

VPD L6M

Cold Climate Heat Pump Outdoor Units | 208/230/460V | **R-32** | 60Hz

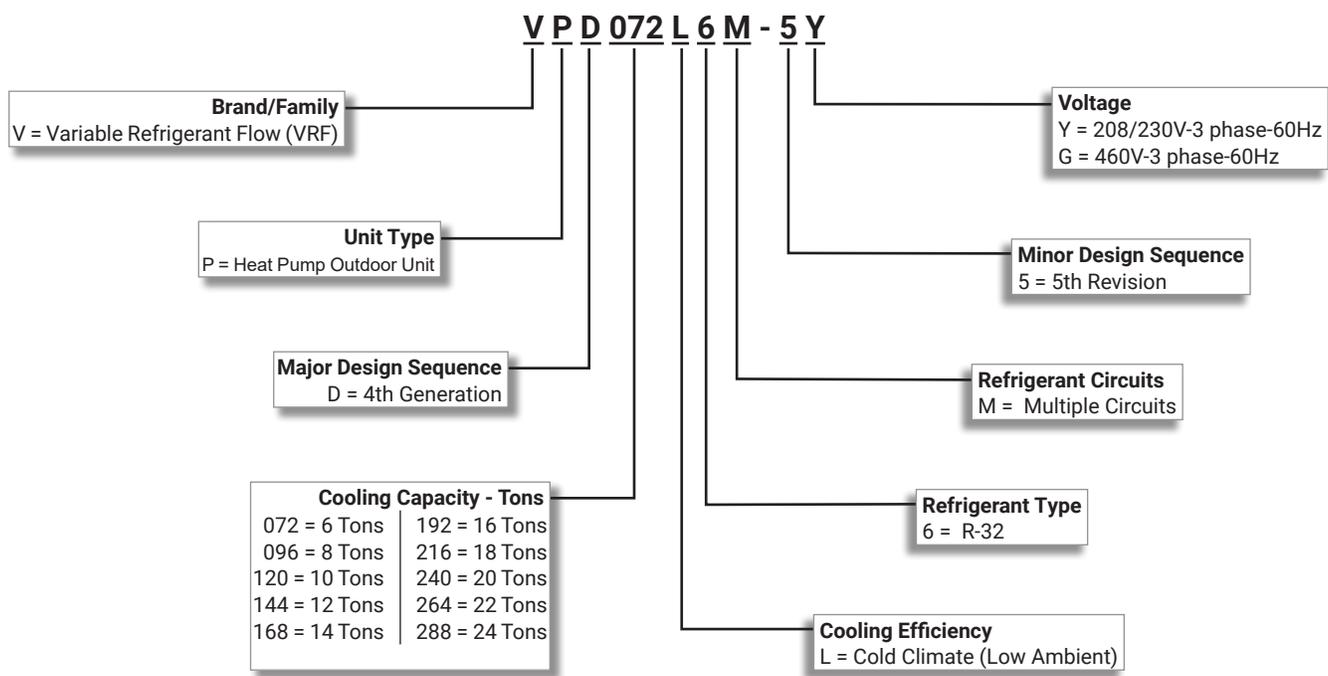
6 to 24 tons

COMMERCIAL PRODUCT SPECIFICATIONS (EHB)



ASHRAE
Standard
90.1

MODEL NUMBER IDENTIFICATION



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1. Combination Table : Outdoor units

VPD Low Ambient Heat Pump Outdoor Units (208~230V)

| Capa (Ton) | Model name for combination | Number of Individual outdoor units | Combined outdoor units | | |
|---------------|-------------------------------|------------------------------------------|-------------------------------------------------------------------------------------|---------------|----------------|
| | | |  | | |
| | | | 072 (6Ton) | 096 (8Ton) | 120 (10Ton) |
| 6 | VPD072L6M-5Y | 1 | 1 | | |
| 8 | VPD096L6M-5Y | 1 | | 1 | |
| 10 | VPD120L6M-5Y | 1 | | | 1 |
| 12 | VPD144L6M-5Y | 2 | 2 | | |
| 14 | VPD168L6M-5Y | 2 | 1 | 1 | |
| 16 | VPD192L6M-5Y | 2 | | 2 | |
| 18 | VPD216L6M-5Y | 3 | 3 | | |
| 20 | VPD240L6M-5Y | 3 | 2 | 1 | |
| 22 | VPD264L6M-5Y | 3 | 2 | | 1 |
| 24 | VPD288L6M-5Y | 3 | 1 | 1 | 1 |

NOTE

- Make sure to use an indoor unit that is compatible with VRF.
- 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. VRF 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 (VWMD***S6-5P) can be connected

1. Combination Table : Outdoor units

VPD Low Ambient Heat Pump Outdoor Units (460V)

| Capa (Ton) | Model name for combination | Number of Individual outdoor units | Combined outdoor units | | |
|---------------|-------------------------------|------------------------------------------|-------------------------------------------------------------------------------------|---------------|----------------|
| | | |  | | |
| | | | 072 (6Ton) | 096 (8Ton) | 120 (10Ton) |
| 6 | VPD072L6M-5G | 1 | 1 | | |
| 8 | VPD096L6M-5G | 1 | | 1 | |
| 10 | VPD120L6M-5G | 1 | | | 1 |
| 12 | VPD144L6M-5G | 2 | 2 | | |
| 14 | VPD168L6M-5G | 2 | 1 | 1 | |
| 16 | VPD192L6M-5G | 2 | | 2 | |
| 18 | VPD216L6M-5G | 3 | 3 | | |
| 20 | VPD240L6M-5G | 3 | 2 | 1 | |
| 22 | VPD264L6M-5G | 3 | 2 | | 1 |
| 24 | VPD288L6M-5G | 3 | 1 | 1 | 1 |

NOTE

- Make sure to use an indoor unit that is compatible with VRF.
- 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. VRF 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 (VWMD***S6-5P) can be connected

2. Specification

VPD Low Ambient Heat Pump Outdoor Units (208~230V)

| Model Name | | | | VPD072L6M-5Y | VPD096L6M-5Y | VPD120L6M-5Y | |
|-------------------------------------------------|--------------------------|---------------|------------------|----------------------|---------------------------|---------------------------|---------------------------|
| Outdoor unit module 1 | | | | - | - | - | |
| Outdoor unit module 2 | | | | - | - | - | |
| Outdoor unit module 3 | | | | - | - | - | |
| Power Supply | | | Φ # 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 | |
| | Capacity | Cooling | 1) Nominal Rated | Btu/h | 72,000 | 96,000 | 120,000 |
| | | | | Btu/h | 69,000 | 92,000 | 114,000 |
| | | Heating | 1) Nominal Rated | Btu/h | 81,000 | 108,000 | 135,000 |
| | | | 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 | 50 | 62 | 76 | |
| | | MOP | A | 60 | 70 | 90 | |
| Efficiency | Cooling | EER | Ducted | Btu/h-W | 11.95 | 12.30 | 12.25 |
| | | | NonDucted | Btu/h-W | 12.35 | 12.70 | 11.40 |
| | | IEER | Ducted | Btu/h-W | 24.57 | 25.10 | 24.98 |
| | | | NonDucted | Btu/h-W | 26.76 | 26.80 | 26.60 |
| | Heating | High COP(47F) | Ducted | W/W | 4.18 | 3.94 | 3.95 |
| | | | NonDucted | W/W | 4.40 | 4.06 | 3.88 |
| | | | Mixed | W/W | 4.29 | 4.00 | 3.92 |
| | | Low COP(17F) | Ducted | W/W | 2.60 | 2.47 | 2.38 |
| | | | NonDucted | W/W | 2.64 | 2.49 | 2.36 |
| | | | | | | | |
| 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 | Model Name | | | - | DS2BD7046EVA | DS4BC5066EVA | DS4BC5066EVA |
| | Quantity | | | EA | 2 | 2 | 2 |
| | Type | | | - | SCROLL_INVERTER | SCROLL_INVERTER | SCROLL_INVERTER |
| | Output | | | kW | 4.95 | 7.17 | 7.17 |
| | Oil | Type | - | POE | POE | POE | POE |
| Initial Charge | | fl oz | 30.4 | 37.2 | 37.2 | 37.2 | |
| Fan | Type | | | - | Propeller | Propeller | Propeller |
| | Discharge direction | | | - | Top discharge | Top discharge | Top discharge |
| | Quantity | | | EA | 2 | 2 | 2 |
| | Air Flow Rate | | | CFM | 9,924 | 9,571 | 10,171 |
| | External Static Pressure | | | Pa | 110 | 110 | 110 |
| Fan Motor | Type | | | - | BLDC | BLDC | BLDC |
| | Output | | W | 620 | 620 | 620 | |
| | | | kW | 0.62 | 0.62 | 0.62 | |
| 3) Piping Connections | Liquid Pipe | Type | - | Welding | Welding | Welding | |
| | | Diameter | in | 3/8 | 3/8 | 1/2 | |
| | Gas Pipe | Type | - | Welding | Welding | Welding | |
| | | Diameter | in | 3/4 | 7/8 | 7/8 | |
| | Heat Insulation | | | - | Both liquid and gas pipes | Both liquid and gas pipes | Both liquid and gas pipes |
| Total piping length (System) Max. | | | ft | 3,281 | 3,281 | 3,281 | |

2. Specification

VPD Low Ambient Heat Pump Outdoor Units (208~230V)

| Model Name | | | | VPD072L6M-5Y | VPD096L6M-5Y | VPD120L6M-5Y | |
|--------------------------|--------------------------------------------|------------|-------------|-----------------------------|-----------------------------|-----------------------------|----------------------|
| Outdoor unit module 1 | | | | - | - | - | |
| Outdoor unit module 2 | | | | - | - | - | |
| Outdoor unit module 3 | | | | - | - | - | |
| 3) Piping Connections | Piping length (1st Branch-IDU) | | Max. | ft | 295 | 295 | 295 |
| | Piping length (ODU-IDU) | | Max. | ft | 656 | 656 | 656 |
| | Piping length (ODU-IDU) | Equivalent | Max. | ft | 722 | 722 | 722 |
| | Level difference (IDU-IDU) | | Max. | ft | 164 | 164 | 164 |
| | Level difference (ODU in highest position) | | Max. | ft | 361 | 361 | 361 |
| | Level difference (IDU in highest position) | | Max. | ft | 361 | 361 | 361 |
| Wiring Connection | Transmission Cable | Min. | AWG | 18 | 18 | 18 | |
| | | Remark | - | F1, F2 | F1, F2 | F1, F2 | |
| Refrigerant | 4) Type | | | - | R32 | R32 | |
| | Factory Charge | | | lbs | 14.1 | 18.5 | 18.5 |
| Sound Level | 5) Sound Pressure Level | | Cooling | dB(A) | 55 | 57 | 59 |
| | | | Heating | dB(A) | 56 | 58 | 59 |
| | 6) Sound Power Level | | Cooling | dB(A) | 74 | 77 | 79 |
| External Dimension | Net Weight | | | lbs | 551 | 642 | 642 |
| | Shipping Weight | | | lbs | 589 | 679 | 679 |
| | Net Dimensions | | W x H x D | mm | 1,295 x 1,695 x 765 | 1,295 x 1,695 x 765 | 1,295 x 1,695 x 765 |
| | | | | in | 51 x 66-3/4 x 30-1/8 | 51 x 66-3/4 x 30-1/8 | 51 x 66-3/4 x 30-1/8 |
| | Shipping Dimensions | | W x H x D | mm | 1,363 x 1,887 x 829 | 1,363 x 1,887 x 829 | 1,363 x 1,887 x 829 |
| in | | | | 53-11/16 x 74-5/16 x 32-5/8 | 53-11/16 x 74-5/16 x 32-5/8 | 53-11/16 x 74-5/16 x 32-5/8 | |
| 7) Operating Temp. Range | Cooling | | Min. ~ Max. | °F | 5 ~ 126 | 5 ~ 126 | 5 ~ 126 |
| | Heating | | Min. ~ Max. | °F | -22 ~ 75 | -22 ~ 75 | -22 ~ 75 |

NOTE

- Specification may be subject to change without prior notice.
- Specification comply with EN14511.
 - 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. VRF 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 R32 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.
 - 8) External static pressure of the model installed as a combined module follows the external static pressure of each single unit.

2. Specification

VPD Low Ambient Heat Pump Outdoor Units (208~230V)

| Model Name | | VPD144L6M-5Y | | VPD168L6M-5Y | | VPD192L6M-5Y | |
|-------------------------------------------------|--------------------------|--------------|----------------|---------------------------|-----------------------------------------|---------------------------|---------|
| Outdoor unit module 1 | | VPD072L6M-5Y | | VPD072L6M-5Y | | VPD096L6M-5Y | |
| Outdoor unit module 2 | | VPD072L6M-5Y | | VPD096L6M-5Y | | VPD096L6M-5Y | |
| Outdoor unit module 3 | | - | | - | | - | |
| Power Supply | | | Φ # 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 | |
| | Capacity | Cooling | 1) Nominal | Btu/h | 144,000 | 168,000 | 192,000 |
| | | | Rated | Btu/h | 138,000 | 161,000 | 184,000 |
| | | Heating | 1) Nominal | Btu/h | 162,000 | 189,000 | 216,000 |
| Rated | | | 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 | 100 | 112 | 124 | |
| | | MOP | A | - | - | - | |
| Efficiency | Cooling | EER | Ducted | Btu/h-W | 11.55 | 11.65 | 11.65 |
| | | | NonDucted | Btu/h-W | 11.95 | 12.10 | 11.75 |
| | | IEER | Ducted | Btu/h-W | 20.32 | 22.91 | 22.50 |
| | | | NonDucted | Btu/h-W | 25.44 | 25.12 | 23.83 |
| | | | Mixed | Btu/h-W | 22.88 | 24.02 | 23.17 |
| | | Heating | High COP(47F) | Ducted | W/W | 3.93 | 3.88 |
| | NonDucted | | | W/W | 3.97 | 3.83 | 3.76 |
| | Mixed | | | W/W | 3.95 | 3.86 | 3.80 |
| | Low COP(17F) | | Ducted | W/W | 2.47 | 2.39 | 2.27 |
| | NonDucted | W/W | 2.37 | 2.29 | 2.20 | | |
| 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 | Model Name | | - | (DS2BD7046EVAx2)x2 | (DS2BD7046EVAx2)x1 + (DS4BC5066EVAx2)x1 | (DS4BC5066EVAx2)x2 | |
| | Quantity | | EA | 2x2 | 2x1+2x1 | 2x2 | |
| | Type | | - | (SCROLL_INVERTERx2)x2 | (SCROLL_INVERTERx2)x2 | (SCROLL_INVERTERx2)x2 | |
| | Output | | kW | (4.95x2)x2 | (4.95x2)x1+(7.17x2)x1 | (7.17x2)x2 | |
| | Oil | Type | - | POE | POE | POE | |
| Initial Charge | | fl oz | (30.4x2)x2 | (30.4x2)x1+(37.2x2)x1 | (37.2x2)x2 | | |
| Fan | Type | | - | Propeller | Propeller | Propeller | |
| | Discharge direction | | - | Top discharge | Top discharge | Top discharge | |
| | Quantity | | EA | 4 | 4 | 4 | |
| | Air Flow Rate | | CFM | 9,924x2 | 9,924x1+9571x1 | 9,571x2 | |
| | External Static Pressure | | Pa | - | - | - | |
| Fan Motor | Type | | - | BLDC | BLDC | BLDC | |
| | Output | W | (620x2)x2 | (620x2)x2 | (620x2)x2 | | |
| | | kW | 2.48 | 2.48 | 2.48 | | |
| 3) Piping Connections | Liquid Pipe | Type | - | Welding | Welding | Welding | |
| | | Diameter | in | 1/2 | 1/2 | 1/2 | |
| | Gas Pipe | Type | - | Welding | Welding | Welding | |
| | | Diameter | in | 1-1/8 | 1-1/8 | 1-1/8 | |
| | Heat Insulation | | - | Both liquid and gas pipes | Both liquid and gas pipes | Both liquid and gas pipes | |
| Total piping length (System) Max. | | ft | 3,281 | 3,281 | 3,281 | | |

2. Specification

VPD Low Ambient Heat Pump Outdoor Units (208~230V)

| Model Name | | | | VPD144L6M-5Y | VPD168L6M-5Y | VPD192L6M-5Y | |
|--------------------------|--------------------------------------------|------------|-------------|-----------------------------------|-----------------------------------|-----------------------------------|----------------------------|
| Outdoor unit module 1 | | | | VPD072L6M-5Y | VPD072L6M-5Y | VPD096L6M-5Y | |
| Outdoor unit module 2 | | | | VPD072L6M-5Y | VPD096L6M-5Y | VPD096L6M-5Y | |
| Outdoor unit module 3 | | | | - | - | - | |
| 3) Piping Connections | Piping length (1st Branch-IDU) | | Max. | ft | 295 | 295 | 295 |
| | Piping length (ODU-IDU) | | Max. | ft | 656 | 656 | 656 |
| | Piping length (ODU-IDU) | Equivalent | Max. | ft | 722 | 722 | 722 |
| | Level difference (IDU-IDU) | | Max. | ft | 164 | 164 | 164 |
| | Level difference (ODU in highest position) | | Max. | ft | 361 | 361 | 361 |
| | Level difference (IDU in highest position) | | Max. | ft | 361 | 361 | 361 |
| Wiring Connection | Transmission Cable | Min. | AWG | 18 | 18 | 18 | |
| | | Remark | - | F1, F2 | F1, F2 | F1, F2 | |
| Refrigerant | 4) Type | | | - | R32 | R32 | |
| | Factory Charge | | | lbs | 28.2 | 32.6 | 37.0 |
| Sound Level | 5) Sound Pressure Level | | Cooling | dB(A) | 58 | 59 | 60 |
| | | | Heating | dB(A) | 59 | 60 | 61 |
| | 6) Sound Power Level | | Cooling | dB(A) | 77 | 79 | 80 |
| External Dimension | Net Weight | | | lbs | 551x2 | 551x1+642x1 | 642x2 |
| | Shipping Weight | | | lbs | 589x2 | 589x1+679x1 | 679x2 |
| | Net Dimensions | | W x H x D | mm | (1,295 x 1,695 x 765) x 2 | (1,295 x 1,695 x 765) x 2 | (1295 x 1695 x 765) x 2 |
| | | | | in | (51 x 66-3/4 x 30-1/8) x 2 | (51 x 66-3/4 x 30-1/8) x 2 | (51 x 66-3/4 x 30-1/8) x 2 |
| | Shipping Dimensions | | W x H x D | mm | (1,363 x 1,887 x 829) x 2 | (1,363 x 1,887 x 829) x 2 | (1,363 x 1,887 x 829) x 2 |
| in | | | | (53-11/16 x 74-5/16 x 32-5/8) x 2 | (53-11/16 x 74-5/16 x 32-5/8) x 2 | (53-11/16 x 74-5/16 x 32-5/8) x 2 | |
| 7) Operating Temp. Range | Cooling | | Min. ~ Max. | °F | 5 ~ 126 | 5 ~ 126 | 5 ~ 126 |
| | Heating | | Min. ~ Max. | °F | -22 ~ 75 | -22 ~ 75 | -22 ~ 75 |

NOTE

- Specification may be subject to change without prior notice.
- Specification comply with EN14511.
 - 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. VRF 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 R32 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.
 - External static pressure of the model installed as a combined module follows the external static pressure of each single unit.

2. Specification

VPD Low Ambient Heat Pump Outdoor Units (208~230V)

| Model Name | | | | VPD216L6M-5Y | VPD240L6M-5Y | VPD264L6M-5Y | |
|-------------------------------------------------|--------------------------|---------------|----------------|-----------------------|---------------------------|-----------------------------------------|---------|
| Outdoor unit module 1 | | | | VPD072L6M-5Y | VPD072L6M-5Y | VPD072L6M-5Y | |
| Outdoor unit module 2 | | | | VPD072L6M-5Y | VPD072L6M-5Y | VPD072L6M-5Y | |
| Outdoor unit module 3 | | | | VPD072L6M-5Y | VPD096L6M-5Y | VPD120L6M-5Y | |
| Power Supply | | | Φ # 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 | |
| | Capacity | Cooling | 1) Nominal | Btu/h | 216,000 | 240,000 | 264,000 |
| | | | Rated | Btu/h | 207,000 | 230,000 | 252,000 |
| | Capacity | Heating | 1) Nominal | Btu/h | 243,000 | 270,000 | 297,000 |
| Rated | | | Btu/h | 231,000 | 257,000 | 283,000 | |
| 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 | |
| | | | Max. | Btu/h | 280,800 | 312,000 | |
| Power | Current | MCA | A | 150 | 162 | 176 | |
| | | MOP | A | - | - | - | |
| Efficiency | Cooling | EER | Ducted | Btu/h-W | 11.35 | 10.35 | |
| | | | NonDucted | Btu/h-W | 11.60 | 11.30 | |
| | | IEER | Ducted | Btu/h-W | 23.22 | 22.85 | |
| | | | NonDucted | Btu/h-W | 24.49 | 24.02 | |
| | Heating | High COP(47F) | Ducted | W/W | 3.85 | 3.82 | |
| | | | NonDucted | W/W | 3.75 | 3.67 | |
| | | | Mixed | W/W | 3.80 | 3.75 | |
| | | Low COP(17F) | Ducted | W/W | 2.36 | 2.24 | |
| | | | NonDucted | W/W | 2.25 | 2.13 | |
| | | | Mixed | W/W | 2.25 | 2.13 | |
| 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 | Model Name | | | - | (DS2BD7046EVAX2)x3 | (DS2BD7046EVAX2)x2 + (DS4BC5066EVAX2)x1 | |
| | Quantity | | | EA | 2x3 | 2x2+2x1 | |
| | Type | | | - | (SCROLL_INVERTERx2)x3 | (SCROLL_INVERTERx2)x3 | |
| | Output | | | kW | (4.95x2)x3 | (4.95x2)x2+(7.17x2)x1 | |
| | Oil | Type | - | - | POE | POE | |
| Initial Charge | | fl oz | (30.4x2)x3 | (30.4x2)x2+(37.2x2)x1 | (30.4x2)x2+(37.2x2)x1 | | |
| Fan | Type | | | - | Propeller | Propeller | |
| | Discharge direction | | | - | Top discharge | Top discharge | |
| | Quantity | | | EA | 6 | 6 | |
| | Air Flow Rate | | | CFM | 9,924x3 | 9,924x2+9,571x1 | |
| | External Static Pressure | | | Pa | - | - | |
| Fan Motor | Type | | | - | BLDC | BLDC | |
| | Output | W | | (620x2)x3 | (620x2)x3 | (620x2)x3 | |
| | | kW | | 3.72 | 3.72 | 3.72 | |
| 3) Piping Connections | Liquid Pipe | Type | - | Welding | Welding | Welding | |
| | | Diameter | in | 1/2 | 1/2 | 5/8 | |
| | Gas Pipe | Type | - | Welding | Welding | Welding | |
| | | Diameter | in | 1-1/8 | 1-1/8 | 1-1/8 | |
| | Heat Insulation | | | - | Both liquid and gas pipes | Both liquid and gas pipes | |
| Total piping length (System) Max. | | | ft | 3,281 | 3,281 | | |

2. Specification

VPD Low Ambient Heat Pump Outdoor Units (208~230V)

| Model Name | | | | VPD216L6M-5Y | VPD240L6M-5Y | VPD264L6M-5Y | |
|--------------------------|--------------------------------------------|------------|-------------|-----------------------------------|-----------------------------------|-----------------------------------|----------------------------|
| Outdoor unit module 1 | | | | VPD072L6M-5Y | VPD072L6M-5Y | VPD072L6M-5Y | |
| Outdoor unit module 2 | | | | VPD072L6M-5Y | VPD072L6M-5Y | VPD072L6M-5Y | |
| Outdoor unit module 3 | | | | VPD072L6M-5Y | VPD096L6M-5Y | VPD120L6M-5Y | |
| 3) Piping Connections | Piping length (1st Branch-IDU) | | Max. | ft | 295 | 295 | 295 |
| | Piping length (ODU-IDU) | | Max. | ft | 656 | 656 | 656 |
| | Piping length (ODU-IDU) | Equivalent | Max. | ft | 722 | 722 | 722 |
| | Level difference (IDU-IDU) | | Max. | ft | 164 | 164 | 164 |
| | Level difference (ODU in highest position) | | Max. | ft | 361 | 361 | 361 |
| | Level difference (IDU in highest position) | | Max. | ft | 361 | 361 | 361 |
| Wiring Connection | Transmission Cable | Min. | AWG | 18 | 18 | 18 | |
| | | Remark | - | F1, F2 | F1, F2 | F1, F2 | |
| Refrigerant | 4) Type | | | - | R32 | R32 | R32 |
| | Factory Charge | | | lbs | 42.3 | 46.7 | 46.7 |
| Sound Level | 5) Sound Pressure Level | | Cooling | dB(A) | 60 | 61 | 62 |
| | | | Heating | dB(A) | 61 | 62 | 62 |
| | 6) Sound Power Level | | Cooling | dB(A) | 79 | 80 | 81 |
| External Dimension | Net Weight | | | lbs | 551x3 | 551x2+642x1 | 551x2+642x1 |
| | Shipping Weight | | | lbs | 589x3 | 589x2+679x1 | 589x2+679x1 |
| | Net Dimensions | | W x H x D | mm | (1,295 x 1,695 x 765) x 3 | (1,295 x 1,695 x 765) x 3 | (1,295 x 1,695 x 765) x 3 |
| | | | | in | (51 x 66-3/4 x 30-1/8) x 3 | (51 x 66-3/4 x 30-1/8) x 3 | (51 x 66-3/4 x 30-1/8) x 3 |
| | Shipping Dimensions | | W x H x D | mm | (1,363 x 1,887 x 829) x 3 | (1,363 x 1,887 x 829) x 3 | (1,363 x 1,887 x 829) x 3 |
| in | | | | (53-11/16 x 74-5/16 x 32-5/8) x 3 | (53-11/16 x 74-5/16 x 32-5/8) x 3 | (53-11/16 x 74-5/16 x 32-5/8) x 3 | |
| 7) Operating Temp. Range | Cooling | | Min. ~ Max. | °F | 5 ~ 126 | 5 ~ 126 | 5 ~ 126 |
| | Heating | | Min. ~ Max. | °F | -22 ~ 75 | -22 ~ 75 | -22 ~ 75 |

NOTE

- Specification may be subject to change without prior notice.
- Specification comply with EN14511.
 - 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. VRF 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 R32 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.
 - External static pressure of the model installed as a combined module follows the external static pressure of each single unit.

2. Specification

VPD Low Ambient Heat Pump Outdoor Units (208~230V)

| | | | | | | |
|-------------------------------------------------|------------------------------|----------------|------------|----------------|-------------------------------------------------------------------|-----------------------|
| Model Name | | | | | VPD288L6M-5Y | |
| Outdoor unit module 1 | | | | | VPD072L6M-5Y | |
| Outdoor unit module 2 | | | | | VPD096L6M-5Y | |
| Outdoor unit module 3 | | | | | VPD120L6M-5Y | |
| Power Supply | | | | Φ # V Hz | 3 3 208-230 60 | |
| Mode | | | | - | Heat Pump | |
| Performance | TON | | TON | | 24 | |
| | Capacity | Cooling | 1) Nominal | Btu/h | 288,000 | |
| | | | Rated | Btu/h | 275,000 | |
| | | Heating | 1) Nominal | Btu/h | 324,000 | |
| | | | Rated | Btu/h | 309,000 | |
| Maximum number of connectable indoor units | | | | EA | 49 | |
| 2) Total capacity of the connected Indoor Units | | Min. | | Btu/h | 144,000 | |
| | | Max. | | Btu/h | 374,400 | |
| Power | Current | MCA | | A | 188 | |
| | | MOP | | A | - | |
| Efficiency | Cooling | EER | Ducted | Btu/h-W | 11.00 | |
| | | | NonDucted | Btu/h-W | 10.90 | |
| | | IEER | Ducted | Btu/h-W | 21.58 | |
| | | | NonDucted | Btu/h-W | 24.03 | |
| | | | Mixed | Btu/h-W | 22.81 | |
| | Heating | High COP(47F) | Ducted | W/W | 3.62 | |
| | | | NonDucted | W/W | 3.28 | |
| | | | Mixed | W/W | 3.45 | |
| | | Low COP(17F) | Ducted | W/W | 2.19 | |
| | | | NonDucted | W/W | 2.10 | |
| Casing | Material | Body | | - | GI Steel Plate | |
| | | Base | | - | GI Steel Plate | |
| Heat Exchanger | Type | | - | | Fin & Tube | |
| | Material | Fin | | - | Al | |
| | | Tube | | - | Cu | |
| | Fin Treatment | | - | | Anti-corrosion | |
| Compressor | Model Name | | - | | (DS2BD7046EVAx2)x1+(DS4BC5066EVAx2)x2 | |
| | Quantity | | EA | | 2x1+2x1+2x1 | |
| | Type | | - | | (SCROLL_INVERTERx2)x1+(SCROLL_INVERTERx2)x1+(SCROLL_INVERTERx2)x1 | |
| | Output | | kW | | (4.95x2)x1+(7.17x2)x2 | |
| | Oil | Type | | - | | POE |
| | | Initial Charge | | fl oz | | (30.4x2)x1+(37.2x2)x2 |
| Fan | Type | | - | | Propeller | |
| | Discharge direction | | - | | Top discharge | |
| | Quantity | | EA | | 6 | |
| | Air Flow Rate | | CFM | | 9,924x1+9,571x1+10,171x1 | |
| | External Static Pressure | | Pa | | - | |
| Fan Motor | Type | | - | | BLDC | |
| | Output | | W | | (620x2)x3 | |
| | | | kW | | 3.72 | |
| 3) Piping Connections | Liquid Pipe | Type | | - | | Welding |
| | | Diameter | | in | | 5/8 |
| | Gas Pipe | Type | | - | | Welding |
| | | Diameter | | in | | 1-3/8 |
| | Heat Insulation | | - | | Both liquid and gas pipes | |
| | Total piping length (System) | | Max. | ft | | 3,281 |

2. Specification

VPD Low Ambient Heat Pump Outdoor Units (208~230V)

| | | | | | |
|--------------------------|--------------------------------------------|------------|-------------|--------------|-----------------------------------|
| Model Name | | | | VPD288L6M-5Y | |
| | Outdoor unit module 1 | | | VPD072L6M-5Y | |
| | Outdoor unit module 2 | | | VPD096L6M-5Y | |
| | Outdoor unit module 3 | | | VPD120L6M-5Y | |
| 3) Piping Connections | Piping length (1st Branch-IDU) | | Max. | ft | 295 |
| | Piping length (ODU-IDU) | | Max. | ft | 656 |
| | Piping length (ODU-IDU) | Equivalent | Max. | ft | 722 |
| | Level difference (IDU-IDU) | | Max. | ft | 164 |
| | Level difference (ODU in highest position) | | Max. | ft | 361 |
| | Level difference (IDU in highest position) | | Max. | ft | 361 |
| Wiring Connection | Transmission Cable | Min. | AWG | 18 | |
| | | Remark | - | F1, F2 | |
| Refrigerant | 4) Type | | | - | R32 |
| | Factory Charge | | | lbs | 51.1 |
| Sound Level | 5) Sound Pressure Level | | Cooling | dB(A) | 62 |
| | | | Heating | dB(A) | 63 |
| | 6) Sound Power Level | | Cooling | dB(A) | 82 |
| External Dimension | Net Weight | | | lbs | 551x1+642x2 |
| | Shipping Weight | | | lbs | 589x1+679x2 |
| | Net Dimensions | | W x H x D | mm | (1295 x 1695 x 765) x 3 |
| | | | | in | (51 x 66-3/4 x 30-1/8) x 3 |
| | Shipping Dimensions | | W x H x D | mm | (1363 x 1887 x 829) x 3 |
| | | | | in | (53-11/16 x 74-5/16 x 32-5/8) x 3 |
| 7) Operating Temp. Range | Cooling | | Min. ~ Max. | °F | 5 ~ 126 |
| | Heating | | Min. ~ Max. | °F | -22 ~ 75 |

NOTE

- Specification may be subject to change without prior notice.
- Specification comply with EN14511.
 - 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. VRF 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 R32 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.
 - 8) External static pressure of the model installed as a combined module follows the external static pressure of each single unit.

2. Specification

VPD Low Ambient Heat Pump Outdoor Units (460V)

| Model Name | | | | VPD072L6M-5G | VPD096L6M-5G | VPD120L6M-5G | |
|-------------------------------------------------|-----------------------------------|----------------|------------------|---------------------------|---------------------------|---------------------------|---------|
| Outdoor unit module 1 | | | | - | - | - | |
| Outdoor unit module 2 | | | | - | - | - | |
| Outdoor unit module 3 | | | | - | - | - | |
| Power Supply | | | Φ # 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 | |
| | Capacity | Cooling | 1) Nominal Rated | Btu/h | 72,000 | 96,000 | 120,000 |
| | | | | Btu/h | 69,000 | 92,000 | 114,000 |
| | | Heating | 1) Nominal Rated | Btu/h | 81,000 | 108,000 | 135,000 |
| | | | 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 | 25 | 31 | 38 | |
| | | MOP | A | 30 | 35 | 45 | |
| Efficiency | Cooling | EER | Ducted | Btu/h-W | 11.95 | 12.30 | 12.25 |
| | | | NonDucted | Btu/h-W | 12.35 | 12.70 | 11.40 |
| | | IEER | Ducted | Btu/h-W | 24.57 | 25.10 | 24.98 |
| | | | NonDucted | Btu/h-W | 26.76 | 26.80 | 26.60 |
| | | | Mixed | Btu/h-W | 25.67 | 25.95 | 25.79 |
| | | Heating | High COP(47F) | Ducted | W/W | 4.18 | 3.94 |
| | NonDucted | | | W/W | 4.40 | 4.06 | 3.88 |
| | Mixed | | | W/W | 4.29 | 4.00 | 3.92 |
| | Low COP(17F) | | Ducted | W/W | 2.60 | 2.47 | 2.38 |
| | | NonDucted | W/W | 2.64 | 2.49 | 2.36 | |
| 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 | Model Name | | - | DS2BD7046FVA | DS4BC7066FVA | DS4BC7066FVA | |
| | Quantity | | EA | 2 | 2 | 2 | |
| | Type | | - | SCROLL_INVERTER | SCROLL_INVERTER | SCROLL_INVERTER | |
| | Output | | kW | 4.95 | 7.17 | 7.17 | |
| | Oil | Type | - | POE | POE | POE | |
| | | Initial Charge | fl oz | 30.4 | 37.2 | 37.2 | |
| Fan | Type | | - | Propeller | Propeller | Propeller | |
| | Discharge direction | | - | Top discharge | Top discharge | Top discharge | |
| | Quantity | | EA | 2 | 2 | 2 | |
| | Air Flow Rate | | CFM | 9,924 | 9,571 | 10,171 | |
| | External Static Pressure | | Pa | 110 | 110 | 110 | |
| Fan Motor | Type | | - | BLDC | BLDC | BLDC | |
| | Output | | W | 620 | 620 | 620 | |
| | | | kW | 0.62 | 0.62 | 0.62 | |
| 3) Piping Connections | Liquid Pipe | Type | - | Welding | Welding | Welding | |
| | | Diameter | in | 3/8 | 3/8 | 1/2 | |
| | Gas Pipe | Type | - | Welding | Welding | Welding | |
| | | Diameter | in | 3/4 | 7/8 | 7/8 | |
| | Heat Insulation | | - | Both liquid and gas pipes | Both liquid and gas pipes | Both liquid and gas pipes | |
| | Total piping length (System) Max. | | ft | 3,281 | 3,281 | 3,281 | |

2. Specification

VPD Low Ambient Heat Pump Outdoor Units (460V)

| Model Name | | | | VPD072L6M-5G | VPD096L6M-5G | VPD120L6M-5G | |
|--------------------------|--------------------------------------------|------------|-------------|-----------------------------|-----------------------------|-----------------------------|----------------------|
| Outdoor unit module 1 | | | | - | - | - | |
| Outdoor unit module 2 | | | | - | - | - | |
| Outdoor unit module 3 | | | | - | - | - | |
| 3) Piping Connections | Piping length (1st Branch-IDU) | | Max. | ft | 295 | 295 | 295 |
| | Piping length (ODU-IDU) | | Max. | ft | 656 | 656 | 656 |
| | Piping length (ODU-IDU) | Equivalent | Max. | ft | 722 | 722 | 722 |
| | Level difference (IDU-IDU) | | Max. | ft | 164 | 164 | 164 |
| | Level difference (ODU in highest position) | | Max. | ft | 361 | 361 | 361 |
| | Level difference (IDU in highest position) | | Max. | ft | 361 | 361 | 361 |
| Wiring Connection | Transmission Cable | Min. | AWG | 18 | 18 | 18 | |
| | | Remark | - | F1, F2 | F1, F2 | F1, F2 | |
| Refrigerant | 4) Type | | | - | R32 | R32 | |
| | Factory Charge | | | lbs | 14.1 | 18.5 | 18.5 |
| Sound Level | 5) Sound Pressure Level | | Cooling | dB(A) | 55 | 57 | 59 |
| | | | Heating | dB(A) | 56 | 58 | 59 |
| | 6) Sound Power Level | | Cooling | dB(A) | 74 | 77 | 79 |
| External Dimension | Net Weight | | | lbs | 569 | 659 | 659 |
| | Shipping Weight | | | lbs | 606 | 697 | 697 |
| | Net Dimensions | | W x H x D | mm | 1,295 x 1,695 x 765 | 1,295 x 1,695 x 765 | 1,295 x 1,695 x 765 |
| | | | | in | 51 x 66-3/4 x 30-1/8 | 51 x 66-3/4 x 30-1/8 | 51 x 66-3/4 x 30-1/8 |
| | Shipping Dimensions | | W x H x D | mm | 1,363 x 1,887 x 829 | 1,363 x 1,887 x 829 | 1,363 x 1,887 x 829 |
| in | | | | 53-11/16 x 74-5/16 x 32-5/8 | 53-11/16 x 74-5/16 x 32-5/8 | 53-11/16 x 74-5/16 x 32-5/8 | |
| 7) Operating Temp. Range | Cooling | | Min. ~ Max. | °F | 5 ~ 126 | 5 ~ 126 | 5 ~ 126 |
| | Heating | | Min. ~ Max. | °F | -22 ~ 75 | -22 ~ 75 | -22 ~ 75 |

NOTE

- Specification may be subject to change without prior notice.
- Specification comply with EN14511.
 - 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. VRF 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 R32 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.
 - 8) External static pressure of the model installed as a combined module follows the external static pressure of each single unit.

2. Specification

VPD Low Ambient Heat Pump Outdoor Units (460V)

| Model Name | | | | VPD144L6M-5G | VPD168L6M-5G | VPD192L6M-5G | |
|-------------------------------------------------|--------------------------|---------------|----------------|---------------------------|-------------------------------------------|---------------------------|---------|
| Outdoor unit module 1 | | | | VPD072L6M-5G | VPD072L6M-5G | VPD096L6M-5G | |
| Outdoor unit module 2 | | | | VPD072L6M-5G | VPD096L6M-5G | VPD096L6M-5G | |
| Outdoor unit module 3 | | | | - | - | - | |
| Power Supply | | | Φ # 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 | |
| | Capacity | Cooling | 1) Nominal | Btu/h | 144,000 | 168,000 | 192,000 |
| | | | Rated | Btu/h | 138,000 | 161,000 | 184,000 |
| | | Heating | 1) Nominal | Btu/h | 162,000 | 189,000 | 216,000 |
| Rated | | | 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 | 50 | 56 | 62 | |
| | | MOP | A | - | - | - | |
| Efficiency | Cooling | EER | Ducted | Btu/h-W | 11.55 | 11.65 | 11.65 |
| | | | NonDucted | Btu/h-W | 11.95 | 12.10 | 11.75 |
| | | IEER | Ducted | Btu/h-W | 20.32 | 22.91 | 22.50 |
| | | | NonDucted | Btu/h-W | 25.44 | 25.12 | 23.83 |
| | Heating | High COP(47F) | Ducted | W/W | 3.93 | 3.88 | 3.83 |
| | | | NonDucted | W/W | 3.97 | 3.83 | 3.76 |
| | | | Mixed | W/W | 3.95 | 3.86 | 3.80 |
| | | Low COP(17F) | Ducted | W/W | 2.47 | 2.39 | 2.27 |
| | NonDucted | W/W | 2.37 | 2.29 | 2.20 | | |
| 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 | Model Name | | - | (DS2BD7046FVAX2)x2 | (DS2BD7046FVAX2)x1 +(DS4BC7066FVAX2)x1 | (DS4BC7066FVAX2)x2 | |
| | Quantity | | EA | 2x2 | 2x1+2x1 | 2x2 | |
| | Type | | - | (SCROLL_INVERTERx2)x2 | (SCROLL_INVERTERx2)x2 | (SCROLL_INVERTERx2)x2 | |
| | Output | | kW | (4.95x2)x2 | (4.95x2)x1+(7.17x2)x1 | (7.17x2)x2 | |
| | Oil | Type | - | POE | POE | POE | |
| Initial Charge | | fl oz | (30.4x2)x2 | (30.4x2)x1+(37.2x2)x1 | (37.2x2)x2 | | |
| Fan | Type | | - | Propeller | Propeller | Propeller | |
| | Discharge direction | | - | Top discharge | Top discharge | Top discharge | |
| | Quantity | | EA | 4 | 4 | 4 | |
| | Air Flow Rate | | CFM | 9,924x2 | 9,924x1+9,571x1 | 9,571x2 | |
| | External Static Pressure | | Pa | - | - | - | |
| Fan Motor | Type | | - | BLDC | BLDC | BLDC | |
| | Output | W | (620x2)x2 | (620x2)x2 | (620x2)x2 | | |
| | | kW | 2.48 | 2.48 | 2.48 | | |
| 3) Piping Connections | Liquid Pipe | Type | - | Welding | Welding | Welding | |
| | | Diameter | in | 1/2 | 1/2 | 1/2 | |
| | Gas Pipe | Type | - | Welding | Welding | Welding | |
| | | Diameter | in | 1-1/8 | 1-1/8 | 1-1/8 | |
| | Heat Insulation | | - | Both liquid and gas pipes | Both liquid and gas pipes | Both liquid and gas pipes | |
| Total piping length (System) Max. | | ft | 3,281 | 3,281 | 3,281 | | |

2. Specification

VPD Low Ambient Heat Pump Outdoor Units (460V)

| Model Name | | | | VPD144L6M-5G | VPD168L6M-5G | VPD192L6M-5G | |
|--------------------------|--------------------------------------------|------------|-------------|-----------------------------------|-----------------------------------|-----------------------------------|----------------------------|
| Outdoor unit module 1 | | | | VPD072L6M-5G | VPD072L6M-5G | VPD096L6M-5G | |
| Outdoor unit module 2 | | | | VPD072L6M-5G | VPD096L6M-5G | VPD096L6M-5G | |
| Outdoor unit module 3 | | | | - | - | - | |
| 3) Piping Connections | Piping length (1st Branch-IDU) | | Max. | ft | 295 | 295 | 295 |
| | Piping length (ODU-IDU) | | Max. | ft | 656 | 656 | 656 |
| | Piping length (ODU-IDU) | Equivalent | Max. | ft | 722 | 722 | 722 |
| | Level difference (IDU-IDU) | | Max. | ft | 164 | 164 | 164 |
| | Level difference (ODU in highest position) | | Max. | ft | 361 | 361 | 361 |
| | Level difference (IDU in highest position) | | Max. | ft | 361 | 361 | 361 |
| Wiring Connection | Transmission Cable | Min. | AWG | 18 | 18 | 18 | |
| | | Remark | - | F1, F2 | F1, F2 | F1, F2 | |
| Refrigerant | 4) Type | | | - | R32 | R32 | R32 |
| | Factory Charge | | | lbs | 28.2 | 32.6 | 37.0 |
| Sound Level | 5) Sound Pressure Level | | Cooling | dB(A) | 58 | 59 | 60 |
| | | | Heating | dB(A) | 59 | 60 | 61 |
| | 6) Sound Power Level | | Cooling | dB(A) | 77 | 79 | 80 |
| External Dimension | Net Weight | | | lbs | 569x2 | 569x1+659x1 | 659x2 |
| | Shipping Weight | | | lbs | 606x2 | 606x1+697x1 | 697x2 |
| | Net Dimensions | | W x H x D | mm | (1,295 x 1,695 x 765) x 2 | (1,295 x 1,695 x 765) x 2 | (1,295 x 1,695 x 765) x 2 |
| | | | | in | (51 x 66-3/4 x 30-1/8) x 2 | (51 x 66-3/4 x 30-1/8) x 2 | (51 x 66-3/4 x 30-1/8) x 2 |
| | Shipping Dimensions | | W x H x D | mm | (1,363 x 1,887 x 829) x 2 | (1,363 x 1,887 x 829) x 2 | (1,363 x 1,887 x 829) x 2 |
| in | | | | (53-11/16 x 74-5/16 x 32-5/8) x 2 | (53-11/16 x 74-5/16 x 32-5/8) x 2 | (53-11/16 x 74-5/16 x 32-5/8) x 2 | |
| 7) Operating Temp. Range | Cooling | | Min. ~ Max. | °F | 5 ~ 126 | 5 ~ 126 | 5 ~ 126 |
| | Heating | | Min. ~ Max. | °F | -22 ~ 75 | -22 ~ 75 | -22 ~ 75 |

NOTE

- Specification may be subject to change without prior notice.
- Specification comply with EN14511.
 - 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. VRF 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 R32 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.
 - External static pressure of the model installed as a combined module follows the external static pressure of each single unit.

2. Specification

VPD Low Ambient Heat Pump Outdoor Units (460V)

| Model Name | | | | VPD216L6M-5G | VPD240L6M-5G | VPD264L6M-5G | |
|-------------------------------------------------|-----------------------------------|-----------|----------------|---------------------------|-----------------------------------------|-----------------------------------------|---------|
| Outdoor unit module 1 | | | | VPD072L6M-5G | VPD072L6M-5G | VPD072L6M-5G | |
| Outdoor unit module 2 | | | | VPD072L6M-5G | VPD072L6M-5G | VPD072L6M-5G | |
| Outdoor unit module 3 | | | | VPD072L6M-5G | VPD096L6M-5G | VPD120L6M-5G | |
| Power Supply | | | Φ # 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 | |
| | Capacity | Cooling | 1) Nominal | Btu/h | 216,000 | 240,000 | 264,000 |
| | | | Rated | Btu/h | 207,000 | 230,000 | 252,000 |
| | | Heating | 1) Nominal | Btu/h | 243,000 | 270,000 | 297,000 |
| Rated | | | Btu/h | 231,000 | 257,000 | 283,000 | |
| 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 | |
| | | | Max. | Btu/h | 280,800 | 312,000 | 343,200 |
| Power | Current | MCA | A | 75 | 81 | 88 | |
| | | MOP | A | - | - | - | |
| Efficiency | Cooling | EER | Ducted | Btu/h-W | 11.35 | 10.35 | 11.00 |
| | | | NonDucted | Btu/h-W | 11.60 | 11.30 | 11.00 |
| | | IEER | Ducted | Btu/h-W | 23.22 | 22.85 | 22.25 |
| | | | NonDucted | Btu/h-W | 24.49 | 24.02 | 24.41 |
| | | | Mixed | Btu/h-W | 23.86 | 23.44 | 23.33 |
| | | Heating | High COP(47F) | Ducted | W/W | 3.85 | 3.82 |
| | NonDucted | | | W/W | 3.75 | 3.67 | 3.36 |
| | Mixed | | | W/W | 3.80 | 3.75 | 3.57 |
| | Low COP(17F) | | Ducted | W/W | 2.36 | 2.24 | 2.25 |
| | | NonDucted | W/W | 2.25 | 2.13 | 2.12 | |
| 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 | Model Name | | - | (DS2BD7046FVAX2)x3 | (DS2BD7046FVAX2)x2 + (DS4BC7066FVAX2)x1 | (DS2BD7046FVAX2)x2 + (DS4BC7066FVAX2)x1 | |
| | Quantity | | EA | 2x3 | 2x2+2x1 | 2x2+2x1 | |
| | Type | | - | (SCROLL_INVERTERx2)x3 | (SCROLL_INVERTERx2)x3 | (SCROLL_INVERTERx2)x3 | |
| | Output | | kW | (4.95x2)x3 | (4.95x2)x2+(7.17x2)x1 | (4.95x2)x2+(7.17x2)x1 | |
| | Oil | Type | - | POE | POE | POE | |
| Initial Charge | | fl oz | (30.4x2)x3 | (30.4x2)x2+(37.2x2)x1 | (30.4x2)x2+(37.2x2)x1 | | |
| Fan | Type | | - | Propeller | Propeller | Propeller | |
| | Discharge direction | | - | Top discharge | Top discharge | Top discharge | |
| | Quantity | | EA | 6 | 6 | 6 | |
| | Air Flow Rate | | CFM | 9,924x3 | 9,924x2+9,571x1 | 9,924x2+10,171x1 | |
| | External Static Pressure | | Pa | - | - | - | |
| Fan Motor | Type | | - | BLDC | BLDC | BLDC | |
| | Output | W | (620x2)x3 | (620x2)x3 | (620x2)x3 | | |
| | | kW | 3.72 | 3.72 | 3.72 | | |
| 3) Piping Connections | Liquid Pipe | Type | - | Welding | Welding | Welding | |
| | | Diameter | in | 1/2 | 1/2 | 5/8 | |
| | Gas Pipe | Type | - | Welding | Welding | Welding | |
| | | Diameter | in | 1-1/8 | 1-1/8 | 1-1/8 | |
| | Heat Insulation | | - | Both liquid and gas pipes | Both liquid and gas pipes | Both liquid and gas pipes | |
| | Total piping length (System) Max. | | ft | 3,281 | 3,281 | 3,281 | |

2. Specification

VPD Low Ambient Heat Pump Outdoor Units (460V)

| Model Name | | | | VPD216L6M-5G | VPD240L6M-5G | VPD264L6M-5G | |
|--------------------------|--------------------------------------------|------------|-------------|-----------------------------------|-----------------------------------|-----------------------------------|----------------------------|
| Outdoor unit module 1 | | | | VPD072L6M-5G | VPD072L6M-5G | VPD072L6M-5G | |
| Outdoor unit module 2 | | | | VPD072L6M-5G | VPD072L6M-5G | VPD072L6M-5G | |
| Outdoor unit module 3 | | | | VPD072L6M-5G | VPD096L6M-5G | VPD120L6M-5G | |
| 3) Piping Connections | Piping length (1st Branch-IDU) | | Max. | ft | 295 | 295 | 295 |
| | Piping length (ODU-IDU) | | Max. | ft | 656 | 656 | 656 |
| | Piping length (ODU-IDU) | Equivalent | Max. | ft | 722 | 722 | 722 |
| | Level difference (IDU-IDU) | | Max. | ft | 164 | 164 | 164 |
| | Level difference (ODU in highest position) | | Max. | ft | 361 | 361 | 361 |
| | Level difference (IDU in highest position) | | Max. | ft | 361 | 361 | 361 |
| Wiring Connection | Transmission Cable | Min. | AWG | 18 | 18 | 18 | |
| | | Remark | - | F1, F2 | F1, F2 | F1, F2 | |
| Refrigerant | 4) Type | | | - | R32 | R32 | R32 |
| | Factory Charge | | | lbs | 42.3 | 46.7 | 46.7 |
| Sound Level | 5) Sound Pressure Level | | Cooling | dB(A) | 60 | 61 | 62 |
| | | | Heating | dB(A) | 61 | 62 | 62 |
| | 6) Sound Power Level | | Cooling | dB(A) | 79 | 80 | 81 |
| External Dimension | Net Weight | | | lbs | 569x3 | 569x2+659x1 | 569x2+659x1 |
| | Shipping Weight | | | lbs | 606x3 | 606x2+697x1 | 606x2+697x1 |
| | Net Dimensions | | W x H x D | mm | (1,295 x 1,695 x 765) x 3 | (1,295 x 1,695 x 765) x 3 | (1,295 x 1,695 x 765) x 3 |
| | | | | in | (51 x 66-3/4 x 30-1/8) x 3 | (51 x 66-3/4 x 30-1/8) x 3 | (51 x 66-3/4 x 30-1/8) x 3 |
| | Shipping Dimensions | | W x H x D | mm | (1,363 x 1,887 x 829) x 3 | (1,363 x 1,887 x 829) x 3 | (1,363 x 1,887 x 829) x 3 |
| in | | | | (53-11/16 x 74-5/16 x 32-5/8) x 3 | (53-11/16 x 74-5/16 x 32-5/8) x 3 | (53-11/16 x 74-5/16 x 32-5/8) x 3 | |
| 7) Operating Temp. Range | Cooling | | Min. ~ Max. | °F | 5 ~ 126 | 5 ~ 126 | 5 ~ 126 |
| | Heating | | Min. ~ Max. | °F | -22 ~ 75 | -22 ~ 75 | -22 ~ 75 |

NOTE

- Specification may be subject to change without prior notice.
- Specification comply with EN14511.
 - 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. VRF 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 R32 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.
 - External static pressure of the model installed as a combined module follows the external static pressure of each single unit.

2. Specification

VPD Low Ambient Heat Pump Outdoor Units (460V)

| | | | | | |
|-------------------------------------------------|-----------------------------------|----------------|----------------|-------------------------------------------------------------------|---------|
| Model Name | | | | VPD288L6M-5G | |
| Outdoor unit module 1 | | | | VPD072L6M-5G | |
| Outdoor unit module 2 | | | | VPD096L6M-5G | |
| Outdoor unit module 3 | | | | VPD120L6M-5G | |
| Power Supply | | | Φ # V Hz | 3 3 460 60 | |
| Mode | | | - | Heat Pump | |
| Performance | TON | | TON | 24 | |
| | Capacity | Cooling | 1) Nominal | Btu/h | 288,000 |
| | | | Rated | Btu/h | 275,000 |
| | | Heating | 1) Nominal | Btu/h | 324,000 |
| | | | Rated | Btu/h | 309,000 |
| Maximum number of connectable indoor units | | | EA | 49 | |
| 2) Total capacity of the connected Indoor Units | | Min. | Btu/h | 144,000 | |
| | | Max. | Btu/h | 374,400 | |
| Power | Current | MCA | A | 94 | |
| | | MOP | A | - | |
| Efficiency | Cooling | EER | Ducted | Btu/h-W | 11.00 |
| | | | NonDucted | Btu/h-W | 10.90 |
| | | IEER | Ducted | Btu/h-W | 21.58 |
| | | | NonDucted | Btu/h-W | 24.03 |
| | | | Mixed | Btu/h-W | 22.81 |
| | Heating | High COP(47F) | Ducted | W/W | 3.62 |
| | | | NonDucted | W/W | 3.28 |
| | | | Mixed | W/W | 3.45 |
| | | Low COP(17F) | Ducted | W/W | 2.19 |
| | | | NonDucted | W/W | 2.10 |
| Casing | Material | Body | - | GI Steel Plate | |
| | | Base | - | GI Steel Plate | |
| Heat Exchanger | Type | | - | Fin & Tube | |
| | Material | Fin | - | Al | |
| | | Tube | - | Cu | |
| | Fin Treatment | | - | Anti-corrosion | |
| Compressor | Model Name | | - | (DS2BD7046FVAx2)x1+(DS4BC7066FVAx2)x2 | |
| | Quantity | | EA | 2x1+2x1+2x1 | |
| | Type | | - | (SCROLL_INVERTERx2)x1+(SCROLL_INVERTERx2)x1+(SCROLL_INVERTERx2)x1 | |
| | Output | | kW | (4.95x2)x1+(7.17x2)x2 | |
| | Oil | Type | - | POE | |
| | | Initial Charge | fl oz | (30.4x2)x1+(37.2x2)x2 | |
| Fan | Type | | - | Propeller | |
| | Discharge direction | | - | Top discharge | |
| | Quantity | | EA | 6 | |
| | Air Flow Rate | | CFM | 9,924x1+9,571x1+10,171x1 | |
| | External Static Pressure | | Pa | - | |
| Fan Motor | Type | | - | BLDC | |
| | Output | | W | (620x2)x3 | |
| | | | kW | 3.72 | |
| 3) Piping Connections | Liquid Pipe | Type | - | Welding | |
| | | Diameter | in | 5/8 | |
| | Gas Pipe | Type | - | Welding | |
| | | Diameter | in | 1-3/8 | |
| | Heat Insulation | | - | Both liquid and gas pipes | |
| | Total piping length (System) Max. | | ft | 3,281 | |

2. Specification

VPD Low Ambient Heat Pump Outdoor Units (460V)

| | | | | | |
|--------------------------|--------------------------------------------|-------------|-----------------------------------|----------------------------|------|
| Model Name | | | | VPD288L6M-5G | |
| | Outdoor unit module 1 | | | VPD072L6M-5G | |
| | Outdoor unit module 2 | | | VPD096L6M-5G | |
| | Outdoor unit module 3 | | | VPD120L6M-5G | |
| 3) Piping Connections | Piping length (1st Branch-IDU) | Max. | ft | 295 | |
| | Piping length (ODU-IDU) | Max. | ft | 656 | |
| | Piping length (ODU-IDU) | Equivalent | Max. | ft | 722 |
| | Level difference (IDU-IDU) | Max. | ft | 164 | |
| | Level difference (ODU in highest position) | Max. | ft | 361 | |
| | Level difference (IDU in highest position) | Max. | ft | 361 | |
| Wiring Connection | Transmission Cable | Min. | AWG | 18 | |
| | | Remark | - | F1, F2 | |
| Refrigerant | 4) Type | | | - | |
| | Factory Charge | | | lbs | 51.1 |
| Sound Level | 5) Sound Pressure Level | Cooling | dB(A) | 62 | |
| | | Heating | dB(A) | 63 | |
| | 6) Sound Power Level | Cooling | dB(A) | 82 | |
| External Dimension | Net Weight | | lbs | 569x1+659x2 | |
| | Shipping Weight | | lbs | 606x1+697x2 | |
| | Net Dimensions | W x H x D | mm | (1,295 x 1,695 x 765) x 3 | |
| | | | in | (51 x 66-3/4 x 30-1/8) x 3 | |
| | Shipping Dimensions | W x H x D | mm | (1,363 x 1,887 x 829) x 3 | |
| in | | | (53-11/16 x 74-5/16 x 32-5/8) x 3 | | |
| 7) Operating Temp. Range | Cooling | Min. ~ Max. | °F | 5 ~ 126 | |
| | Heating | Min. ~ Max. | °F | -22 ~ 75 | |

NOTE

- Specification may be subject to change without prior notice.
- Specification comply with EN14511.
 - 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. VRF 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 R32 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.
 - 8) External static pressure of the model installed as a combined module follows the external static pressure of each single unit.

3. Electric Characteristics

VPD Low Ambient Heat Pump Outdoor Units (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 | VPD072L6M-5Y | 60 | 208~230 | 4.2 | 4.2 | 50.0 | 60.0 | - | - | - | - | - | - | - | - |
| 8 | VPD096L6M-5Y | 60 | 208~230 | 4.2 | 4.2 | 62.0 | 70.0 | - | - | - | - | - | - | - | - |
| 10 | VPD120L6M-5Y | 60 | 208~230 | 4.2 | 4.2 | 76.0 | 90.0 | - | - | - | - | - | - | - | - |
| 12 | VPD144L6M-5Y | 60 | 208~230 | 4.2 | 4.2 | 50.0 | 60.0 | 4.2 | 4.2 | 50.0 | 60.0 | - | - | - | - |
| 14 | VPD168L6M-5Y | 60 | 208~230 | 4.2 | 4.2 | 50.0 | 60.0 | 4.2 | 4.2 | 62.0 | 70.0 | - | - | - | - |
| 16 | VPD192L6M-5Y | 60 | 208~230 | 4.2 | 4.2 | 62.0 | 70.0 | 4.2 | 4.2 | 62.0 | 70.0 | - | - | - | - |
| 18 | VPD216L6M-5Y | 60 | 208~230 | 4.2 | 4.2 | 50.0 | 60.0 | 4.2 | 4.2 | 50.0 | 60.0 | 4.2 | 4.2 | 50.0 | 60.0 |
| 20 | VPD240L6M-5Y | 60 | 208~230 | 4.2 | 4.2 | 50.0 | 60.0 | 4.2 | 4.2 | 50.0 | 60.0 | 4.2 | 4.2 | 62.0 | 70.0 |
| 22 | VPD264L6M-5Y | 60 | 208~230 | 4.2 | 4.2 | 50.0 | 60.0 | 4.2 | 4.2 | 50.0 | 60.0 | 4.2 | 4.2 | 76.0 | 90.0 |
| 24 | VPD288L6M-5Y | 60 | 208~230 | 4.2 | 4.2 | 50.0 | 60.0 | 4.2 | 4.2 | 62.0 | 70.0 | 4.2 | 4.2 | 76.0 | 90.0 |

VPD Low Ambient Heat Pump Outdoor Units (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 | VPD072L6M-5G | 60 | 460 | 2.1 | 2.1 | 25.0 | 30.0 | - | - | - | - | - | - | - | - |
| 8 | VPD096L6M-5G | 60 | 460 | 2.1 | 2.1 | 31.0 | 35.0 | - | - | - | - | - | - | - | - |
| 10 | VPD120L6M-5G | 60 | 460 | 2.1 | 2.1 | 38.0 | 45.0 | - | - | - | - | - | - | - | - |
| 12 | VPD144L6M-5G | 60 | 460 | 2.1 | 2.1 | 25.0 | 30.0 | 2.1 | 2.1 | 25.0 | 30.0 | - | - | - | - |
| 14 | VPD168L6M-5G | 60 | 460 | 2.1 | 2.1 | 25.0 | 30.0 | 2.1 | 2.1 | 31.0 | 35.0 | - | - | - | - |
| 16 | VPD192L6M-5G | 60 | 460 | 2.1 | 2.1 | 31.0 | 35.0 | 2.1 | 2.1 | 31.0 | 35.0 | - | - | - | - |
| 18 | VPD216L6M-5G | 60 | 460 | 2.1 | 2.1 | 25.0 | 30.0 | 2.1 | 2.1 | 25.0 | 30.0 | 2.1 | 2.1 | 25.0 | 30.0 |
| 20 | VPD240L6M-5G | 60 | 460 | 2.1 | 2.1 | 25.0 | 30.0 | 2.1 | 2.1 | 25.0 | 30.0 | 2.1 | 2.1 | 31.0 | 35.0 |
| 22 | VPD264L6M-5G | 60 | 460 | 2.1 | 2.1 | 25.0 | 30.0 | 2.1 | 2.1 | 25.0 | 30.0 | 2.1 | 2.1 | 38.0 | 45.0 |
| 24 | VPD288L6M-5G | 60 | 460 | 2.1 | 2.1 | 25.0 | 30.0 | 2.1 | 2.1 | 31.0 | 35.0 | 2.1 | 2.1 | 38.0 | 45.0 |

NOTE

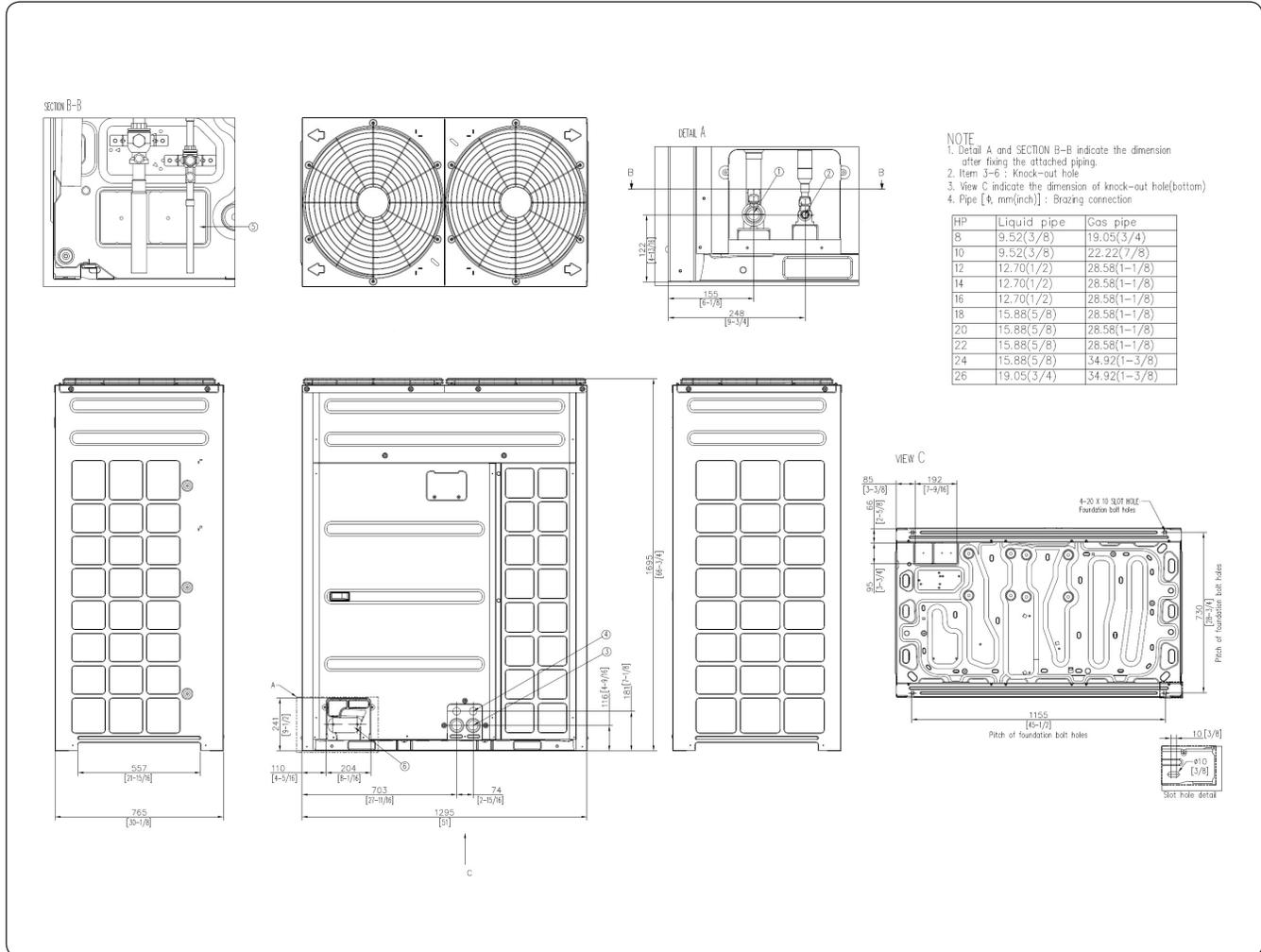
- Voltage Tolerance is ± 10%
- Maximum allowable voltage between phases is 2%
- Refer to module combination table for independent units information
- FLA : Full Load Ampere
- MCA : Minimum Circuit Ampere (A)
- MOP : Maximum Overcurrent Protective Device (A)

4. Dimensional Drawing

Outdoor unit

- VPD072/096/120L6M-5Y, VPD072/096/120L6M-5G

Unit: mm [inch]

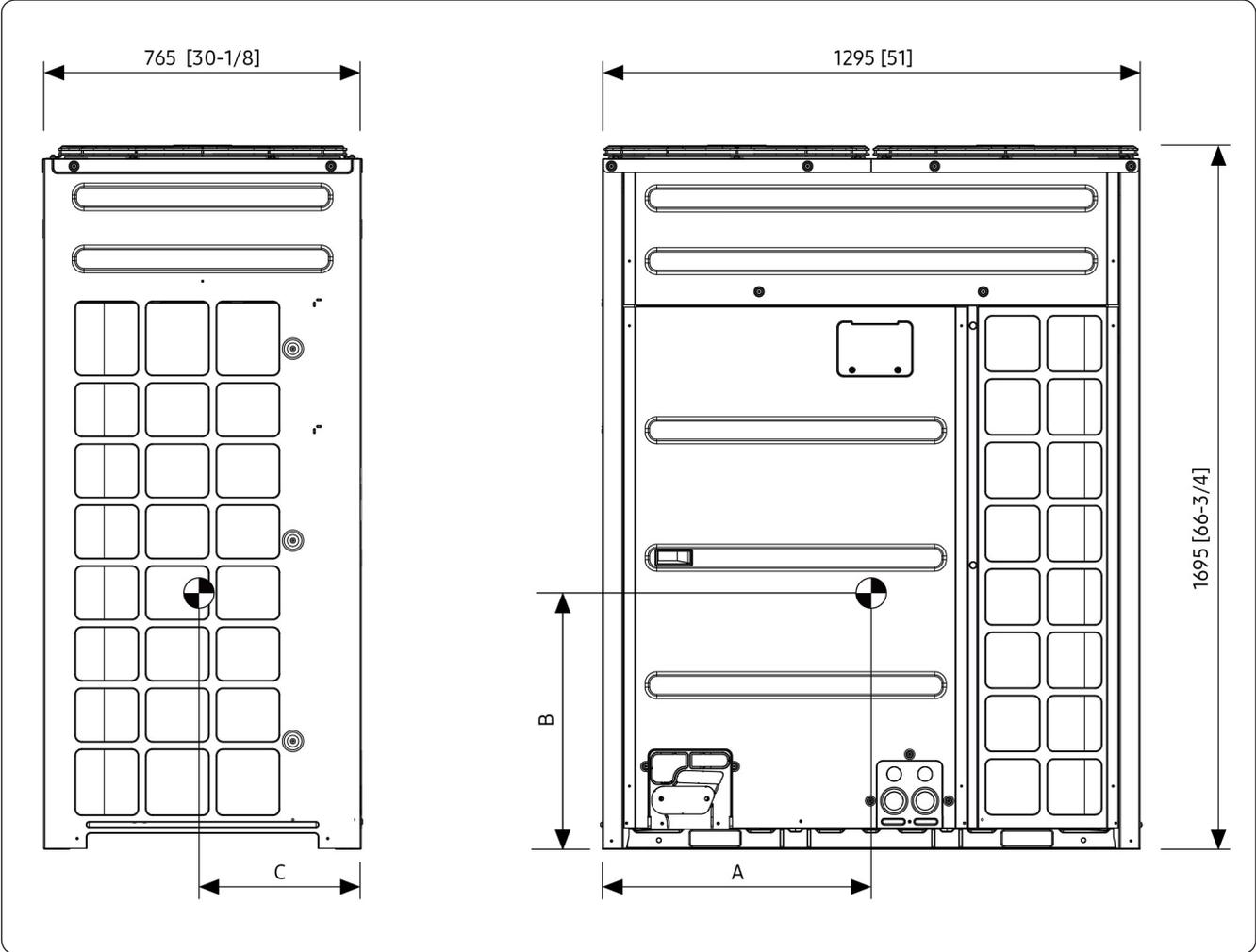


| NO | Table of descriptions | Remark | NO | Table of descriptions | Remark |
|----|------------------------------|-------------|----|----------------------------------------|--------|
| 1 | Gas Ref.pipe | See NOTE 4. | 5 | Knock-out Hole for Ref.Piping (bottom) | |
| 2 | Liquid Ref.pipe | See NOTE 4.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

5. Center of Gravity

Outdoor unit

Unit: mm [inch]

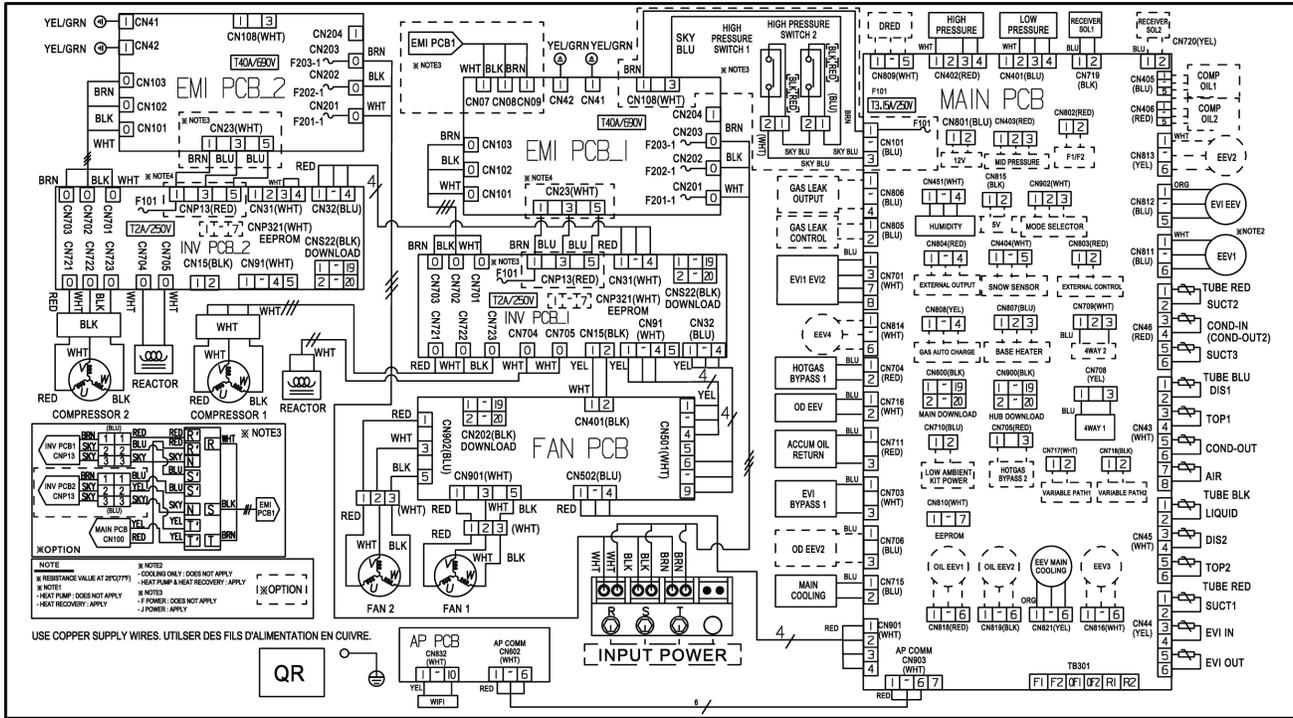


| Model | A | B | C |
|--------------|----------------|------------------|----------------|
| VPD072L6M-5* | | | |
| VPD096L6M-5* | 520 [20 - 1/2] | 678 [26 - 11/16] | 324 [12 - 3/4] |
| VPD120L6M-5* | | | |

6. Electrical Wiring Diagrams

Outdoor unit

VPD072L6M-5Y, VPD072/096/120L6M-5G



| | | | | | |
|------------------|----------------------------------------------|----------------|---------------------------------------|----------------------|-------------------------------------------------|
| INV PCB1 | Printed circuit board (inverter1) | SNOW SENSOR | SNOW SENSOR | HOTGAS1 BYPASS V/V | Solenoid valve (Hot Gas Bypass1) |
| INV PCB2 | Printed circuit board (inverter2) | EVI-OUT(10K) | Thermistor (EVI-out_10kohm) | EVI BYPASS1 V/V | Solenoid valve (EVI BYPASS) |
| EMI PCB1 | Printed circuit board (emi1) | EVI-IN(10K) | Thermistor (EVI-in_10kohm) | ACCUM OIL RETURN V/V | Solenoid valve (Accumulator Oil Return) |
| EMI PCB2 | Printed circuit board (emi2) | SUCT1(10K) | Thermistor (Suction Temp.1_10Kohm) | MAIN COOLING | Solenoid valve (Main cooling) |
| FAN PCB | Printed circuit board (fan) | SUCT2(10K) | Thermistor (Suction Temp.2_10Kohm) | HOTGAS2 BYPASS V/V | Solenoid valve (Hot Gas Bypass2) |
| MAIN PCB | Printed circuit board (main) | SUCT3(10K) | Thermistor (Suction Temp.2_10Kohm) | OD EEV V/V | Electronic expansion valve (Outdoor EEV) |
| AP PCB | Printed circuit board (main) | COND IN(10K) | Thermistor (Cond In Temp._10Kohm) | OD EEV2 V/V | Electronic expansion valve (Outdoor EEV) |
| WIFI | WIFI MODULE | AIR(10K) | Thermistor (Ambient Temp._10Kohm) | F101 | FUSE (INV PCB) |
| COMPRESSOR1 | Motor (compressor1) | COND(10K) | Thermistor (Cond Out Temp._10Kohm) | 690V/40A | FUSE (EMI PCB) |
| COMPRESSOR2 | Motor (compressor2) | TOP1(200K) | Thermistor (Compressor Top 1_200Kohm) | MODE SELECTOR | Connector (Remote switching cool/heat selector) |
| FAN1 | Motor (fan1) | TOP2(200K) | Thermistor (Compressor Top 2_200Kohm) | EXTERNAL CONTROL | Connector (Output EXTERNAL CONTROL) |
| FAN2 | Motor (fan2) | DIS1(200K) | Thermistor (Discharge Temp.1_200Kohm) | EXTERNAL OUTPUT | Connector (Output EXTERNAL) |
| EVI V/V1 | Solenoid valve (EVI1) | DIS2(200K) | Thermistor (Discharge Temp.2_200Kohm) | F1/F2 | Communication |
| EVI V/V2 | Solenoid valve (EVI2) | LIQUID(10K) | Thermistor (Liquid Tube Temp._10Kohm) | HIGH PRESSURE | PRESSURE SENSOR(HIGH) |
| EVI EEV | Electronic expansion valve (EVI) | REACTOR | REACTOR | MID PRESSURE | PRESSURE SENSOR(MID) |
| EEV1 | Electronic expansion valve 1 | EEPROM | Printed circuit board(EEPROM PCB) | LOW PRESSURE | PRESSURE SENSOR(LOW) |
| EEV2 | Electronic expansion valve 2 | VARIABLE PATH1 | Solenoid valve(VARIABLE PATH1) | RECEIVER SOL1 | Solenoid valve(RECEIVER1) |
| EEV3 | Electronic expansion valve 3 | VARIABLE PATH2 | Solenoid valve(VARIABLE PATH2) | RECEIVER SOL2 | Solenoid valve(RECEIVER2) |
| EEV4 | Electronic expansion valve 4 | HUMIDITY | SENSOR(HUMIDITY) | BASE HEATER | HEATER |
| 4WAY1 V/V | Solenoid valve (4 Way valve1) | DRED | Printed circuit board(DRED PCB) | AP COMM | Communication |
| 4WAY2 V/V | Solenoid valve (4 Way valve2) | OIL EEV1 | Electronic expansion valve(OIL1) | | |
| EEV MAIN COOLING | Electronic expansion valve(EEV MAIN COOLING) | OIL EEV2 | Electronic expansion valve(OIL2) | | |

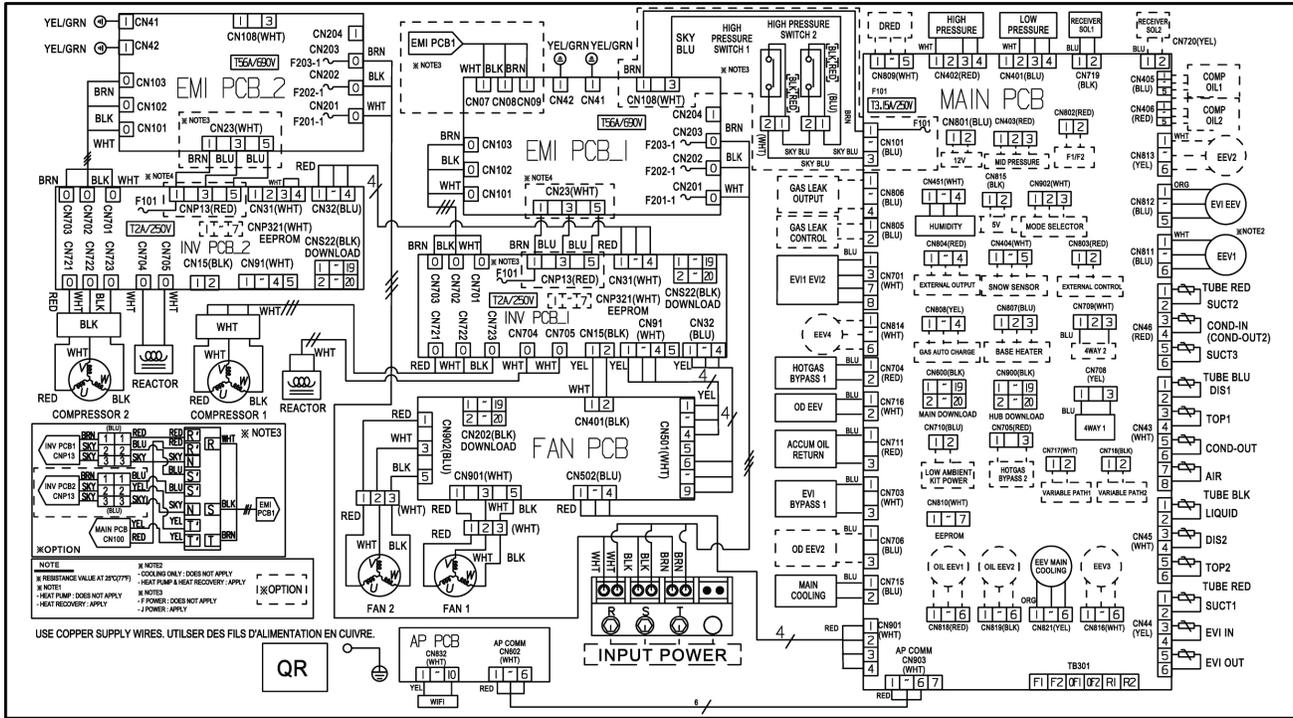
NOTE

- 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

6. Electrical Wiring Diagrams

Outdoor unit

VPD096/120L6M-5Y



| | | | | | |
|------------------|----------------------------------------------|----------------|---------------------------------------|----------------------|-------------------------------------------------|
| INV PCB1 | Printed circuit board (inverter1) | SNOW SENSOR | SNOW SENSOR | HOTGAS1 BYPASS V/V | Solenoid valve (Hot Gas Bypass1) |
| INV PCB2 | Printed circuit board (inverter2) | EVI-OUT(10K) | Thermistor (EVI-out_10kohm) | EVI BYPASS1 V/V | Solenoid valve (EVI BYPASS) |
| EMI PCB1 | Printed circuit board (emi1) | EVI-IN(10K) | Thermistor (EVI-in_10kohm) | ACCUM OIL RETURN V/V | Solenoid valve (Accumulator Oil Return) |
| EMI PCB2 | Printed circuit board (emi2) | SUCT1(10K) | Thermistor (Suction Temp.1_10Kohm) | MAIN COOLING | Solenoid valve (Main cooling) |
| FAN PCB | Printed circuit board (fan) | SUCT2(10K) | Thermistor (Suction Temp.2_10Kohm) | HOTGAS2 BYPASS V/V | Solenoid valve (Hot Gas Bypass2) |
| MAIN PCB | Printed circuit board (main) | SUCT3(10K) | Thermistor (Suction Temp.2_10Kohm) | OD EEV V/V | Electronic expansion valve (Outdoor EEV) |
| AP PCB | Printed circuit board (main) | COND IN(10K) | Thermistor (Cond In Temp._10Kohm) | OD EEV2 V/V | Electronic expansion valve (Outdoor EEV) |
| WIFI | WIFI MODULE | AIR(10K) | Thermistor (Ambient Temp._10Kohm) | F101 | FUSE (INV PCB) |
| COMPRESSOR1 | Motor (compressor1) | COND(10K) | Thermistor (Cond Out Temp._10Kohm) | 690V/40A | FUSE (EMI PCB) |
| COMPRESSOR2 | Motor (compressor2) | TOP1(200K) | Thermistor (Compressor Top 1_200Kohm) | MODE SELECTOR | Connector (Remote switching cool/heat selector) |
| FAN1 | Motor (fan1) | TOP2(200K) | Thermistor (Compressor Top 2_200Kohm) | EXTERNAL CONTROL | Connector (Output EXTERNAL CONTROL) |
| FAN2 | Motor (fan2) | DIS1(200K) | Thermistor (Discharge Temp.1_200Kohm) | EXTERNAL OUTPUT | Connector (Output EXTERNAL) |
| EVI V/V1 | Solenoid valve (EVI1) | DIS2(200K) | Thermistor (Discharge Temp.2_200Kohm) | F1/F2 | Communication |
| EVI V/V2 | Solenoid valve (EVI2) | LIQUID(10K) | Thermistor (Liquid Tube Temp._10Kohm) | HIGH PRESSURE | PRESSURE SENSOR(HIGH) |
| EVI EEV | Electronic expansion valve (EVI) | REACTOR | REACTOR | MID PRESSURE | PRESSURE SENSOR(MID) |
| EEV1 | Electronic expansion valve 1 | EEPROM | Printed circuit board(EEPROM PCB) | LOW PRESSURE | PRESSURE SENSOR(LOW) |
| EEV2 | Electronic expansion valve 2 | VARIABLE PATH1 | Solenoid valve(VARIABLE PATH1) | RECEIVER SOL1 | Solenoid valve(RECEIVER1) |
| EEV3 | Electronic expansion valve 3 | VARIABLE PATH2 | Solenoid valve(VARIABLE PATH2) | RECEIVER SOL2 | Solenoid valve(RECEIVER2) |
| EEV4 | Electronic expansion valve 4 | HUMIDITY | SENSOR(HUMIDITY) | BASE HEATER | HEATER |
| 4WAY1 V/V | Solenoid valve (4 Way valve1) | DRED | Printed circuit board(DRED PCB) | AP COMM | Communication |
| 4WAY2 V/V | Solenoid valve (4 Way valve2) | OIL EEV1 | Electronic expansion valve(OIL1) | | |
| EEV MAIN COOLING | Electronic expansion valve(EEV MAIN COOLING) | OIL EEV2 | Electronic expansion valve(OIL2) | | |

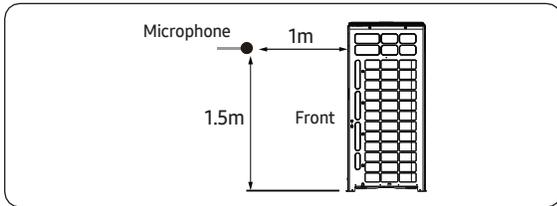
NOTE

- 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

7. Sound Data

Sound Pressure level

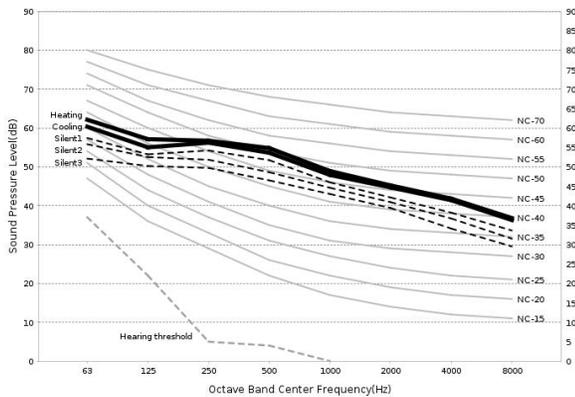
Unit: dB(A)



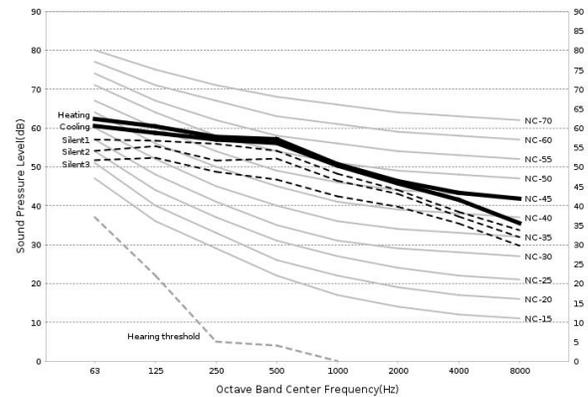
| Model | Cooling | Silent 1 | Silent 2 | Silent 3 | Heating |
|--------------|---------|----------|----------|----------|---------|
| VPD072L6M-5Y | 55 | 53 | 51 | 49 | 56 |
| VPD096L6M-5Y | 57 | 55 | 53 | 49 | 58 |
| VPD120L6M-5Y | 59 | 57 | 53 | 49 | 59 |

• NC Curve

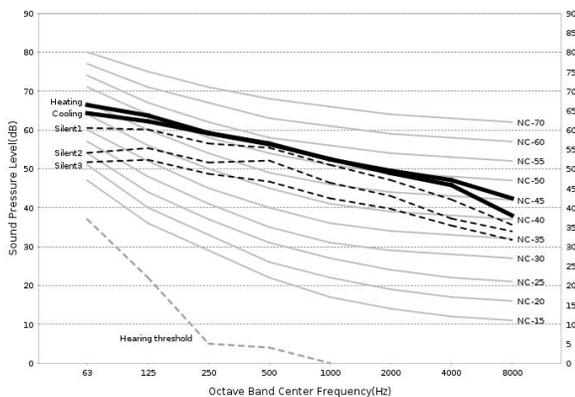
1) VPD072L6M-5Y



2) VPD096L6M-5Y



3) VPD120L6M-5Y



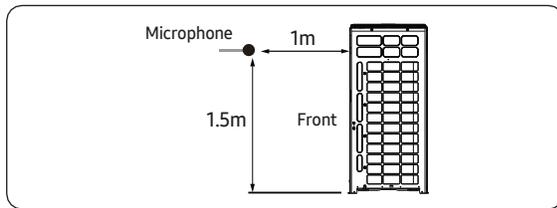
NOTE

- 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

7. Sound Data

Sound Pressure level

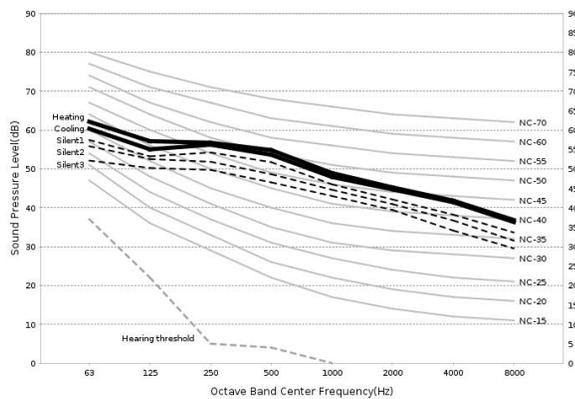
Unit: dB(A)



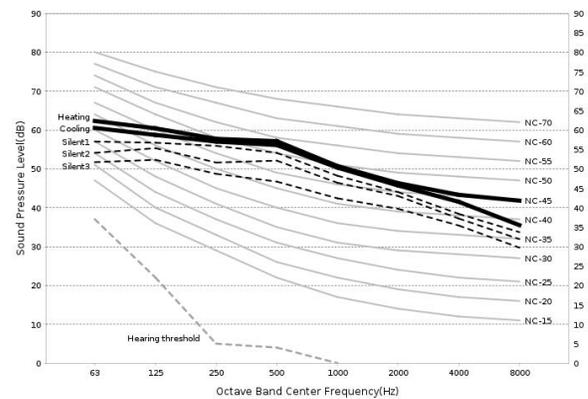
| Model | Cooling | Silent 1 | Silent 2 | Silent 3 | Heating |
|--------------|---------|----------|----------|----------|---------|
| VPD072L6M-5G | 55 | 53 | 51 | 49 | 56 |
| VPD096L6M-5G | 57 | 55 | 53 | 49 | 58 |
| VPD120L6M-5G | 59 | 57 | 53 | 49 | 59 |

• NC Curve

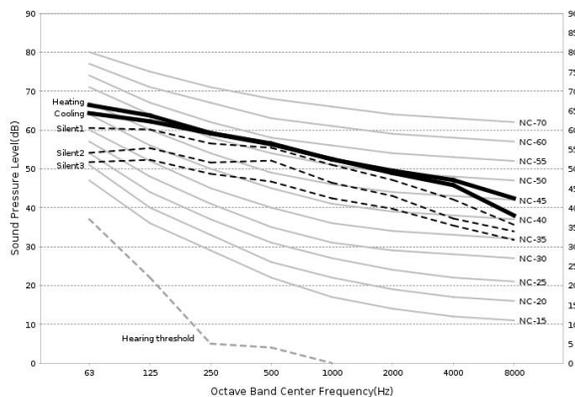
4) VPD072L6M-5G



5) VPD096L6M-5G



6) VPD120L6M-5G



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

7. Sound Data

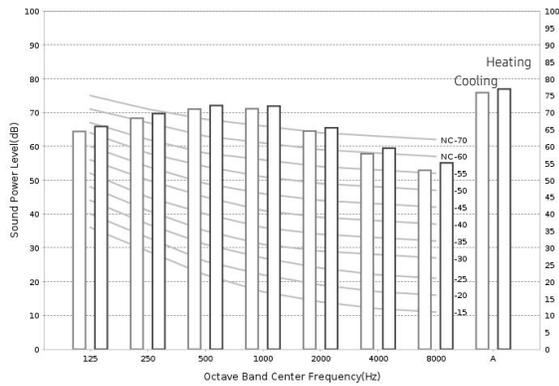
Sound Power level

Unit: dB(A)

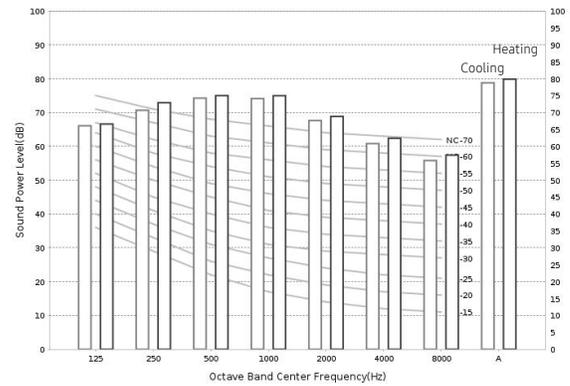
| Model | Cooling | Heating |
|--------------|---------|---------|
| VPD072L6M-5Y | 74 | 75 |
| VPD096L6M-5Y | 77 | 78 |
| VPD120L6M-5Y | 79 | 80 |

• NCCURVE

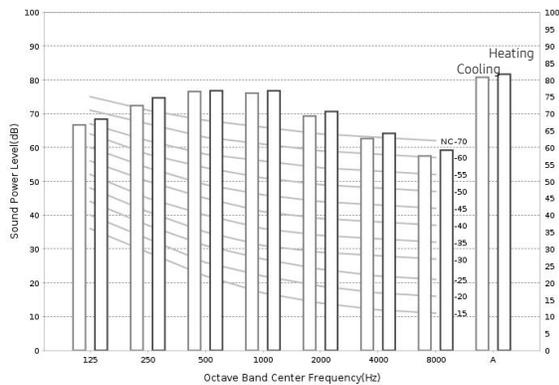
1) VPD072L6M-5Y



2) VPD096L6M-5Y



3) VPD120L6M-5Y



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.

7. Sound Data

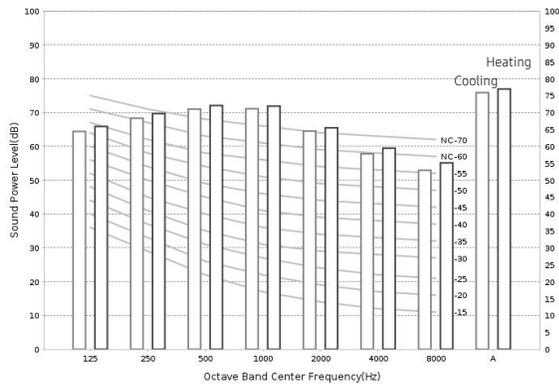
Sound Power level

Unit: dB(A)

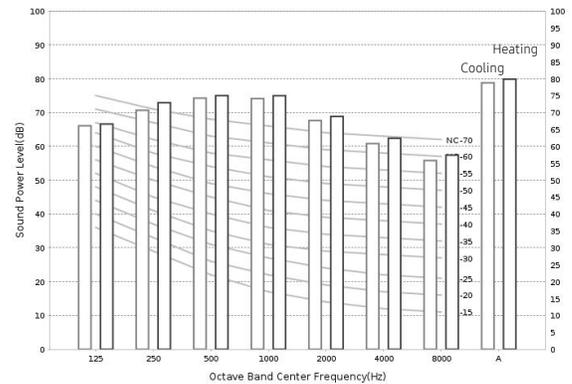
| Model | Cooling | Heating |
|--------------|---------|---------|
| VPD072L6M-5G | 74 | 75 |
| VPD096L6M-5G | 77 | 78 |
| VPD120L6M-5G | 79 | 80 |

• NCCURVE

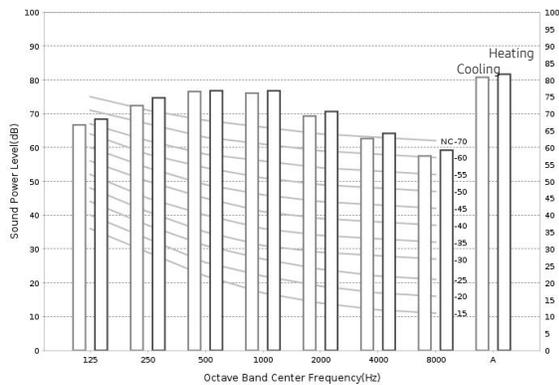
4) VPD072L6M-5G



5) VPD096L6M-5G



6) VPD120L6M-5G



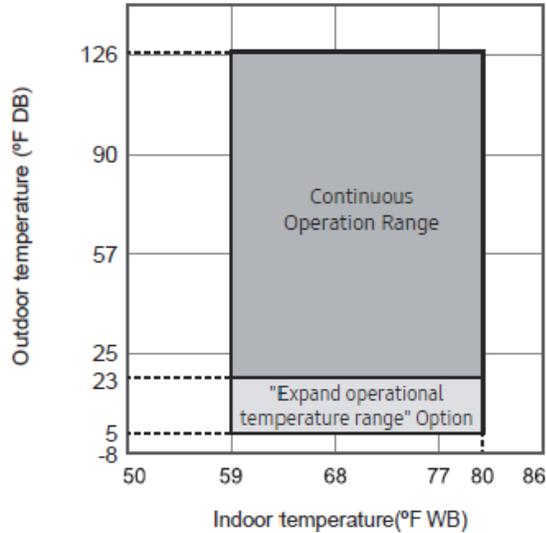
NOTE

- 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.

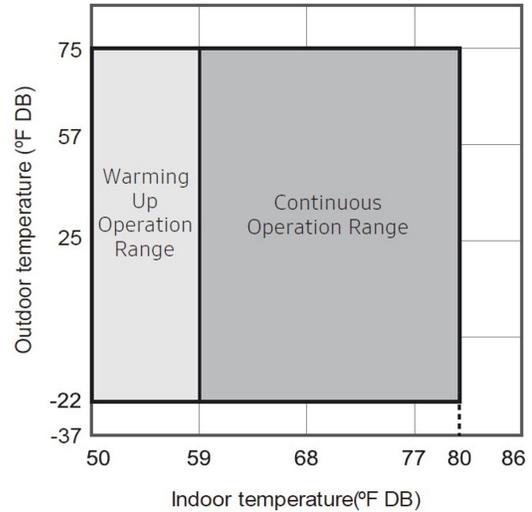
8. Operation Range

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

8. 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 : $A = B \times C$

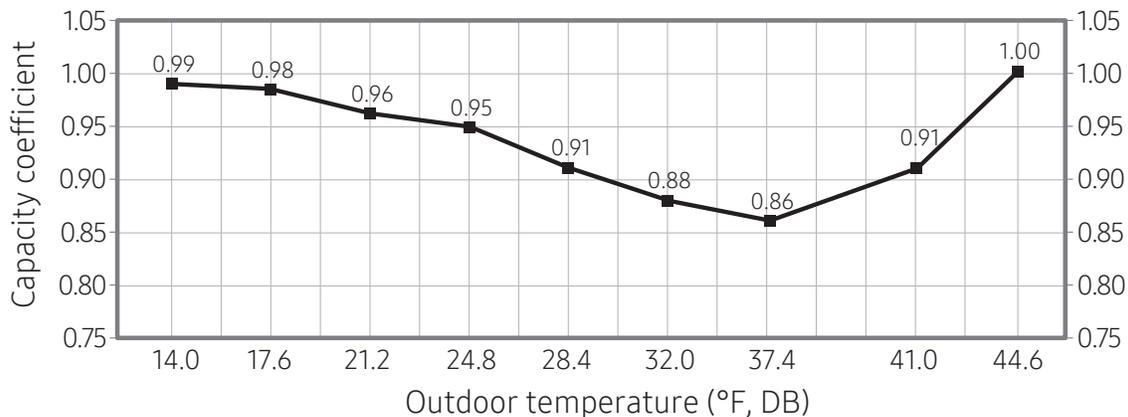
Integrated heating capacity = A

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 |

Capacity coefficient of outdoor unit on defrost operation



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

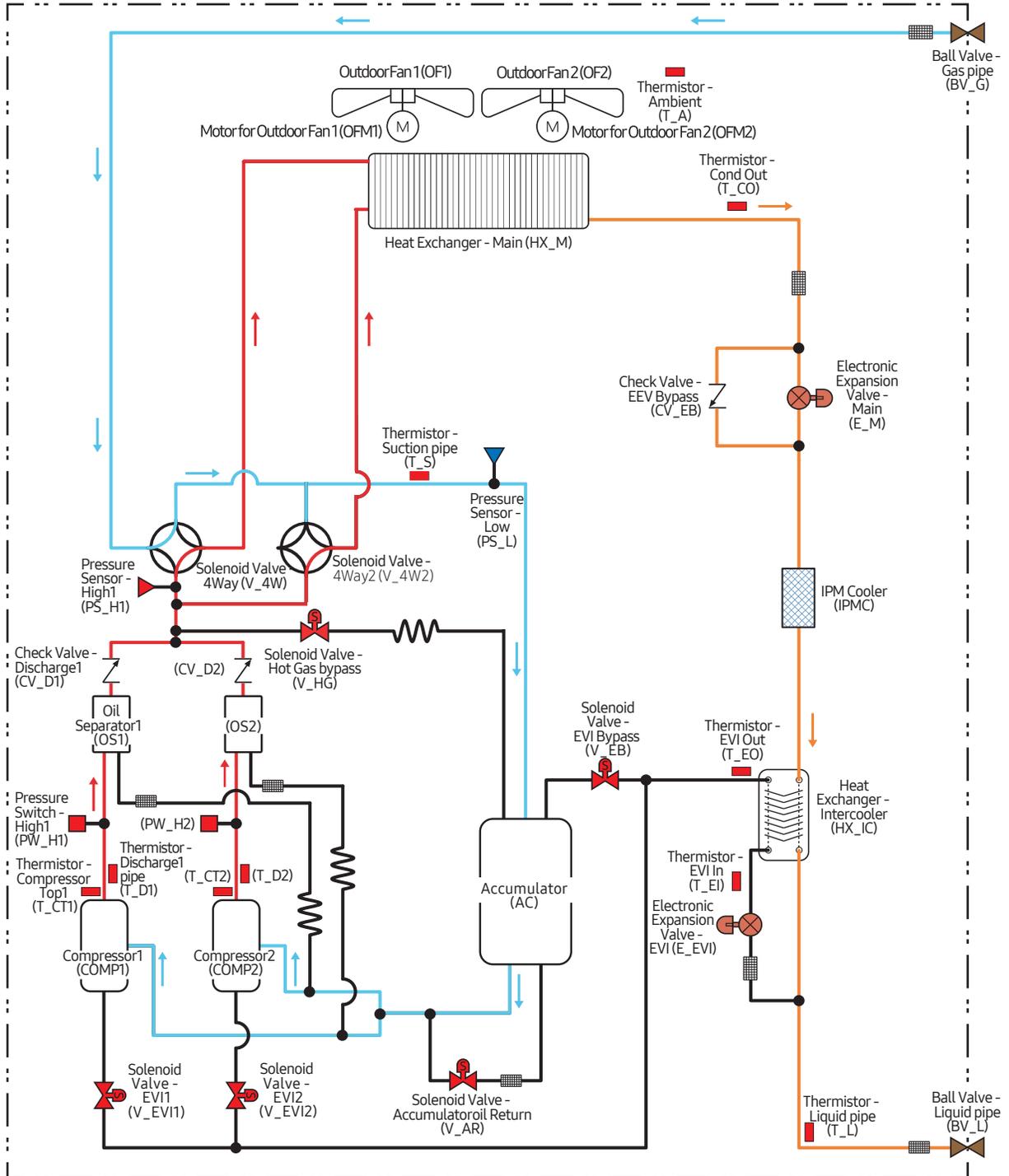
9. Piping Diagram

Outdoor unit

VPD072/096/120L6M-5*

- Cooling

- High Temperature & Pressure Gas
- High Temperature & Pressure Liquid
- Low Temperature & Pressure Gas
- Low Temperature & Pressure Vapor



Installation Clearances

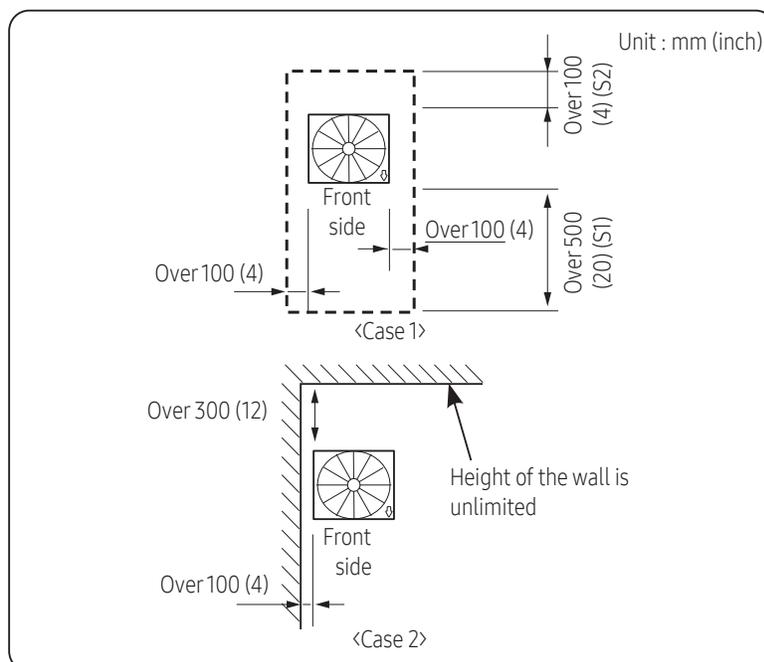
Choosing the installation location

- Depending on the condition of power supply, unstable power or voltage any cause malfunction of the parts or control system. (At the ship or places using power supply from electric generator...etc)
- Heat Recovery systems require installation of MSB(s).
- Heat Pump systems require installation of SVB(s)
 - ※ SVB(Shut-off Valve Box): An auxiliary device installed to reduce the indoor refrigerant leakage when installing a H/P model for R-32 refrigerant
- During operation, MSBs may create noise. When selecting the MSB installation location, make sure to install in an area where potential noise will not be an issue.

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.

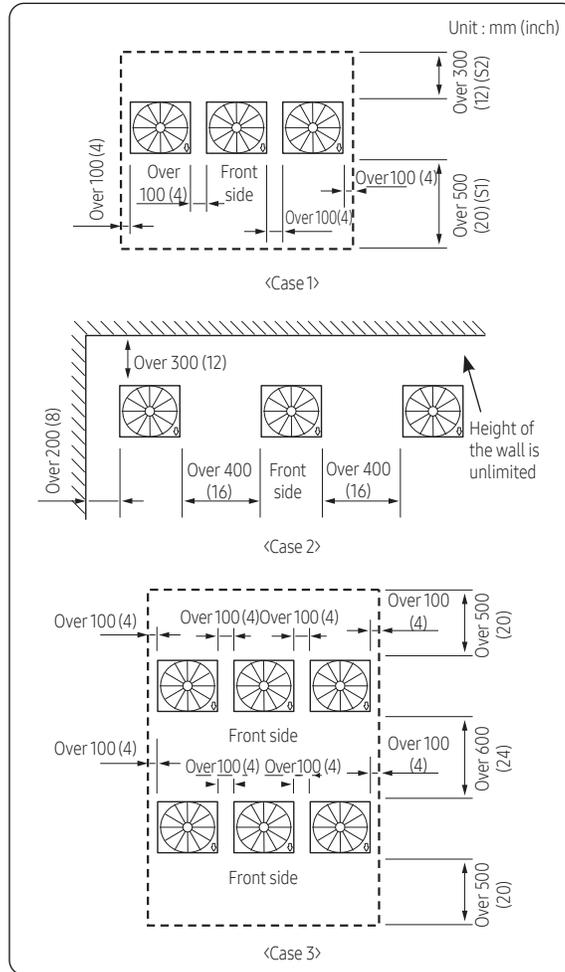
Single installation



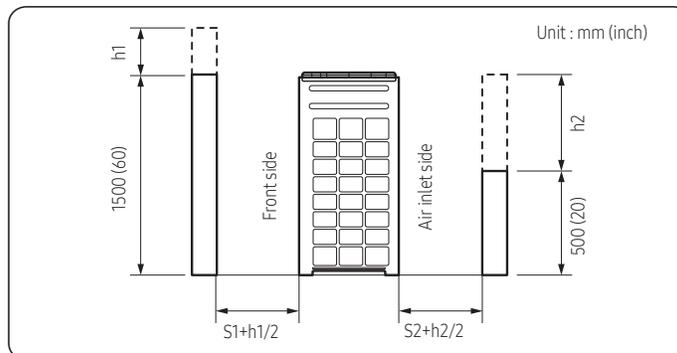
Installation Clearances

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).



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 |
| VPD072L6M-5Y | 69,000 | 77,000 | 12.35 | 11.95 | 26.76 | 24.57 | 25.67 | 4.40 | 4.18 | 4.29 | 2.64 | 2.60 |
| VPD096L6M-5Y | 92,000 | 103,000 | 12.70 | 12.30 | 26.80 | 25.10 | 25.95 | 4.06 | 3.94 | 4.00 | 2.49 | 2.47 |
| VPD120L6M-5Y | 114,000 | 129,000 | 11.40 | 12.25 | 26.60 | 24.98 | 25.79 | 3.88 | 3.95 | 3.92 | 2.36 | 2.38 |
| VPD144L6M-5Y | 138,000 | 154,000 | 11.95 | 11.55 | 25.44 | 20.32 | 22.88 | 3.97 | 3.93 | 3.95 | 2.37 | 2.47 |
| VPD168L6M-5Y | 161,000 | 180,000 | 12.10 | 11.65 | 25.12 | 22.91 | 24.02 | 3.83 | 3.88 | 3.86 | 2.29 | 2.39 |
| VPD192L6M-5Y | 184,000 | 206,000 | 11.75 | 11.65 | 23.83 | 22.50 | 23.17 | 3.76 | 3.83 | 3.80 | 2.20 | 2.27 |
| VPD216L6M-5Y | 207,000 | 231,000 | 11.60 | 11.35 | 24.49 | 23.22 | 23.86 | 3.75 | 3.85 | 3.80 | 2.25 | 2.36 |
| VPD240L6M-5Y | 230,000 | 257,000 | 11.30 | 10.35 | 24.02 | 22.85 | 23.44 | 3.67 | 3.82 | 3.75 | 2.13 | 2.24 |
| VPD264L6M-5Y | 252,000 | 283,000 | 11.00 | 11.00 | 24.41 | 22.25 | 23.33 | 3.36 | 3.77 | 3.57 | 2.12 | 2.25 |
| VPD288L6M-5Y | 275,000 | 309,000 | 10.90 | 11.00 | 24.03 | 21.58 | 22.81 | 3.28 | 3.62 | 3.45 | 2.10 | 2.19 |
| VPD072L6M-5G | 69,000 | 77,000 | 12.35 | 11.95 | 26.76 | 24.57 | 25.67 | 4.40 | 4.18 | 4.29 | 2.64 | 2.60 |
| VPD096L6M-5G | 92,000 | 103,000 | 12.70 | 12.30 | 26.80 | 25.10 | 25.95 | 4.06 | 3.94 | 4.00 | 2.49 | 2.47 |
| VPD120L6M-5G | 114,000 | 129,000 | 11.40 | 12.25 | 26.60 | 24.98 | 25.79 | 3.88 | 3.95 | 3.92 | 2.36 | 2.38 |
| VPD144L6M-5G | 138,000 | 154,000 | 11.95 | 11.55 | 25.44 | 20.32 | 22.88 | 3.97 | 3.93 | 3.95 | 2.37 | 2.47 |
| VPD168L6M-5G | 161,000 | 180,000 | 12.10 | 11.65 | 25.12 | 22.91 | 24.02 | 3.83 | 3.88 | 3.86 | 2.29 | 2.39 |
| VPD192L6M-5G | 184,000 | 206,000 | 11.75 | 11.65 | 23.83 | 22.50 | 23.17 | 3.76 | 3.83 | 3.80 | 2.20 | 2.27 |
| VPD216L6M-5G | 207,000 | 231,000 | 11.60 | 11.35 | 24.49 | 23.22 | 23.86 | 3.75 | 3.85 | 3.80 | 2.25 | 2.36 |
| VPD240L6M-5G | 230,000 | 257,000 | 11.30 | 10.35 | 24.02 | 22.85 | 23.44 | 3.67 | 3.82 | 3.75 | 2.13 | 2.24 |
| VPD264L6M-5G | 252,000 | 283,000 | 11.00 | 11.00 | 24.41 | 22.25 | 23.33 | 3.36 | 3.77 | 3.57 | 2.12 | 2.25 |
| VPD288L6M-5G | 275,000 | 309,000 | 10.90 | 11.00 | 24.03 | 21.58 | 22.81 | 3.28 | 3.62 | 3.45 | 2.10 | 2.19 |



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