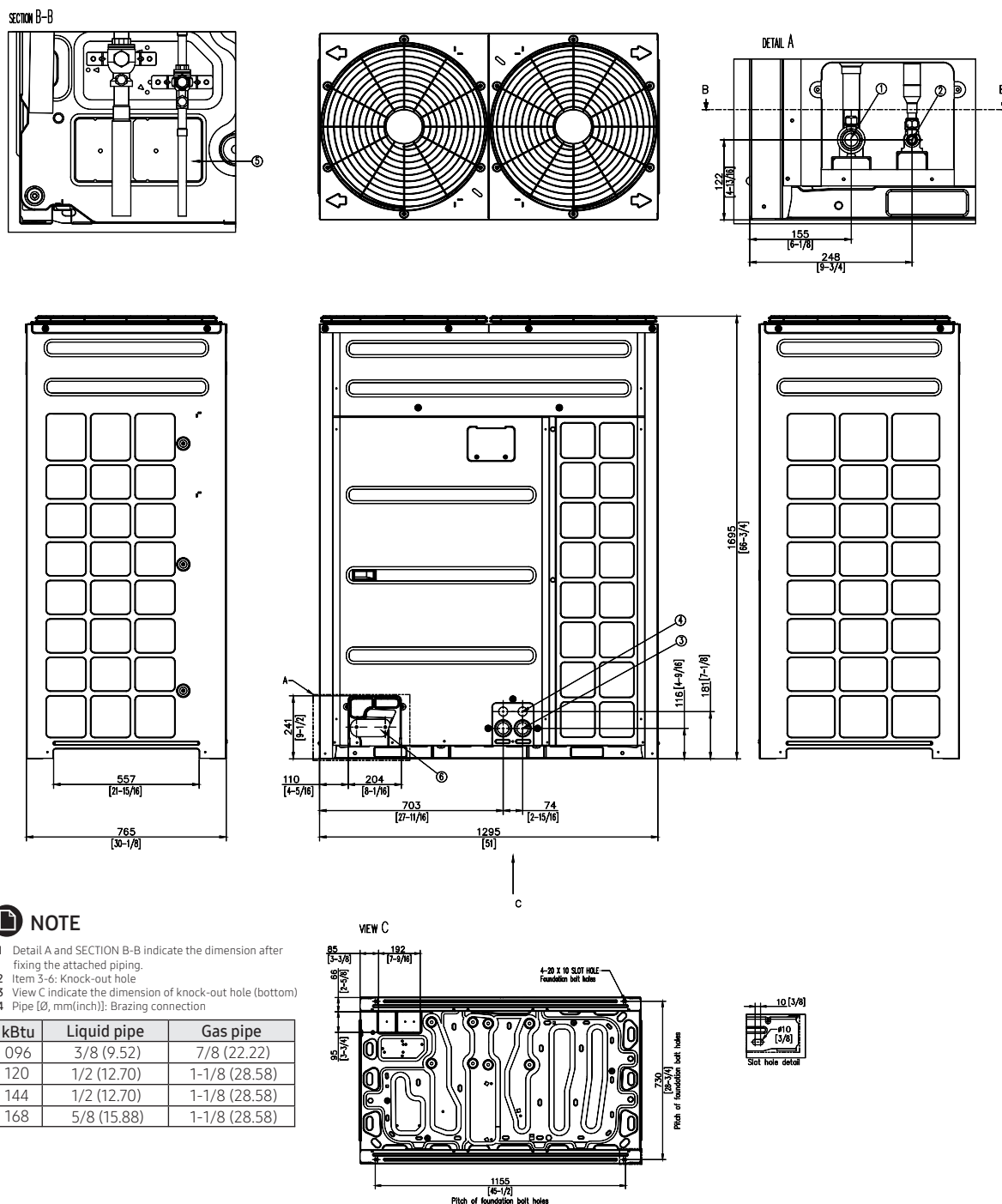
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1	Gas Ref.pipe	See NOTE 4.	5	Knock-out Hole for Ref.Piping (bottom)	
2	Liquid Ref.pipe	See NOTE 4.	6	Knock-out Hole for Ref.Piping (front)	
3	Power wiring conduit	Ø44			
4	Communication wiring conduit	Ø34			

Dimensional Drawing

Outdoor unit

• VPC096/120/144/168S4M-4Y, VPC096/120/144/168S4M-4G

Unit: mm (inches)



NO	Table of descriptions	Remark	NO	Table of descriptions	Remark
1	Gas Ref.pipe	See NOTE 4.	5	Knock-out Hole for Ref.Piping (bottom)	
2	Liquid Ref.pipe	See NOTE 4.	6	Knock-out Hole for Ref.Piping (front)	
3	Power wiring conduit	Ø44			
4	Communication wiring conduit	Ø34			

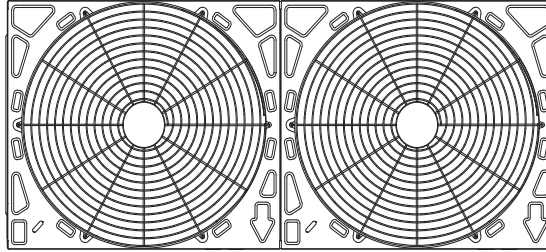
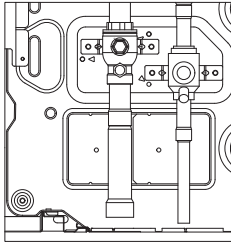
Dimensional Drawing

Outdoor unit

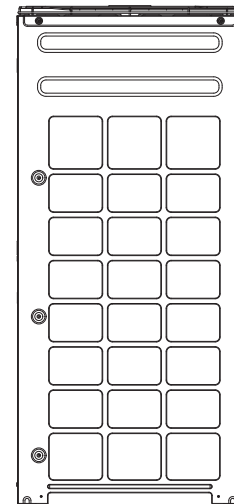
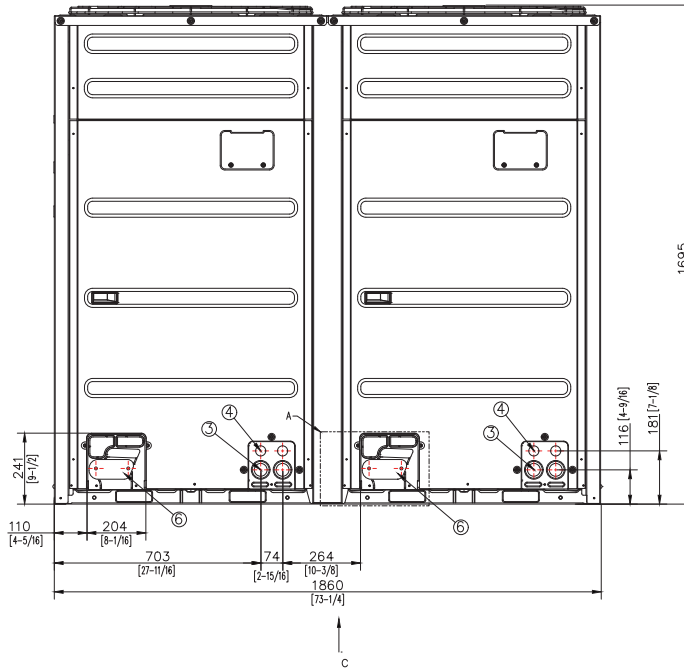
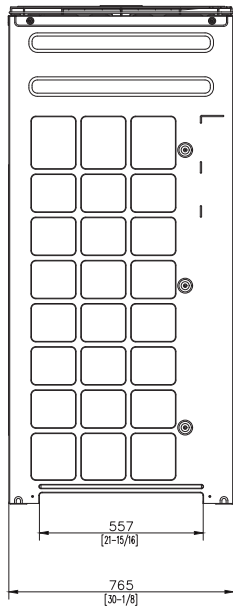
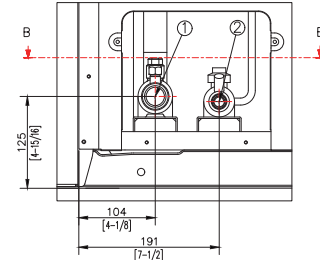
• VPC192/216/240S4M-4Y, VPC192/216/240S4M-4G

Unit: mm (inches)

SECTION B-B



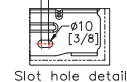
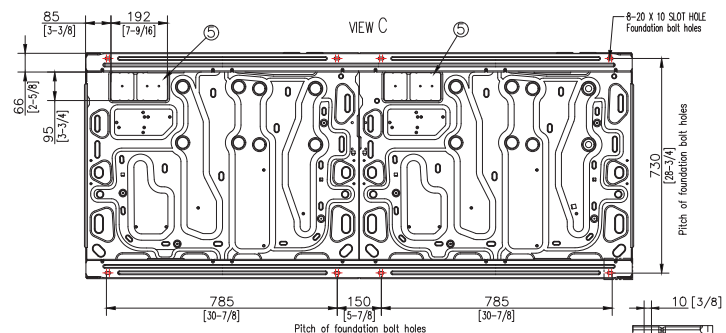
DETAIL A



NOTE

- 1 Detail A and SECTION B-B indicate the dimension after fixing the attached piping.
- 2 Item 3-6: Knock-out hole
- 3 View C indicate the dimension of knock-out hole (bottom)
- 4 Pipe (Ø, mm(inch)): Brazing connection

kBtu	Liquid pipe	Gas pipe
192	5/8 (15.88)	1-1/8 (28.58)
216	5/8 (15.88)	1-1/8 (28.58)
240	5/8 (15.88)	1-3/8 (34.92)



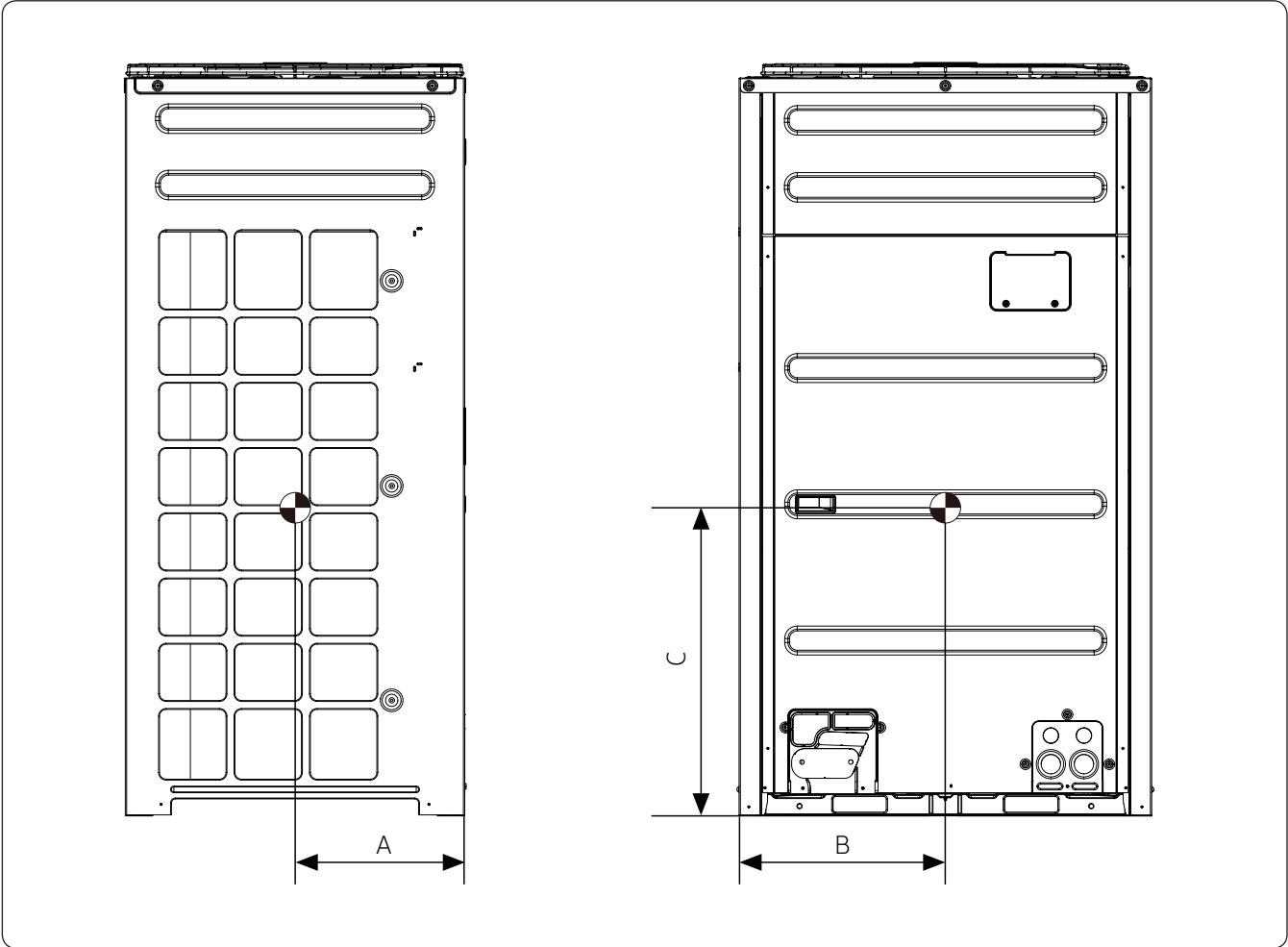
Slot hole detail

NO	Table of descriptions	Remark	NO	Table of descriptions	Remark
1	Gas Ref.pipe	See NOTE 4.	5	Knock-out Hole for Ref.Piping (bottom)	
2	Liquid Ref.pipe	See NOTE 4.	6	Knock-out Hole for Ref.Piping (front)	
3	Power wiring conduit	Ø44			
4	Communication wiring conduit	Ø34			

Center of Gravity

Outdoor unit

Unit: mm (inches)

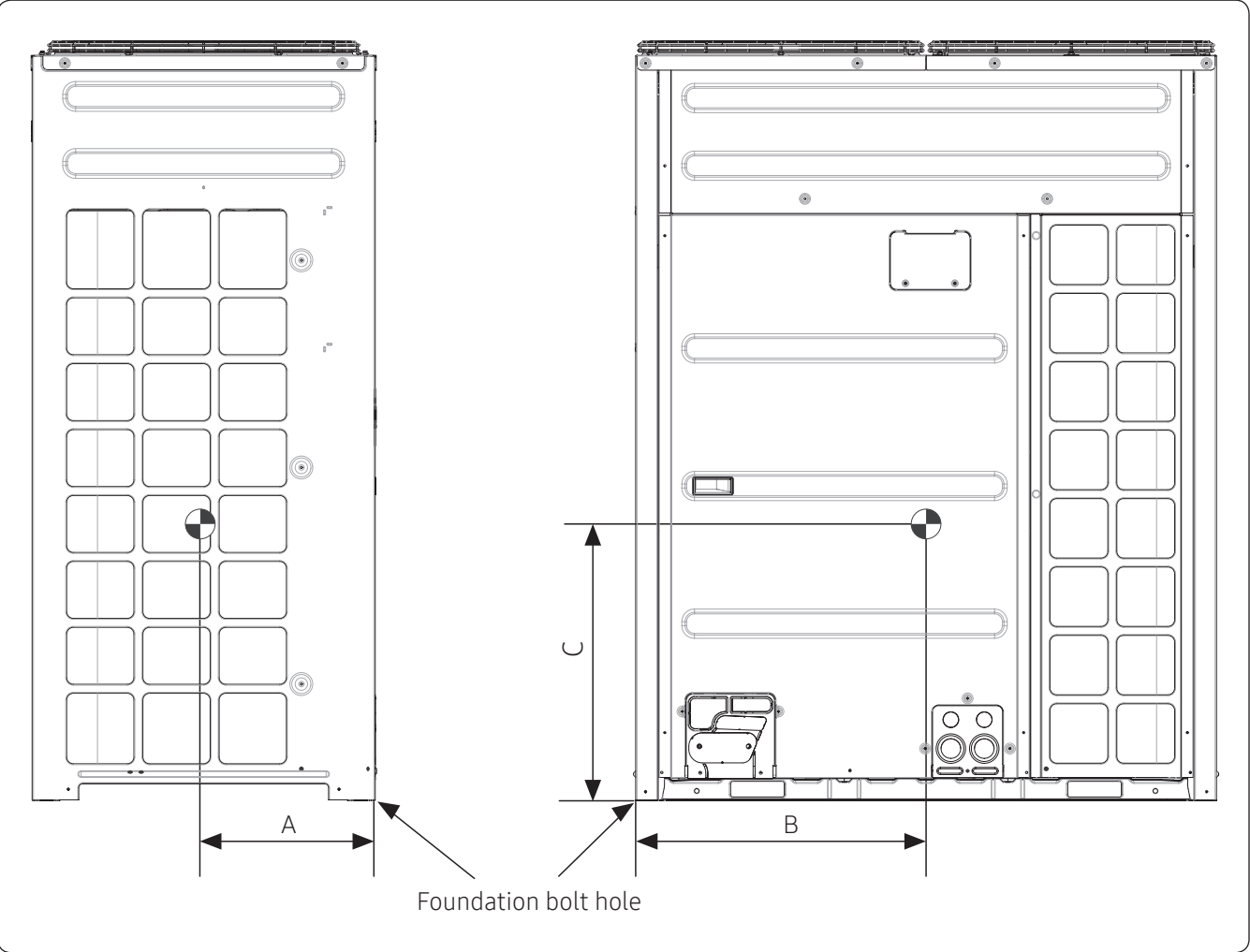


Model	A	B	C
VPC072S4M-4*	358 [14 - 1/8]	463 [18 - 1/4]	715 [28 - 1/8]

Center of Gravity

Outdoor unit

Unit: mm (inches)

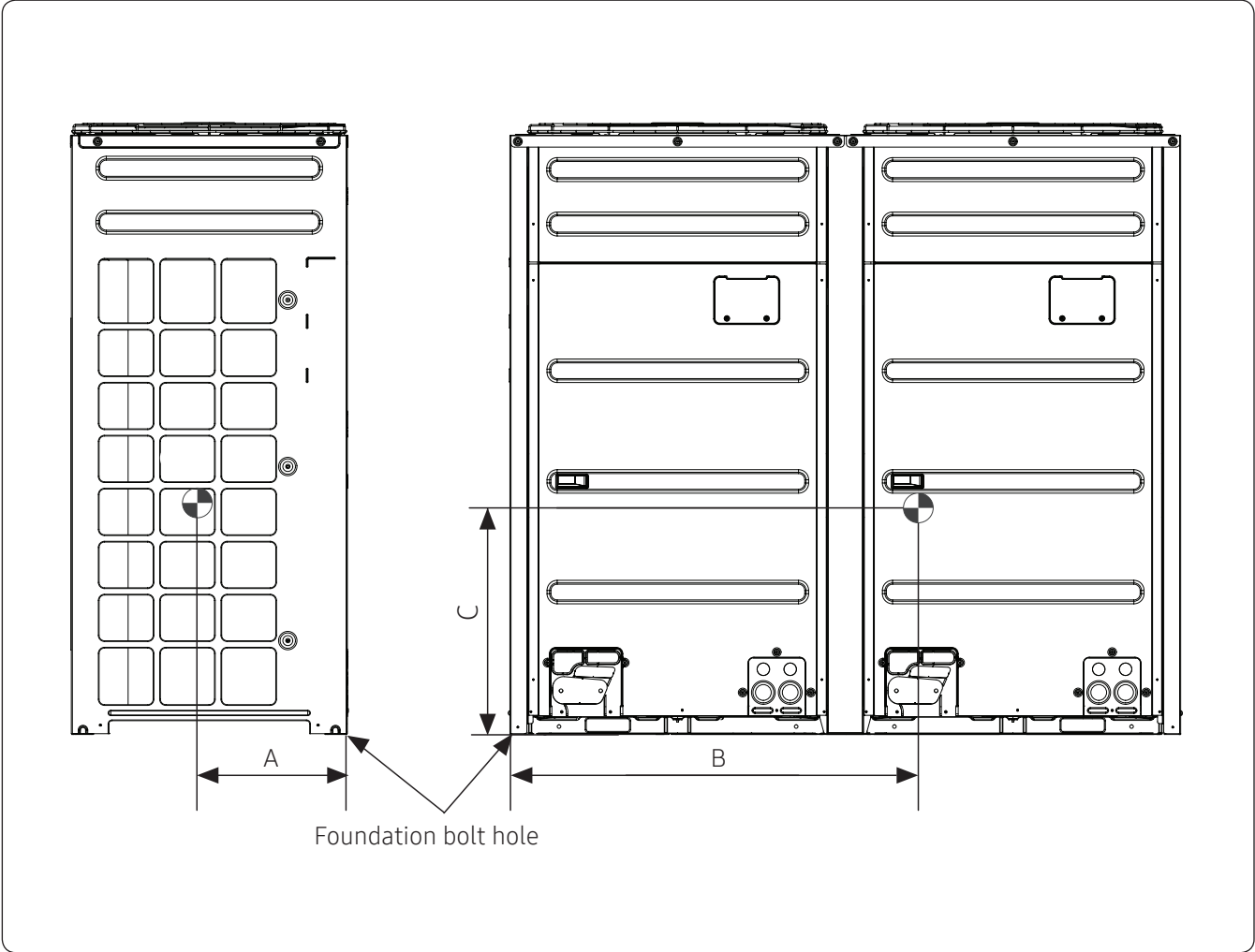


Model	A	B	C
VPC096S4M-4* VPC120S4M-4* VPC144S4M-4* VPC168S4M-4*	324 [12 - 3/4]	520 [20 - 1/2]	678 [26 - 11/16]

Center of Gravity

Outdoor unit

Units : mm [inches]



Model	A	B	C
VPC192S4M-4*	350 [13 - 3/4]	1,130 [44 - 1/2]	688 [27 - 1/16]
VPC216S4M-4*			
VPC240S4M-4*			

Installation Clearances

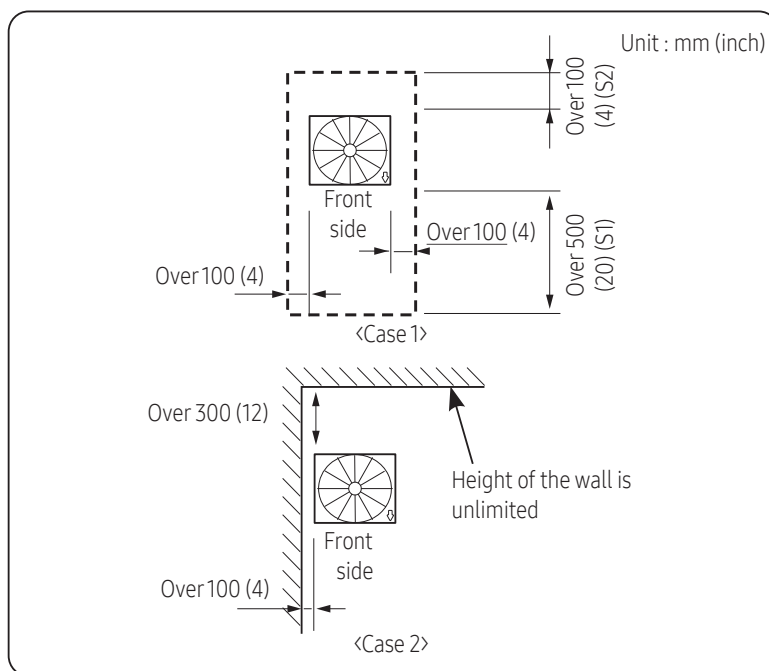
Choosing the installation location

- Do not install the product in places where corrosive gases such as sulfur oxides, ammonia, and sulfurous gas are produced. (e.g. Toilet outlet, ventilation opening, sewage works, dyeing complex, cattle shed, sulfuric hot spring, nuclear power plant, ship etc.) When installing the product in those places, contact an installation specialty store as the copper pipe and brazing part will need additional corrosion proof or anti-rust additive to prevent corrosion.
- Make sure not to keep any inflammable materials (such as wooden materials, oil etc.) around the outdoor unit. When there's fire, those inflammable material will easily catch the fire and may pass it on to the product.
- Depending on the condition of power supply, unstable power or voltage may cause malfunction of the parts or control system. (At the ship or places using power supply from electric generator...etc)
- Make sure to install MCU when using HR products.
- When you select the location to install the MCU, the location is far away from indoor rooms because the refrigerant running of MCU may create noise.

Outdoor unit space requirements

- Space requirement was decided based on following conditions; Cooling mode, outdoor temperature of 35°C (95 °F). Larger space is required if the outdoor temperature is higher than 35°C (95 °F) or if the place is heated easily by quantity of solar radiation.
- When you secure installation space, consider path for people and the direction of the wind.
- Secure installation space as shown in the below illustration, considering ventilation and the service space.
- If the installation space is narrow, installer or other worker may get injured during work and may also cause problem to the product.
- If you install multiple number of outdoor units in one space, make sure to secure enough ventilation space if there's any walls around the product that may disturb the air flow. If enough ventilation space is not secured, product may malfunction.
- You may install the outdoor units with 20mm (0.78inch) of space between the product, but product's performance may decrease depending on the installation environment.

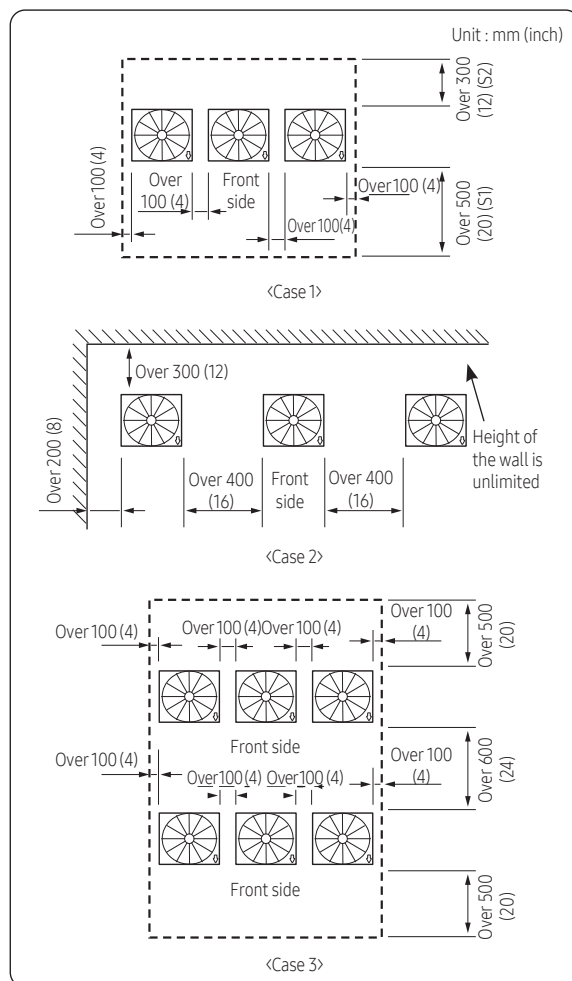
Single installation



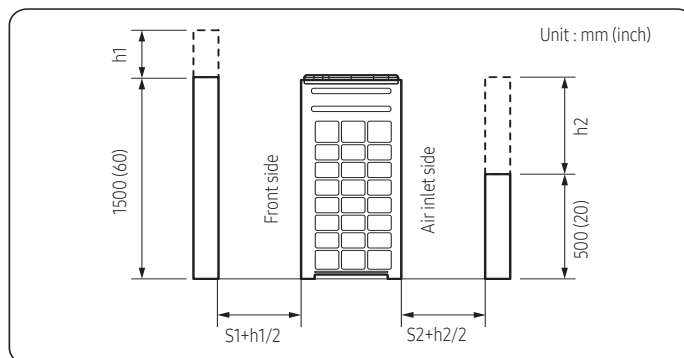
Installation Clearances

Choosing the installation location

Module installation



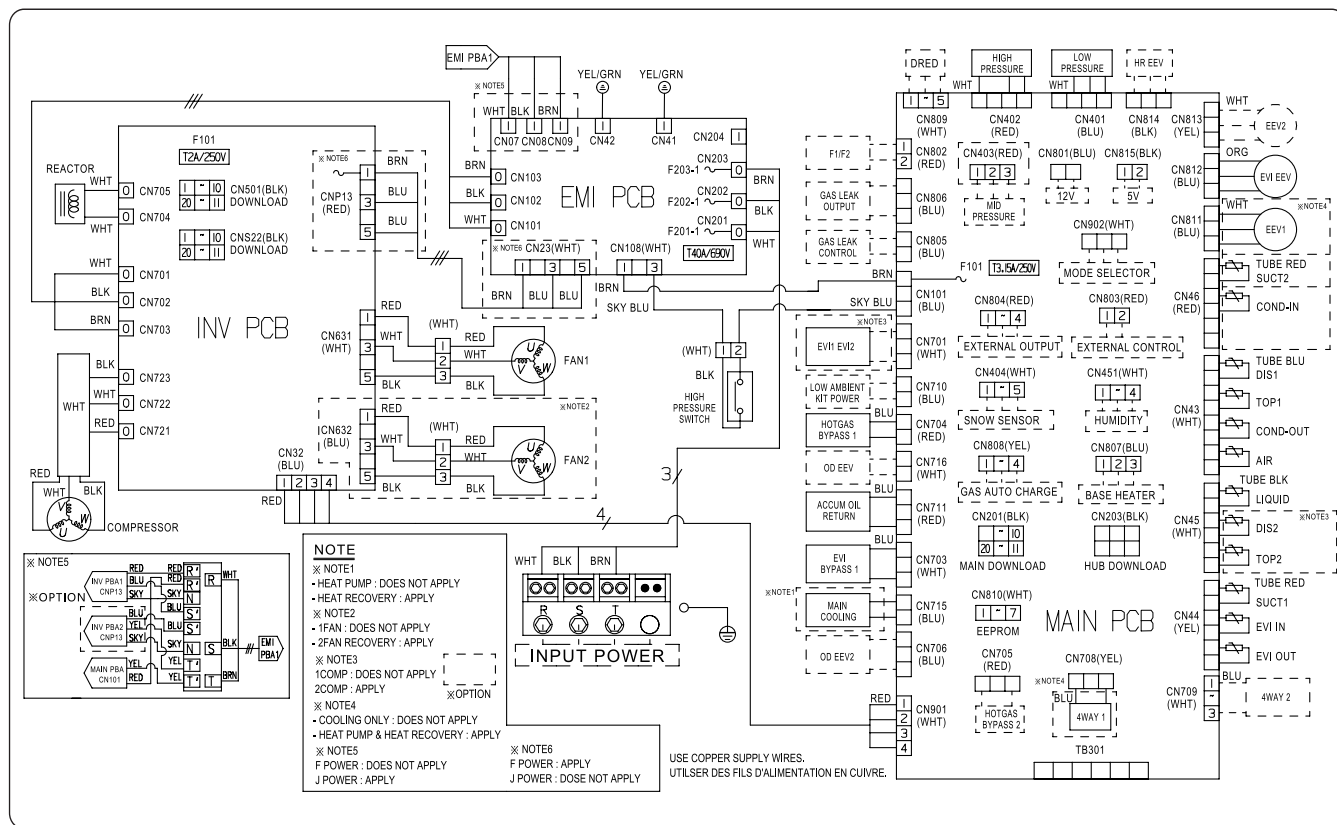
- For <Case 1> or <Case 3>
 - Height of the wall on the front side should not be higher than 1500mm (60inch).
 - Height of the wall on the air inlet side should not be higher than 500mm (20inch).
 - Height of the wall on the side is not limited.
 - If the height of the wall exceeds by certain value (h_1 , h_2), additional clearance $[(h_1)/2, (h_2)/2]$: Half of the exceeded height] should be added to the service space (S_1 , S_2).



Electrical Wiring Diagrams

Outdoor unit

VPC072S4M-4Y, VPC072S4M-4G



INV PCB	Printed circuit board (inverter)	EVI-OUT(10K)	Thermistor (EVI-out_10kohm)	HOTGAS1 BYPASS V/V	Solenoid valve (Hot Gas Bypass1)
EMI PCB	Printed circuit board (emi)	EVI-IN(10K)	Thermistor (EVI-in_10kohm)	EVI BYPASS1 V/V	Solenoid valve (EVI BYPASS)
MAIN PCB	Printed circuit board (main)	SUCT1(10K)	Thermistor (Suction Temp.1_10Kohm)	ACCUM OIL RETURN V/V	Solenoid valve (Accumulator Oil Return)
COMPRESSOR	Motor (compressor)	SUCT2(10K)	Thermistor (Suction Temp.2_10Kohm)	4WAY1 V/V	Solenoid valve (4 Way valve1)
FAN1	Motor (fan1)	AIR(10K)	Thermistor (Ambient Temp._10Kohm)	4WAY2 V/V	Solenoid valve (4 Way valve2)
EVI V/V1	Solenoid valve (EVI1)	COND(10K)	Thermistor (Cond Out Temp._10Kohm)	MAIN COOLING	Solenoid valve (Main cooling)
EVI V/V2	Solenoid valve (EVI2)	TOP1(200K)	Thermistor (Compressor Top 1_200Kohm)	HOTGAS2 BYPASS V/V	Solenoid valve (Hot Gas Bypass2)
EVI EEV	Electronic expansion valve (EVI)	TOP2(200K)	Thermistor (Compressor Top 2_200Kohm)	F101	FUSE (INV PCB)
EEV1	Electronic expansion valve 1	DIS1(200K)	Thermistor (Discharge Temp.1_200Kohm)	690V/40A	FUSE (EMI PCB)
EEV2	Electronic expansion valve 2	DIS2(200K)	Thermistor (Discharge Temp.2_200Kohm)	MODE SELECTOR	Connector (Remote switching cool/heat selector)
OD EEV V/V	Electronic expansion valve (Outdoor EEV)	LIQUID(10K)	Thermistor (Liquid Tube Temp._10Kohm)	EXTERNAL CONTROL	Connector (Output EXTERNAL CONTROL)
SNOW SENSOR	SNOW SENSOR			EXTERNAL OUTPUT	Connector (Output EXTERNAL)

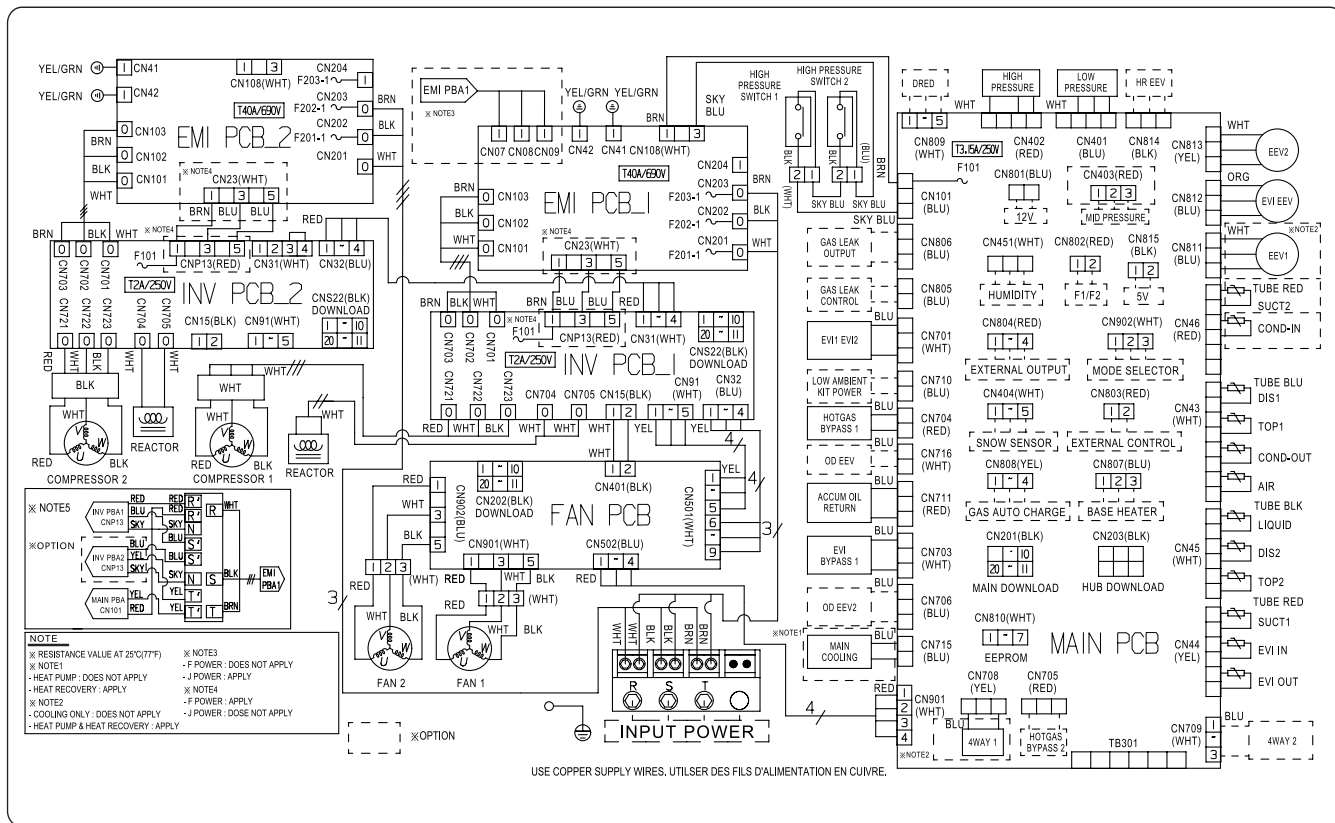
NOTE

- This wiring diagram applies only to the outdoor unit.
- Colors BLK: black, RED: red, BLU: blue, WHT: white, YEL: yellow, BRN: brown, SKY: skyblue
- When operating, don't shortcircuit 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, $\swarrow$: The wire quantity

Electrical Wiring Diagrams

Outdoor unit

VPC096/120/144S4M-4Y, VPC096/120/144/168S4M-4G



INV PCB1	Printed circuit board (inverter1)	EEV1	Electronic expansion valve 1	HOTGAS1 BYPASS V/V	Solenoid valve (Hot Gas Bypass1)
INV PCB2	Printed circuit board (inverter2)	EEV2	Electronic expansion valve 2	EVI BYPASS1 V/V	Solenoid valve (EVI BYPASS)
EMI PCB1	Printed circuit board (emi1)	EVI-OUT(10K)	Thermistor (EVI-out_10kohm)	ACCUM OIL RETURN V/V	Solenoid valve (Accumulator Oil Return)
EMI PCB2	Printed circuit board (emi2)	EVI-IN(10K)	Thermistor (EVI-in_10kohm)	4WAY1 V/V	Solenoid valve (4 Way valve1)
FAN PCB	Printed circuit board (fan motor)	SUCT1(10K)	Thermistor (Suction Temp.1_10Kohm)	4WAY2 V/V	Solenoid valve (4 Way valve2)
MAIN PCB	Printed circuit board (main)	SUCT2(10K)	Thermistor (Suction Temp.2_10Kohm)	MAIN COOLING	Solenoid valve (Main cooling)
COMPRESSOR1	Motor (compressor1)	COND IN(10K)	Thermistor (Cond In Temp_10Kohm)	HOTGAS2 BYPASS V/V	Solenoid valve (Hot Gas Bypass2)
COMPRESSOR2	Motor (compressor2)	AIR(10K)	Thermistor (Ambient Temp_10Kohm)	OD EEV V/V	Electronic expansion valve (Outdoor EEV)
FAN1	Motor (fan1)	COND(10K)	Thermistor (Cond Out Temp_10Kohm)	F101	FUSE (INV PCB)
FAN2	Motor (fan2)	TOP1(200K)	Thermistor (Compressor Top 1_200Kohm)	690V/40A	FUSE (EMI PCB)
EVI V/V1	Solenoid valve (EVI1)	TOP2(200K)	Thermistor (Compressor Top 2_200Kohm)	MODE SELECTOR	Connector (Remote switching cool/heat selector)
EVI V/V2	Solenoid valve (EVI2)	DIS1(200K)	Thermistor (Discharge Temp.1_200Kohm)	EXTERNAL CONTROL	Connector (Output EXTERNAL CONTROL)
EVI EEV	Electronic expansion valve (EVI)	DIS2(200K)	Thermistor (Discharge Temp.2_200Kohm)	EXTERNAL OUTPUT	Connector (Output EXTERNAL)
SNOW SENSOR	SNOW SENSOR	LIQUID(10K)	Thermistor (Liquid Tube Temp_10Kohm)		

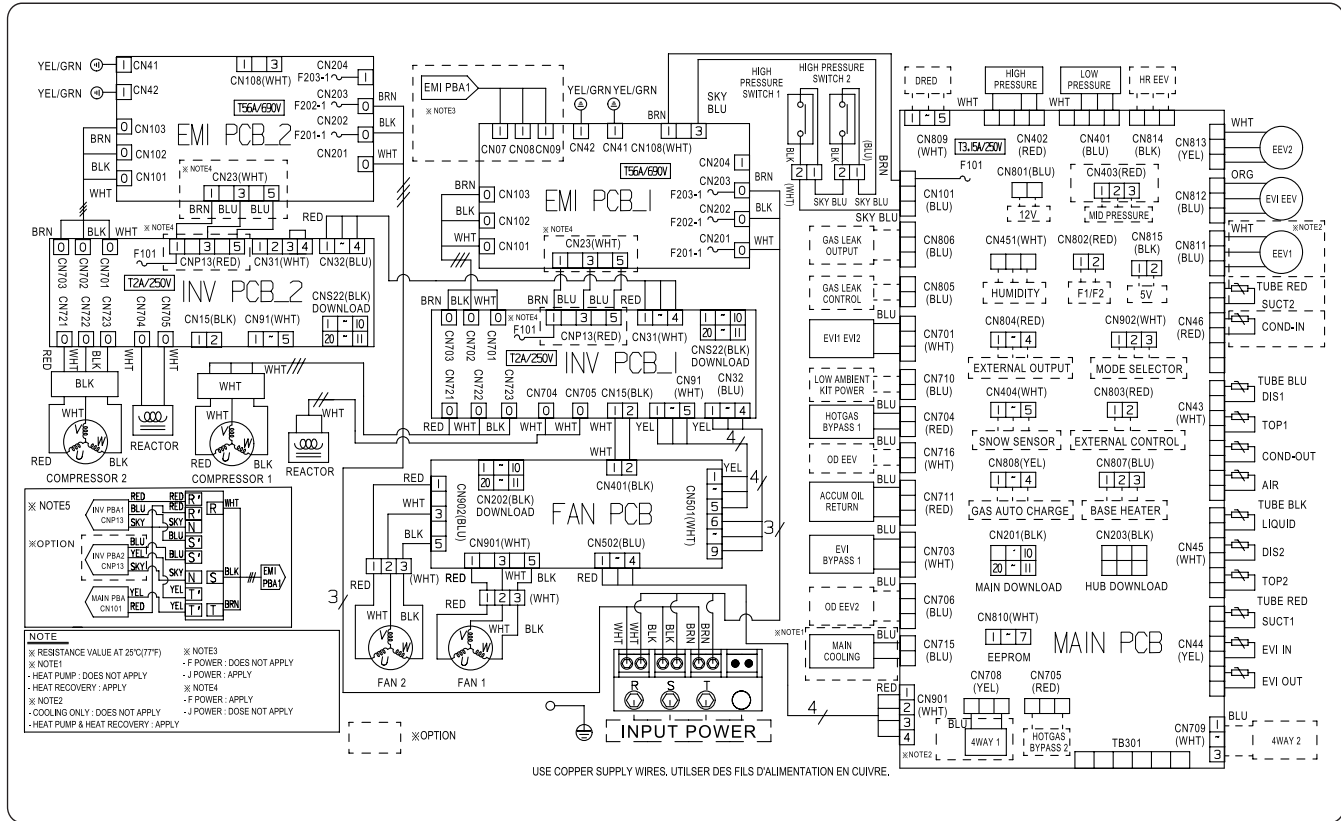
NOTE

- This wiring diagram applies only to the outdoor unit.
- Colors BLK: black, RED: red, BLU: blue, WHT: white, YEL: yellow, BRN: brown, SKY: skyblue
- When operating, don't shortcircuit 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 Diagrams

Outdoor unit

VPC168S4M-4Y



INV PCB1	Printed circuit board (inverter1)	EEV1	Electronic expansion valve 1	LIQUID(10K)	Thermistor (Liquid Tube Temp._10Kohm)
INV PCB2	Printed circuit board (inverter2)	EEV2	Electronic expansion valve 2	HOTGAS1 BYPASS V/V	Solenoid valve (Hot Gas Bypass1)
EMI PCB1	Printed circuit board (emi1)	EVI-OUT(10K)	Thermistor (EVI-out_10kohm)	EVI BYPASS1 V/V	Solenoid valve (EVI BYPASS)
EMI PCB2	Printed circuit board (emi2)	EVI-IN(10K)	Thermistor (EVI-in_10kohm)	ACCUM OIL RETURN V/V	Solenoid valve (Accumulator Oil Return)
FAN PCB	Printed circuit board (fan motor)	SUCT1(10K)	Thermistor (Suction Temp.1_10Kohm)	4WAY1 V/V	Solenoid valve (4 Way valve1)
MAIN PCB	Printed circuit board (main)	SUCT2(10K)	Thermistor (Suction Temp.2_10Kohm)	4WAY2 V/V	Solenoid valve (4 Way valve2)
COMPRESSOR1	Motor (compressor1)	COND IN(10K)	Thermistor (Cond In Temp._10Kohm)	MAIN COOLING	Solenoid valve (Main cooling)
COMPRESSOR2	Motor (compressor2)	AIR(10K)	Thermistor (Ambient Temp._10Kohm)	HOTGAS2 BYPASS V/V	Solenoid valve (Hot Gas Bypass2)
FAN1	Motor (fan1)	COND(10K)	Thermistor (Cond Out Temp._10Kohm)	OD EEV V/V	Electronic expansion valve (Outdoor EEV)
FAN2	Motor (fan2)	TOP1(200K)	Thermistor (Compressor Top 1_200Kohm)	F101	FUSE (INV PCB)
EVI V/V1	Solenode valve (EVI1)	TOP2(200K)	Thermistor (Compressor Top 2_200Kohm)	690V/56A	FUSE (EMI PCB)
EVI V/V2	Solenode valve (EVI2)	DIS1(200K)	Thermistor (Discharge Temp.1_200Kohm)	MODE SELECTOR	Connector (Remote switching cool/heat selector)
EVI EEV	Electronic expansion valve (EVI)	DIS2(200K)	Thermistor (Discharge Temp.2_200Kohm)	EXTERNAL CONTROL	Connector (Output EXTERNAL CONTROL)
SNOW SENSOR	SNOW SENSOR			EXTERNAL OUTPUT	Connector (Output EXTERNAL)

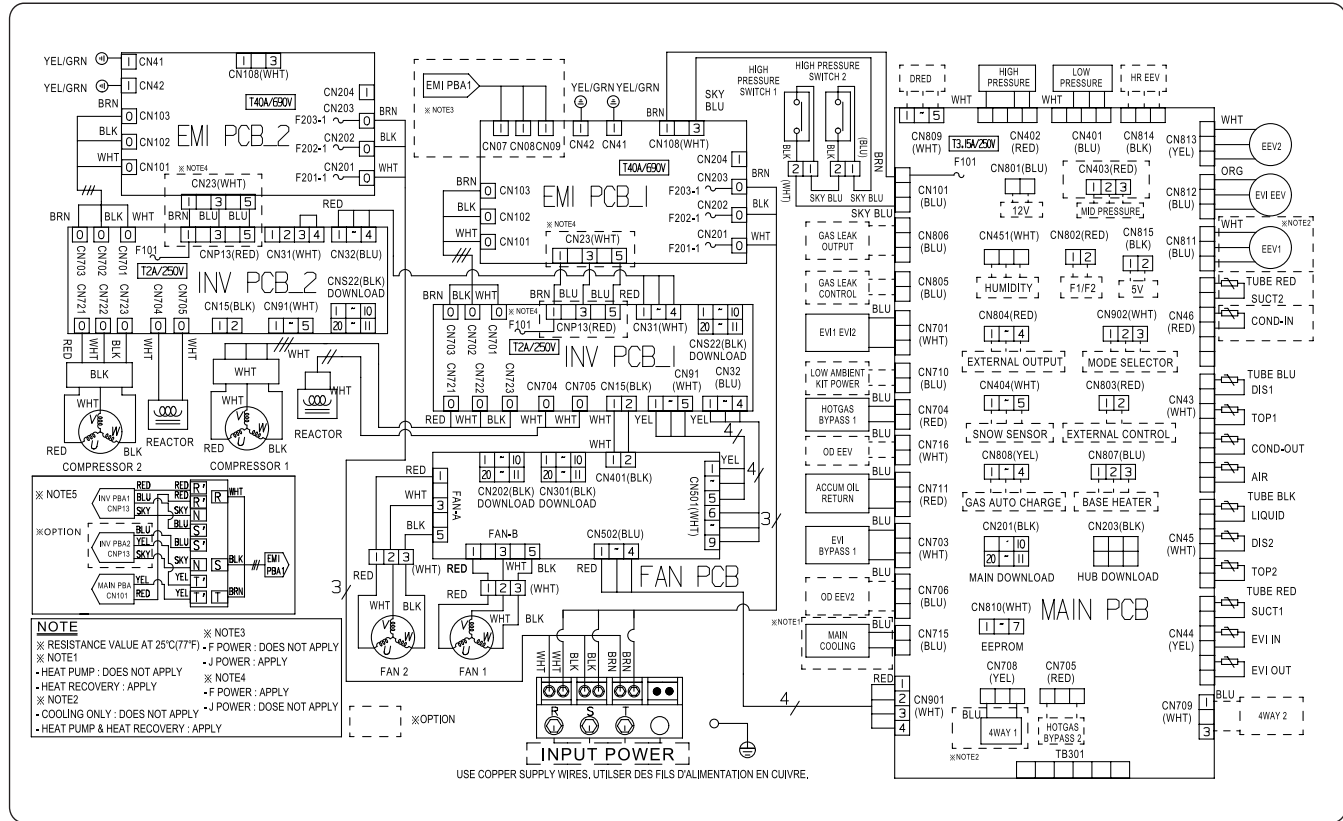
NOTE

- This wiring diagram applies only to the outdoor unit.
- Colors BLK: black, RED: red, BLU: blue, WHT: white, YEL: yellow, BRN: brown, SKY: skyblue
- When operating, don't shortcircuit 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 Diagrams

Outdoor unit

VPC192S4M-4G



INV PCB1	Printed circuit board (inverter1)	EEV1	Electronic expansion valve 1	HOTGAS1 BYPASS V/V	Solenoid valve (Hot Gas Bypass1)
INV PCB2	Printed circuit board (inverter2)	EEV2	Electronic expansion valve 2	EVI BYPASS1 V/V	Solenoid valve (EVI BYPASS)
EMI PCB1	Printed circuit board (emi1)	EVI-OUT(10K)	Thermistor (EVI-out_10kohm)	ACCUM OIL RETURN V/V	Solenoid valve (Accumulator Oil Return)
EMI PCB2	Printed circuit board (emi2)	EVI-IN(10K)	Thermistor (EVI-in_10kohm)	4WAY1 V/V	Solenoid valve (4 Way valve1)
FAN PCB	Printed circuit board (fan motor)	SUCT1(10K)	Thermistor (Suction Temp.1_10Kohm)	4WAY2 V/V	Solenoid valve (4 Way valve2)
MAIN PCB	Printed circuit board (main)	SUCT2(10K)	Thermistor (Suction Temp.2_10Kohm)	MAIN COOLING	Solenoid valve (Main cooling)
COMPRESSOR1	Motor (compressor1)	COND IN(10K)	Thermistor (Cond In Temp_10Kohm)	HOTGAS2 BYPASS V/V	Solenoid valve (Hot Gas Bypass2)
COMPRESSOR2	Motor (compressor2)	AIR(10K)	Thermistor (Ambient Temp_10Kohm)	OD EEV V/V	Electronic expansion valve (Outdoor EEV)
FAN1	Motor (fan1)	COND(10K)	Thermistor (Cond Out Temp_10Kohm)	F101	FUSE (INV PCB)
FAN2	Motor (fan2)	TOP1(200K)	Thermistor (Compressor Top 1_200Kohm)	690V/56A	FUSE (EMI PCB)
EVI V/V1	Solenoid valve (EVI1)	TOP2(200K)	Thermistor (Compressor Top 2_200Kohm)	MODE SELECTOR	Connector (Remote switching cool/heat selector)
EVI V/V2	Solenoid valve (EVI2)	DIS1(200K)	Thermistor (Discharge Temp.1_200Kohm)	EXTERNAL CONTROL	Connector (Output EXTERNAL CONTROL)
EVI EEV	Electronic expansion valve (EVI)	DIS2(200K)	Thermistor (Discharge Temp.2_200Kohm)	EXTERNAL OUTPUT	Connector (Output EXTERNAL)
SNOW SENSOR	SNOW SENSOR	LIQUID(10K)	Thermistor (Liquid Tube Temp_10Kohm)		

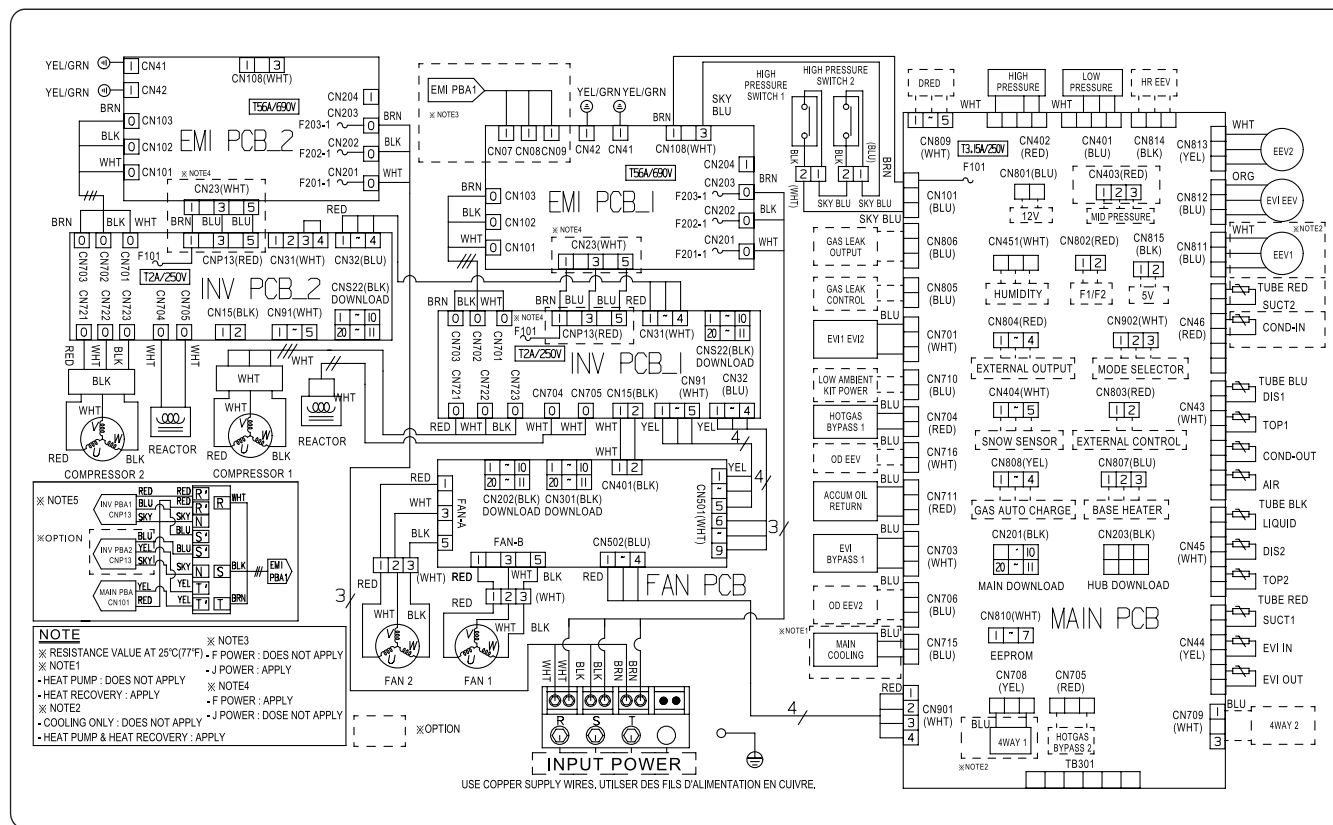
NOTE

- This wiring diagram applies only to the outdoor unit.
- Colors BLK: black, RED: red, BLU: blue, WHT: white, YEL: yellow, BRN: brown, SKY: skyblue
- When operating, don't shortcircuit 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, $\times$: The wire quantity

Electrical Wiring Diagrams

Outdoor unit

VPC192/216/240S4M-4*, VPC216/240S4M-4*



INV PCB1	Printed circuit board (inverter1)	EEV1	Electronic expansion valve 1	LIQUID(10K)	Thermistor (Liquid Tube Temp._10Kohm)
INV PCB2	Printed circuit board (inverter2)	EEV2	Electronic expansion valve 2	HOTGAS1 BYPASS V/V	Solenoid valve (Hot Gas Bypass1)
EMI PCB1	Printed circuit board (emi1)	EVI-OUT(10K)	Thermistor (EVI-out_10kohm)	EVI BYPASS1 V/V	Solenoid valve (EVI BYPASS)
EMI PCB2	Printed circuit board (emi2)	EVI-IN(10K)	Thermistor (EVI-in_10kohm)	ACCUM OIL RETURN V/V	Solenoid valve (Accumulator Oil Return)
FAN PCB	Printed circuit board (fan motor)	SUCT1(10K)	Thermistor (Suction Temp.1_10Kohm)	4WAY1 V/V	Solenoid valve (4 Way valve1)
MAIN PCB	Printed circuit board (main)	SUCT2(10K)	Thermistor (Suction Temp.2_10Kohm)	4WAY2 V/V	Solenoid valve (4 Way valve2)
COMPRESSOR1	Motor (compressor1)	COND IN(10K)	Thermistor (Cond In Temp._10Kohm)	MAIN COOLING	Solenoid valve (Main cooling)
COMPRESSOR2	Motor (compressor2)	AIR(10K)	Thermistor (Ambient Temp._10Kohm)	HOTGAS2 BYPASS V/V	Solenoid valve (Hot Gas Bypass2)
FAN1	Motor (fan1)	COND(10K)	Thermistor (Cond Out Temp._10Kohm)	OD EEV V/V	Electronic expansion valve (Outdoor EEV)
FAN2	Motor (fan2)	TOP1(200K)	Thermistor (Compressor Top 1_200Kohm)	F101	FUSE (INV PCB)
EVI V/V1	Solenoid valve (EVI1)	TOP2(200K)	Thermistor (Compressor Top 2_200Kohm)	690V/56A	FUSE (EMI PCB)
EVI V/V2	Solenoid valve (EVI2)	DIS1(200K)	Thermistor (Discharge Temp.1_200Kohm)	MODE SELECTOR	Connector (Remote switching cool/heat selector)
EVI EEV	Electronic expansion valve (EVI)	DIS2(200K)	Thermistor (Discharge Temp.2_200Kohm)	EXTERNAL CONTROL	Connector (Output EXTERNAL CONTROL)
SNOW SENSOR	SNOW SENSOR			EXTERNAL OUTPUT	Connector (Output EXTERNAL)

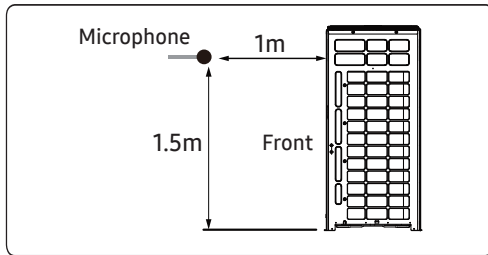
NOTE

- This wiring diagram applies only to the outdoor unit.
- Colors BLK: black, RED: red, BLU: blue, WHT: white, YEL: yellow, BRN: brown, SKY: skyblue
- When operating, don't shortcircuit 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

Sound Pressure level

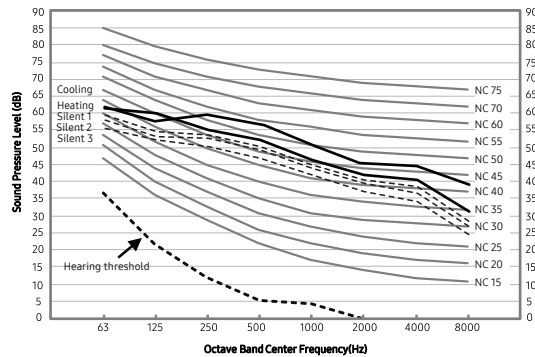
Unit: dB(A)



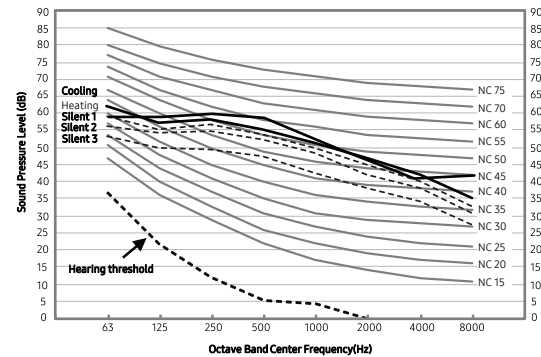
Model	Cooling	Heating		
		Silent 1	Silent 2	Silent 3
VPC072S4M-4Y	54	52	51	49
VPC096S4M-4Y	57	56	54	49
VPC120S4M-4Y	57	56	54	49
VPC144S4M-4Y	60	56	54	49

• NC Curve

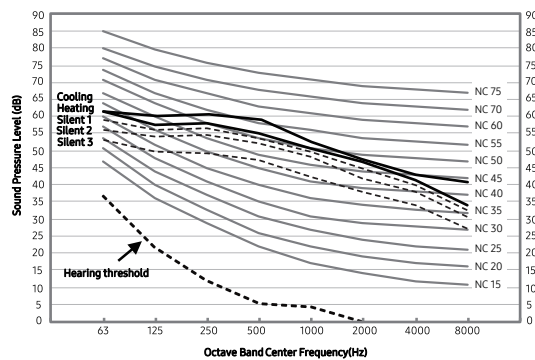
1) VPC072S4M-4Y



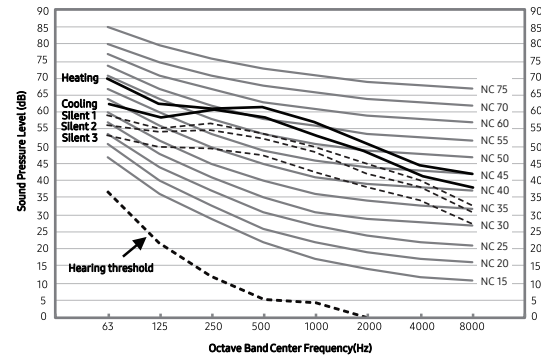
2) VPC096S4M-4Y



3) VPC120S4M-4Y



4) VPC144S4M-4Y



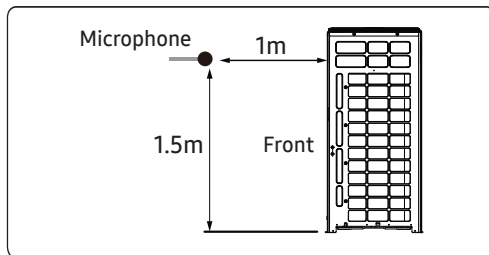
NOTE

- 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

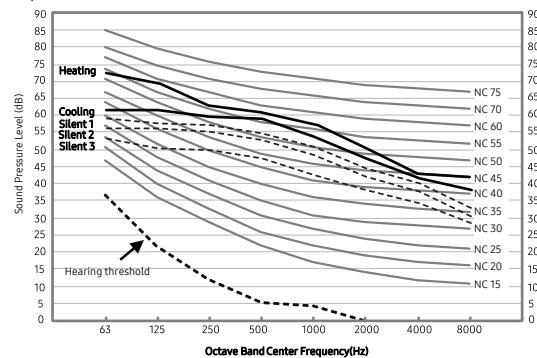
Unit: dB(A)



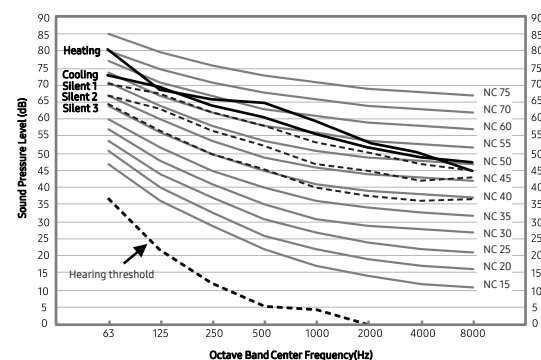
Model	Cooling	Heating		
		Silent 1	Silent 2	Silent 3
VPC168S4M-4Y	60	57	55	49
VPC192S4M-4Y	63	61	56	49
VPC216S4M-4Y	64	61	56	49
VPC240S4M-4Y	66	61	56	49

• NC Curve

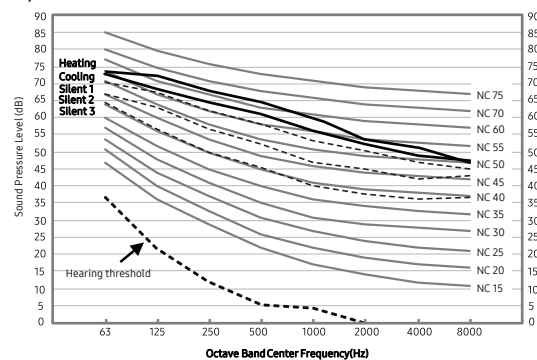
5) VPC168S4M-4Y



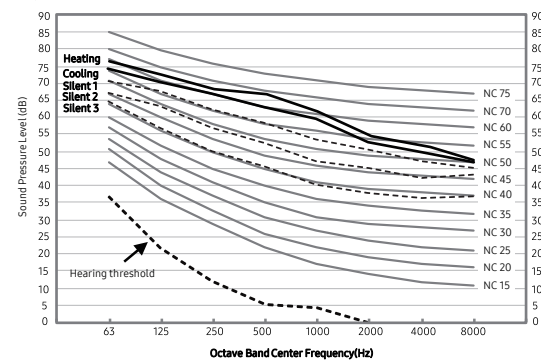
6) VPC192S4M-4Y



7) VPC216S4M-4Y



8) VPC240S4M-4Y



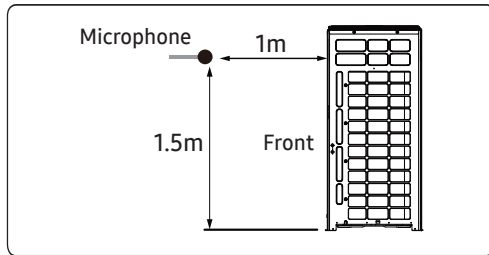
NOTE

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 - 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

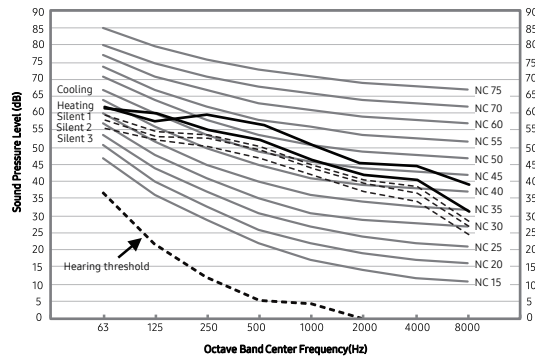
Unit: dB(A)



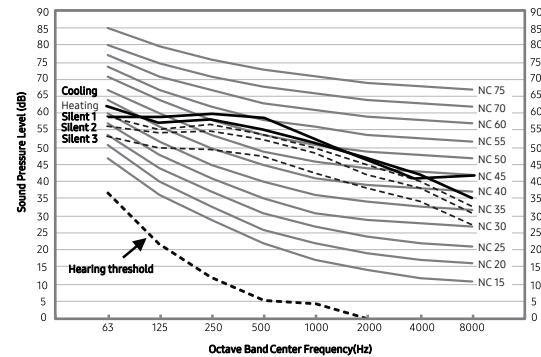
Model	Cooling	Heating		
		Silent 1	Silent 2	Silent 3
VPC072S4M-4G	54	52	51	49
VPC096S4M-4G	57	56	54	49
VPC120S4M-4G	57	56	54	49
VPC144S4M-4G	60	56	54	49

• NC Curve

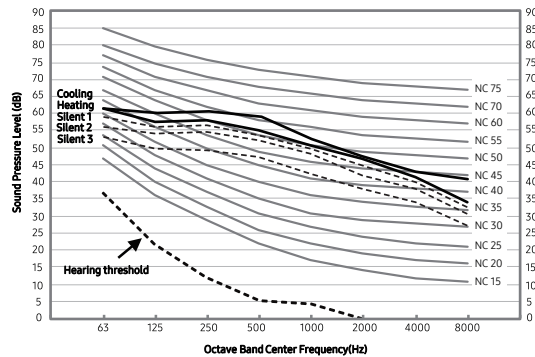
1) VPC072S4M-4G



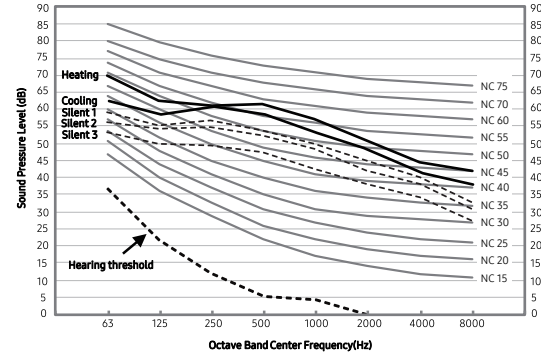
2) VPC096S4M-4G



3) VPC120S4M-4G



4) VPC144S4M-4G



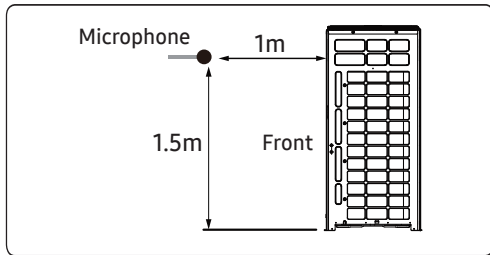
NOTE

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 - 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

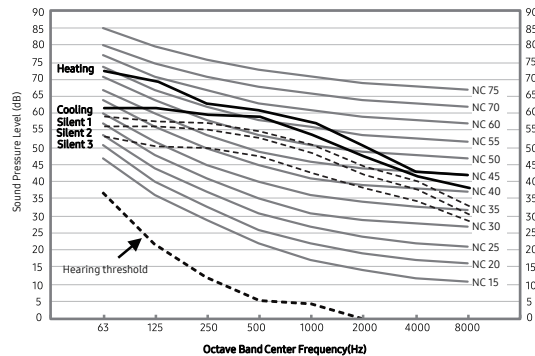
Unit: dB(A)



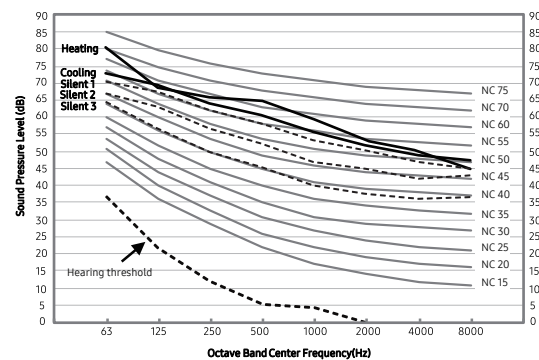
Model	Cooling	Heating		
		Silent 1	Silent 2	Silent 3
VPC168S4M-4G	60	57	55	49
VPC192S4M-4G	63	61	56	49
VPC216S4M-4G	64	61	56	49
VPC240S4M-4G	66	61	56	49

• NC Curve

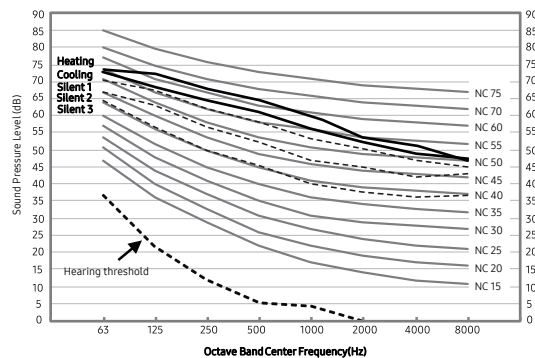
5) VPC168S4M-4G



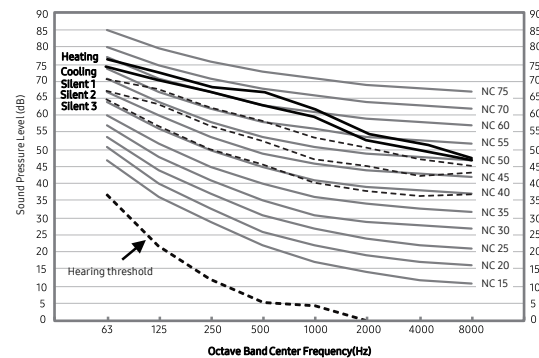
6) VPC192S4M-4G



7) VPC216S4M-4G



8) VPC240S4M-4G



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

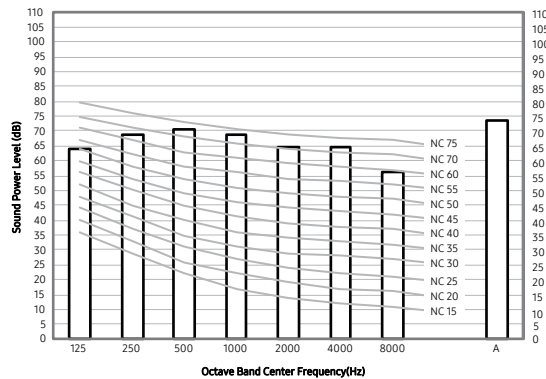
Sound Power level

Unit: dB(A)

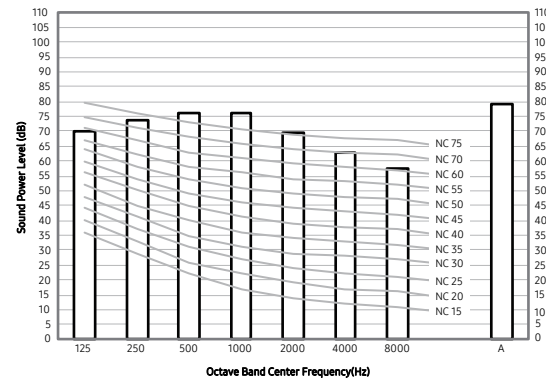
Model	Power
VPC072S4M-4Y	75
VPC096S4M-4Y	79
VPC120S4M-4Y	79
VPC144S4M-4Y	81

- NC Curve

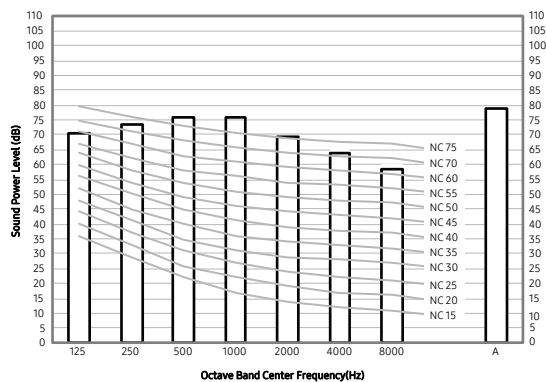
1) VPC072S4M-4Y



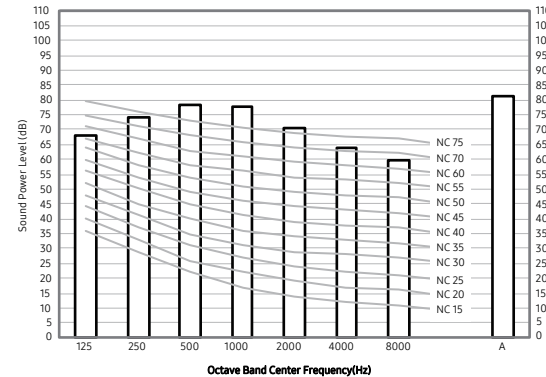
2) VPC096S4M-4Y



3) VPC120S4M-4Y



4) VPC144S4M-4Y



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.

Sound Data

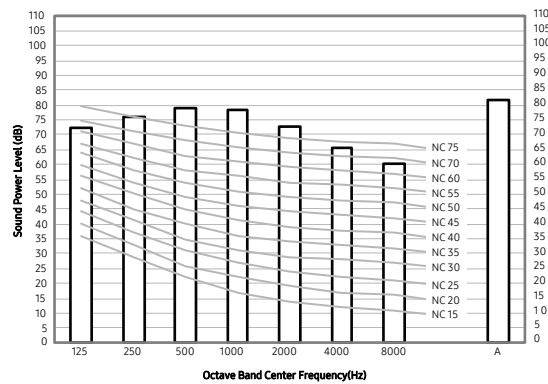
Sound Power level

Unit: dB(A)

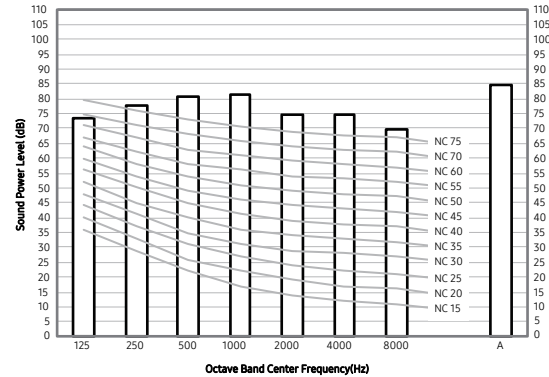
Model	Power
VPC168S4M-4Y	83
VPC192S4M-4Y	85
VPC216S4M-4Y	85
VPC240S4M-4Y	86.5

- NC Curve

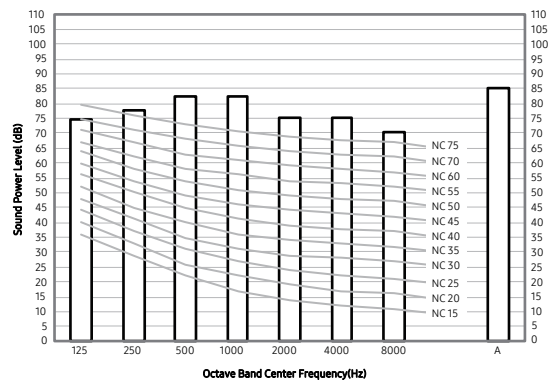
5) VPC168S4M-4Y



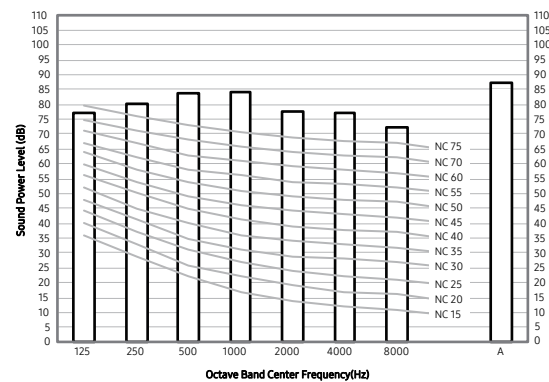
6) VPC192S4M-4Y



7) VPC216S4M-4Y



8) VPC240S4M-4Y



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.

Sound Data

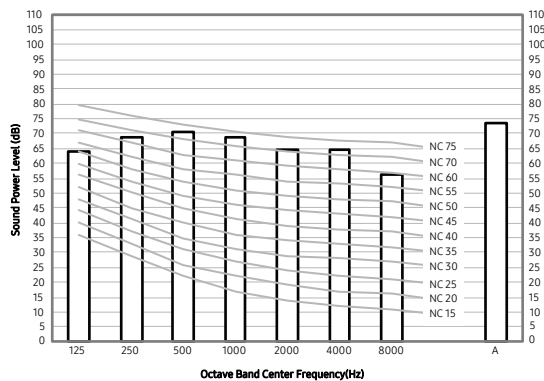
Sound Power level

Unit: dB(A)

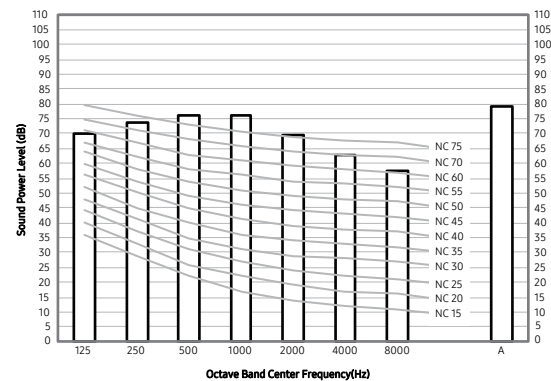
Model	Power
VPC072S4M-4G	75
VPC096S4M-4G	79
VPC120S4M-4G	79
VPC144S4M-4G	81

• NC Curve

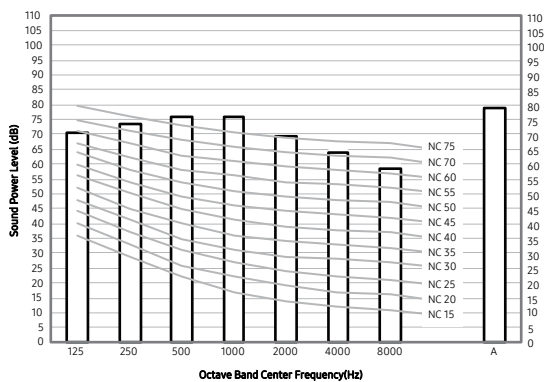
9) VPC072S4M-4G



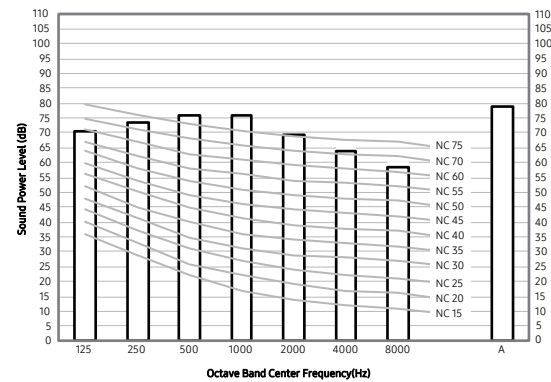
10) VPC096S4M-4G



11) VPC120S4M-4G



12) VPC144S4M-4G



NOTE

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 - 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

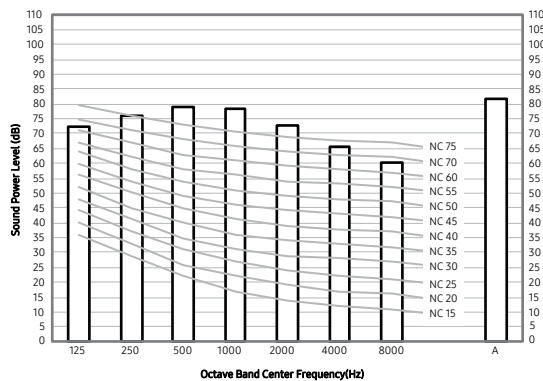
Sound Power level

Unit: dB(A)

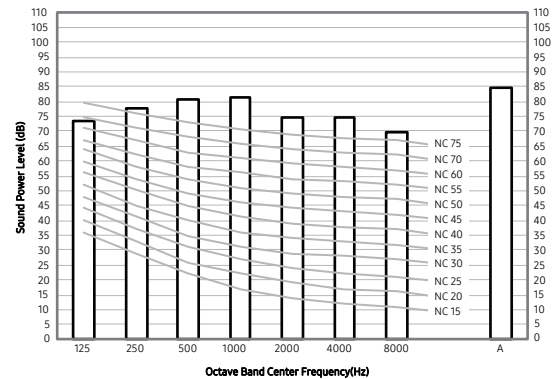
Model	Power
VPC168S4M-4G	83
VPC192S4M-4G	85
VPC216S4M-4G	85
VPC240S4M-4G	86.5

- NC Curve

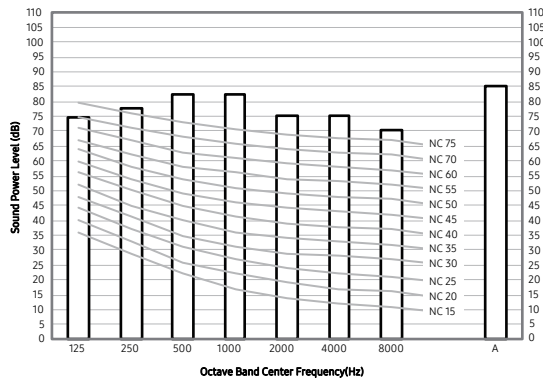
13) VPC168S4M-4G



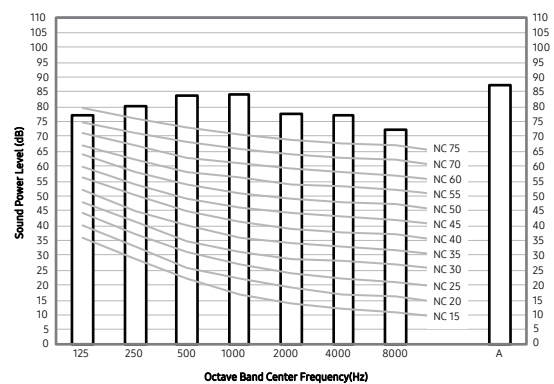
14) VPC192S4M-4G



15) VPC216S4M-4G



16) VPC240S4M-4G



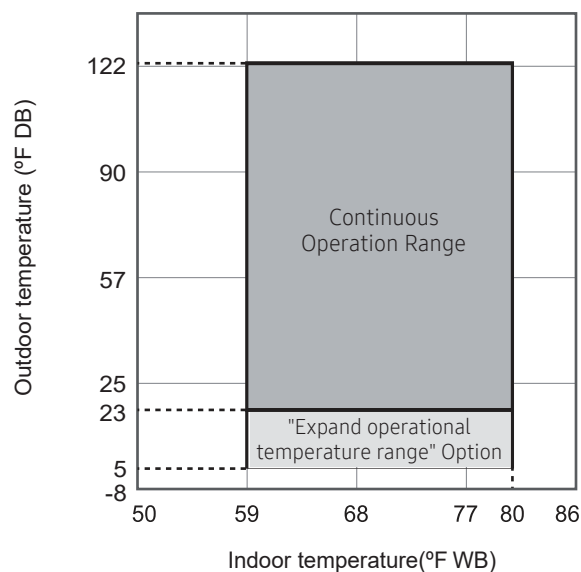
NOTE

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 - 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.

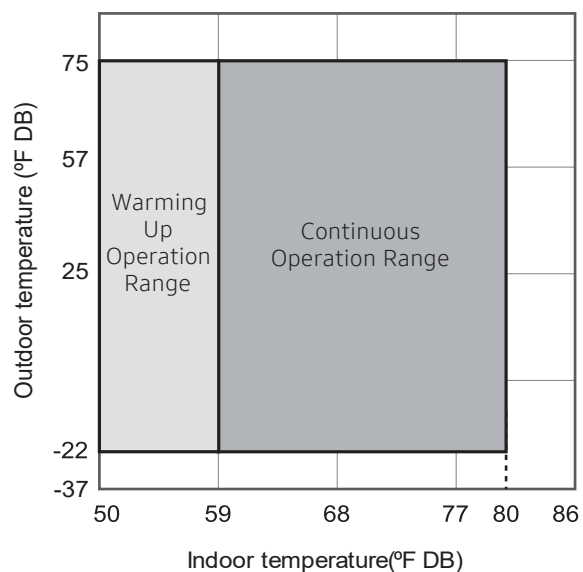
Operation Range

Outdoor unit

Cooling



Heating



- (1) The operating range is shown in these figures
- (2) The assumed installation conditions are as follows
 - Outdoor units and indoor units combination
 - The Pipe length(including elbow) is 5m (16.4ft)
 - The Level difference is 0m
- (3) In the low temperature expansion option application, the cooling operating is possible under expand operational range only for HR system
- (4) In case of heating mode, operating is possible under warming up operation range. However continuous operating is impossible due to a protection control

Operation Range

Outdoor unit

Defrosting correction factor

The heating capacity tables do not take account of the reduction in capacity, when frost has accumulated or while the defrosting operation is in progress.

The capacity values, which take these factors into account, in other words, the integrated heating capacity values, can be calculated as follows :

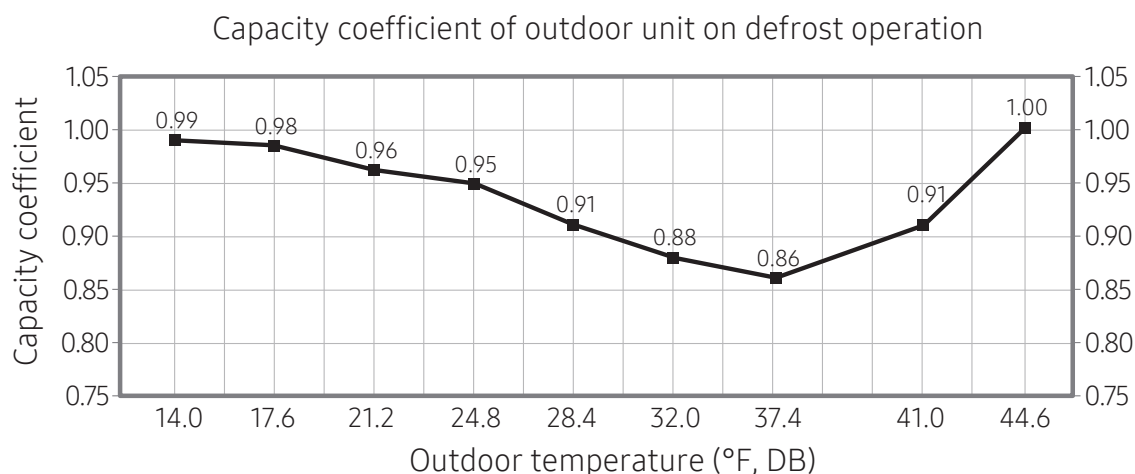
Formula : $A = B \times C$

Integrated heating capacity = A

Value given in table of capacity characteristics = B

Integrating correction factor for frost accumulation (kW) = C

Outdoor temperature (°F, DB)	14	17.6	21.2	24.8	28.4	32	37.4	41	44.6
Capacity coefficient	0.99	0.98	0.96	0.95	0.91	0.88	0.86	0.91	1.00



On heating operation, frost can be formed on heat exchanger according to outdoor temperature.

(Frost on heat exchanger results in decreasing the performance.)

To remove frost on heat exchanger of outdoor unit, defrost operation is carried out periodically.

During defrost operation, capacity of outdoor unit may decrease.

The decrement is not considered to the individual capacity tables.

This figure shows an effect of intelligence defrost operation

It is actually the frost occurrence section from 0 °C(32 °F) or less.

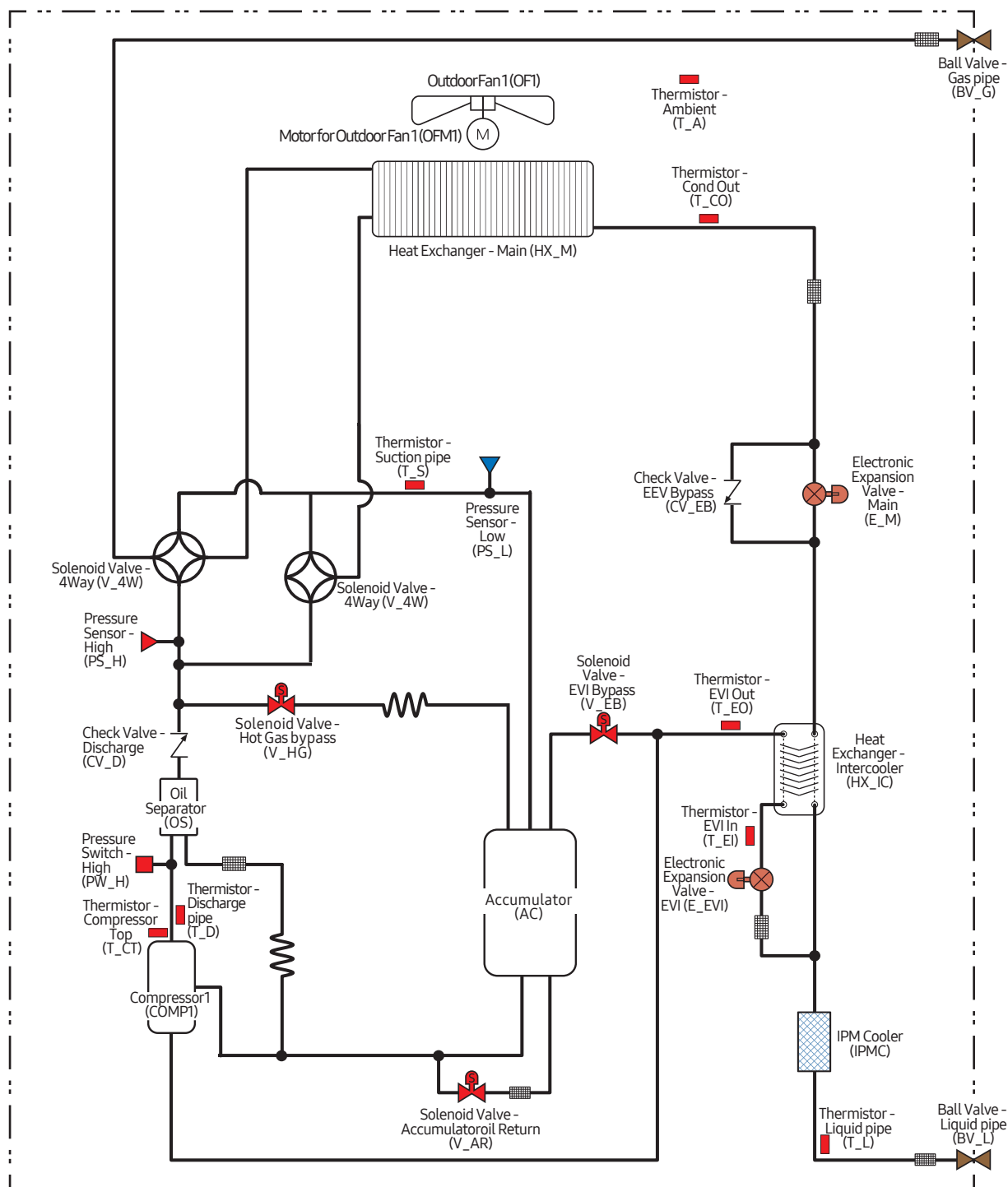
Since the outdoor temperature over 0 °C(32 °F), the heating performance is the same before and after applying intelligence defrost operation

In outdoor conditions below 0 °C(32 °F), frost conditions reflect the actual entering the defrost operation because heating performance is improved

Piping Diagram

Outdoor unit

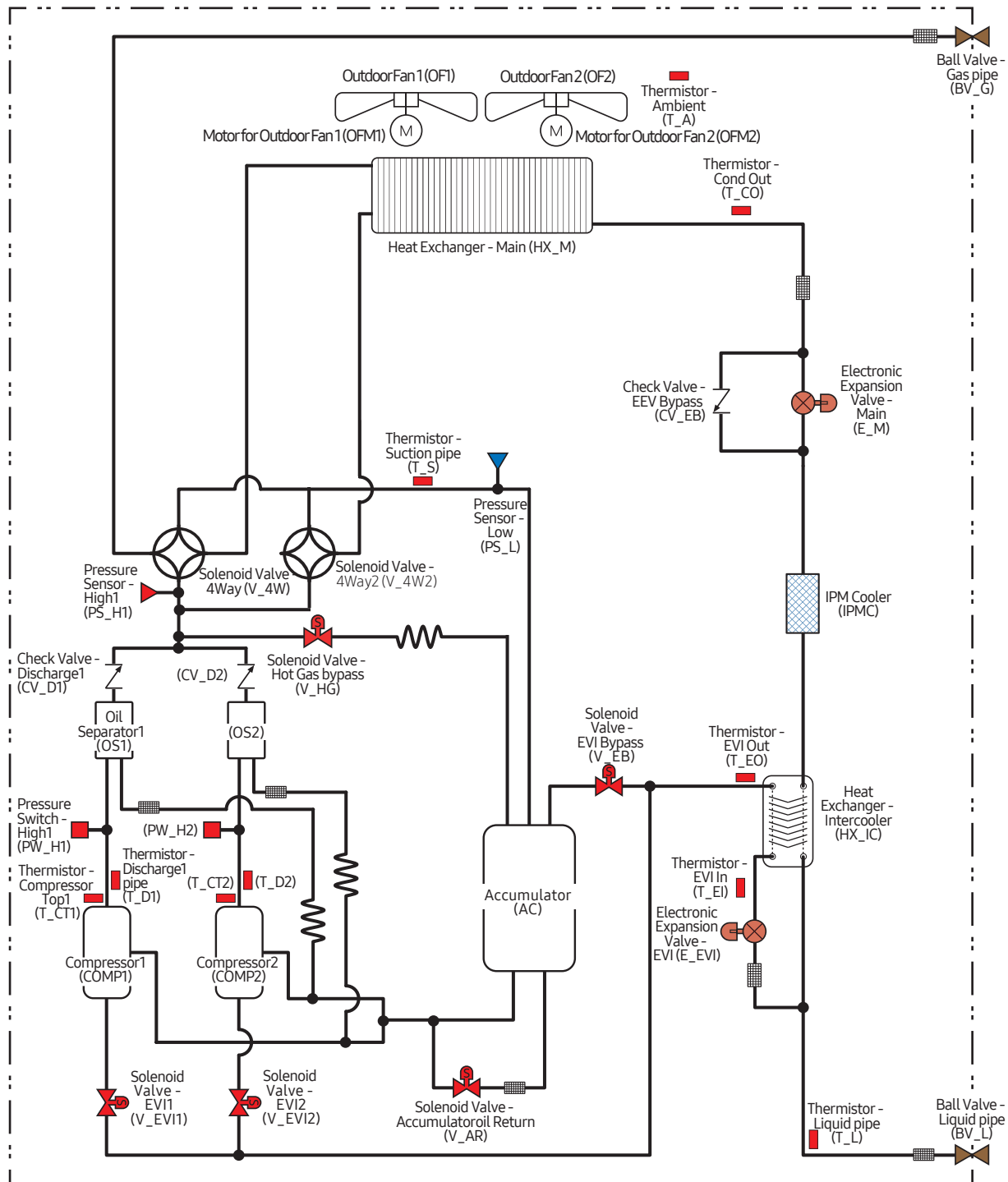
(1) VPC072S4M-4Y, VPC072S4M-4G



Piping Diagram

Outdoor unit

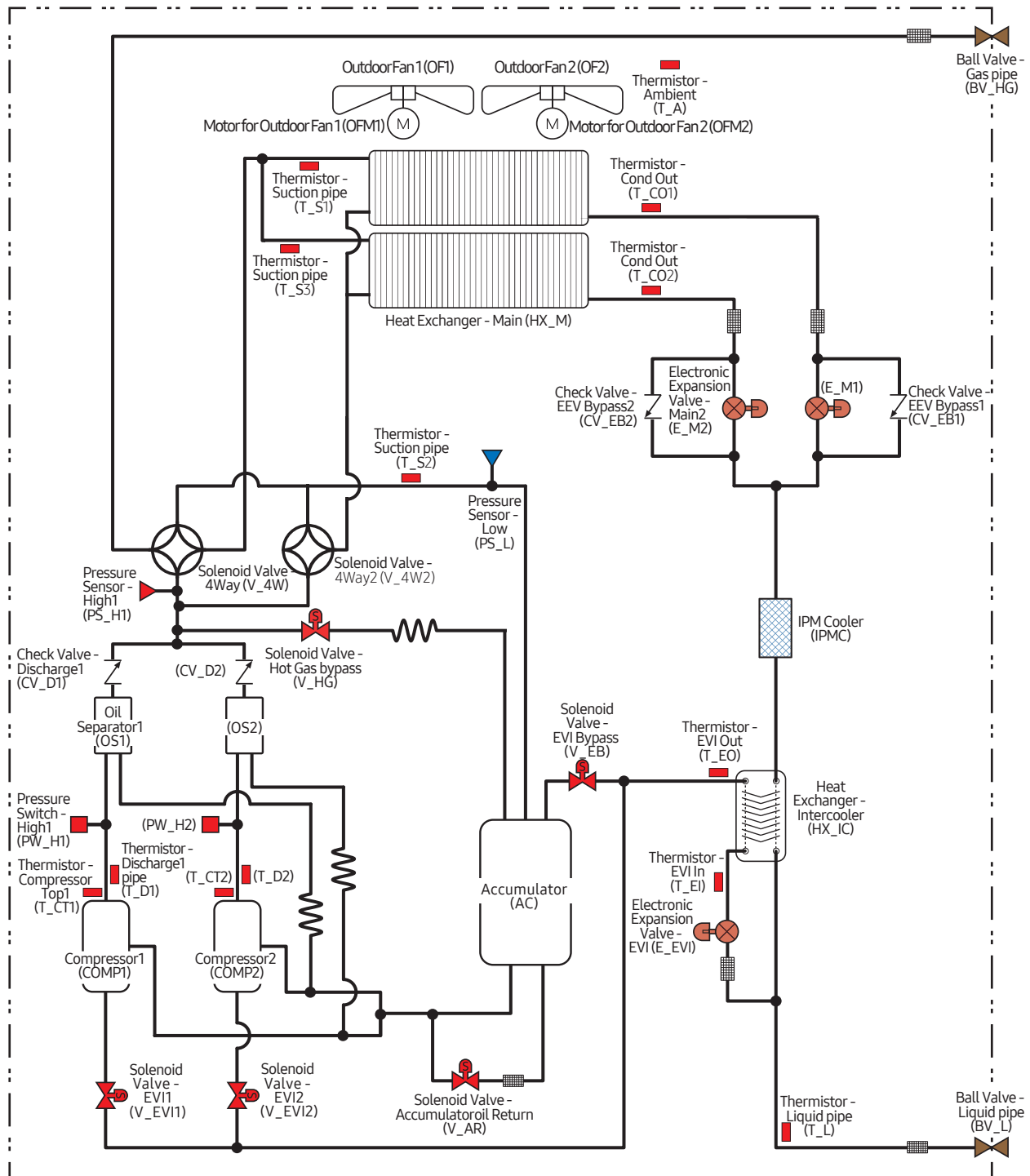
(2) VPC096/120/144/168S4M-4Y, VPC096/120/144/168S4M-4G



Piping Diagram

Outdoor unit

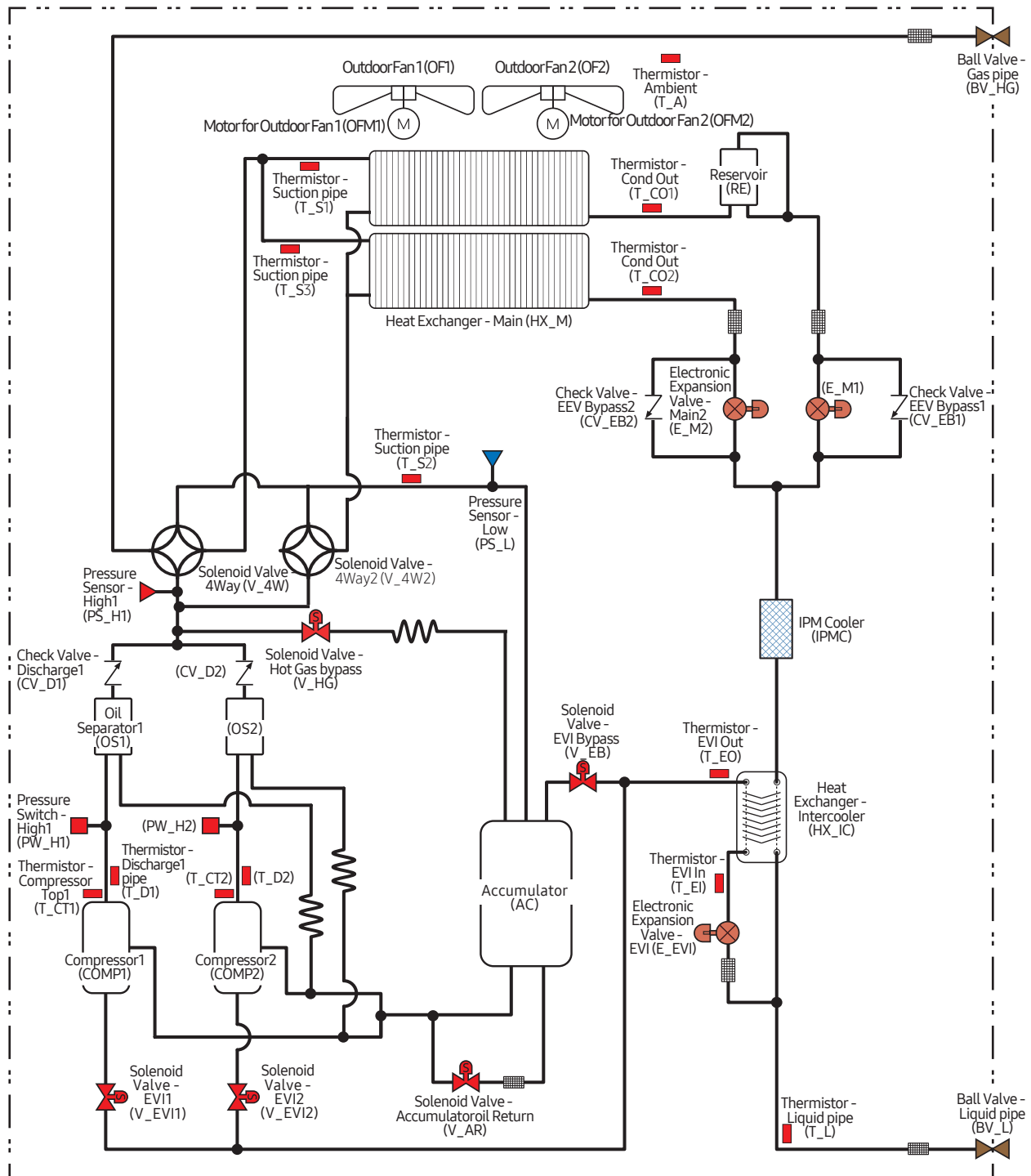
(3) VPC192S4M-4Y, VPC192S4M-4G



Piping Diagram

Outdoor unit

(4) VPC216/240S4M-4Y, VPC216/240S4M-4G



AHRI Data

Model Code	Rated Capacity (Btu/h)		EER (Btu/Wh)		IEER (Btu/Wh)			High COP(47F) (W/W)			Low COP(17F) (W/W)	
	Cooling	Heating	Non-Ducted	Ducted	Non-Ducted	Ducted	Mixed	Non-Ducted	Ducted	Mixed	Non-Ducted	Ducted
VPC072S4M-4Y	69,000	77,000	12.20	11.50	28.00	23.00	25.50	3.93	3.80	3.87	2.50	2.55
VPC096S4M-4Y	92,000	103,000	13.10	12.40	27.90	24.10	26.00	4.13	3.83	3.98	2.82	2.73
VPC120S4M-4Y	114,000	129,000	11.80	12.00	25.30	22.60	23.95	3.85	3.80	3.83	2.81	2.80
VPC144S4M-4Y	138,000	154,000	10.70	12.10	22.60	24.40	23.50	3.52	3.68	3.60	2.58	2.70
VPC168S4M-4Y	160,000	180,000	10.10	11.10	25.40	23.30	24.35	3.28	3.65	3.47	2.35	2.55
VPC192S4M-4Y	184,000	206,000	10.20	11.80	22.50	24.10	23.30	3.20	3.55	3.38	2.22	2.65
VPC216S4M-4Y	206,000	232,000	10.00	10.90	21.50	22.30	21.90	3.20	3.45	3.33	2.18	2.60
VPC240S4M-4Y	228,000	258,000	9.90	10.60	20.70	22.00	21.35	3.20	3.25	3.23	2.10	2.45
VPC264S4M-4Y	252,000	282,000	10.90	11.10	22.40	19.70	21.05	3.32	3.55	3.44	2.32	2.40
VPC288S4M-4Y	274,000	308,000	10.60	11.10	21.90	20.50	21.20	3.30	3.50	3.40	2.22	2.40
VPC312S4M-4Y	298,000	334,000	10.10	10.80	20.50	20.00	20.25	3.28	3.45	3.37	2.28	2.35
VPC336S4M-4Y	320,000	360,000	10.00	10.50	20.90	19.80	20.35	3.25	3.40	3.33	2.26	2.30
VPC360S4M-4Y	342,000	386,000	9.70	10.00	20.60	19.30	19.95	3.22	3.40	3.31	2.18	2.30
VPC384S4M-4Y	366,000	412,000	9.60	10.20	18.90	18.90	18.90	3.30	3.30	3.30	2.20	2.35
VPC408S4M-4Y	388,000	438,000	9.50	9.50	18.70	18.60	18.65	3.25	3.30	3.28	2.15	2.35
VPC432S4M-4Y	412,000	462,000	9.20	9.30	17.40	17.90	17.65	3.30	3.25	3.28	2.17	2.35
VPC456S4M-4Y	436,000	488,000	9.10	9.20	16.40	17.90	17.15	3.25	3.20	3.23	2.07	2.25
VPC072S4M-4G	69,000	77,000	12.20	11.50	28.00	23.00	25.50	3.93	3.80	3.87	2.50	2.55
VPC096S4M-4G	92,000	103,000	13.10	12.40	27.90	24.10	26.00	4.13	3.83	3.98	2.82	2.73
VPC120S4M-4G	114,000	129,000	11.80	12.00	25.30	22.60	23.95	3.85	3.80	3.83	2.81	2.80
VPC144S4M-4G	138,000	154,000	10.70	12.10	22.60	24.40	23.50	3.52	3.68	3.60	2.58	2.70
VPC168S4M-4G	160,000	180,000	10.10	11.10	25.40	23.30	24.35	3.28	3.65	3.47	2.35	2.55
VPC192S4M-4G	184,000	206,000	10.20	11.80	22.50	24.10	23.30	3.20	3.55	3.38	2.22	2.65
VPC216S4M-4G	206,000	232,000	10.00	10.90	21.50	22.30	21.90	3.20	3.45	3.33	2.18	2.60
VPC240S4M-4G	228,000	258,000	9.90	10.60	20.70	22.00	21.35	3.20	3.25	3.23	2.10	2.45
VPC264S4M-4G	252,000	282,000	10.90	11.10	22.40	19.70	21.05	3.32	3.55	3.44	2.32	2.40
VPC288S4M-4G	274,000	308,000	10.60	11.10	21.90	20.50	21.20	3.30	3.50	3.40	2.22	2.40
VPC312S4M-4G	298,000	334,000	10.10	10.80	20.50	20.00	20.25	3.28	3.45	3.37	2.28	2.35
VPC336S4M-4G	320,000	360,000	10.00	10.50	20.90	19.80	20.35	3.25	3.40	3.33	2.26	2.30
VPC360S4M-4G	342,000	386,000	9.70	10.00	20.60	19.30	19.95	3.22	3.40	3.31	2.18	2.30
VPC384S4M-4G	366,000	412,000	9.60	10.20	18.90	18.90	18.90	3.30	3.30	3.30	2.20	2.35
VPC408S4M-4G	388,000	438,000	9.50	9.50	18.70	18.60	18.65	3.25	3.30	3.28	2.15	2.35
VPC432S4M-4G	412,000	462,000	9.20	9.30	17.40	17.90	17.65	3.30	3.25	3.28	2.17	2.35
VPC456S4M-4G	436,000	488,000	9.10	9.20	16.40	17.90	17.15	3.25	3.20	3.23	2.07	2.25



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