

VRF

Technical Data Book

DVM S Outdoor Units for Europe (R410A, 50Hz, H/P, H/R)

SAMSUNG

| Version | Modification | Date | Remark |
|---------|---|----------|--------|
| Ver.1.0 | Release DVM S HP TDB (include AM9000H) | 14.12.31 | |
| Ver.1.1 | 1. Unify HP TDB and HR TDB - Specification : updated MCA, Sound level, Compressor model added E SEER (HR) - Capacity Table : Expand -25℃ condition for Heating (HR) - Accessary : added Y-Joint for HR | 15.01.29 | |
| Ver.1.2 | Update of Specification Page (HP/HR) - Fan Air Flow Rate (CMM) - Refrigerant Type : R410A → R410A(GWP > 150) - Add the Caution Marking : 4) Refrigerant R410A : GWP>150 | 15.03.05 | |
| Ver.1.3 | Add Note information in Specification regarding EU F-Gas regulation. | 15.06.16 | |
| Ver.1.4 | Modify the specification of MCA and MFA | 16.03.28 | |
| Ver.1.5 | Modify the specification of fan output and ODU(8/10/12HP) weight | 16.04.06 | |
| Ver.1.6 | Delete the AM240/260HXVAGH/EU Model information | 16.06.02 | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Nomenclature

Outdoor Units

Model Names

AM

(1)

260

(2)

H

(3)

X

(4)

V

(5)

A

(6)

G

(7)

H

(8)

/

EU

Buyer

(1) Classification

| | |
|----|-----|
| AM | VRF |
|----|-----|

(2) Capacity

| |
|----------------------|
| x 1/10 HP (3 digits) |
|----------------------|

(3) Version

| | |
|---|------|
| E | 2012 |
| F | 2013 |
| H | 2014 |

(4) Product Type

| | |
|---|--------------|
| X | Outdoor Unit |
| N | Indoor Unit |

(5) Feature 1

| | |
|---|-----------|
| V | Inverter |
| M | DVM S Eco |

(6) Feature 2

| | |
|---|----------------------------------|
| A | Standard + General Temp.+ MODULE |
|---|----------------------------------|




















(7) Rating Voltage

| | |
|---|--------------------|
| E | 1Ø, 220~240V, 50Hz |
| G | 3Ø, 380~415V, 50Hz |


(8) Mode

| | |
|---|---------------|
| H | Heat Pump |
| R | Heat Recovery |


















Accessory

| Classification | Product | Image | Model | Remark |
|------------------------------|---|---|----------------------------|--|
| Integrated Management System | DMS 2.0 |  | MIM-D00AN | - |
| | S-NET 3 |  | MST-P3P | - |
| | PIM |  | MIM-B16N | - |
| Building Management System | BACnet Gateway |  | MIM-B17N | - |
| | LonWorks Gateway |  | MIM-B18N | - |
| Centralized Control System | On/Off controller |  | MCM-A202DN | - |
| | Touch controller |  | MCM-A300N | - |
| Individual Control System | Wireless remote controller |  | MR-EH00 | - |
| | Wired remote controller |  | MWR-WE10N (Multi function) | A/C+VTL |
| | | | MWR-WW00N | DVM S Hydro Unit |
| | Simplified wired remote controller |  | MWR-SH00N | - |
| | | | MWR-VH02 | ERV |
| Others | Operation mode selection switch |  | MCM-C200 | DVM S Series (Except HR Models) |
| | External room sensor |  | MRW-TA | Cassette, Wall-mount, Ceiling, Duct, Console |
| | |  | MRW-TS | Duct S |
| | Compatible interface module |  | MIM-N01 | Nasa-No Nasa |
| | ERV interface module |  | MIM-N10 | ERV (Nasa) |
| | External contact interface module |  | MIM-B14 | - |
| | S-Converter |  | MIM-C02N | - |
| | MTFC (Multi tenant function controller) |  | MCM-C210N | - |
| | Wireless signal receiver |  | MRK-A10N | - |

Accessory

| Product | Image | Model | Remark |
|---------------------------------|---|--------------|--|
| Y-Joint |  | MXJ-YA1509M | 15.0 kW and below |
| | | MXJ-YA2512M | Over 15.0 kW~40.0 kW and below |
| | | MXJ-YA2812M | Over 40.0 kW~45.0 kW and below |
| | | MXJ-YA2815M | Over 45.0 kW~70.3 kW and below |
| | | MXJ-YA3419M | Over 70.3 kW~98.4 kW and below |
| | | MXJ-YA44119M | Over 98.4 kW~135.2 kW and below |
| | | MXJ-YA4422M | Over 135.2 kW |
| Y-Joint (Only H/R) |  | MXJ-YA1500M | 22.4 kW and below |
| | | MXJ-YA2500M | Over 22.4 kW~70.3 kW and below |
| | | MXJ-YA3100M | Over 70.3 kW~135.2 kW and below |
| | | MXJ-YA3800M | Over 135.2 kW |
| Y-Joint Outdoor unit |  | MXJ-TA3419M | 135.2 kW and below |
| | | MXJ-TA4122M | 140.2 kW and Over |
| Y-Joint (Only H/R) Outdoor unit |  | MXJ-TA3100M | 135.2 kW and below |
| | | MXJ-TA3800M | 140.2 kW and Over |
| Distribution Header |  | MXJ-HA2512M | 45.0 kW and below (for 4 rooms) |
| | | MXJ-HA3115M | 70.3 kW and below (for 8 rooms) |
| | | MXJ-HA3819M | Over 70.3 kW~135.2 kW and below(for 8 rooms) |
| EEV KIT |  | MEV-E24SA | 1 Indoor |
| | | MEV-E32SA | |
| |  | MXD-E24K132A | 2 Indoor |
| | | MXD-E24K200A | |
| | | MXD-E32K200A | |
| |  | MXD-E24K232A | 3 Indoor |
| | | MXD-E24K300A | |
| | | MXD-E32K224A | |
| MXD-E32K300A | | | |
| AHU KIT |  | MXD-K025AN | 7.0kW~8.75kW |
| | | MXD-K050AN | 14.0kW~17.5kW |
| | | MXD-K075AN | 21.0kW~26.25kW |
| | | MXD-K100AN | 28.0kW~35.0kW |

Accessory

| Product | Image | Model | Remark |
|----------------------|---|---------------|---|
| PDM KIT |  | MXD-A38K2A | 8~12HP |
| | | MXD-A12K2A | 14~16HP |
| | | MXD-A58K2A | 18~26HP |
| S-Plasma Ion KIT |  | MSD-CAN1 | 4Way Cassette S 4Way Cassette S(600x600) |
| | | MSD-EAN1 | ERV-Plus |
| Motion detect Sensor |  | MCR-SMA | 4Way Cassette S (600x600) |
| ERV CO2 Sensor |  | MOS-C1 | ERV, ERV PLUS |
| Drain Pump |  | MDP-N047SNC0D | OAP Duct (14.0 kW) |
| | | MDP-N047SNC1D | HSP Duct (22.0 / 28.0 kW) OAP Duct (22.4 / 28.0 kW) |
| |  | MDP-M075SGU1D | MSP Duct (9.0 / 11.2 kW) |
| | | MDP-M075SGU2D | MSP Duct (12.8 / 14.0 kW) HSP Duct (11.2 / 12.8 / 14.0 kW) |
| | | MDP-M075SGU3D | MSP Duct (5.6 / 7.1 kW) |
| |  | MDP-E075SEE3D | Slim Duct (2.0~14.0 kW) |
| |  | MDP-G075SP | Duct S (External, All Capacities) |
| |  | MDP-G075SQ | Duct S (Internal, 3.5 kW~14 kW) |
| Humidifier |  | MVO-VA050100 | 500CMH (ERV Plus) |
| | | MVO-VA100100 | 1000CMH (ERV Plus) |
| Panel |  | PC1NUSMAN | Slim 1Way Cassette |
| |  | PC1NUPMAN | Slim 1Way Cassette (Z-sliding) |
| |  | PC1MWSKAN | 1Way Cassette (1.7 kW, 2.2 kW) |
| |  | PC2NUSMEN | 2Way cassette |
| |  | PC4SUSMAN | 4Way Cassette S(600x600) (Waffle) |
| | | PC4SUSMEN | 4Way Cassette S(600x600) (Classic) |
| |  | PC4NUSKAN | 4 Way cassette S (Waffle) |
| | | PC4NUSKEN | 4 Way cassette S (Classic) |
| |  | PC4NBSKAN | 4 Way cassette S (Waffle, Black) |

Outdoor

1 Line-up

2 Specifications

3 Operation limit

4 Dimensional drawing

5 Electrical wiring diagram

6 Sound pressure level

7 Sound power level

8 Cycle diagram

1 Line-up

Heat Pump

| Model | AM080FXVAGH/ EU | AM100FXVAGH/ EU | AM120FXVAGH/ EU | AM140FXVAGH/ EU | AM160FXVAGH/ EU | AM180FXVAGH/ EU | AM200FXVAGH/ EU | AM220FXVAGH/ EU |
|----------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| AM080FXVAGH/EU | 1 | | | | | | | |
| AM100FXVAGH/EU | | 1 | | | | | | |
| AM120FXVAGH/EU | | | 1 | | | | | |
| AM140FXVAGH/EU | | | | 1 | | | | |
| AM160FXVAGH/EU | | | | | 1 | | | |
| AM180FXVAGH/EU | | | | | | 1 | | |
| AM200FXVAGH/EU | | | | | | | 1 | |
| AM220FXVAGH/EU | | | | | | | | 1 |
| AM240FXVAGH/EU | | | 2 | | | | | |
| AM260FXVAGH/EU | | | 1 | 1 | | | | |
| AM280FXVAGH/EU | | | 1 | | 1 | | | |
| AM300FXVAGH/EU | | | 1 | | | 1 | | |
| AM320FXVAGH/EU | | | 1 | | | | 1 | |
| AM340FXVAGH/EU | | | 1 | | | | | 1 |
| AM360FXVAGH/EU | | | | 1 | | | | 1 |
| AM380FXVAGH/EU | | | | | 1 | | | 1 |
| AM400FXVAGH/EU | | | | | | | 2 | |
| AM420FXVAGH/EU | | | | | | | 1 | 1 |
| AM440FXVAGH/EU | | | | | | | | 2 |
| AM460FXVAGH/EU | | | 2 | | | | | 1 |
| AM480FXVAGH/EU | | | 1 | 1 | | | | 1 |
| AM500FXVAGH/EU | | | 1 | | 1 | | | 1 |
| AM520FXVAGH/EU | | | 1 | | | 1 | | 1 |
| AM540FXVAGH/EU | | | 1 | | | | 1 | 1 |
| AM560FXVAGH/EU | | | 1 | | | | | 2 |
| AM580FXVAGH/EU | | | | 1 | | | | 2 |
| AM600FXVAGH/EU | | | | | 1 | | | 2 |
| AM620FXVAGH/EU | | | | | | | 2 | 1 |
| AM640FXVAGH/EU | | | | | | | 1 | 2 |
| AM660FXVAGH/EU | | | | | | | | 3 |
| AM680FXVAGH/EU | | | 2 | | | | | 2 |
| AM700FXVAGH/EU | | | 1 | 1 | | | | 2 |
| AM720FXVAGH/EU | | | 1 | | 1 | | | 2 |
| AM740FXVAGH/EU | | | 1 | | | 1 | | 2 |
| AM760FXVAGH/EU | | | 1 | | | | 1 | 2 |
| AM780FXVAGH/EU | | | 1 | | | | | 3 |
| AM800FXVAGH/EU | | | | 1 | | | | 3 |

1 Line-up

Heat Recovery

| Model | AM080FXVAGR/ EU | AM100FXVAGR/ EU | AM120FXVAGR/ EU | AM140FXVAGR/ EU | AM160FXVAGR/ EU | AM180FXVAGR/ EU | AM200FXVAGR/ EU | AM220FXVAGR/ EU |
|----------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| AM080FXVAGR/EU | 1 | | | | | | | |
| AM100FXVAGR/EU | | 1 | | | | | | |
| AM120FXVAGR/EU | | | 1 | | | | | |
| AM140FXVAGR/EU | | | | 1 | | | | |
| AM160FXVAGR/EU | | | | | 1 | | | |
| AM180FXVAGR/EU | | | | | | 1 | | |
| AM200FXVAGR/EU | | | | | | | 1 | |
| AM220FXVAGR/EU | | | | | | | | 1 |
| AM240FXVAGR/EU | | | 2 | | | | | |
| AM260FXVAGR/EU | | | 1 | 1 | | | | |
| AM280FXVAGR/EU | | | 1 | | 1 | | | |
| AM300FXVAGR/EU | | | 1 | | | 1 | | |
| AM320FXVAGR/EU | | | 1 | | | | 1 | |
| AM340FXVAGR/EU | | | 1 | | | | | 1 |
| AM360FXVAGR/EU | | | | 1 | | | | 1 |
| AM380FXVAGR/EU | | | | | 1 | | | 1 |
| AM400FXVAGR/EU | | | | | | | 2 | |
| AM420FXVAGR/EU | | | | | | | 1 | 1 |
| AM440FXVAGR/EU | | | | | | | | 2 |
| AM460FXVAGR/EU | | | 2 | | | | | 1 |
| AM480FXVAGR/EU | | | 1 | 1 | | | | 1 |
| AM500FXVAGR/EU | | | 1 | | 1 | | | 1 |
| AM520FXVAGR/EU | | | 1 | | | 1 | | 1 |
| AM540FXVAGR/EU | | | 1 | | | | 1 | 1 |
| AM560FXVAGR/EU | | | 1 | | | | | 2 |
| AM580FXVAGR/EU | | | | 1 | | | | 2 |
| AM600FXVAGR/EU | | | | | 1 | | | 2 |
| AM620FXVAGR/EU | | | | | | | 2 | 1 |
| AM640FXVAGR/EU | | | | | | | 1 | 2 |
| AM660FXVAGR/EU | | | | | | | | 3 |
| AM680FXVAGR/EU | | | 2 | | | | | 2 |
| AM700FXVAGR/EU | | | 1 | 1 | | | | 2 |
| AM720FXVAGR/EU | | | 1 | | 1 | | | 2 |
| AM740FXVAGR/EU | | | 1 | | | 1 | | 2 |
| AM760FXVAGR/EU | | | 1 | | | | 1 | 2 |
| AM780FXVAGR/EU | | | 1 | | | | | 3 |
| AM800FXVAGR/EU | | | | 1 | | | | 3 |

2 Specifications

Heat Pump

| Type | | | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | |
|--------------------|-----------------------------|-------------|-----------------|------------------|------------------|------------------|------------------|
| Model Name | | | AM080FXVAGH/EU | AM100FXVAGH/EU | AM120FXVAGH/EU | AM140FXVAGH/EU | |
| Power Supply | | Ø, #, V, Hz | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | |
| Mode | | | - | Heat Pump | Heat Pump | Heat Pump | |
| Performance | HP | Cooling | HP | 8.00 | 10.00 | 12.00 | 14.00 |
| | | | kW | 22.40 | 28.00 | 33.60 | 40.00 |
| | Capacity (Nominal) | Heating | Btu/h | 76,400 | 95,500 | 114,600 | 136,500 |
| | | | kW | 25.20 | 31.50 | 37.80 | 45.00 |
| | | Btu/h | 86,000 | 107,500 | 129,000 | 153,500 | |
| Power | Power Input (Nominal) | Cooling 1) | kW | 5.00 | 6.80 | 8.40 | 8.90 |
| | | Heating 2) | kW | 5.10 | 6.70 | 8.70 | 9.50 |
| | Current Input (Nominal) | Cooling 1) | A | 8.00 | 10.90 | 13.50 | 14.30 |
| | | Heating 2) | A | 8.20 | 10.70 | 14.00 | 15.20 |
| | MCA | A | 18.00 | 21.10 | 25.00 | 25.00 | |
| | MFA | A | 25.00 | 32.00 | 32.00 | 32.00 | |
| COP | EER (Nominal Cooling) | | - | 4.48 | 4.12 | 4.00 | 4.49 |
| | COP (Nominal Heating) | | - | 4.94 | 4.70 | 4.34 | 4.74 |
| | Energy Grade | | - | ESEER 7.85 | ESEER 7.25 | ESEER 7.03 | ESEER 7.02 |
| | | | - | - | - | - | - |
| Compressor | Type | | - | SSC Scroll x 1 | SSC Scroll x 1 | SSC Scroll x 1 | SSC Scroll x 1 |
| | Output | | kW x n | (4.96) | (6.39) | (6.39) | (6.39) |
| | Model Name | | - | DS-GB052FAVBSGx1 | DS-GB066FAVBSGx1 | DS-GB066FAVBSGx1 | DS-GB066FAVBSGx1 |
| | Oil | Type | - | PVE | PVE | PVE | PVE |
| Fan | Type | | - | Propeller | Propeller | Propeller | Propeller |
| | Output x n | | W | 830x1 | 830x1 | 830x1 | 620x2 |
| | Air Flow Rate | | CMM | 170 | 170 | 220 | 255 |
| | | | l/s | 2,833.33 | 2,833.33 | 3,666.67 | 4,250.00 |
| | External Static Pressure | Max. | mmAQ | 8.00 | 8.00 | 8.00 | 8.00 |
| Pa | | | 78.40 | 78.40 | 78.40 | 78.40 | |
| Piping Connections | Liquid Pipe | | Ø, mm | 9.52 | 9.52 | 12.70 | 12.70 |
| | | | Ø, inch | 3/8" | 3/8" | 1/2" | 1/2" |
| | Gas Pipe | | Ø, mm | 19.05 | 22.22 | 28.58 | 28.58 |
| | | | Ø, inch | 3/4" | 7/8" | 1 1/8" | 1 1/8" |
| | Discharge Gas Pipe | | Ø, mm | - | - | - | - |
| | | | Ø, inch | - | - | - | - |
| | Installation Limitation | Max. Length | m | 200 (220) | 200 (220) | 200 (220) | 200 (220) |
| Max. Height | | m | 110 (40) | 110 (40) | 110 (40) | 110 (40) | |
| Field Wiring | Power Source Wire | | mm ² | - | - | - | - |
| | Transmission Cable | | mm ² | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 |
| Refrigerant | Type | | - | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) |
| | Factory Charging | | kg | 5.50 | 5.20 | 5.50 | 7.70 |
| Sound | Pressure | | dBA | 57.00 | 58.00 | 62.00 | 61.00 |
| | Power | | dBA | 77.00 | 79.00 | 81.00 | 81.00 |
| External Dimension | New Weight | | kg | 184.5 | 184.5 | 184.5 | 235.0 |
| | Shipping Weight | | kg | 200.5 | 200.5 | 200.5 | 254.0 |
| | Net Dimensions (WxHxD) | | mm | 880x1,695x765 | 880x1,695x765 | 880x1,695x765 | 1,295x1,695x765 |
| | Shipping Dimensions (WxHxD) | | mm | 948x1,887x832 | 948x1,887x832 | 948x1,887x832 | 1,363x1,887x832 |
| Operating Temp. | Cooling | | °C | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 |
| | Heating | | °C | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 |

If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under. (If the level difference is higher than 50m, make a decision by PDM kit installation Guide software whether the PDM kit should be installed or not.) *PDM kit: Pressure Drop Modulation kit

1) Nominal cooling capacities are based on;

Indoor temperature : 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m , Level differences : 0m

2) Nominal heating capacities are based on;

Indoor temperature : 20°C DB, 15°C WB / Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

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

4) These products contain R410A which is fluorinated greenhouse gas.

2 Specifications

Heat Pump

| Type | | | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | |
|--------------------|-----------------------------|-------------|-----------------|------------------|------------------|------------------|------------------|
| Model Name | | | AM160FXVAGH/EU | AM180FXVAGH/EU | AM200FXVAGH/EU | AM220FXVAGH/EU | |
| Power Supply | | Ø, #, V, Hz | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | |
| Mode | | | - | Heat Pump | Heat Pump | Heat Pump | |
| Performance | HP | Cooling | HP | 16.00 | 18.00 | 20.00 | 22.00 |
| | | | kW | 45.00 | 50.40 | 56.00 | 61.60 |
| | Capacity (Nominal) | Heating | Btu/h | 153,500 | 172,000 | 191,100 | 210,200 |
| | | | kW | 50.40 | 56.70 | 63.00 | 69.30 |
| | | Btu/h | 172,000 | 193,500 | 215,000 | 236,500 | |
| Power | Power Input (Nominal) | Cooling 1) | kW | 11.00 | 12.88 | 15.19 | 17.35 |
| | | Heating 2) | kW | 11.50 | 11.90 | 13.90 | 16.70 |
| | Current Input (Nominal) | Cooling 1) | A | 17.60 | 20.70 | 24.40 | 27.80 |
| | | Heating 2) | A | 18.40 | 19.10 | 22.30 | 26.80 |
| | MCA | A | 32.00 | 39.10 | 42.50 | 44.50 | |
| | MFA | A | 40.00 | 50.00 | 63.00 | 63.00 | |
| COP | EER (Nominal Cooling) | | - | 4.09 | 3.91 | 3.69 | 3.55 |
| | COP (Nominal Heating) | | - | 4.38 | 4.76 | 4.53 | 4.15 |
| | Energy Grade | | - | ESEER 6.78 | ESEER 6.59 | ESEER 6.56 | ESEER 6.25 |
| | | | - | - | - | - | - |
| Compressor | Type | | - | SSC Scroll x 2 | SSC Scroll x 2 | SSC Scroll x 2 | SSC Scroll x 2 |
| | Output | | kW x n | (4.96 x 2) | (6.39 x 2) | (6.39 x 2) | (6.39 x 2) |
| | Model Name | | - | DS-GB052FAVASGx2 | DS-GB066FAVBSGx2 | DS-GB066FAVBSGx2 | DS-GB066FAVBSGx2 |
| | Oil | Type | - | PVE | PVE | PVE | PVE |
| Fan | Type | | - | Propeller | Propeller | Propeller | Propeller |
| | Output x n | | W | 620x2 | 620x2 | 620x2 | 620x2 |
| | Air Flow Rate | | CMM | 255 | 290 | 290 | 290 |
| | | | l/s | 4,250.00 | 4,833.33 | 4,833.33 | 4,833.33 |
| | External Static Pressure | Max. | mmAQ | 8.00 | 8.00 | 8.00 | 8.00 |
| Pa | | | 78.40 | 78.40 | 78.40 | 78.40 | |
| Piping Connections | Liquid Pipe | | Ø, mm | 12.70 | 15.88 | 15.88 | 15.88 |
| | | | Ø, inch | 1/2" | 5/8" | 5/8" | 5/8" |
| | Gas Pipe | | Ø, mm | 28.58 | 28.58 | 28.58 | 28.58 |
| | | | Ø, inch | 1 1/8" | 1 1/8" | 1 1/8" | 1 1/8" |
| | Discharge Gas Pipe | | Ø, mm | - | - | - | - |
| | | | Ø, inch | - | - | - | - |
| | Installation Limitation | Max. Length | m | 200 (220) | 200 (220) | 200 (220) | 200 (220) |
| Max. Height | | m | 110 (40) | 110 (40) | 110 (40) | 110 (40) | |
| Field Wiring | Power Source Wire | | mm ² | - | - | - | - |
| | Transmission Cable | | mm ² | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 |
| Refrigerant | Type | | - | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) |
| | Factory Charging | | kg | 7.40 | 8.70 | 8.40 | 8.40 |
| Sound | Pressure | | dBA | 63.00 | 64.00 | 65.00 | 65.00 |
| | Power | | dBA | 83.00 | 86.00 | 87.00 | 89.00 |
| External Dimension | New Weight | | kg | 278.0 | 300.0 | 300.0 | 300.0 |
| | Shipping Weight | | kg | 297.0 | 319.0 | 319.0 | 319.0 |
| | Net Dimensions (WxHxD) | | mm | 1,295x1,695x765 | 1,295x1,695x765 | 1,295x1,695x765 | 1,295x1,695x765 |
| | Shipping Dimensions (WxHxD) | | mm | 1,363x1,887x832 | 1,363x1,887x832 | 1,363x1,887x832 | 1,363x1,887x832 |
| Operating Temp. | Cooling | | °C | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 |
| | Heating | | °C | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 |

If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under. (If the level difference is higher than 50m, make a decision by PDM kit installation Guide software whether the PDM kit should be installed or not.) *PDM kit: Pressure Drop Modulation kit

1) Nominal cooling capacities are based on;

Indoor temperature : 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m , Level differences : 0m

2) Nominal heating capacities are based on;

Indoor temperature : 20°C DB, 15°C WB / Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

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

4) These products contain R410A which is fluorinated greenhouse gas.

2 Specifications

Heat Pump

| Type | | | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | |
|--------------------|-----------------------------|-------------|-----------------|-------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Model Name | | | AM240FXVAGH/EU | AM260FXVAGH/EU | AM280FXVAGH/EU | AM300FXVAGH/EU | |
| Power Supply | | Ø, #, V, Hz | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | |
| Mode | | | - | Heat Pump | Heat Pump | Heat Pump | |
| Performance | HP | Cooling | HP | 24.00 | 26.00 | 28.00 | 30.00 |
| | | | kW | 67.20 | 73.60 | 78.60 | 84.00 |
| | Capacity (Nominal) | Heating | Btu/h | 229,300 | 251,100 | 268,200 | 286,600 |
| | | | kW | 75.60 | 82.80 | 88.20 | 94.50 |
| | | Btu/h | 258,000 | 282,500 | 301,000 | 322,400 | |
| Power | Power Input (Nominal) | Cooling 1) | kW | 16.80 | 17.30 | 19.40 | 21.28 |
| | | Heating 2) | kW | 17.40 | 18.20 | 20.20 | 20.60 |
| | Current Input (Nominal) | Cooling 1) | A | 27.00 | 27.80 | 31.10 | 34.20 |
| | | Heating 2) | A | 28.00 | 29.20 | 32.40 | 33.10 |
| | MCA | A | 50.00 | 50.00 | 57.00 | 64.10 | |
| | MFA | A | 63.00 | 63.00 | 63.00 | 75.00 | |
| COP | EER (Nominal Cooling) | | - | 4.00 | 4.25 | 4.05 | 3.95 |
| | COP (Nominal Heating) | | - | 4.34 | 4.55 | 4.37 | 4.59 |
| | Energy Grade | | - | ESEER 7.03 | ESEER 7.02 | ESEER 6.90 | ESEER 6.81 |
| | | | - | - | - | - | - |
| Compressor | Type | | - | SSC Scroll x 2 | SSC Scroll x 2 | SSC Scroll x 3 | SSC Scroll x 3 |
| | Output | | kW x n | (6.39)x2 | (6.39) + (6.39) | (6.39) + (4.96x2) | (6.39) + (6.39x2) |
| | Model Name | | - | DS-GB066FAVBSGx2 | DS-GB066FAVBSGx2 | DS-GB066FAVBSGx1 + DS-GB052FAVBSGx2 | DS-GB066FAVBSGx3 |
| | Oil | Type | - | PVE | PVE | PVE | PVE |
| Fan | Type | | - | Propeller | Propeller | Propeller | Propeller |
| | Output x n | | W | (830.0)x2 | (830.0) + (620.0x2) | (830.0) + (620.0x2) | (830.0) + (620.0x2) |
| | Air Flow Rate | | CMM | 220.0x2 | 220.0 + 255.0 | 220.0 + 255.0 | 220.0 + 290.0 |
| | | | l/s | 3,666.7x2 | 3,666.7 + 4,250.0 | 3,666.7 + 4,250.0 | 3,666.7 + 4,833.3 |
| | External Static Pressure | Max. | mmAQ | 8.00 | 8.00 | 8.00 | 8.00 |
| Pa | | | 78.40 | 78.40 | 78.40 | 78.40 | |
| Piping Connections | Liquid Pipe | | Ø, mm | 19.05 | 19.05 | 19.05 | 19.05 |
| | | | Ø, inch | 3/4" | 3/4" | 3/4" | 3/4" |
| | Gas Pipe | | Ø, mm | 34.92 | 34.92 | 34.92 | 34.92 |
| | | | Ø, inch | 1 3/8" | 1 3/8" | 1 3/8" | 1 3/8" |
| | Discharge Gas Pipe | | Ø, mm | - | - | - | - |
| | | | Ø, inch | - | - | - | - |
| | Installation Limitation | Max. Length | m | 200 (220) | 200 (220) | 200 (220) | 200 (220) |
| Max. Height | | m | 110 (40) | 110 (40) | 110 (40) | 110 (40) | |
| Field Wiring | Power Source Wire | | mm ² | - | - | - | - |
| | Transmission Cable | | mm ² | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 |
| Refrigerant | Type | | - | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) |
| | Factory Charging | | kg | 11.00 | 13.20 | 12.90 | 14.20 |
| Sound | Pressure | | dBA | 66.00 | 66.00 | 66.00 | 66.00 |
| | Power | | dBA | 91.00 | 91.00 | 85.00 | 87.00 |
| External Dimension | New Weight | | kg | (184.5)x2 | (184.5) + (235.0) | (184.5) + (278.0) | (184.5) + (300.0) |
| | Shipping Weight | | kg | (200.5)x2 | (200.5) + (254.0) | (200.5) + (297.0) | (200.5) + (319.0) |
| | Net Dimensions (WxHxD) | | mm | (880x1,695x765)x2 | (880x1,695x765) + (1,295x1,695x765) | (880x1,695x765) + (1,295x1,695x765) | (880x1,695x765) + (1,295x1,695x765) |
| | Shipping Dimensions (WxHxD) | | mm | (948x1,887x832)x2 | (948x1,887x832) + (1,363x1,887x832) | (948x1,887x832) + (1,363x1,887x832) | (948x1,887x832) + (1,363x1,887x832) |
| Operating Temp. | Cooling | | °C | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 |
| | Heating | | °C | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 |

If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under. (If the level difference is higher than 50m, make a decision by PDM kit installation Guide software whether the PDM kit should be installed or not.) *PDM kit: Pressure Drop Modulation kit

1) Nominal cooling capacities are based on;

Indoor temperature : 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m , Level differences : 0m

2) Nominal heating capacities are based on;

Indoor temperature : 20°C DB, 15°C WB / Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

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

4) These products contain R410A which is fluorinated greenhouse gas.

2 Specifications

Heat Pump

| Type | | | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | |
|--------------------|-----------------------------|-------------|-----------------|-------------------------------------|-------------------------------------|---------------------------------------|---------------------------------------|
| Model Name | | | AM320FXVAGH/EU | AM340FXVAGH/EU | AM360FXVAGH/EU | AM380FXVAGH/EU | |
| Power Supply | | Ø, #, V, Hz | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | |
| Mode | | | - | Heat Pump | Heat Pump | Heat Pump | |
| Performance | HP | Cooling | HP | 32.00 | 34.00 | 36.00 | 38.00 |
| | | | kW | 89.60 | 95.20 | 101.60 | 106.60 |
| | Capacity (Nominal) | Cooling | Btu/h | 305,700 | 324,800 | 346,700 | 363,700 |
| | | | Heating | kW | 100.80 | 107.10 | 114.30 |
| | | Btu/h | 343,900 | 365,400 | 390,000 | 408,400 | |
| Power | Power Input (Nominal) | Cooling 1) | kW | 23.59 | 25.75 | 26.25 | 28.35 |
| | | Heating 2) | kW | 22.60 | 25.40 | 26.20 | 28.20 |
| | Current Input (Nominal) | Cooling 1) | A | 37.90 | 41.30 | 42.10 | 45.40 |
| | | Heating 2) | A | 36.30 | 40.80 | 42.00 | 45.20 |
| | MCA | A | 67.5 | 69.50 | 69.50 | 76.50 | |
| | MFA | A | 75.00 | 80.00 | 80.00 | 90.00 | |
| COP | EER (Nominal Cooling) | | - | 3.80 | 3.70 | 3.87 | 3.76 |
| | COP (Nominal Heating) | | - | 4.46 | 4.22 | 4.36 | 4.24 |
| | Energy Grade | | - | ESEER 6.80 | ESEER 6.64 | ESEER 6.64 | ESEER 6.52 |
| | | | - | - | - | - | - |
| Compressor | Type | | - | SSC Scroll x 3 | SSC Scroll x 3 | SSC Scroll x 3 | SSC Scroll x 4 |
| | Output | | kW x n | (6.39) + (6.39x2) | (6.39) + (6.39x2) | (6.39) + (6.39x2) | (4.96x2) + (6.39x2) |
| | Model Name | | - | DS-GB066FAVBSGx3 | DS-GB066FAVBSGx3 | DS-GB066FAVBSGx3 | DS-GB052FAVBSGx2 + DS-GB066FAVBSGx2 |
| | Oil | Type | - | PVE | PVE | PVE | PVE |
| Fan | Type | | - | Propeller | Propeller | Propeller | Propeller |
| | Output x n | | W | (830.0) + (620.0x2) | (830.0) + (620.0x2) | (620.0x2) + (620.0x2) | (620.0x2) + (620.0x2) |
| | Air Flow Rate | | CMM | 220.0 + 290.0 | 220.0 + 290.0 | 255.0 + 290.0 | 255.0 + 290.0 |
| | | | l/s | 3,666.7 + 4,833.3 | 3,666.7 + 4,833.3 | 4,250.0 + 4,833.3 | 4,250.0 + 4,833.3 |
| | External Static Pressure | Max. | mmAQ | 8.00 | 8.00 | 8.00 | 8.00 |
| Pa | | | 78.40 | 78.40 | 78.40 | 78.40 | |
| Piping Connections | Liquid Pipe | | Ø, mm | 19.05 | 19.05 | 19.05 | 19.05 |
| | | | Ø, inch | 3/4" | 3/4" | 3/4" | 3/4" |
| | Gas Pipe | | Ø, mm | 34.92 | 34.92 | 41.28 | 41.28 |
| | | | Ø, inch | 1 3/8" | 1 3/8" | 1 5/8" | 1 5/8" |
| | Discharge Gas Pipe | | Ø, mm | - | - | - | - |
| | | | Ø, inch | - | - | - | - |
| | Installation Limitation | Max. Length | m | 200 (220) | 200 (220) | 200 (220) | 200 (220) |
| Max. Height | | m | 110 (40) | 110 (40) | 110 (40) | 110 (40) | |
| Field Wiring | Power Source Wire | | mm ² | - | - | - | - |
| | Transmission Cable | | mm ² | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 |
| Refrigerant | Type | | - | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) |
| | Factory Charging | | kg | 13.90 | 13.90 | 16.10 | 15.80 |
| Sound | Pressure | | dBA | 67.00 | 67.00 | 66.00 | 67.00 |
| | Power | | dBA | 88.00 | 88.00 | 88.00 | 88.00 |
| External Dimension | New Weight | | kg | (184.5) + (300.0) | (184.5) + (300.0) | (235.0) + (300.0) | (278.0) + (300.0) |
| | Shipping Weight | | kg | (200.5) + (319.0) | (200.5) + (319.0) | (254.0) + (319.0) | (297.0) + (319.0) |
| | Net Dimensions (WxHxD) | | mm | (880x1,695x765) + (1,295x1,695x765) | (880x1,695x765) + (1,295x1,695x765) | (1,295x1,695x765) + (1,295x1,695x765) | (1,295x1,695x765) + (1,295x1,695x765) |
| | Shipping Dimensions (WxHxD) | | mm | (948x1,887x832) + (1,363x1,887x832) | (948x1,887x832) + (1,363x1,887x832) | (1,363x1,887x832) + (1,363x1,887x832) | (1,363x1,887x832) + (1,363x1,887x832) |
| Operating Temp. | Cooling | | °C | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 |
| | Heating | | °C | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 |

If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under. (If the level difference is higher than 50m, make a decision by PDM kit installation Guide software whether the PDM kit should be installed or not.) *PDM kit: Pressure Drop Modulation kit

1) Nominal cooling capacities are based on;

Indoor temperature : 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m , Level differences : 0m

2) Nominal heating capacities are based on;

Indoor temperature : 20°C DB, 15°C WB / Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

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

4) These products contain R410A which is fluorinated greenhouse gas.

2 Specifications

Heat Pump

| Type | | | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | |
|-------------------------|-----------------------------|-------------|-----------------|---------------------|---------------------------------------|---------------------|---------------------------------------|
| Model Name | | | AM400FXVAGH/EU | AM420FXVAGH/EU | AM440FXVAGH/EU | AM460FXVAGH/EU | |
| Power Supply | | Ø, #, V, Hz | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | |
| Mode | | | - | Heat Pump | Heat Pump | Heat Pump | |
| Performance | HP | Cooling | HP | 40.00 | 42.00 | 44.00 | 46.00 |
| | | | kW | 112.00 | 117.60 | 123.20 | 128.80 |
| | Capacity (Nominal) | Cooling | Btu/h | 382,200 | 401,300 | 420,400 | 439,500 |
| | | | Heating | kW | 126.00 | 132.30 | 138.60 |
| | | Btu/h | 429,900 | 451,400 | 472,900 | 494,400 | |
| Power | Power Input (Nominal) | Cooling 1) | kW | 30.38 | 32.54 | 34.70 | 34.15 |
| | | Heating 2) | kW | 27.80 | 30.60 | 33.40 | 34.10 |
| | Current Input (Nominal) | Cooling 1) | A | 48.80 | 52.20 | 55.60 | 54.80 |
| | | Heating 2) | A | 44.60 | 49.10 | 53.60 | 54.80 |
| | MCA | A | 85.00 | 87.00 | 89.00 | 94.50 | |
| | MFA | A | 100.00 | 100.00 | 100.00 | 125.00 | |
| COP | EER (Nominal Cooling) | | - | 3.69 | 3.61 | 3.55 | 3.77 |
| | COP (Nominal Heating) | | - | 4.53 | 4.32 | 4.15 | 4.25 |
| | Energy Grade | | - | ESEER 6.56 | ESEER 6.41 | ESEER 6.25 | ESEER 6.77 |
| | | | - | - | - | - | - |
| Compressor | Type | | - | SSC Scroll x 4 | SSC Scroll x 4 | SSC Scroll x 4 | SSC Scroll x 4 |
| | Output | | kW x n | (6.39x2)x2 | (6.39x2) + (6.39x2) | (6.39x2)x2 | (6.39)x2 + (6.39x2) |
| | Model Name | | - | DS-GB066FAVBSGx4 | DS-GB066FAVBSGx4 | DS-GB066FAVBSGx4 | DS-GB066FAVBSGx4 |
| | Oil | Type | - | PVE | PVE | PVE | PVE |
| Fan | Type | | - | Propeller | Propeller | Propeller | Propeller |
| | Output x n | | W | (620.0x2)x2 | (620.0x2) + (620.0x2) | (620.0x2)x2 | (830.0)x2 + (620.0x2) |
| | Air Flow Rate | | CMM | 290.0x2 | 290.0 + 290.0 | 290.0x2 | 220.0x2 + 290.0 |
| | | | l/s | 4,833.3x2 | 4,833.3 + 4,833.3 | 4,833.3x2 | 3,666.7x2 + 4,833.3 |
| | External Static Pressure | Max. | mmAQ | 8.00 | 8.00 | 8.00 | 8.00 |
| Pa | | | 78.40 | 78.40 | 78.40 | 78.40 | |
| Piping Connections | Liquid Pipe | | Ø, mm | 19.05 | 19.05 | 19.05 | 19.05 |
| | | | Ø, inch | 3/4" | 3/4" | 3/4" | 3/4" |
| | Gas Pipe | | Ø, mm | 41.28 | 41.28 | 41.28 | 41.28 |
| | | | Ø, inch | 1 5/8" | 1 5/8" | 1 5/8" | 1 5/8" |
| | Discharge Gas Pipe | | Ø, mm | - | - | - | - |
| | | | Ø, inch | - | - | - | - |
| Installation Limitation | Max. Length | m | 200 (220) | 200 (220) | 200 (220) | 200 (220) | |
| | Max. Height | m | 110 (40) | 110 (40) | 110 (40) | 110 (40) | |
| Field Wiring | Power Source Wire | | mm ² | - | - | - | - |
| | Transmission Cable | | mm ² | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 |
| Refrigerant | Type | | - | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) |
| | Factory Charging | | kg | 16.80 | 16.80 | 16.80 | 19.40 |
| Sound | Pressure | | dBA | 68.00 | 68.00 | 68.00 | 68.00 |
| | Power | | dBA | 90.00 | 90.00 | 90.00 | 89.00 |
| External Dimension | New Weight | | kg | (300.0)x2 | (300.0)x2 | (300.0)x2 | (184.5)x2 + (300.0) |
| | Shipping Weight | | kg | (319.0)x2 | (319.0)x2 | (319.0)x2 | (200.5)x2 + (319.0) |
| | Net Dimensions (WxHxD) | | mm | (1,295x1,695x765)x2 | (1,295x1,695x765) + (1,295x1,695x765) | (1,295x1,695x765)x2 | (880x1,695x765)x2 + (1,295x1,695x765) |
| | Shipping Dimensions (WxHxD) | | mm | (1,363x1,887x832)x2 | (1,363x1,887x832) + (1,363x1,887x832) | (1,363x1,887x832)x2 | (948x1,887x832)x2 + (1,363x1,887x832) |
| Operating Temp. | Cooling | | °C | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 |
| | Heating | | °C | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 |

If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under. (If the level difference is higher than 50m, make a decision by PDM kit installation Guide software whether the PDM kit should be installed or not.) *PDM kit: Pressure Drop Modulation kit

1) Nominal cooling capacities are based on;

Indoor temperature : 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m , Level differences : 0m

2) Nominal heating capacities are based on;

Indoor temperature : 20°C DB, 15°C WB / Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

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

4) These products contain R410A which is fluorinated greenhouse gas.

2 Specifications

Heat Pump

| Type | | | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | |
|--------------------|-----------------------------|-------------|-----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Model Name | | | AM480FXVAGH/EU | AM500FXVAGH/EU | AM520FXVAGH/EU | AM540FXVAGH/EU | |
| Power Supply | | Ø, #, V, Hz | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | |
| Mode | | | - | Heat Pump | Heat Pump | Heat Pump | |
| Performance | HP | Cooling | HP | 48.00 | 50.00 | 52.00 | 54.00 |
| | | | kW | 135.20 | 140.20 | 145.60 | 151.20 |
| | Capacity (Nominal) | Cooling | Btu/h | 461,300 | 478,400 | 496,800 | 515,900 |
| | | | Heating | kW | 152.10 | 157.50 | 163.80 |
| | | Btu/h | | 519,000 | 537,400 | 558,900 | 580,400 |
| Power | Power Input (Nominal) | Cooling 1) | kW | 34.65 | 36.75 | 38.63 | 40.94 |
| | | Heating 2) | kW | 34.90 | 36.90 | 37.30 | 39.30 |
| | Current Input (Nominal) | Cooling 1) | A | 55.60 | 58.90 | 62.00 | 65.70 |
| | | Heating 2) | A | 56.00 | 59.20 | 59.90 | 63.10 |
| | MCA | A | 94.5 | 101.5 | 108.6 | 112.00 | |
| | MFA | A | 125.00 | 125.00 | 125.00 | 125.00 | |
| COP | EER (Nominal Cooling) | | - | 3.90 | 3.81 | 3.77 | 3.69 |
| | COP (Nominal Heating) | | - | 4.36 | 4.27 | 4.39 | 4.33 |
| | Energy Grade | | - | ESEER 6.77 | ESEER 6.69 | ESEER 6.62 | ESEER 6.61 |
| | | | - | - | - | - | - |
| Compressor | Type | | - | SSC Scroll x 4 | SSC Scroll x 5 | SSC Scroll x 5 | SSC Scroll x 5 |
| | Output | | kW x n | (6.39) + (6.39) + (6.39x2) | (6.39)+(4.96x2)+(6.39x2) | (6.39)+(6.39x2)+(6.39)x2 | (6.39)+(6.39x2)+(6.39)x2 |
| | Model Name | | - | DS-GB066FAVBSGx4 | DS-GB066FAVBSGx3 + DS-GB052FAVASGx2 | DS-GB066FAVBSGx5 | DS-GB066FAVBSGx5 |
| | Oil | Type | - | PVE | PVE | PVE | PVE |
| Fan | Type | | - | Propeller | Propeller | Propeller | Propeller |
| | Output x n | | W | (830.0) + (620.0x2)x2 | (830.0)+(620.0x2)x2 | (. . 0.0) + (620.0x2)x2 | (830.0) + (620.0x2)x2 |
| | Air Flow Rate | | CMM | 220.0 + 255.0 + 290.0 | 220.0 + 255.0 + 290.0 | 220.0 + 290.0 + 290.0 | 220.0 + 290.0 + 290.0 |
| | | | l/s | 3,666.7+4,250.0+4,833.3 | 3,666.7+4,250.0+4,833.3 | 3,666.7+4,833.3+4,833.3 | 3,666.7+4,833.3+4,833.3 |
| | External Static Pressure | Max. | mmAQ | 8.00 | 8.00 | 8.00 | 8.00 |
| Pa | | | 78.40 | 78.40 | 78.40 | 78.40 | |
| Piping Connections | Liquid Pipe | | Ø, mm | 19.05 | 19.05 | 19.05 | 19.05 |
| | | | Ø, inch | 3/4" | 3/4" | 3/4" | 3/4" |
| | Gas Pipe | | Ø, mm | 41.28 | 41.28 | 41.28 | 41.28 |
| | | | Ø, inch | 1 5/8" | 1 5/8" | 1 5/8" | 1 5/8" |
| | Discharge Gas Pipe | | Ø, mm | - | - | - | - |
| | | | Ø, inch | - | - | - | - |
| | Installation Limitation | Max. Length | m | 200 (220) | 200 (220) | 200 (220) | 200 (220) |
| Max. Height | | m | 110 (40) | 110 (40) | 110 (40) | 110 (40) | |
| Field Wiring | Power Source Wire | | mm ² | - | - | - | - |
| | Transmission Cable | | mm ² | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 |
| Refrigerant | Type | | - | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) |
| | Factory Charging | | kg | 21.60 | 21.30 | 22.60 | 22.30 |
| Sound | Pressure | | dBA | 68.00 | 68.00 | 69.00 | 69.00 |
| | Power | | dBA | 89.00 | 89.00 | 90.00 | 91.00 |
| External Dimension | New Weight | | kg | (184.5)+(235.0)+(300.0) | (184.5)+(278.0)+(300.0) | (184.5)+(300.0)+(300.0) | (184.5)+(300.0)+(300.0) |
| | Shipping Weight | | kg | (200.5)+(254.0)+(319.0) | (200.5)+(297.0)+(319.0) | (200.5)+(319.0)+(319.0) | (200.5)+(319.0)+(319.0) |
| | Net Dimensions (WxHxD) | | mm | (880x1,695x765) + (1,295x1,695x765)x2 | (880x1,695x765) + (1,295x1,695x765)x2 | (880x1,695x765) + (1,295x1,695x765)x2 | (880x1,695x765) + (1,295x1,695x765)x2 |
| | Shipping Dimensions (WxHxD) | | mm | (948x1,887x832) + (1,363x1,887x832)x2 | (948x1,887x832) + (1,363x1,887x832)x2 | (948x1,887x832) + (1,363x1,887x832)x2 | (948x1,887x832) + (1,363x1,887x832)x2 |
| Operating Temp. | Cooling | | °C | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 |
| | Heating | | °C | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 |

If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under. (If the level difference is higher than 50m, make a decision by PDM kit installation Guide software whether the PDM kit should be installed or not.) *PDM kit: Pressure Drop Modulation kit

1) Nominal cooling capacities are based on;

Indoor temperature : 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m , Level differences : 0m

2) Nominal heating capacities are based on;

Indoor temperature : 20°C DB, 15°C WB / Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

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

4) These products contain R410A which is fluorinated greenhouse gas.

2 Specifications

Heat Pump

| Type | | | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | |
|--------------------|-----------------------------|--------------------|-----------------|---------------------------------------|---|---|---|
| Model Name | | | AM560FXVAGH/EU | AM580FXVAGH/EU | AM600FXVAGH/EU | AM620FXVAGH/EU | |
| Power Supply | Ø, #, V, Hz | | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | |
| Mode | | | Heat Pump | Heat Pump | Heat Pump | Heat Pump | |
| Performance | HP | | HP | 56.00 | 58.00 | 60.00 | 62.00 |
| | | Capacity (Nominal) | Cooling | kW | 156.80 | 163.20 | 168.20 |
| | Btu/h | | | 535,000 | 556,900 | 573,900 | 592,300 |
| | Heating | | kW | 176.40 | 183.60 | 189.00 | 195.30 |
| | | | Btu/h | 601,900 | 626,500 | 644,900 | 666,400 |
| Power | Power Input (Nominal) | Cooling 1) | kW | 43.10 | 43.60 | 45.70 | 47.73 |
| | | Heating 2) | kW | 42.10 | 42.90 | 44.90 | 44.50 |
| | Current Input (Nominal) | Cooling 1) | A | 69.10 | 69.90 | 73.20 | 76.60 |
| | | Heating 2) | A | 67.60 | 68.80 | 72.00 | 71.40 |
| | MCA | A | 114.00 | 114.00 | 121.00 | 129.5 | |
| | MFA | A | 125.00 | 125.00 | 150.00 | 150.00 | |
| COP | EER (Nominal Cooling) | | - | 3.64 | 3.74 | 3.68 | 3.64 |
| | COP (Nominal Heating) | | - | 4.19 | 4.28 | 4.21 | 4.39 |
| | Energy Grade | | - | ESEER 6.51 | ESEER 6.51 | ESEER 6.43 | ESEER 6.46 |
| | | | - | - | - | - | - |
| Compressor | Type | | - | SSC Scroll x 5 | SSC Scroll x 5 | SSC Scroll x 6 | SSC Scroll x 6 |
| | Output | | kW x n | (6.39) + (6.39x2)x2 | (6.39) + (6.39x2)x2 | (4.96x2) + (6.39x2)x2 | (6.39x2)x2 + (6.39x2) |
| | Model Name | | - | DS-GB066FAVBSGx5 | DS-GB066FAVBSGx5 | DS-GB052FAVASGx2 + DS-GB066FAVBSGx4 | DS-GB066FAVBSGx6 |
| | Oil | Type | - | PVE | PVE | PVE | PVE |
| Fan | Type | | - | Propeller | Propeller | Propeller | Propeller |
| | Output x n | | W | (830.0) + (620.0x2)x2 | (620.0x2) + (620.0x2)x2 | (620.0x2) + (620.0x2)x2 | (620.0x2)x2 + (620.0x2) |
| | Air Flow Rate | | CMM | 220.0 + 290.0x2 | 255.0 + 290.0x2 | 255.0 + 290.0x2 | 290.0x2 + 290.0 |
| | | | l/s | 3,666.7 + 4,833.3x2 | 4,250.0 + 4,833.3x2 | 4,250.0 + 4,833.3x2 | 4,833.3x2 + 4,833.3 |
| | External Static Pressure | Max. | mmAQ | 8.00 | 8.00 | 8.00 | 8.00 |
| Pa | | | 78.40 | 78.40 | 78.40 | 78.40 | |
| Piping Connections | Liquid Pipe | | Ø, mm | 19.05 | 19.05 | 19.05 | 22.22 |
| | | | Ø, inch | 3/4" | 3/4" | 3/4" | 7/8" |
| | Gas Pipe | | Ø, mm | 41.28 | 41.28 | 41.28 | 53.98 |
| | | | Ø, inch | 1 5/8" | 1 5/8" | 1 5/8" | 2 1/8" |
| | Discharge Gas Pipe | | Ø, mm | - | - | - | - |
| | | | Ø, inch | - | - | - | - |
| | Installation Limitation | Max. Length | m | 200 (220) | 200 (220) | 200 (220) | 200 (220) |
| Max. Height | | m | 110 (40) | 110 (40) | 110 (40) | 110 (40) | |
| Field Wiring | Power Source Wire | | mm ² | - | - | - | - |
| | Transmission Cable | | mm ² | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 |
| Refrigerant | Type | | - | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) |
| | Factory Charging | | kg | 22.30 | 24.50 | 24.20 | 25.20 |
| Sound | Pressure | | dBA | 69.00 | 69.00 | 69.00 | 70.00 |
| | Power | | dBA | 91.00 | 91.00 | 91.00 | 92.00 |
| External Dimension | New Weight | | kg | (184.5) + (300.0)x2 | (235.0) + (300.0)x2 | (278.0) + (300.0)x2 | (300.0)x2 + (300.0) |
| | Shipping Weight | | kg | (200.5) + (319.0)x2 | (254.0) + (319.0)x2 | (297.0) + (319.0)x2 | (319.0)x2 + (319.0) |
| | Net Dimensions (WxHxD) | | mm | (880x1,695x765) + (1,295x1,695x765)x2 | (1,295x1,695x765) + (1,295x1,695x765)x2 | (1,295x1,695x765) + (1,295x1,695x765)x2 | (1,295x1,695x765)x2 + (1,295x1,695x765) |
| | Shipping Dimensions (WxHxD) | | mm | (948x1,887x832) + (1,363x1,887x832)x2 | (1,363x1,887x832) + (1,363x1,887x832)x2 | (1,363x1,887x832) + (1,363x1,887x832)x2 | (1,363x1,887x832)x2 + (1,363x1,887x832) |
| Operating Temp. | Cooling | | °C | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 |
| | Heating | | °C | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 |

If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under. (If the level difference is higher than 50m, make a decision by PDM kit installation Guide software whether the PDM kit should be installed or not.) *PDM kit: Pressure Drop Modulation kit

1) Nominal cooling capacities are based on;

Indoor temperature : 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m , Level differences : 0m

2) Nominal heating capacities are based on;

Indoor temperature : 20°C DB, 15°C WB / Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

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

4) These products contain R410A which is fluorinated greenhouse gas.

2 Specifications

Heat Pump

| Type | | | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | |
|--------------------|-----------------------------|-------------|-----------------|---|---------------------|---|---------------------------------------|
| Model Name | | | AM640FXVAGH/EU | AM660FXVAGH/EU | AM680FXVAGH/EU | AM700FXVAGH/EU | |
| Power Supply | | Ø, #, V, Hz | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | |
| Mode | | | - | Heat Pump | Heat Pump | Heat Pump | |
| Performance | HP | Cooling | HP | 64.00 | 66.00 | 68.00 | 70.00 |
| | | | kW | 179.20 | 184.80 | 190.40 | 196.80 |
| | Capacity (Nominal) | Cooling | Btu/h | 611,500 | 630,600 | 649,700 | 671,500 |
| | | | Heating | kW | 201.60 | 207.90 | 214.20 |
| | | Btu/h | 687,900 | 709,400 | 730,900 | 755,400 | |
| Power | Power Input (Nominal) | Cooling 1) | kW | 49.89 | 52.05 | 51.50 | 52.00 |
| | | Heating 2) | kW | 47.30 | 50.10 | 50.80 | 51.60 |
| | Current Input (Nominal) | Cooling 1) | A | 80.00 | 83.40 | 82.60 | 83.40 |
| | | Heating 2) | A | 75.90 | 80.40 | 81.60 | 82.80 |
| | MCA | A | 131.5 | 133.50 | 139.00 | 139.00 | |
| | MFA | A | 150.00 | 150.00 | 175.00 | 175.00 | |
| COP | EER (Nominal Cooling) | | - | 3.59 | 3.55 | 3.70 | 3.78 |
| | COP (Nominal Heating) | | - | 4.26 | 4.15 | 4.22 | 4.29 |
| | Energy Grade | | - | ESEER 6.35 | ESEER 6.25 | ESEER 6.64 | ESEER 6.64 |
| | | | - | - | - | - | - |
| Compressor | Type | | - | SSC Scroll x 6 | SSC Scroll x 6 | SSC Scroll x 6 | SSC Scroll x 6 |
| | Output | | kW x n | (6.39x2) + (6.39x2)x2 | (6.39x2)x3 | (6.39)x2 + (6.39x2)x2 | (6.39)+(6.39)+(6.39x2)x2 |
| | Model Name | | - | DS-GB066FAVBSGx6 | DS-GB066FAVBSGx6 | DS-GB066FAVBSGx6 | DS-GB066FAVBSGx6 |
| | Oil | Type | - | PVE | PVE | PVE | PVE |
| Fan | Type | | - | Propeller | Propeller | Propeller | Propeller |
| | Output x n | | W | (620.0x2) + (620.0x2)x2 | (620.0x2)x3 | (830.0)x2 + (620.0x2)x2 | (830.0) + (620.0x2)x3 |
| | Air Flow Rate | | CMM | 290.0 + 290.0x2 | 290.0x3 | 220.0x2 + 290.0x2 | 220.0 + 255.0 + 290.0x2 |
| | | | l/s | 4,833.3 + 4,833.3x2 | 4,833.3x3 | 3,666.7x2 + 4,833.3x2 | 3,666.7+4,250.0+4,833.3x2 |
| | External Static Pressure | Max. | mmAQ | 8.00 | 8.00 | 8.00 | 8.00 |
| Pa | | | 78.40 | 78.40 | 78.40 | 78.40 | |
| Piping Connections | Liquid Pipe | | Ø, mm | 22.22 | 22.22 | 22.22 | 22.22 |
| | | | Ø, inch | 7/8" | 7/8" | 7/8" | 7/8" |
| | Gas Pipe | | Ø, mm | 53.98 | 53.98 | 53.98 | 53.98 |
| | | | Ø, inch | 2 1/8" | 2 1/8" | 2 1/8" | 2 1/8" |
| | Discharge Gas Pipe | | Ø, mm | - | - | - | - |
| | | | Ø, inch | - | - | - | - |
| | Installation Limitation | Max. Length | m | 200 (220) | 200 (220) | 200 (220) | 200 (220) |
| Max. Height | | m | 110 (40) | 110 (40) | 110 (40) | 110 (40) | |
| Field Wiring | Power Source Wire | | mm ² | - | - | - | - |
| | Transmission Cable | | mm ² | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 |
| Refrigerant | Type | | - | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) |
| | Factory Charging | | kg | 25.20 | 25.20 | 27.80 | 30.00 |
| Sound | Pressure | | dBA | 70.00 | 70.00 | 70.00 | 70.00 |
| | Power | | dBA | 91.00 | 91.00 | 91.00 | 91.00 |
| External Dimension | New Weight | | kg | (300.0) + (300.0)x2 | (300.0)x3 | (184.5)x2 + (300.0)x2 | (184.5)+(235.0)+ (300.0)x2 |
| | Shipping Weight | | kg | (319.0) + (319.0)x2 | (319.0)x3 | (200.5)x2 + (319.0)x2 | (200.5)+(254.0)+(319.0)x2 |
| | Net Dimensions (WxHxD) | | mm | (1,295x1,695x765) + (1,295x1,695x765)x2 | (1,295x1,695x765)x3 | (880x1,695x765)x2 + (1,295x1,695x765)x2 | (880x1,695x765) + (1,295x1,695x765)x2 |
| | Shipping Dimensions (WxHxD) | | mm | (1,363x1,887x832) + (1,363x1,887x832)x2 | (1,363x1,887x832)x3 | (948x1,887x832)x2 + (1,363x1,887x832)x2 | (948x1,887x832) + (1,363x1,887x832)x2 |
| Operating Temp. | Cooling | | °C | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 |
| | Heating | | °C | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 |

If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under. (If the level difference is higher than 50m, make a decision by PDM kit installation Guide software whether the PDM kit should be installed or not.) *PDM kit: Pressure Drop Modulation kit

1) Nominal cooling capacities are based on;

Indoor temperature : 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m , Level differences : 0m

2) Nominal heating capacities are based on;

Indoor temperature : 20°C DB, 15°C WB / Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

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

4) These products contain R410A which is fluorinated greenhouse gas.

2 Specifications

Heat Pump

| Type | | | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | |
|--------------------|-----------------------------|-------------|-----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Model Name | | | AM720FXVAGH/EU | AM740FXVAGH/EU | AM760FXVAGH/EU | AM780FXVAGH/EU | |
| Power Supply | | Ø, #, V, Hz | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | |
| Mode | | | - | Heat Pump | Heat Pump | Heat Pump | |
| Performance | HP | Cooling | HP | 72.00 | 74.00 | 76.00 | 78.00 |
| | | | kW | 201.80 | 207.20 | 212.80 | 218.40 |
| | Capacity (Nominal) | Cooling | Btu/h | 688,600 | 707,000 | 726,100 | 745,200 |
| | | | Heating | kW | 226.80 | 233.10 | 239.40 |
| | | Btu/h | 773,900 | 795,400 | 816,900 | 838,400 | |
| Power | Power Input (Nominal) | Cooling 1) | kW | 54.10 | 55.98 | 58.29 | 60.45 |
| | | Heating 2) | kW | 53.60 | 54.00 | 56.00 | 58.80 |
| | Current Input (Nominal) | Cooling 1) | A | 86.70 | 89.80 | 93.50 | 96.90 |
| | | Heating 2) | A | 86.00 | 86.70 | 89.90 | 94.40 |
| | MCA | A | 146.00 | 153.10 | 156.50 | 158.5 | |
| | MFA | A | 175.00 | 175.00 | 175.00 | 175.00 | |
| COP | EER (Nominal Cooling) | | - | 3.73 | 3.70 | 3.65 | 3.61 |
| | COP (Nominal Heating) | | - | 4.23 | 4.32 | 4.28 | 4.18 |
| | Energy Grade | | - | ESEER 6.58 | ESEER 6.53 | ESEER 6.52 | ESEER 6.45 |
| | | | - | - | - | - | - |
| Compressor | Type | | - | SSC Scroll x 7 | SSC Scroll x 7 | SSC Scroll x 7 | SSC Scroll x 7 |
| | Output | | kW x n | (6.39)+(4.96x2)+(6.39x2)x2 | (6.39)+(6.39x2)+(6.39x2)x2 | (6.39)+(6.39x2)+(6.39x2)x2 | (6.39) + (6.39x2)x3 |
| | Model Name | | - | DS-GB066FAVBSGx5 + DS-GB052FAVASGx2 | DS-GB066FAVBSGx7 | DS-GB066FAVBSGx7 | DS-GB066FAVBSGx7 |
| | Oil | Type | - | PVE | PVE | PVE | PVE |
| Fan | Type | | - | Propeller | Propeller | Propeller | Propeller |
| | Output x n | | W | (830.0)+(620.0x2)x3 | (830.0)+(620.0x2)x3 | (830.0) + (620.0x2)x3 | (400.0) + (620.0x2)x3 |
| | Air Flow Rate | | CMM | 220.0 + 255.0 + 290.0x2 | 220.0 + 290.0 + 290.0x2 | 220.0 + 290.0 + 290.0x2 | 220.0 + 290.0x3 |
| | | | l/s | 3,666.7+4,250.0+4,833.3x2 | 3,666.7 + 4,833.3x3 | 3,666.7 + 4,833.3 x3 | 3,666.7 + 4,833.3x3 |
| | External Static Pressure | Max. | mmAQ | 8.00 | 8.00 | 8.00 | 8.00 |
| Pa | | | 78.40 | 78.40 | 78.40 | 78.40 | |
| Piping Connections | Liquid Pipe | | Ø, mm | 22.22 | 22.22 | 22.22 | 22.22 |
| | | | Ø, inch | 7/8" | 7/8" | 7/8" | 7/8" |
| | Gas Pipe | | Ø, mm | 53.98 | 53.98 | 53.98 | 53.98 |
| | | | Ø, inch | 2 1/8" | 2 1/8" | 2 1/8" | 2 1/8" |
| | Discharge Gas Pipe | | Ø, mm | - | - | - | - |
| | | | Ø, inch | - | - | - | - |
| | Installation Limitation | Max. Length | m | 200 (220) | 200 (220) | 200 (220) | 200 (220) |
| Max. Height | | m | 110 (40) | 110 (40) | 110 (40) | 110 (40) | |
| Field Wiring | Power Source Wire | | mm ² | - | - | - | - |
| | Transmission Cable | | mm ² | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 |
| Refrigerant | Type | | - | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) |
| | Factory Charging | | kg | 29.70 | 31.00 | 30.70 | 30.70 |
| Sound | Pressure | | dBA | 70.00 | 70.00 | 70.00 | 70.00 |
| | Power | | dBA | 91.00 | 92.00 | 92.00 | 92.00 |
| External Dimension | New Weight | | kg | (184.5)+(278.0)+(300.0)x2 | (184.5) + (300.0)x3 | (184.5) + (300.0)x3 | (184.5) + (300.0)x3 |
| | Shipping Weight | | kg | (200.5)+(297.0)+(319.0)x2 | (200.5) + (319.0)x3 | (200.5) + (319.0)x3 | (200.5) + (319.0)x3 |
| | Net Dimensions (WxHxD) | | mm | (880x1,695x765) + (1,295x1,695x765)x3 | (880x1,695x765) + (1,295x1,695x765)x3 | (880x1,695x765) + (1,295x1,695x765)x3 | (880x1,695x765) + (1,295x1,695x765)x3 |
| | Shipping Dimensions (WxHxD) | | mm | (948x1,887x832) + (1,363x1,887x832)x3 | (948x1,887x832) + (1,363x1,887x832)x3 | (948x1,887x832) + (1,363x1,887x832)x3 | (948x1,887x832) + (1,363x1,887x832)x3 |
| Operating Temp. | Cooling | | °C | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 |
| | Heating | | °C | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 |

If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under. (If the level difference is higher than 50m, make a decision by PDM kit installation Guide software whether the PDM kit should be installed or not.) *PDM kit: Pressure Drop Modulation kit

1) Nominal cooling capacities are based on;

Indoor temperature : 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m , Level differences : 0m

2) Nominal heating capacities are based on;

Indoor temperature : 20°C DB, 15°C WB / Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

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

4) These products contain R410A which is fluorinated greenhouse gas.

2 Specifications

Heat Pump

| | | | | | |
|--------------------|-----------------------------|-------------|-----------------|---|--|
| Type | | | DVM S(NEW) | | |
| Model Name | | | AM800FXVAGH/EU | | |
| Power Supply | | Ø, #, V, Hz | 3,4,380-415,50 | | |
| Mode | | | Heat Pump | | |
| Performance | HP | HP | 80.00 | | |
| | Capacity (Nominal) | Cooling | kW | 224.80 | |
| | | | Btu/h | 767,000 | |
| | | Heating | kW | 252.90 | |
| | | | Btu/h | 862,900 | |
| Power | Power Input (Nominal) | Cooling 1) | kW | 60.95 | |
| | | Heating 2) | kW | 59.60 | |
| | Current Input (Nominal) | Cooling 1) | A | 97.70 | |
| | | Heating 2) | A | 95.60 | |
| | MCA | A | 198.10 | | |
| | MFA | A | 200.00 | | |
| COP | EER (Nominal Cooling) | | - | 3.69 | |
| | COP (Nominal Heating) | | - | 4.24 | |
| | Energy Grade | | - | ESEER 6.44 | |
| | | | - | | |
| Compressor | Type | | - | SSC Scroll x 7 | |
| | Output | | kW x n | (6.39) + (6.39x2)x3 | |
| | Model Name | | - | DS-GB066FAVBSGx7 | |
| | Oil | Type | - | PVE | |
| Fan | Type | | - | Propeller | |
| | Output x n | | W | (620.0x2) + (620.0x2)x3 | |
| | Air Flow Rate | | CMM | 255.0 + 290.0x3 | |
| | | | l/s | 4,250.0 + 4,833.3x3 | |
| | External Static Pressure | Max. | mmAQ | 8.00 | |
| Pa | | | 78.40 | | |
| Piping Connections | Liquid Pipe | | Ø, mm | 22.22 | |
| | | | Ø, inch | 7/8" | |
| | Gas Pipe | | Ø, mm | 53.98 | |
| | | | Ø, inch | 2 1/8" | |
| | Discharge Gas Pipe | | Ø, mm | - | |
| | | | Ø, inch | - | |
| | Installation Limitation | Max. Length | m | 200 (220) | |
| Max. Height | | m | 110 (40) | | |
| Field Wiring | Power Source Wire | | mm ² | - | |
| | Transmission Cable | | mm ² | 0.75 ~ 1.50 | |
| Refrigerant | Type | | - | R410A(GWP >150) | |
| | Factory Charging | | kg | 32.90 | |
| Sound | Pressure | | dBA | 70.00 | |
| | Power | | | 92.00 | |
| External Dimension | New Weight | | kg | (235.0) + (300.0)x3 | |
| | Shipping Weight | | kg | (254.0) + (319.0)x3 | |
| | Net Dimensions (WxHxD) | | mm | (1,295x1,695x765) + (1,295x1,695x765)x3 | |
| | Shipping Dimensions (WxHxD) | | mm | (1,363x1,887x832) + (1,363x1,887x832)x3 | |
| Operating Temp. | Cooling | | °C | -15.0 ~ 48.0 | |
| | Heating | | °C | -25.0 ~ 24.0 | |

If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under. (If the level difference is higher than 50m, make a decision by PDM kit installation Guide software whether the PDM kit should be installed or not.) *PDM kit: Pressure Drop Modulation kit

1) Nominal cooling capacities are based on;

Indoor temperature : 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m , Level differences : 0m

2) Nominal heating capacities are based on;

Indoor temperature : 20°C DB, 15°C WB / Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

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

4) These products contain R410A which is fluorinated greenhouse gas.

2 Specifications

Heat Recovery

| Type | | | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | |
|--------------------|-----------------------------|-------------|-----------------|------------------|------------------|------------------|------------------|
| Model Name | | | AM080FXVAGR/EU | AM100FXVAGR/EU | AM120FXVAGR/EU | AM140FXVAGR/EU | |
| Power Supply | | Ø, #, V, Hz | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | |
| Mode | | | - | Heat Recovery | Heat Recovery | Heat Recovery | |
| Performance | HP | Cooling | HP | 8.00 | 10.00 | 12.00 | 14.00 |
| | | | kW | 22.40 | 28.00 | 33.60 | 40.00 |
| | Capacity (Nominal) | Heating | Btu/h | 76,400 | 95,500 | 114,600 | 136,500 |
| | | | kW | 25.20 | 31.50 | 37.80 | 45.00 |
| | | Btu/h | 86,000 | 107,500 | 129,000 | 153,500 | |
| Power | Power Input (Nominal) | Cooling 1) | kW | 5.00 | 6.80 | 8.40 | 8.90 |
| | | Heating 2) | kW | 5.10 | 6.70 | 8.70 | 9.50 |
| | Current Input (Nominal) | Cooling 1) | A | 8.00 | 10.90 | 13.50 | 14.30 |
| | | Heating 2) | A | 8.20 | 10.70 | 14.00 | 15.20 |
| | MCA | A | 18.00 | 21.10 | 25.00 | 25.00 | |
| | MFA | A | 25.00 | 32.00 | 32.00 | 32.00 | |
| COP | EER (Nominal Cooling) | | - | 4.48 | 4.12 | 4.00 | 4.49 |
| | COP (Nominal Heating) | | - | 4.94 | 4.70 | 4.34 | 4.74 |
| | Energy Grade | | - | ESEER 7.85 | ESEER 7.25 | ESEER 7.03 | ESEER 7.02 |
| | | | - | - | - | - | - |
| Compressor | Type | | - | SSC Scroll x 1 | SSC Scroll x 1 | SSC Scroll x 1 | SSC Scroll x 1 |
| | Output | | kW x n | (4.96) | (6.39) | (6.39) | (6.39) |
| | Model Name | | - | DS-GB052FAVBSGx1 | DS-GB066FAVBSGx1 | DS-GB066FAVBSGx1 | DS-GB066FAVBSGx1 |
| | Oil | Type | - | PVE | PVE | PVE | PVE |
| Fan | Type | | - | Propeller | Propeller | Propeller | Propeller |
| | Output x n | | W | 830x1 | 830x1 | 830x1 | 620x2 |
| | Air Flow Rate | | CMM | 170 | 170 | 220 | 255 |
| | | | l/s | 2,833.33 | 2,833.33 | 3,666.67 | 4,250.00 |
| | External Static Pressure | Max. | mmAQ | 8.00 | 8.00 | 8.00 | 8.00 |
| Pa | | | 78.40 | 78.40 | 78.40 | 78.40 | |
| Piping Connections | Liquid Pipe | | Ø, mm | 9.52 | 9.52 | 12.70 | 12.70 |
| | | | Ø, inch | 3/8" | 3/8" | 1/2" | 1/2" |
| | Gas Pipe | | Ø, mm | 19.05 | 22.22 | 28.58 | 28.58 |
| | | | Ø, inch | 3/4" | 7/8" | 1 1/8" | 1 1/8" |
| | Discharge Gas Pipe | | Ø, mm | 15.88 | 19.05 | 19.05 | 22.22 |
| | | | Ø, inch | 5/8" | 3/4" | 3/4" | 7/8" |
| | Installation Limitation | Max. Length | m | 200 (220) | 200 (220) | 200 (220) | 200 (220) |
| | | Max. Height | m | 110 (40) | 110 (40) | 110 (40) | 110 (40) |
| Field Wiring | Power Source Wire | | mm ² | - | - | - | - |
| | Transmission Cable | | mm ² | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 |
| Refrigerant | Type | | - | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) |
| | Factory Charging | | kg | 5.50 | 5.20 | 5.50 | 7.70 |
| Sound | Pressure | | dBA | 57.00 | 58.00 | 62.00 | 61.00 |
| | Power | | dBA | 77.00 | 79.00 | 81.00 | 81.00 |
| External Dimension | New Weight | | kg | 189.5 | 189.5 | 189.5 | 241.0 |
| | Shipping Weight | | kg | 205.5 | 205.5 | 205.5 | 260.0 |
| | Net Dimensions (WxHxD) | | mm | 880x1,695x765 | 880x1,695x765 | 880x1,695x765 | 1,295x1,695x765 |
| | Shipping Dimensions (WxHxD) | | mm | 948x1,887x832 | 948x1,887x832 | 948x1,887x832 | 1,363x1,887x832 |
| Operating Temp. | Cooling | | °C | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 |
| | Heating | | °C | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 |

If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under. (If the level difference is higher than 50m, make a decision by PDM kit installation Guide software whether the PDM kit should be installed or not.) *PDM kit: Pressure Drop Modulation kit

1) Nominal cooling capacities are based on;

Indoor temperature : 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m , Level differences : 0m

2) Nominal heating capacities are based on;

Indoor temperature : 20°C DB, 15°C WB / Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

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

4) These products contain R410A which is fluorinated greenhouse gas.

2 Specifications

Heat Recovery

| Type | | | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | |
|--------------------|-----------------------------|-------------|-----------------|------------------|------------------|------------------|------------------|
| Model Name | | | AM160FXVAGR/EU | AM180FXVAGR/EU | AM200FXVAGR/EU | AM220FXVAGR/EU | |
| Power Supply | | Ø, #, V, Hz | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | |
| Mode | | | - | Heat Recovery | Heat Recovery | Heat Recovery | |
| Performance | HP | Cooling | HP | 16.00 | 18.00 | 20.00 | 22.00 |
| | | | kW | 45.00 | 50.40 | 56.00 | 61.60 |
| | Capacity (Nominal) | Heating | Btu/h | 153,500 | 172,000 | 191,100 | 210,200 |
| | | | kW | 50.40 | 56.70 | 63.00 | 69.30 |
| | | Btu/h | 172,000 | 193,500 | 215,000 | 236,500 | |
| Power | Power Input (Nominal) | Cooling 1) | kW | 11.00 | 12.88 | 15.19 | 17.35 |
| | | Heating 2) | kW | 11.50 | 11.90 | 13.90 | 16.70 |
| | Current Input (Nominal) | Cooling 1) | A | 17.60 | 20.70 | 24.40 | 27.80 |
| | | Heating 2) | A | 18.40 | 19.10 | 22.30 | 26.80 |
| | MCA | | A | 32.00 | 39.10 | 42.50 | 44.50 |
| | MFA | | A | 40.00 | 50.00 | 63.00 | 63.00 |
| COP | EER (Nominal Cooling) | | - | 4.09 | 3.91 | 3.69 | 3.55 |
| | COP (Nominal Heating) | | - | 4.38 | 4.76 | 4.53 | 4.15 |
| | Energy Grade | | - | ESEER 6.78 | ESEER 6.59 | ESEER 6.56 | ESEER 6.25 |
| | | | - | - | - | - | - |
| Compressor | Type | | - | SSC Scroll x 2 | SSC Scroll x 2 | SSC Scroll x 2 | SSC Scroll x 2 |
| | Output | | kW x n | (4.96 x 2) | (6.39 x 2) | (6.39 x 2) | (6.39 x 2) |
| | Model Name | | - | DS-GB052FAVBSGx2 | DS-GB066FAVBSGx2 | DS-GB066FAVBSGx2 | DS-GB066FAVBSGx2 |
| | Oil | Type | - | PVE | PVE | PVE | PVE |
| Fan | Type | | - | Propeller | Propeller | Propeller | Propeller |
| | Output x n | | W | 620x2 | 620x2 | 620x2 | 620x2 |
| | Air Flow Rate | | CMM | 255 | 290 | 290 | 290 |
| | | | l/s | 4,250.00 | 4,833.33 | 4,833.33 | 4,833.33 |
| | External Static Pressure | Max. | mmAQ | 8.00 | 8.00 | 8.00 | 8.00 |
| Pa | | | 78.40 | 78.40 | 78.40 | 78.40 | |
| Piping Connections | Liquid Pipe | | Ø, mm | 12.70 | 15.88 | 15.88 | 15.88 |
| | | | Ø, inch | 1/2" | 5/8" | 5/8" | 5/8" |
| | Gas Pipe | | Ø, mm | 28.58 | 28.58 | 28.58 | 28.58 |
| | | | Ø, inch | 1 1/8" | 1 1/8" | 1 1/8" | 1 1/8" |
| | Discharge Gas Pipe | | Ø, mm | 22.22 | 22.22 | 28.58 | 28.58 |
| | | | Ø, inch | 7/8" | 7/8" | 1 1/8" | 1 1/8" |
| | Installation Limitation | Max. Length | m | 200 (220) | 200 (220) | 200 (220) | 200 (220) |
| Max. Height | | m | 110 (40) | 110 (40) | 110 (40) | 110 (40) | |
| Field Wiring | Power Source Wire | | mm ² | - | - | - | - |
| | Transmission Cable | | mm ² | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 |
| Refrigerant | Type | | - | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) |
| | Factory Charging | | kg | 7.40 | 8.70 | 8.40 | 8.40 |
| Sound | Pressure | | dBA | 63.00 | 64.00 | 65.00 | 65.00 |
| | Power | | dBA | 83.00 | 86.00 | 87.00 | 89.00 |
| External Dimension | New Weight | | kg | 284.0 | 306.0 | 306.0 | 306.0 |
| | Shipping Weight | | kg | 303.0 | 325.0 | 325.0 | 325.0 |
| | Net Dimensions (WxHxD) | | mm | 1,295x1,695x765 | 1,295x1,695x765 | 1,295x1,695x765 | 1,295x1,695x765 |
| | Shipping Dimensions (WxHxD) | | mm | 1,363x1,887x832 | 1,363x1,887x832 | 1,363x1,887x832 | 1,363x1,887x832 |
| Operating Temp. | Cooling | | °C | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 |
| | Heating | | °C | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 |

If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under. (If the level difference is higher than 50m, make a decision by PDM kit installation Guide software whether the PDM kit should be installed or not.) *PDM kit: Pressure Drop Modulation kit

1) Nominal cooling capacities are based on;

Indoor temperature : 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m , Level differences : 0m

2) Nominal heating capacities are based on;

Indoor temperature : 20°C DB, 15°C WB / Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

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

4) These products contain R410A which is fluorinated greenhouse gas.

2 Specifications

Heat Recovery

| Type | | | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | |
|--------------------|-----------------------------|-------------|-----------------|-------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Model Name | | | AM240FXVAGR/EU | AM260FXVAGR/EU | AM280FXVAGR/EU | AM300FXVAGR/EU | |
| Power Supply | | Ø, #, V, Hz | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | |
| Mode | | | - | Heat Recovery | Heat Recovery | Heat Recovery | |
| Performance | HP | Cooling | HP | 24.00 | 26.00 | 28.00 | 30.00 |
| | | | kW | 67.20 | 73.60 | 78.60 | 84.00 |
| | Capacity (Nominal) | Heating | Btu/h | 229,300 | 251,100 | 268,200 | 286,600 |
| | | | kW | 75.60 | 82.80 | 88.20 | 94.50 |
| | | Btu/h | 258,000 | 282,500 | 301,000 | 322,400 | |
| Power | Power Input (Nominal) | Cooling 1) | kW | 16.80 | 17.30 | 19.40 | 21.28 |
| | | Heating 2) | kW | 17.40 | 18.20 | 20.20 | 20.60 |
| | Current Input (Nominal) | Cooling 1) | A | 27.00 | 27.80 | 31.10 | 34.20 |
| | | Heating 2) | A | 28.00 | 29.20 | 32.40 | 33.10 |
| | MCA | A | 50.00 | 50.00 | 57.00 | 64.10 | |
| | MFA | A | 63.00 | 63.00 | 63.00 | 75.00 | |
| COP | EER (Nominal Cooling) | | - | 4.00 | 4.25 | 4.05 | 3.95 |
| | COP (Nominal Heating) | | - | 4.34 | 4.55 | 4.37 | 4.59 |
| | Energy Grade | | - | ESEER 7.03 | ESEER 7.02 | ESEER 6.90 | ESEER 6.81 |
| | | | - | - | - | - | - |
| Compressor | Type | | - | SSC Scroll x 2 | SSC Scroll x 2 | SSC Scroll x 3 | SSC Scroll x 3 |
| | Output | | kW x n | (6.39)x2 | (6.39) + (6.39) | (6.39) + (4.96x2) | (6.39) + (6.39x2) |
| | Model Name | | - | DS-GB066FAVBSGx2 | DS-GB066FAVBSGx2 | DS-GB066FAVBSGx1 + DS-GB052FAVASGx2 | DS-GB066FAVBSGx3 |
| | Oil | Type | - | PVE | PVE | PVE | PVE |
| Fan | Type | | - | Propeller | Propeller | Propeller | Propeller |
| | Output x n | | W | (830.0)x2 | (830.0) + (620.0x2) | (830.0) + (620.0x2) | (830.0) + (620.0x2) |
| | Air Flow Rate | | CMM | 220.0x2 | 220.0 + 255.0 | 220.0 + 255.0 | 220.0 + 290.0 |
| | | | l/s | 3,666.7x2 | 3,666.7 + 4,250.0 | 3,666.7 + 4,250.0 | 3,666.7 + 4,833.3 |
| | External Static Pressure | Max. | mmAQ | 8.00 | 8.00 | 8.00 | 8.00 |
| Pa | | | 78.40 | 78.40 | 78.40 | 78.40 | |
| Piping Connections | Liquid Pipe | | Ø, mm | 19.05 | 19.05 | 19.05 | 19.05 |
| | | | Ø, inch | 3/4" | 3/4" | 3/4" | 3/4" |
| | Gas Pipe | | Ø, mm | 34.92 | 34.92 | 34.92 | 34.92 |
| | | | Ø, inch | 1 3/8" | 1 3/8" | 1 3/8" | 1 3/8" |
| | Discharge Gas Pipe | | Ø, mm | 28.58 | 28.58 | 28.58 | 28.58 |
| | | | Ø, inch | 1 1/8" | 1 1/8" | 1 1/8" | 1 1/8" |
| | Installation Limitation | Max. Length | m | 200 (220) | 200 (220) | 200 (220) | 200 (220) |
| Max. Height | | m | 110 (40) | 110 (40) | 110 (40) | 110 (40) | |
| Field Wiring | Power Source Wire | | mm ² | - | - | - | - |
| | Transmission Cable | | mm ² | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 |
| Refrigerant | Type | | - | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) |
| | Factory Charging | | kg | 11.00 | 13.20 | 12.90 | 14.20 |
| Sound | Pressure | | dBA | 66.00 | 66.00 | 66.00 | 66.00 |
| | Power | | dBA | 91.00 | 91.00 | 85.00 | 87.00 |
| External Dimension | New Weight | | kg | (189.5)x2 | (189.5) + (241.0) | (189.5) + (284.0) | (189.5) + (306.0) |
| | Shipping Weight | | kg | (205.5)x2 | (205.5) + (260.0) | (205.5) + (303.0) | (205.5) + (325.0) |
| | Net Dimensions (WxHxD) | | mm | (880x1,695x765)x2 | (880x1,695x765) + (1,295x1,695x765) | (880x1,695x765) + (1,295x1,695x765) | (880x1,695x765) + (1,295x1,695x765) |
| | Shipping Dimensions (WxHxD) | | mm | (948x1,887x832)x2 | (948x1,887x832) + (1,363x1,887x832) | (948x1,887x832) + (1,363x1,887x832) | (948x1,887x832) + (1,363x1,887x832) |
| Operating Temp. | Cooling | | °C | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 |
| | Heating | | °C | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 |

If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under. (If the level difference is higher than 50m, make a decision by PDM kit installation Guide software whether the PDM kit should be installed or not.) *PDM kit: Pressure Drop Modulation kit

1) Nominal cooling capacities are based on;

Indoor temperature : 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m , Level differences : 0m

2) Nominal heating capacities are based on;

Indoor temperature : 20°C DB, 15°C WB / Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

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

4) These products contain R410A which is fluorinated greenhouse gas.

2 Specifications

Heat Recovery

| Type | | | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | |
|--------------------|-----------------------------|--------------------|-----------------|-------------------------------------|-------------------------------------|---------------------------------------|---------------------------------------|
| Model Name | | | AM320FXVAGR/EU | AM340FXVAGR/EU | AM360FXVAGR/EU | AM380FXVAGR/EU | |
| Power Supply | | Ø, #, V, Hz | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | |
| Mode | | | - | Heat Recovery | Heat Recovery | Heat Recovery | |
| Performance | HP | | HP | 32.00 | 34.00 | 36.00 | 38.00 |
| | | Capacity (Nominal) | Cooling | kW | 89.60 | 95.20 | 101.60 |
| | Btu/h | | | 305,700 | 324,800 | 346,700 | 363,700 |
| | Heating | | kW | 100.80 | 107.10 | 114.30 | 119.70 |
| | | | Btu/h | 343,900 | 365,400 | 390,000 | 408,400 |
| Power | Power Input (Nominal) | Cooling 1) | kW | 23.59 | 25.75 | 26.25 | 28.35 |
| | | Heating 2) | kW | 22.60 | 25.40 | 26.20 | 28.20 |
| | Current Input (Nominal) | Cooling 1) | A | 37.90 | 41.30 | 42.10 | 45.40 |
| | | Heating 2) | A | 36.30 | 40.80 | 42.00 | 45.20 |
| | MCA | A | 67.5 | 69.50 | 69.50 | 76.50 | |
| | MFA | A | 75.00 | 80.00 | 80.00 | 90.00 | |
| COP | EER (Nominal Cooling) | | - | 3.80 | 3.70 | 3.87 | 3.76 |
| | COP (Nominal Heating) | | - | 4.46 | 4.22 | 4.36 | 4.24 |
| | Energy Grade | | - | ESEER 6.80 | ESEER 6.64 | ESEER 6.64 | ESEER 6.52 |
| | | | - | - | - | - | - |
| Compressor | Type | | - | SSC Scroll x 3 | SSC Scroll x 3 | SSC Scroll x 3 | SSC Scroll x 4 |
| | Output | | kW x n | (6.39) + (6.39x2) | (6.39) + (6.39x2) | (6.39) + (6.39x2) | (4.96x2) + (6.39x2) |
| | Model Name | | - | DS-GB066FAVBSGx3 | DS-GB066FAVBSGx3 | DS-GB066FAVBSGx3 | DS-GB052FAVASGx2 + DS-GB066FAVBSGx2 |
| | Oil | Type | - | PVE | PVE | PVE | PVE |
| Fan | Type | | - | Propeller | Propeller | Propeller | Propeller |
| | Output x n | | W | (830.0) + (620.0x2) | (830.0) + (620.0x2) | (620.0x2) + (620.0x2) | (620.0x2) + (620.0x2) |
| | Air Flow Rate | | CMM | 220.0 + 290.0 | 220.0 + 290.0 | 255.0 + 290.0 | 255.0 + 290.0 |
| | | | l/s | 3,666.7 + 4,833.3 | 3,666.7 + 4,833.3 | 4,250.0 + 4,833.3 | 4,250.0 + 4,833.3 |
| | External Static Pressure | Max. | mmAQ | 8.00 | 8.00 | 8.00 | 8.00 |
| Pa | | | 78.40 | 78.40 | 78.40 | 78.40 | |
| Piping Connections | Liquid Pipe | | Ø, mm | 19.05 | 19.05 | 19.05 | 19.05 |
| | | | Ø, inch | 3/4" | 3/4" | 3/4" | 3/4" |
| | Gas Pipe | | Ø, mm | 34.92 | 34.92 | 41.28 | 41.28 |
| | | | Ø, inch | 1 3/8" | 1 3/8" | 1 5/8" | 1 5/8" |
| | Discharge Gas Pipe | | Ø, mm | 28.58 | 28.58 | 34.92 | 34.92 |
| | | | Ø, inch | 1 1/8" | 1 1/8" | 1 3/8" | 1 3/8" |
| | Installation Limitation | Max. Length | m | 200 (220) | 200 (220) | 200 (220) | 200 (220) |
| Max. Height | | m | 110 (40) | 110 (40) | 110 (40) | 110 (40) | |
| Field Wiring | Power Source Wire | | mm ² | - | - | - | - |
| | Transmission Cable | | mm ² | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 |
| Refrigerant | Type | | - | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) |
| | Factory Charging | | kg | 13.90 | 13.90 | 16.10 | 15.80 |
| Sound | Pressure | | dBA | 67.00 | 67.00 | 66.00 | 67.00 |
| | Power | | dBA | 88.00 | 88.00 | 88.00 | 88.00 |
| External Dimension | New Weight | | kg | (189.5) + (306.0) | (189.5) + (306.0) | (241.0) + (306.0) | (284.0) + (306.0) |
| | Shipping Weight | | kg | (205.5) + (325.0) | (205.5) + (325.0) | (260.0) + (325.0) | (303.0) + (325.0) |
| | Net Dimensions (WxHxD) | | mm | (880x1,695x765) + (1,295x1,695x765) | (880x1,695x765) + (1,295x1,695x765) | (1,295x1,695x765) + (1,295x1,695x765) | (1,295x1,695x765) + (1,295x1,695x765) |
| | Shipping Dimensions (WxHxD) | | mm | (948x1,887x832) + (1,363x1,887x832) | (948x1,887x832) + (1,363x1,887x832) | (1,363x1,887x832) + (1,363x1,887x832) | (1,363x1,887x832) + (1,363x1,887x832) |
| Operating Temp. | Cooling | | °C | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 |
| | Heating | | °C | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 |

If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under. (If the level difference is higher than 50m, make a decision by PDM kit installation Guide software whether the PDM kit should be installed or not.) *PDM kit: Pressure Drop Modulation kit

1) Nominal cooling capacities are based on;

Indoor temperature : 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m , Level differences : 0m

2) Nominal heating capacities are based on;

Indoor temperature : 20°C DB, 15°C WB / Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

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

4) These products contain R410A which is fluorinated greenhouse gas.

2 Specifications

Heat Recovery

| Type | | | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | |
|--------------------|-----------------------------|--------------------|-----------------|---------------------|---------------------------------------|---------------------|---------------------------------------|
| Model Name | | | AM400FXVAGR/EU | AM420FXVAGR/EU | AM440FXVAGR/EU | AM460FXVAGR/EU | |
| Power Supply | | Ø, #, V, Hz | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | |
| Mode | | | - | Heat Recovery | Heat Recovery | Heat Recovery | |
| Performance | HP | HP | 40.00 | 42.00 | 44.00 | 46.00 | |
| | | Capacity (Nominal) | Cooling | kW | 112.00 | 117.60 | 123.20 |
| | Btu/h | | | 382,200 | 401,300 | 420,400 | 439,500 |
| | Heating | | kW | 126.00 | 132.30 | 138.60 | 144.90 |
| | | | Btu/h | 429,900 | 451,400 | 472,900 | 494,400 |
| Power | Power Input (Nominal) | Cooling 1) | kW | 30.38 | 32.54 | 34.70 | 34.15 |
| | | Heating 2) | kW | 27.80 | 30.60 | 33.40 | 34.10 |
| | Current Input (Nominal) | Cooling 1) | A | 48.80 | 52.20 | 55.60 | 54.80 |
| | | Heating 2) | A | 44.60 | 49.10 | 53.60 | 54.80 |
| | MCA | A | 85.00 | 87.00 | 89.00 | 94.50 | |
| | MFA | A | 100.00 | 100.00 | 100.00 | 125.00 | |
| COP | EER (Nominal Cooling) | | - | 3.69 | 3.61 | 3.55 | 3.77 |
| | COP (Nominal Heating) | | - | 4.53 | 4.32 | 4.15 | 4.25 |
| | Energy Grade | | - | ESEER 6.56 | ESEER 6.41 | ESEER 6.25 | ESEER 6.77 |
| | | | - | - | - | - | - |
| Compressor | Type | | - | SSC Scroll x 4 | SSC Scroll x 4 | SSC Scroll x 4 | SSC Scroll x 4 |
| | Output | | kW x n | (6.39x2)x2 | (6.39x2) + (6.39x2) | (6.39x2)x2 | (6.39)x2 + (6.39x2) |
| | Model Name | | - | DS-GB066FAVBSGx4 | DS-GB066FAVBSGx4 | DS-GB066FAVBSGx4 | DS-GB066FAVBSGx4 |
| | Oil | Type | - | PVE | PVE | PVE | PVE |
| Fan | Type | | - | Propeller | Propeller | Propeller | Propeller |
| | Output x n | | W | (620.0x2)x2 | (620.0x2) + (620.0x2) | (620.0x2)x2 | (830.0)x2 + (620.0x2) |
| | Air Flow Rate | | CMM | 290.0x2 | 290.0 + 290.0 | 290.0x2 | 220.0x2 + 290.0 |
| | | | l/s | 4,833.3x2 | 4,833.3 + 4,833.3 | 4,833.3x2 | 3,666.7x2 + 4,833.3 |
| | External Static Pressure | Max. | mmAQ | 8.00 | 8.00 | 8.00 | 8.00 |
| Pa | | | 78.40 | 78.40 | 78.40 | 78.40 | |
| Piping Connections | Liquid Pipe | | Ø, mm | 19.05 | 19.05 | 19.05 | 19.05 |
| | | | Ø, inch | 3/4" | 3/4" | 3/4" | 3/4" |
| | Gas Pipe | | Ø, mm | 41.28 | 41.28 | 41.28 | 41.28 |
| | | | Ø, inch | 1 5/8" | 1 5/8" | 1 5/8" | 1 5/8" |
| | Discharge Gas Pipe | | Ø, mm | 34.92 | 34.92 | 34.92 | 34.92 |
| | | | Ø, inch | 1 3/8" | 1 3/8" | 1 3/8" | 1 3/8" |
| | Installation Limitation | Max. Length | m | 200 (220) | 200 (220) | 200 (220) | 200 (220) |
| Max. Height | | m | 110 (40) | 110 (40) | 110 (40) | 110 (40) | |
| Field Wiring | Power Source Wire | | mm ² | - | - | - | - |
| | Transmission Cable | | mm ² | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 |
| Refrigerant | Type | | - | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) |
| | Factory Charging | | kg | 16.80 | 16.80 | 16.80 | 19.40 |
| Sound | Pressure | | dBA | 68.00 | 68.00 | 68.00 | 68.00 |
| | Power | | | 90.00 | 90.00 | 90.00 | 89.00 |
| External Dimension | New Weight | | kg | (306.0)x2 | (306.0) + (306.0) | (306.0)x2 | (189.5)x2 + (306.0) |
| | Shipping Weight | | kg | (325.0)x2 | (325.0) + (325.0) | (325.0)x2 | (205.5)x2 + (325.0) |
| | Net Dimensions (WxHxD) | | mm | (1,295x1,695x765)x2 | (1,295x1,695x765) + (1,295x1,695x765) | (1,295x1,695x765)x2 | (880x1,695x765)x2 + (1,295x1,695x765) |
| | Shipping Dimensions (WxHxD) | | mm | (1,363x1,887x832)x2 | (1,363x1,887x832) + (1,363x1,887x832) | (1,363x1,887x832)x2 | (948x1,887x832)x2 + (1,363x1,887x832) |
| Operating Temp. | Cooling | | °C | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 |
| | Heating | | °C | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 |

If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under. (If the level difference is higher than 50m, make a decision by PDM kit installation Guide software whether the PDM kit should be installed or not.) *PDM kit: Pressure Drop Modulation kit

1) Nominal cooling capacities are based on;

Indoor temperature : 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m , Level differences : 0m

2) Nominal heating capacities are based on;

Indoor temperature : 20°C DB, 15°C WB / Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

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

4) These products contain R410A which is fluorinated greenhouse gas.

2 Specifications

Heat Recovery

| Type | | | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | |
|--------------------|-----------------------------|--------------------|-----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Model Name | | | AM480FXVAGR/EU | AM500FXVAGR/EU | AM520FXVAGR/EU | AM540FXVAGR/EU | |
| Power Supply | | Ø, #, V, Hz | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | |
| Mode | | | - | Heat Recovery | Heat Recovery | Heat Recovery | |
| Performance | HP | HP | 48.00 | 50.00 | 52.00 | 54.00 | |
| | | Capacity (Nominal) | Cooling | kW | 135.20 | 140.20 | 145.60 |
| | Btu/h | | | 461,300 | 478,400 | 496,800 | 515,900 |
| | Heating | | kW | 152.10 | 157.50 | 163.80 | 170.10 |
| | | | Btu/h | 519,000 | 537,400 | 558,900 | 580,400 |
| Power | Power Input (Nominal) | Cooling 1) | kW | 34.65 | 36.75 | 38.63 | 40.94 |
| | | Heating 2) | kW | 34.90 | 36.90 | 37.30 | 39.30 |
| | Current Input (Nominal) | Cooling 1) | A | 55.60 | 58.90 | 62.00 | 65.70 |
| | | Heating 2) | A | 56.00 | 59.20 | 59.90 | 63.10 |
| | MCA | A | 94.5 | 101.5 | 108.6 | 112.00 | |
| | MFA | A | 125.00 | 125.00 | 125.00 | 125.00 | |
| COP | EER (Nominal Cooling) | | - | 3.90 | 3.81 | 3.77 | 3.69 |
| | COP (Nominal Heating) | | - | 4.36 | 4.27 | 4.39 | 4.33 |
| | Energy Grade | | - | ESEER 6.77 | ESEER 6.69 | ESEER 6.62 | ESEER 6.61 |
| | | | - | - | - | - | - |
| Compressor | Type | | - | SSC Scroll x 4 | SSC Scroll x 5 | SSC Scroll x 5 | SSC Scroll x 5 |
| | Output | | kW x n | (6.39) + (6.39) + (6.39x2) | (6.39)+(4.96x2)+(6.39x2) | (6.39)+(6.39x2)+(6.39)x2 | (6.39)+(6.39x2)+(6.39)x2 |
| | Model Name | | - | DS-GB066FAVBSGx4 | DS-GB066FAVBSGx3 + DS-GB052FAVASGx2 | DS-GB066FAVBSGx5 | DS-GB066FAVBSGx5 |
| | Oil | Type | - | PVE | PVE | PVE | PVE |
| Fan | Type | | - | Propeller | Propeller | Propeller | Propeller |
| | Output x n | | W | (830.0) + (620.0x2)x2 | (830.0)+(620.0x2)x2 | (. . 0.0) + (620.0x2)x2 | (830.0) + (620.0x2)x2 |
| | Air Flow Rate | | CMM | 220.0 + 255.0 + 290.0 | 220.0 + 255.0 + 290.0 | 220.0 + 290.0 + 290.0 | 220.0 + 290.0 + 290.0 |
| | | | l/s | 3,666.7+4,250.0+4,833.3 | 3,666.7+4,250.0+4,833.3 | 3,666.7+4,833.3+4,833.3 | 3,666.7+4,833.3+4,833.3 |
| | External Static Pressure | Max. | mmAQ | 8.00 | 8.00 | 8.00 | 8.00 |
| Pa | | | 78.40 | 78.40 | 78.40 | 78.40 | |
| Piping Connections | Liquid Pipe | | Ø, mm | 19.05 | 19.05 | 19.05 | 19.05 |
| | | | Ø, inch | 3/4" | 3/4" | 3/4" | 3/4" |
| | Gas Pipe | | Ø, mm | 41.28 | 41.28 | 41.28 | 41.28 |
| | | | Ø, inch | 1 5/8" | 1 5/8" | 1 5/8" | 1 5/8" |
| | Discharge Gas Pipe | | Ø, mm | 34.92 | 34.92 | 34.92 | 34.92 |
| | | | Ø, inch | 1 3/8" | 1 3/8" | 1 3/8" | 1 3/8" |
| | Installation Limitation | Max. Length | m | 200 (220) | 200 (220) | 200 (220) | 200 (220) |
| | | Max. Height | m | 110 (40) | 110 (40) | 110 (40) | 110 (40) |
| Field Wiring | Power Source Wire | | mm ² | - | - | - | - |
| | Transmission Cable | | mm ² | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 |
| Refrigerant | Type | | - | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) |
| | Factory Charging | | kg | 21.60 | 21.30 | 22.60 | 22.30 |
| Sound | Pressure | | dBA | 68.00 | 68.00 | 69.00 | 69.00 |
| | Power | | dBA | 89.00 | 89.00 | 90.00 | 91.00 |
| External Dimension | New Weight | | kg | (189.5)+(241.0)+(306.0) | (189.5)+(284.0)+(306.0) | (189.5)+(306.0)+(306.0) | (189.5)+(306.0)+(306.0) |
| | Shipping Weight | | kg | (205.5)+(260.0)+(325.0) | (205.5)+(303.0)+(325.0) | (205.5)+(325.0)+(325.0) | (205.5)+(325.0)+(325.0) |
| | Net Dimensions (WxHxD) | | mm | (880x1,695x765) + (1,295x1,695x765)x2 | (880x1,695x765) + (1,295x1,695x765)x2 | (880x1,695x765) + (1,295x1,695x765)x2 | (880x1,695x765) + (1,295x1,695x765)x2 |
| | Shipping Dimensions (WxHxD) | | mm | (948x1,887x832) + (1,363x1,887x832)x2 | (948x1,887x832) + (1,363x1,887x832)x2 | (948x1,887x832) + (1,363x1,887x832)x2 | (948x1,887x832) + (1,363x1,887x832)x2 |
| Operating Temp. | Cooling | | °C | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 |
| | Heating | | °C | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 |

If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under. (If the level difference is higher than 50m, make a decision by PDM kit installation Guide software whether the PDM kit should be installed or not.) *PDM kit: Pressure Drop Modulation kit

1) Nominal cooling capacities are based on;

Indoor temperature : 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m , Level differences : 0m

2) Nominal heating capacities are based on;

Indoor temperature : 20°C DB, 15°C WB / Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

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

4) These products contain R410A which is fluorinated greenhouse gas.

2 Specifications

Heat Recovery

| Type | | | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | |
|--------------------|-----------------------------|--------------------|-----------------|---------------------------------------|---|---|---|
| Model Name | | | AM560FXVAGR/EU | AM580FXVAGR/EU | AM600FXVAGR/EU | AM620FXVAGR/EU | |
| Power Supply | | Ø, #, V, Hz | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | |
| Mode | | | - | Heat Recovery | Heat Recovery | Heat Recovery | |
| Performance | HP | | HP | 56.00 | 58.00 | 60.00 | 62.00 |
| | | Capacity (Nominal) | Cooling | kW | 156.80 | 163.20 | 168.20 |
| | Btu/h | | | 535,000 | 556,900 | 573,900 | 592,300 |
| | Heating | | kW | 176.40 | 183.60 | 189.00 | 195.30 |
| | | | Btu/h | 601,900 | 626,500 | 644,900 | 666,400 |
| Power | Power Input (Nominal) | Cooling 1) | kW | 43.10 | 43.60 | 45.70 | 47.73 |
| | | Heating 2) | kW | 42.10 | 42.90 | 44.90 | 44.50 |
| | Current Input (Nominal) | Cooling 1) | A | 69.10 | 69.90 | 73.20 | 76.60 |
| | | Heating 2) | A | 67.60 | 68.80 | 72.00 | 71.40 |
| | MCA | A | 114.00 | 114.00 | 121.00 | 129.5 | |
| | MFA | A | 125.00 | 125.00 | 150.00 | 150.00 | |
| COP | EER (Nominal Cooling) | | - | 3.64 | 3.74 | 3.68 | 3.64 |
| | COP (Nominal Heating) | | - | 4.19 | 4.28 | 4.21 | 4.39 |
| | Energy Grade | | - | ESEER 6.51 | ESEER 6.51 | ESEER 6.43 | ESEER 6.46 |
| | | | - | - | - | - | - |
| Compressor | Type | | - | SSC Scroll x 5 | SSC Scroll x 5 | SSC Scroll x 6 | SSC Scroll x 6 |
| | Output | | kW x n | (6.39) + (6.39x2)x2 | (6.39) + (6.39x2)x2 | (4.96x2) + (6.39x2)x2 | (6.39x2)x2 + (6.39x2) |
| | Model Name | | - | DS-GB066FAVBSGx5 | DS-GB066FAVBSGx5 | DS-GB052FAVASGx2 + DS-GB066FAVBSGx4 | DS-GB066FAVBSGx6 |
| | Oil | Type | - | PVE | PVE | PVE | PVE |
| Fan | Type | | - | Propeller | Propeller | Propeller | Propeller |
| | Output x n | | W | (830.0) + (620.0x2)x2 | (620.0x2) + (620.0x2)x2 | (620.0x2) + (620.0x2)x2 | (620.0x2)x2 + (620.0x2) |
| | Air Flow Rate | | CMM | 220.0 + 290.0x2 | 255.0 + 290.0x2 | 255.0 + 290.0x2 | 290.0x2 + 290.0 |
| | | | l/s | 3,666.7 + 4,833.3x2 | 4,250.0 + 4,833.3x2 | 4,250.0 + 4,833.3x2 | 4,833.3x2 + 4,833.3 |
| | External Static Pressure | Max. | mmAQ | 8.00 | 8.00 | 8.00 | 8.00 |
| Pa | | | 78.40 | 78.40 | 78.40 | 78.40 | |
| Piping Connections | Liquid Pipe | | Ø, mm | 19.05 | 19.05 | 19.05 | 22.22 |
| | | | Ø, inch | 3/4" | 3/4" | 3/4" | 7/8" |
| | Gas Pipe | | Ø, mm | 41.28 | 41.28 | 41.28 | 53.98 |
| | | | Ø, inch | 1 5/8" | 1 5/8" | 1 5/8" | 2 1/8" |
| | Discharge Gas Pipe | | Ø, mm | 34.92 | 34.92 | 34.92 | 41.28 |
| | | | Ø, inch | 1 3/8" | 1 3/8" | 1 3/8" | 1 5/8" |
| | Installation Limitation | Max. Length | m | 200 (220) | 200 (220) | 200 (220) | 200 (220) |
| Max. Height | | m | 110 (40) | 110 (40) | 110 (40) | 110 (40) | |
| Field Wiring | Power Source Wire | | mm ² | - | - | - | - |
| | Transmission Cable | | mm ² | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 |
| Refrigerant | Type | | - | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) |
| | Factory Charging | | kg | 22.30 | 24.50 | 24.20 | 25.20 |
| Sound | Pressure | | dBA | 69.00 | 69.00 | 69.00 | 70.00 |
| | Power | | dBA | 91.00 | 91.00 | 91.00 | 92.00 |
| External Dimension | New Weight | | kg | (189.5) + (306.0)x2 | (241.0) + (306.0)x2 | (284.0) + (306.0)x2 | (306.0)x2 + (306.0) |
| | Shipping Weight | | kg | (205.5 + (325.0)x2) | (260.0) + (325.0)x2 | (303.0) + (325.0)x2 | (325.0)x2 + (325.0) |
| | Net Dimensions (WxHxD) | | mm | (880x1,695x765) + (1,295x1,695x765)x2 | (1,295x1,695x765) + (1,295x1,695x765)x2 | (1,295x1,695x765) + (1,295x1,695x765)x2 | (1,295x1,695x765)x2 + (1,295x1,695x765) |
| | Shipping Dimensions (WxHxD) | | mm | (948x1,887x832) + (1,363x1,887x832)x2 | (1,363x1,887x832) + (1,363x1,887x832)x2 | (1,363x1,887x832) + (1,363x1,887x832)x2 | (1,363x1,887x832)x2 + (1,363x1,887x832) |
| Operating Temp. | Cooling | | °C | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 |
| | Heating | | °C | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 |

If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under. (If the level difference is higher than 50m, make a decision by PDM kit installation Guide software whether the PDM kit should be installed or not.) *PDM kit: Pressure Drop Modulation kit

1) Nominal cooling capacities are based on;

Indoor temperature : 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m , Level differences : 0m

2) Nominal heating capacities are based on;

Indoor temperature : 20°C DB, 15°C WB / Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

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

4) These products contain R410A which is fluorinated greenhouse gas.

2 Specifications

Heat Recovery

| Type | | | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | |
|--------------------|-----------------------------|--------------------|-----------------|---|---------------------|---|---------------------------------------|
| Model Name | | | AM640FXVAGR/EU | AM660FXVAGR/EU | AM680FXVAGR/EU | AM700FXVAGR/EU | |
| Power Supply | | Ø, #, V, Hz | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | |
| Mode | | | - | Heat Recovery | Heat Recovery | Heat Recovery | |
| Performance | HP | | HP | 64.00 | 66.00 | 68.00 | 70.00 |
| | | Capacity (Nominal) | Cooling | kW | 179.20 | 184.80 | 190.40 |
| | Btu/h | | | 611,500 | 630,600 | 649,700 | 671,500 |
| | Heating | | kW | 201.60 | 207.90 | 214.20 | 221.40 |
| | | | Btu/h | 687,900 | 709,400 | 730,900 | 755,400 |
| Power | Power Input (Nominal) | Cooling 1) | kW | 49.89 | 52.05 | 51.50 | 52.00 |
| | | Heating 2) | kW | 47.30 | 50.10 | 50.80 | 51.60 |
| | Current Input (Nominal) | Cooling 1) | A | 80.00 | 83.40 | 82.60 | 83.40 |
| | | Heating 2) | A | 75.90 | 80.40 | 81.60 | 82.80 |
| | MCA | A | 131.5 | 133.50 | 139.00 | 139.00 | |
| | MFA | A | 150.00 | 150.00 | 175.00 | 175.00 | |
| COP | EER (Nominal Cooling) | | - | 3.59 | 3.55 | 3.70 | 3.78 |
| | COP (Nominal Heating) | | - | 4.26 | 4.15 | 4.22 | 4.29 |
| | Energy Grade | | - | ESEER 6.35 | ESEER 6.25 | ESEER 6.64 | ESEER 6.64 |
| | | | - | - | - | - | - |
| Compressor | Type | | - | SSC Scroll x 6 | SSC Scroll x 6 | SSC Scroll x 6 | SSC Scroll x 6 |
| | Output | | kW x n | (6.39x2) + (6.39x2)x2 | (6.39x2)x3 | (6.39)x2 + (6.39x2)x2 | (6.39)+(6.39)+(6.39x2)x2 |
| | Model Name | | - | DS-GB066FAVBSGx6 | DS-GB066FAVBSGx6 | DS-GB066FAVBSGx6 | DS-GB066FAVBSGx6 |
| | Oil | Type | - | PVE | PVE | PVE | PVE |
| Fan | Type | | - | Propeller | Propeller | Propeller | Propeller |
| | Output x n | | W | (620.0x2) + (620.0x2)x2 | (620.0x2)x3 | (830.0)x2 + (620.0x2)x2 | (830.0) + (620.0x2)x3 |
| | Air Flow Rate | | CMM | 290.0 + 290.0x2 | 290.0x3 | 220.0x2 + 290.0x2 | 220.0 + 255.0 + 290.0x2 |
| | | | l/s | 4,833.3 + 4,833.3x2 | 4,833.3x3 | 3,666.7x2 + 4,833.3x2 | 3,666.7+4,250.0+4,833.3x2 |
| | External Static Pressure | Max. | mmAQ | 8.00 | 8.00 | 8.00 | 8.00 |
| Pa | | | 78.40 | 78.40 | 78.40 | 78.40 | |
| Piping Connections | Liquid Pipe | | Ø, mm | 22.22 | 22.22 | 22.22 | 22.22 |
| | | | Ø, inch | 7/8" | 7/8" | 7/8" | 7/8" |
| | Gas Pipe | | Ø, mm | 53.98 | 53.98 | 53.98 | 53.98 |
| | | | Ø, inch | 2 1/8" | 2 1/8" | 2 1/8" | 2 1/8" |
| | Discharge Gas Pipe | | Ø, mm | 41.28 | 41.28 | 41.28 | 41.28 |
| | | | Ø, inch | 1 5/8" | 1 5/8" | 1 5/8" | 1 5/8" |
| | Installation Limitation | Max. Length | m | 200 (220) | 200 (220) | 200 (220) | 200 (220) |
| Max. Height | | m | 110 (40) | 110 (40) | 110 (40) | 110 (40) | |
| Field Wiring | Power Source Wire | | mm ² | - | - | - | - |
| | Transmission Cable | | mm ² | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 |
| Refrigerant | Type | | - | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) |
| | Factory Charging | | kg | 25.20 | 25.20 | 27.80 | 30.00 |
| Sound | Pressure | | dBA | 70.00 | 70.00 | 70.00 | 70.00 |
| | Power | | dBA | 91.00 | 91.00 | 91.00 | 91.00 |
| External Dimension | New Weight | | kg | (306.0) + (306.0)x2 | (306.0)x3 | (189.5)x2 + (306.0)x2 | (1....)+(241.0)+(306.0)x2 |
| | Shipping Weight | | kg | (325.0) + (325.0)x2 | (325.0)x3 | (205.5)x2 + (325.0)x2 | (205.5)+(260.0)+(325.0)x2 |
| | Net Dimensions (WxHxD) | | mm | (1,295x1,695x765) + (1,295x1,695x765)x2 | (1,295x1,695x765)x3 | (880x1,695x765)x2 + (1,295x1,695x765)x2 | (880x1,695x765) + (1,295x1,695x765)x2 |
| | Shipping Dimensions (WxHxD) | | mm | (1,363x1,887x832) + (1,363x1,887x832)x2 | (1,363x1,887x832)x3 | (948x1,887x832)x2 + (1,363x1,887x832)x2 | (948x1,887x832) + (1,363x1,887x832)x2 |
| Operating Temp. | Cooling | | °C | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 |
| | Heating | | °C | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 |

If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under. (If the level difference is higher than 50m, make a decision by PDM kit installation Guide software whether the PDM kit should be installed or not.) *PDM kit: Pressure Drop Modulation kit

1) Nominal cooling capacities are based on;

Indoor temperature : 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m , Level differences : 0m

2) Nominal heating capacities are based on;

Indoor temperature : 20°C DB, 15°C WB / Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

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

4) These products contain R410A which is fluorinated greenhouse gas.

2 Specifications

Heat Recovery

| Type | | | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | DVM S(NEW) | |
|--------------------|-----------------------------|--------------------|-----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Model Name | | | AM720FXVAGR/EU | AM740FXVAGR/EU | AM760FXVAGR/EU | AM780FXVAGR/EU | |
| Power Supply | | Ø, #, V, Hz | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | 3,4,380-415,50 | |
| Mode | | | - | Heat Recovery | Heat Recovery | Heat Recovery | |
| Performance | HP | HP | 72.00 | 74.00 | 76.00 | 78.00 | |
| | | Capacity (Nominal) | Cooling | kW | 201.80 | 207.20 | 212.80 |
| | Btu/h | | | 688,600 | 707,000 | 726,100 | 745,200 |
| | Heating | | kW | 226.80 | 233.10 | 239.40 | 245.70 |
| | | | Btu/h | 773,900 | 795,400 | 816,900 | 838,400 |
| Power | Power Input (Nominal) | Cooling 1) | kW | 54.10 | 55.98 | 58.29 | 60.45 |
| | | Heating 2) | kW | 53.60 | 54.00 | 56.00 | 58.80 |
| | Current Input (Nominal) | Cooling 1) | A | 86.70 | 89.80 | 93.50 | 96.90 |
| | | Heating 2) | A | 86.00 | 86.70 | 89.90 | 94.40 |
| | MCA | A | 146.00 | 153.10 | 156.50 | 158.5 | |
| | MFA | A | 175.00 | 175.00 | 175.00 | 175.00 | |
| COP | EER (Nominal Cooling) | | - | 3.73 | 3.70 | 3.65 | 3.61 |
| | COP (Nominal Heating) | | - | 4.23 | 4.32 | 4.28 | 4.18 |
| | Energy Grade | | - | ESEER 6.58 | ESEER 6.53 | ESEER 6.52 | ESEER 6.45 |
| | | | - | - | - | - | - |
| Compressor | Type | | - | SSC Scroll x 7 | SSC Scroll x 7 | SSC Scroll x 7 | SSC Scroll x 7 |
| | Output | | kW x n | (6.39)+(4.96x2)+(6.39x2)x2 | (6.39)+(6.39x2)+(6.39x2)x2 | (6.39)+(6.39x2)+(6.39x2)x2 | (6.39) + (6.39x2)x3 |
| | Model Name | | - | DS-GB066FAVBSGx5 + DS-GB052FAVASGx2 | DS-GB066FAVBSGx7 | DS-GB066FAVBSGx7 | DS-GB066FAVBSGx7 |
| | Oil | Type | - | PVE | PVE | PVE | PVE |
| Fan | Type | | - | Propeller | Propeller | Propeller | Propeller |
| | Output x n | | W | (830.0)+(620.0x2)x3 | (830.0)+(620.0x2)x3 | (830.0) + (620.0x2)x3 | (400.0) + (620.0x2)x3 |
| | Air Flow Rate | | CMM | 220.0 + 255.0 + 290.0x2 | 220.0 + 290.0 + 290.0x2 | 220.0 + 290.0 + 290.0x2 | 220.0 + 290.0x3 |
| | | | l/s | 3,666.7+4,250.0+4,833.3x2 | 3,666.7 + 4,833.3x3 | 3,666.7 + 4,833.3 x3 | 3,666.7 + 4,833.3x3 |
| | External Static Pressure | Max. | mmAQ | 8.00 | 8.00 | 8.00 | 8.00 |
| Pa | | | 78.40 | 78.40 | 78.40 | 78.40 | |
| Piping Connections | Liquid Pipe | | Ø, mm | 22.22 | 22.22 | 22.22 | 22.22 |
| | | | Ø, inch | 7/8" | 7/8" | 7/8" | 7/8" |
| | Gas Pipe | | Ø, mm | 53.98 | 53.98 | 53.98 | 53.98 |
| | | | Ø, inch | 2 1/8" | 2 1/8" | 2 1/8" | 2 1/8" |
| | Discharge Gas Pipe | | Ø, mm | 41.28 | 41.28 | 41.28 | 41.28 |
| | | | Ø, inch | 1 5/8" | 1 5/8" | 1 5/8" | 1 5/8" |
| | Installation Limitation | Max. Length | m | 200 (220) | 200 (220) | 200 (220) | 200 (220) |
| | | Max. Height | m | 110 (40) | 110 (40) | 110 (40) | 110 (40) |
| Field Wiring | Power Source Wire | | mm ² | - | - | - | - |
| | Transmission Cable | | mm ² | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 | 0.75 ~ 1.50 |
| Refrigerant | Type | | - | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) | R410A(GWP >150) |
| | Factory Charging | | kg | 29.70 | 31.00 | 30.70 | 30.70 |
| Sound | Pressure | | dBA | 70.00 | 70.00 | 70.00 | 70.00 |
| | Power | | dBA | 91.00 | 92.00 | 92.00 | 92.00 |
| External Dimension | New Weight | | kg | (189.5)+(284.0)+(306.0)x2 | (189.5) + (306.0)x3 | (189.5) + (306.0)x3 | (189.5) + (306.0)x3 |
| | Shipping Weight | | kg | (205.5)+(303.0)+(325.0)x2 | (205.5) + (325.0)x3 | (205.5) + (325.0)x3 | (205.5) + (325.0)x3 |
| | Net Dimensions (WxHxD) | | mm | (880x1,695x765) + (1,295x1,695x765)x3 | (880x1,695x765) + (1,295x1,695x765)x3 | (880x1,695x765) + (1,295x1,695x765)x3 | (880x1,695x765) + (1,295x1,695x765)x3 |
| | Shipping Dimensions (WxHxD) | | mm | (948x1,887x832) + (1,363x1,887x832)x3 | (948x1,887x832) + (1,363x1,887x832)x3 | (948x1,887x832) + (1,363x1,887x832)x3 | (948x1,887x832) + (1,363x1,887x832)x3 |
| Operating Temp. | Cooling | | °C | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 | -15.0 ~ 48.0 |
| | Heating | | °C | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 | -25.0 ~ 24.0 |

If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under. (If the level difference is higher than 50m, make a decision by PDM kit installation Guide software whether the PDM kit should be installed or not.) *PDM kit: Pressure Drop Modulation kit

1) Nominal cooling capacities are based on;

Indoor temperature : 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m , Level differences : 0m

2) Nominal heating capacities are based on;

Indoor temperature : 20°C DB, 15°C WB / Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

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

4) These products contain R410A which is fluorinated greenhouse gas.

2 Specifications

Heat Recovery

| | | | | |
|--------------------|-----------------------------|-------------|-----------------|---|
| Type | | | DVM S(NEW) | |
| Model Name | | | AM800FXVAGR/EU | |
| Power Supply | | Ø, #, V, Hz | 3,4,380-415,50 | |
| Mode | | | Heat Recovery | |
| Performance | HP | | HP | 80.00 |
| | Capacity (Nominal) | Cooling | kW | 224.80 |
| | | | Btu/h | 767,000 |
| | | Heating | kW | 252.90 |
| | | | Btu/h | 862,900 |
| Power | Power Input (Nominal) | Cooling 1) | kW | 60.95 |
| | | Heating 2) | kW | 59.60 |
| | Current Input (Nominal) | Cooling 1) | A | 97.70 |
| | | Heating 2) | A | 95.60 |
| | MCA | | A | 198.10 |
| | MFA | | A | 200.00 |
| COP | EER (Nominal Cooling) | | - | 3.69 |
| | COP (Nominal Heating) | | - | 4.24 |
| | Energy Grade | | - | ESEER 6.44 |
| | | | - | - |
| Compressor | Type | | - | SSC Scroll x 7 |
| | Output | | kW x n | (6.39) + (6.39x2)x3 |
| | Model Name | | - | DS-GB066FAVBSGx7 |
| | Oil | Type | - | PVE |
| Fan | Type | | - | Propeller |
| | Output x n | | W | (620.0x2) + (620.0x2)x3 |
| | Air Flow Rate | | CMM | 255.0 + 290.0x3 |
| | | | l/s | 4,250.0 + 4,833.3x3 |
| | External Static Pressure | Max. | mmAQ | 8.00 |
| Pa | | | 78.40 | |
| Piping Connections | Liquid Pipe | | Ø, mm | 22.22 |
| | | | Ø, inch | 7/8" |
| | Gas Pipe | | Ø, mm | 53.98 |
| | | | Ø, inch | 2 1/8" |
| | Discharge Gas Pipe | | Ø, mm | 41.28 |
| | | | Ø, inch | 1 5/8" |
| | Installation Limitation | Max. Length | m | 200 (220) |
| Max. Height | | m | 110 (40) | |
| Field Wiring | Power Source Wire | | mm ² | - |
| | Transmission Cable | | mm ² | 0.75 ~ 1.50 |
| Refrigerant | Type | | - | R410A(GWP >150) |
| | Factory Charging | | kg | 32.90 |
| Sound | Pressure | | dBA | 70.00 |
| | Power | | | 92.00 |
| External Dimension | New Weight | | kg | (241.0) + (306.0)x3 |
| | Shipping Weight | | kg | (260.0) + (325.0)x3 |
| | Net Dimensions (WxHxD) | | mm | (1,295x1,695x765) + (1,295x1,695x765)x3 |
| | Shipping Dimensions (WxHxD) | | mm | (1,363x1,887x832) + (1,363x1,887x832)x3 |
| Operating Temp. | Cooling | | °C | -15.0 ~ 48.0 |
| | Heating | | °C | -25.0 ~ 24.0 |

If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under. (If the level difference is higher than 50m, make a decision by PDM kit installation Guide software whether the PDM kit should be installed or not.) *PDM kit: Pressure Drop Modulation kit

1) Nominal cooling capacities are based on;

Indoor temperature : 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m , Level differences : 0m

2) Nominal heating capacities are based on;

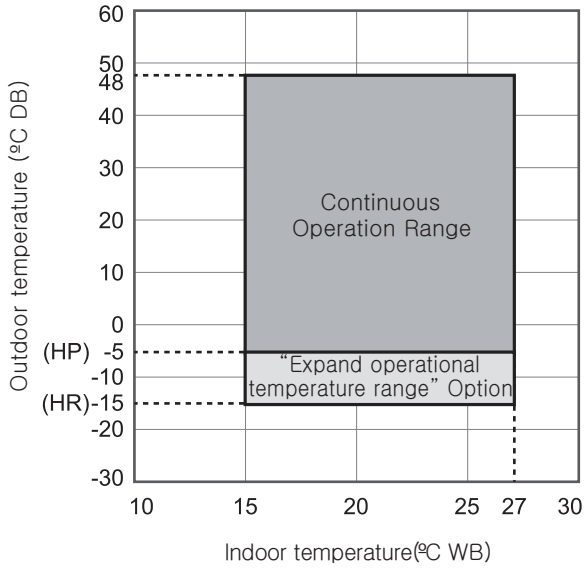
Indoor temperature : 20°C DB, 15°C WB / Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

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

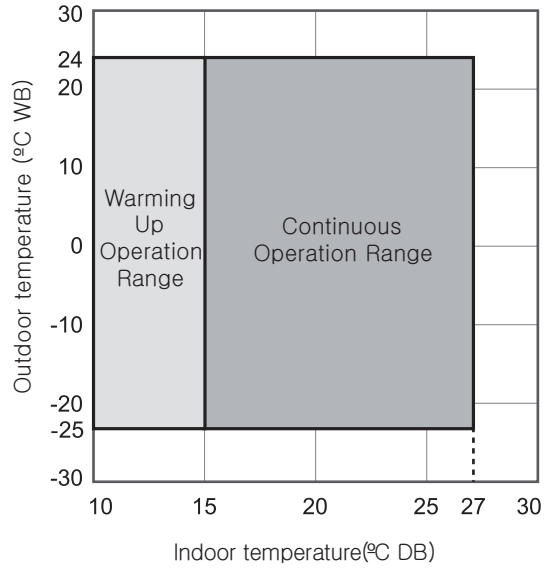
4) These products contain R410A which is fluorinated greenhouse gas.

3 Operation limit

Cooling



Heating

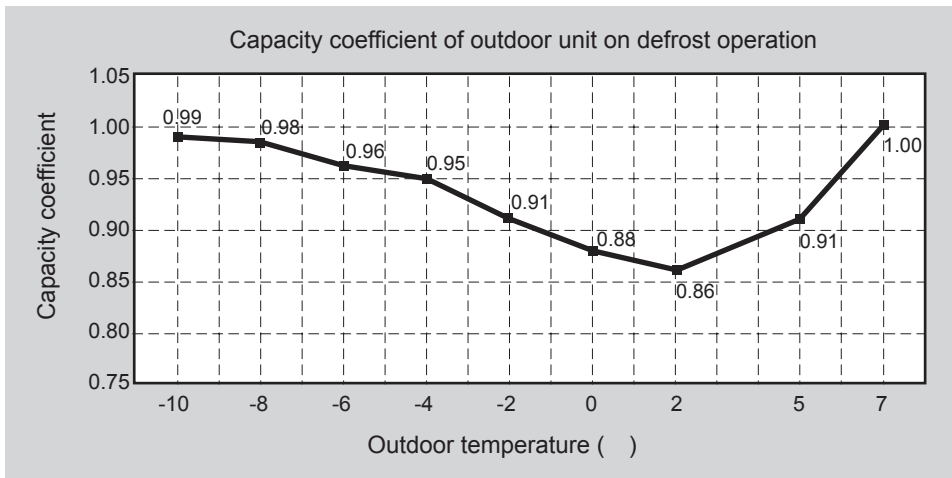


Defrosting correction factor

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.

| Outdoor temperature (°C, DB) | -10 | -8 | -6 | -4 | -2 | 0 | 2 | 5 | 7 |
|------------------------------|------|------|------|------|------|------|------|------|------|
| Capacity coefficient | 0.99 | 0.98 | 0.96 | 0.95 | 0.91 | 0.88 | 0.86 | 0.91 | 1.00 |

$$\text{Corrected Heating Capacity} = \text{Heating Capacity} \times \text{Capacity Coefficient}$$



4 Dimensional drawing

Heat Pump

AM080FXVAGH/EU, AM100FXVAGH/EU, AM120FXVAGH/EU

Units : mm / inches

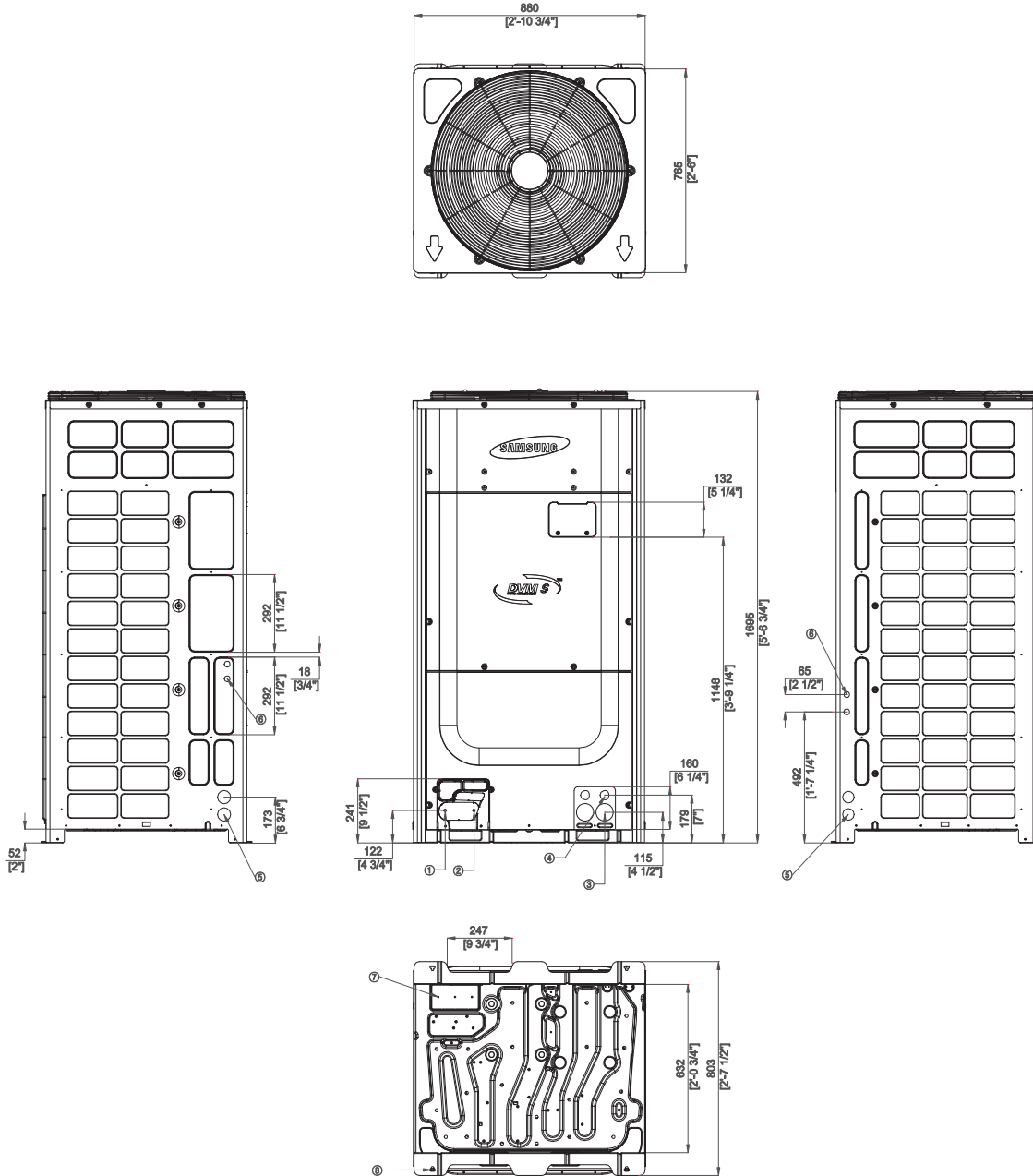


Table of descriptions

| | | | |
|---|------------------------------|----|--------------------------------|
| 1 | Refrigerant gas pipe | 7 | Knock-out Hole for Ref. Piping |
| 2 | Refrigerant liquid pipe | 8 | Anchor Bolt Hole |
| 3 | Power wiring conduit | 9 | |
| 4 | Communication wiring conduit | 10 | |
| 5 | Power wiring conduit | 11 | |
| 6 | Communication wiring conduit | 12 | |

4 Dimensional drawing

Heat Pump

AM140FXVAGH/EU, AM160FXVAGH/EU, AM180FXVAGH/EU, AM200FXVAGH/EU, AM220FXVAGH/EU

Units : mm / inches

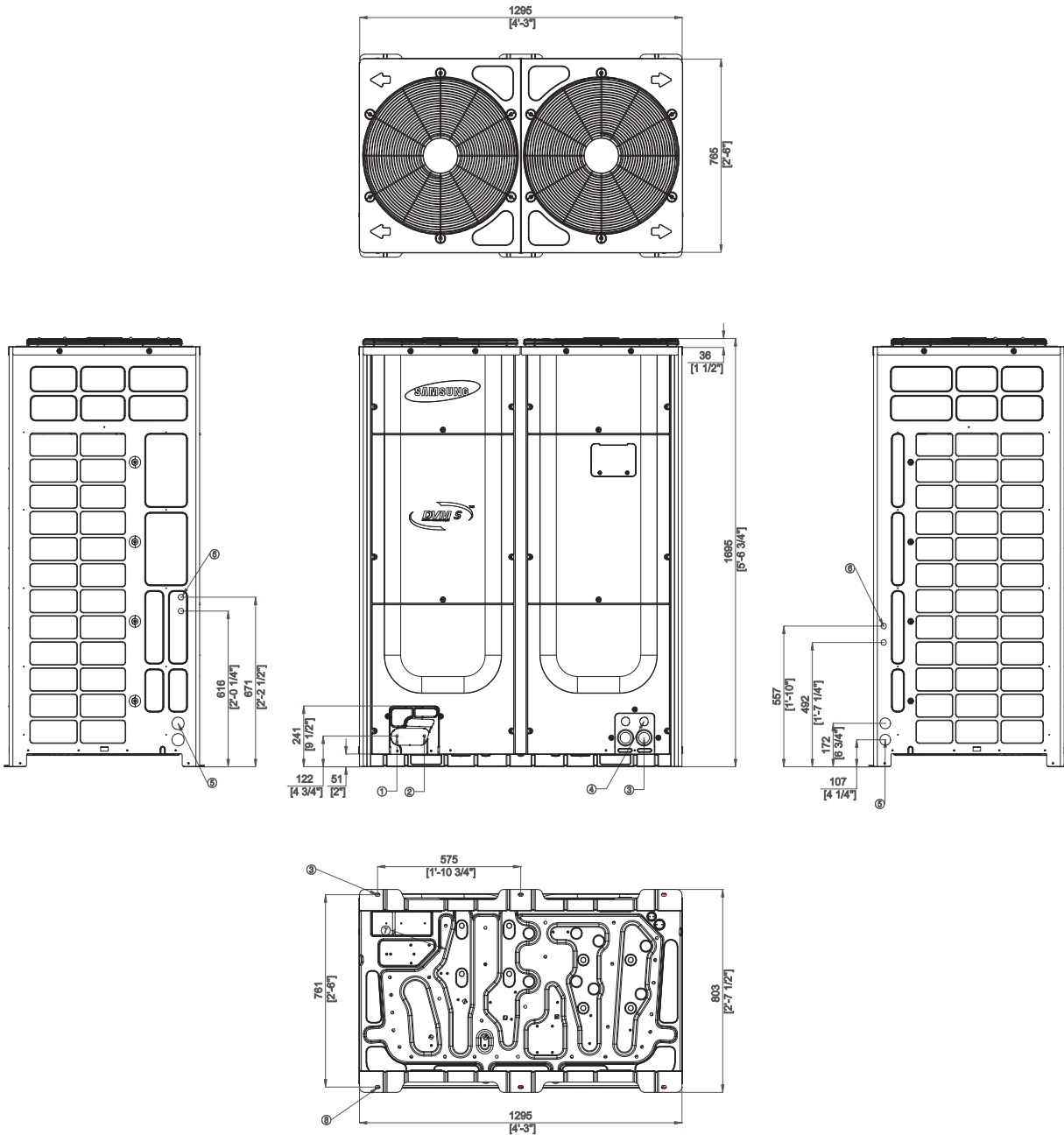


Table of descriptions

| | | | |
|---|------------------------------|----|--------------------------------|
| 1 | Gas Ref. pipe | 7 | Knock-out Hole for Ref. Piping |
| 2 | Liquid Ref. pipe | 8 | Anchor Bolt Hole |
| 3 | Power wiring conduit | 9 | |
| 4 | Communication wiring conduit | 10 | |
| 5 | Power wiring conduit | 11 | |
| 6 | Communication wiring conduit | 12 | |

4 Dimensional drawing

Heat Recovery

AM080FXVAGR/EU, AM100FXVAGR/EU, AM120FXVAGR/EU

Units : mm / inches

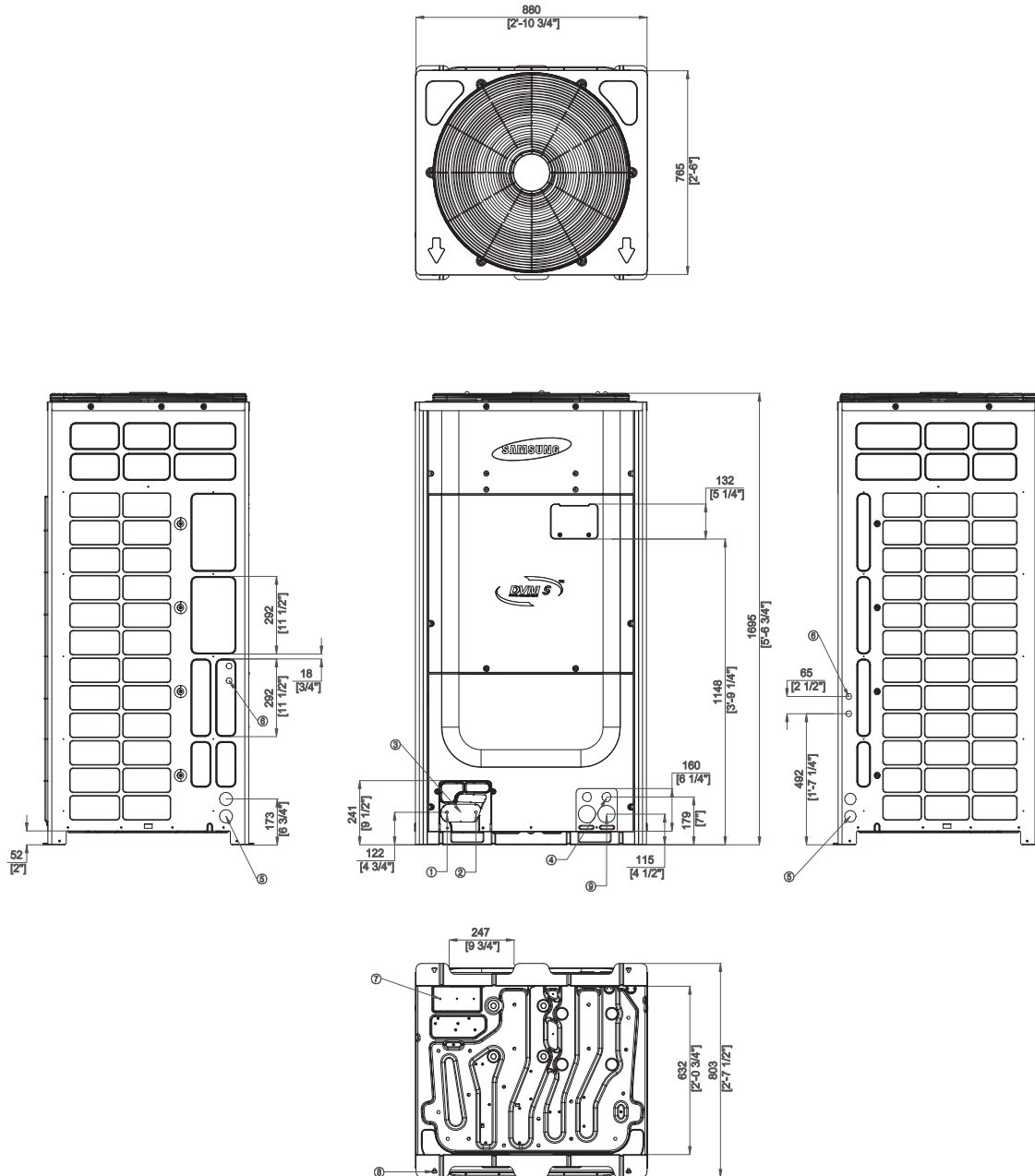


Table of descriptions

| | | | |
|---|------------------------------|----|--------------------------------|
| 1 | Low pressure gas pipe | 7 | Knock-out Hole for Ref. Piping |
| 2 | High pressure gas pipe | 8 | Anchor Bolt Hole |
| 3 | Liquid pipe | 9 | Power wiring conduit |
| 4 | Communication wiring conduit | 10 | |
| 5 | Power wiring conduit | 11 | |
| 6 | Communication wiring conduit | 12 | |

4 Dimensional drawing

Heat Recovery

AM140FXVAGR/EU, AM160FXVAGR/EU, AM180FXVAGR/EU, AM200FXVAGR/EU, AM220FXVAGR/EU

Units : mm / inches

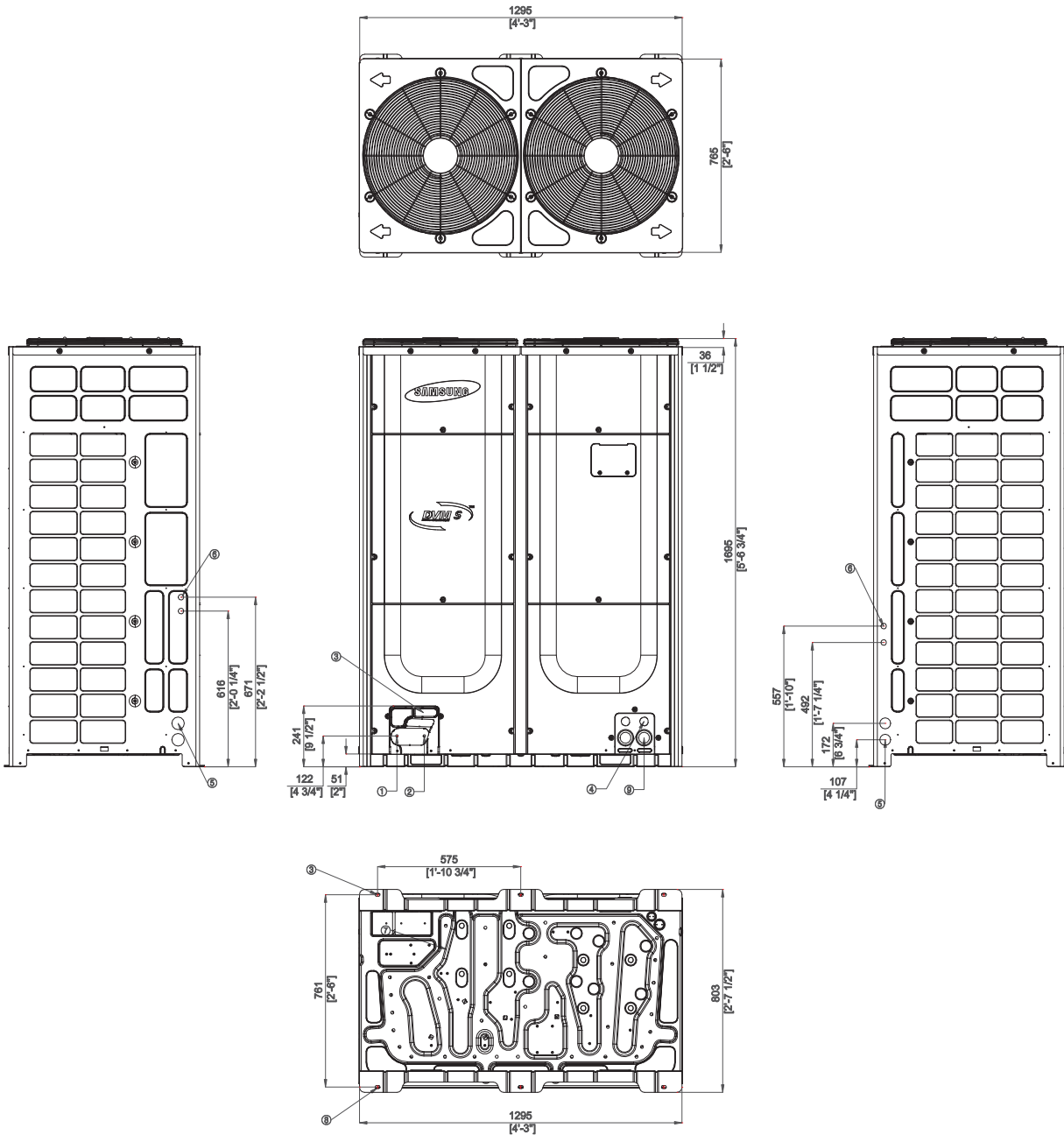


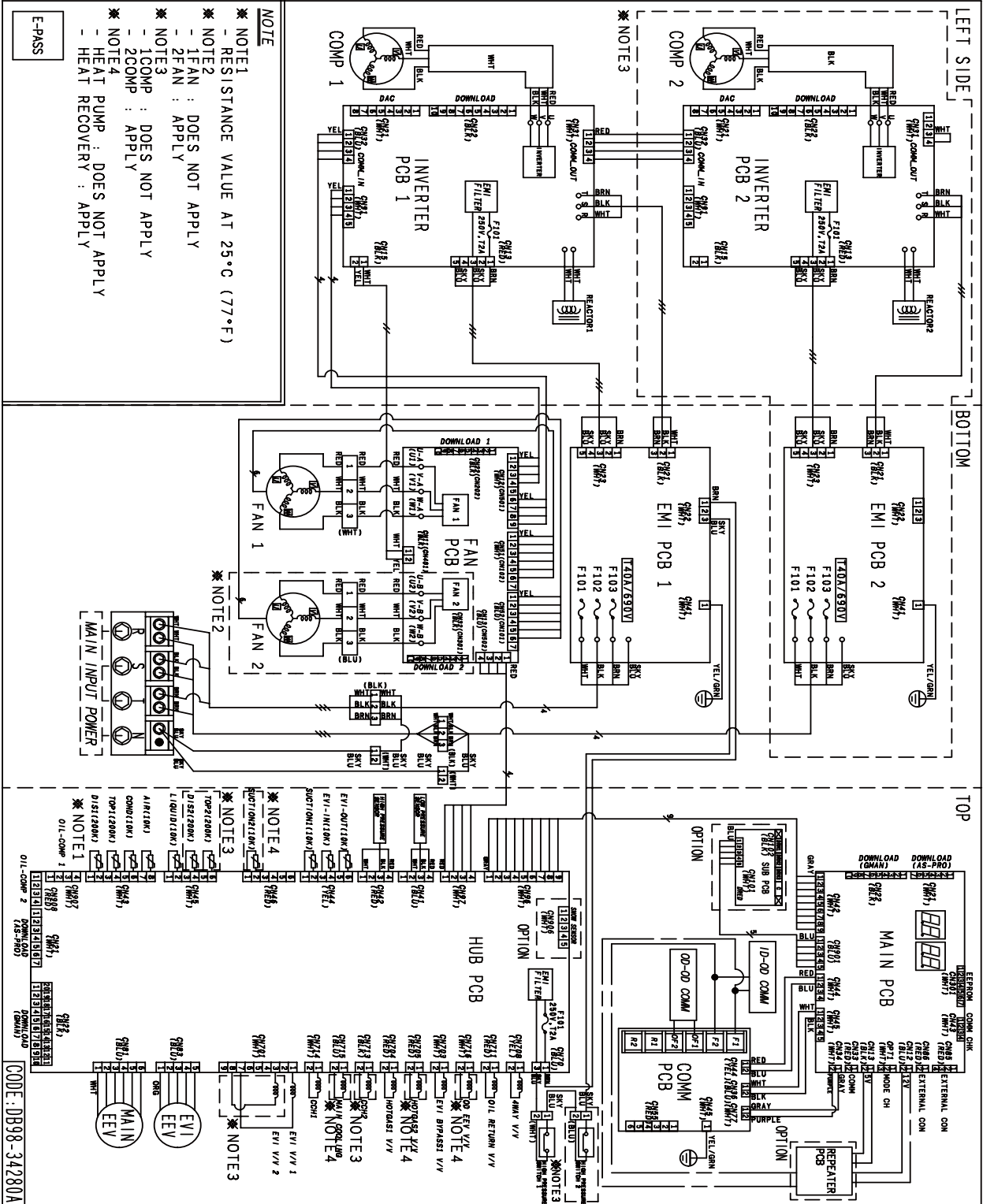
Table of descriptions

| | | | |
|---|------------------------------|----|--------------------------------|
| 1 | Low Pressure Gas Ref. pipe | 7 | Knock-out Hole for Ref. Piping |
| 2 | High Pressure Gas Ref. pipe | 8 | Anchor Bolt Hole |
| 3 | Liquid Ref. pipe | 9 | Power wiring conduit |
| 4 | Communication wiring conduit | 10 | |
| 5 | Power wiring conduit | 11 | |
| 6 | Communication wiring conduit | 12 | |

5 Electrical wiring diagram

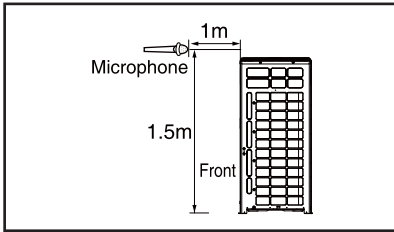
Outdoor

AM080~220FXVAGH/EU, AM080~220FXVAGR/EU



6 Sound pressure level

Outdoor



Unit: dB(A)

| Model | Pressure |
|------------------|----------|
| AM080FXVAG * /EU | 57.0 |
| AM100FXVAG * /EU | 58.0 |
| AM120FXVAG * /EU | 62.0 |
| AM140FXVAG * /EU | 61.0 |

Note

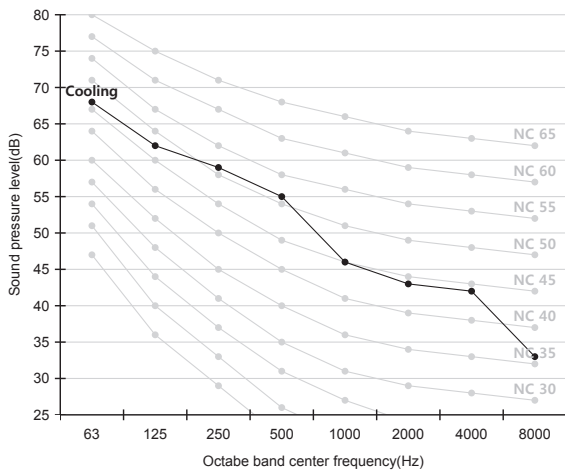
Measuring place: Anechoic chamber (conversion value)

These operation values were obtained in an anechoic room. Sound pressure level will vary depending on a factors such as the construction of the particular room where the equipment is installed.

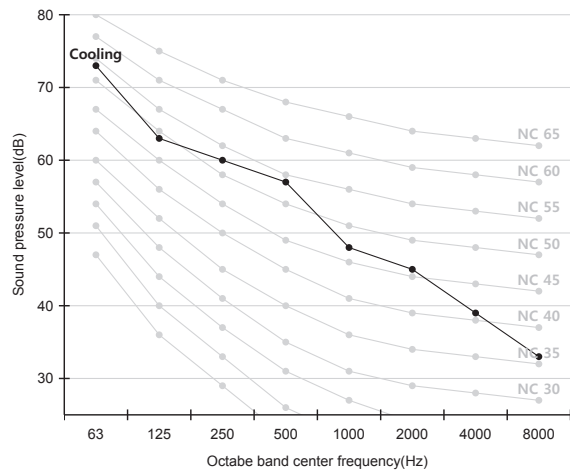
Operation sound level may differ depending on operation and ambient conditions.

NC curve

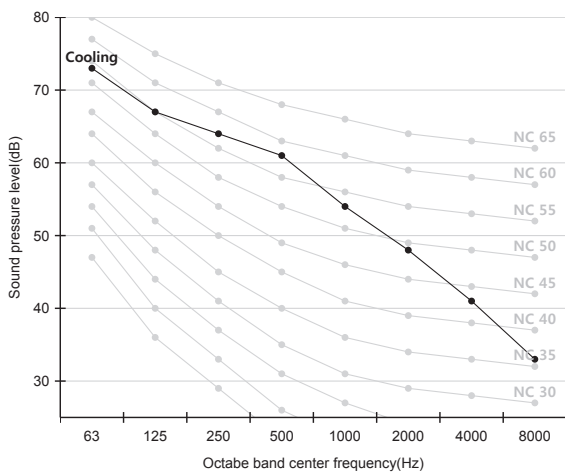
1) AM080FXVAG * /EU



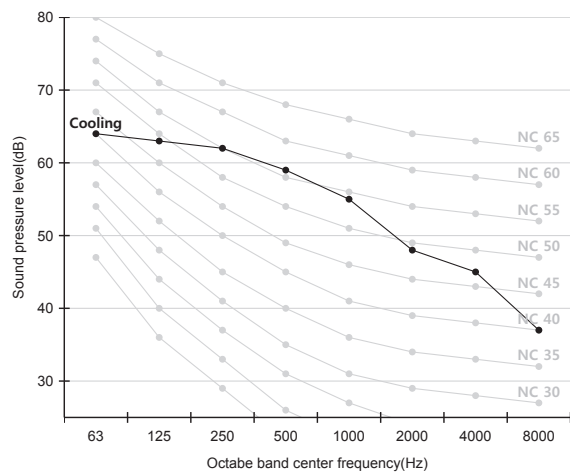
2) AM100FXVAG * /EU



3) AM120FXVAG * /EU

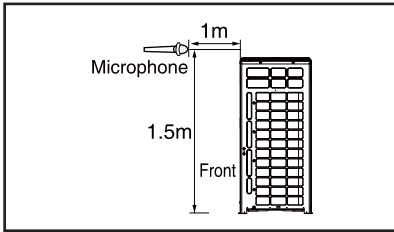


4) AM140FXVAG * /EU



6 Sound pressure level

Outdoor



Unit: dB(A)

| Model | Pressure |
|------------------|----------|
| AM160FXVAG * /EU | 63.0 |
| AM180FXVAG * /EU | 64.0 |
| AM200FXVAG * /EU | 65.0 |
| AM220FXVAG * /EU | 65.0 |

Note

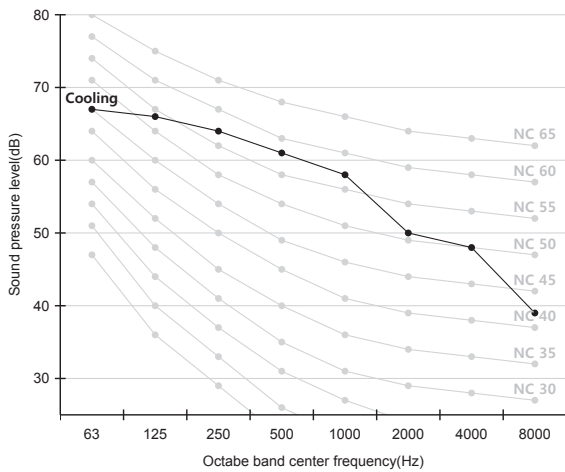
Measuring place: Anechoic chamber (conversion value)

These operation values were obtained in an anechoic room. Sound pressure level will vary depending on a factors such as the construction of the particular room where the equipment is installed.

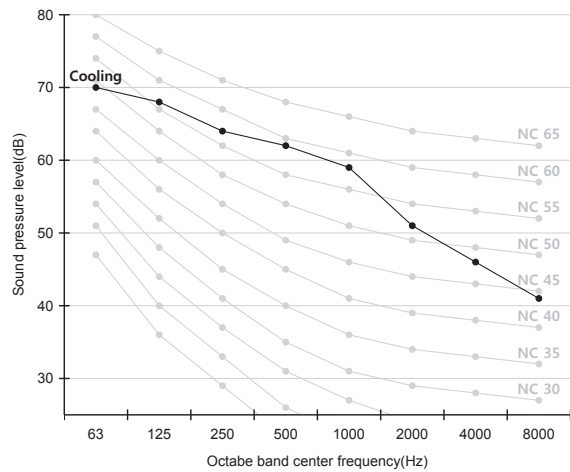
Operation sound level may differ depending on operation and ambient conditions.

NC curve

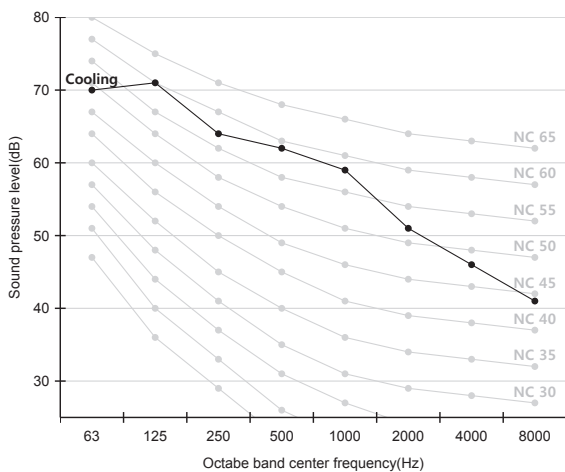
1) AM160FXVAG * /EU



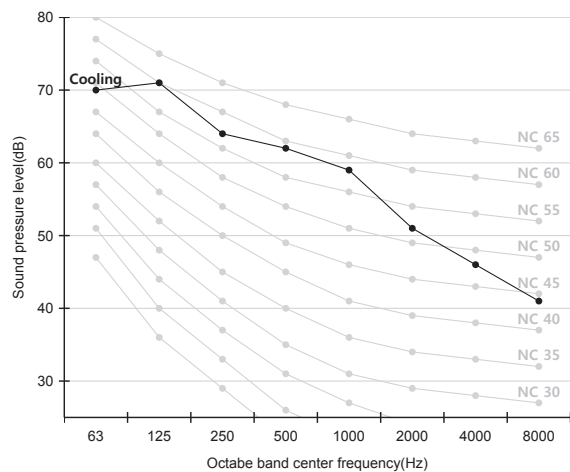
2) AM180FXVAG * /EU



3) AM200FXVAG * /EU



4) AM220FXVAG * /EU



7 Sound power level

Outdoor

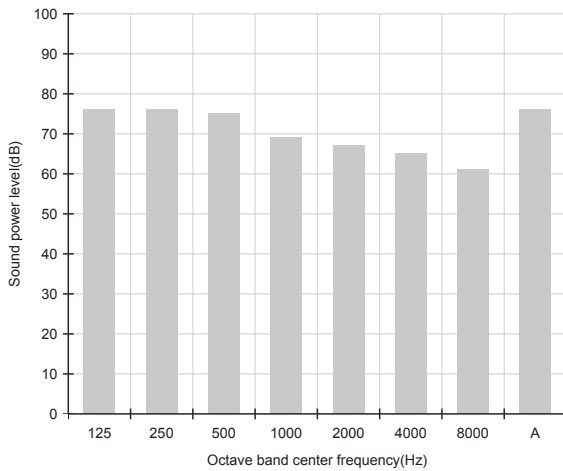
Note

dBA = A-weighted sound power level.
Reference power : 1pW.
Measured according to ISO 3741.

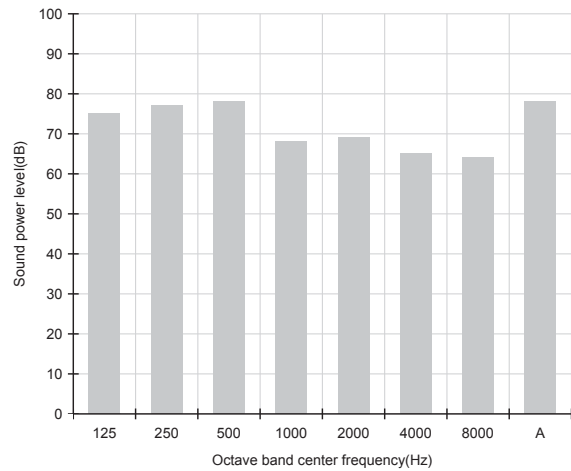
Unit: dB(A)

| Model | Power |
|------------------|-------|
| AM080FXVAG * /EU | 77.0 |
| AM100FXVAG * /EU | 79.0 |
| AM120FXVAG * /EU | 81.0 |
| AM140FXVAG * /EU | 81.0 |

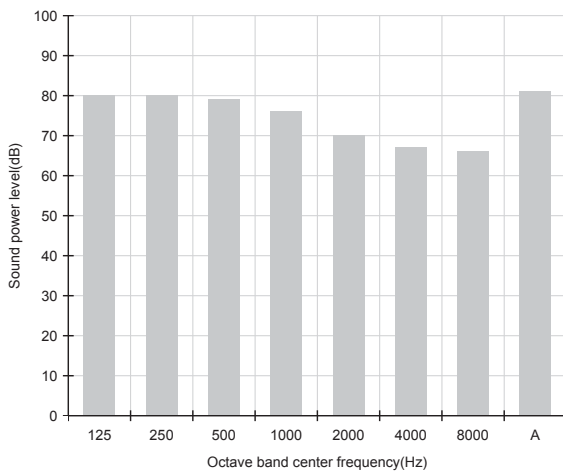
1)AM080FXVAG * /EU



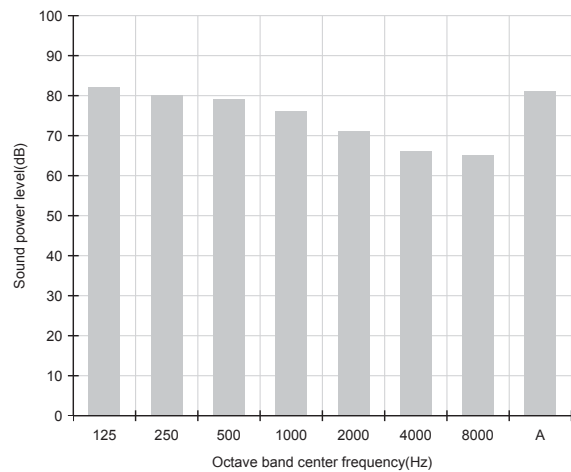
2)AM100FXVAG * /EU



3)AM120FXVAG * /EU



4)AM140FXVAG * /EU



7 Sound power level

Outdoor

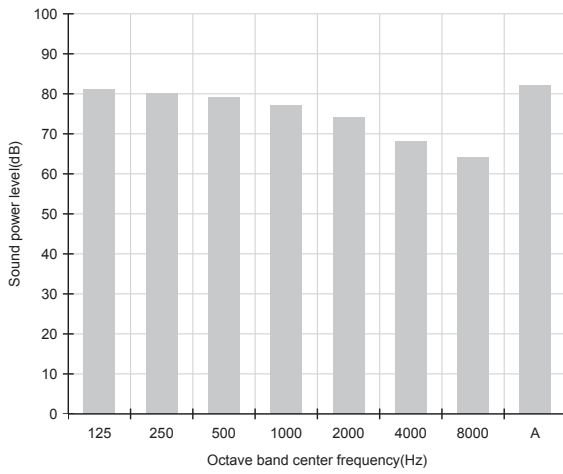
Note

dBA = A-weighted sound power level.
Reference power : 1pW.
Measured according to ISO 3741.

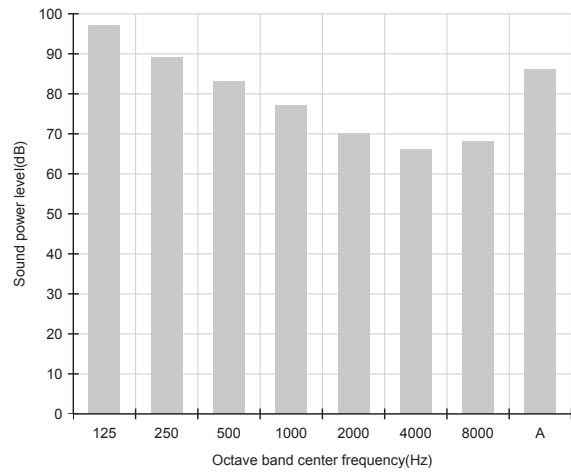
Unit: dB(A)

| Model | Power |
|------------------|-------|
| AM160FXVAG * /EU | 83.0 |
| AM180FXVAG * /EU | 86.0 |
| AM200FXVAG * /EU | 87.0 |
| AM220FXVAG * /EU | 89.0 |

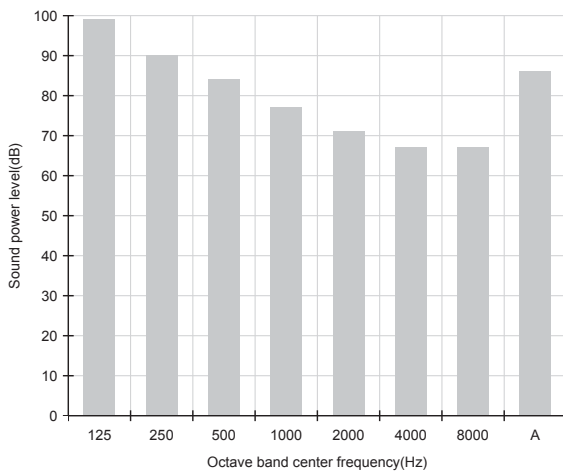
1)AM160FXVAG * /EU



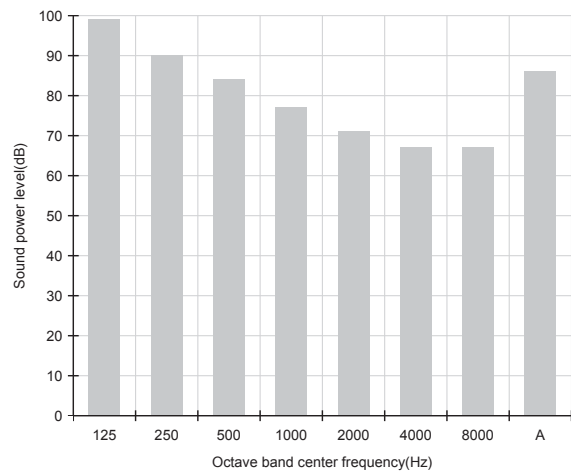
2)AM180FXVAG * /EU



3)AM200FXVAG * /EU



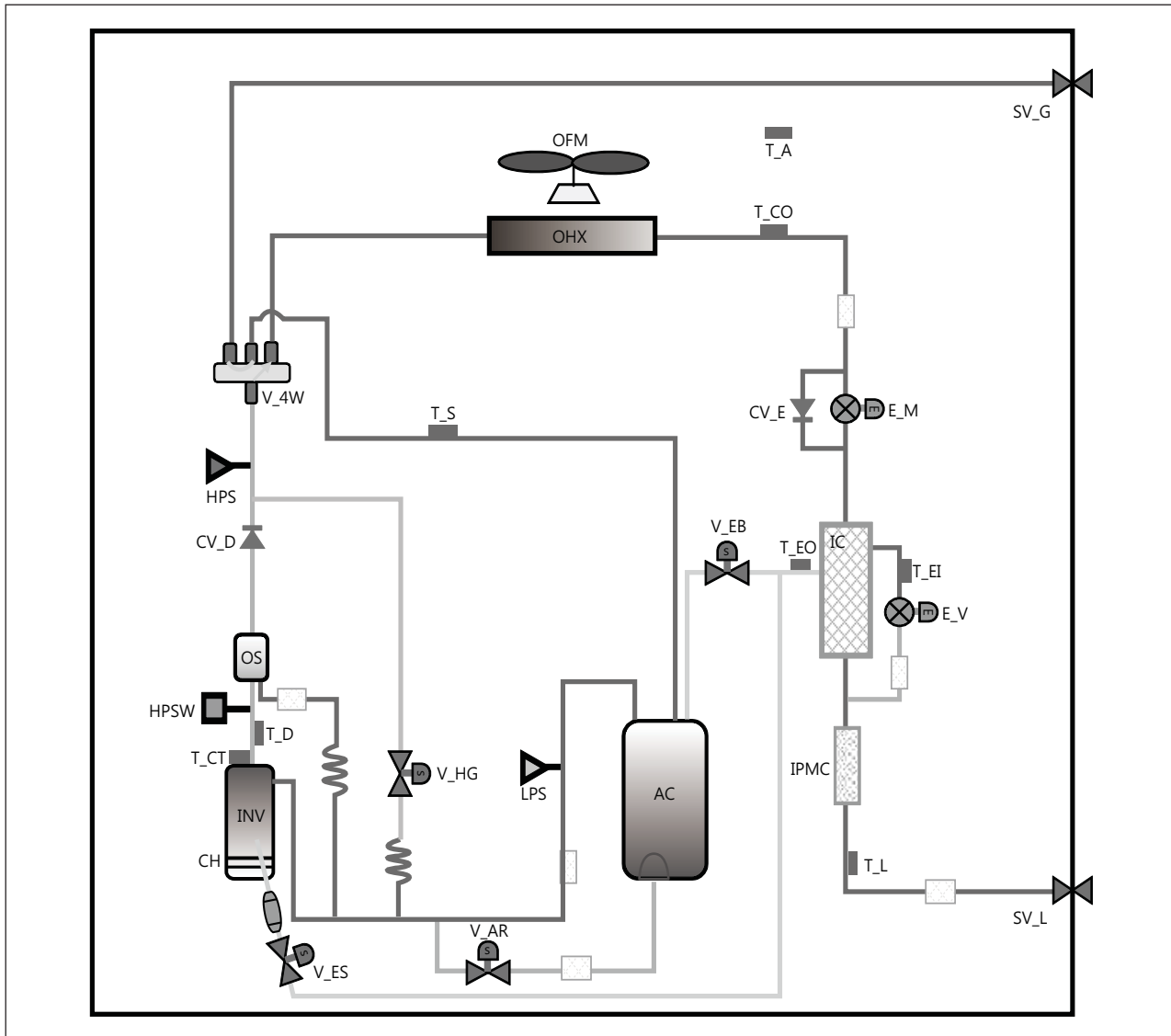
4)AM220FXVAG * /EU



8 Cycle diagram

Heat Pump

AM080FXVAGH/EU, AM100FXVAGH/EU, AM120FXVAGH/EU



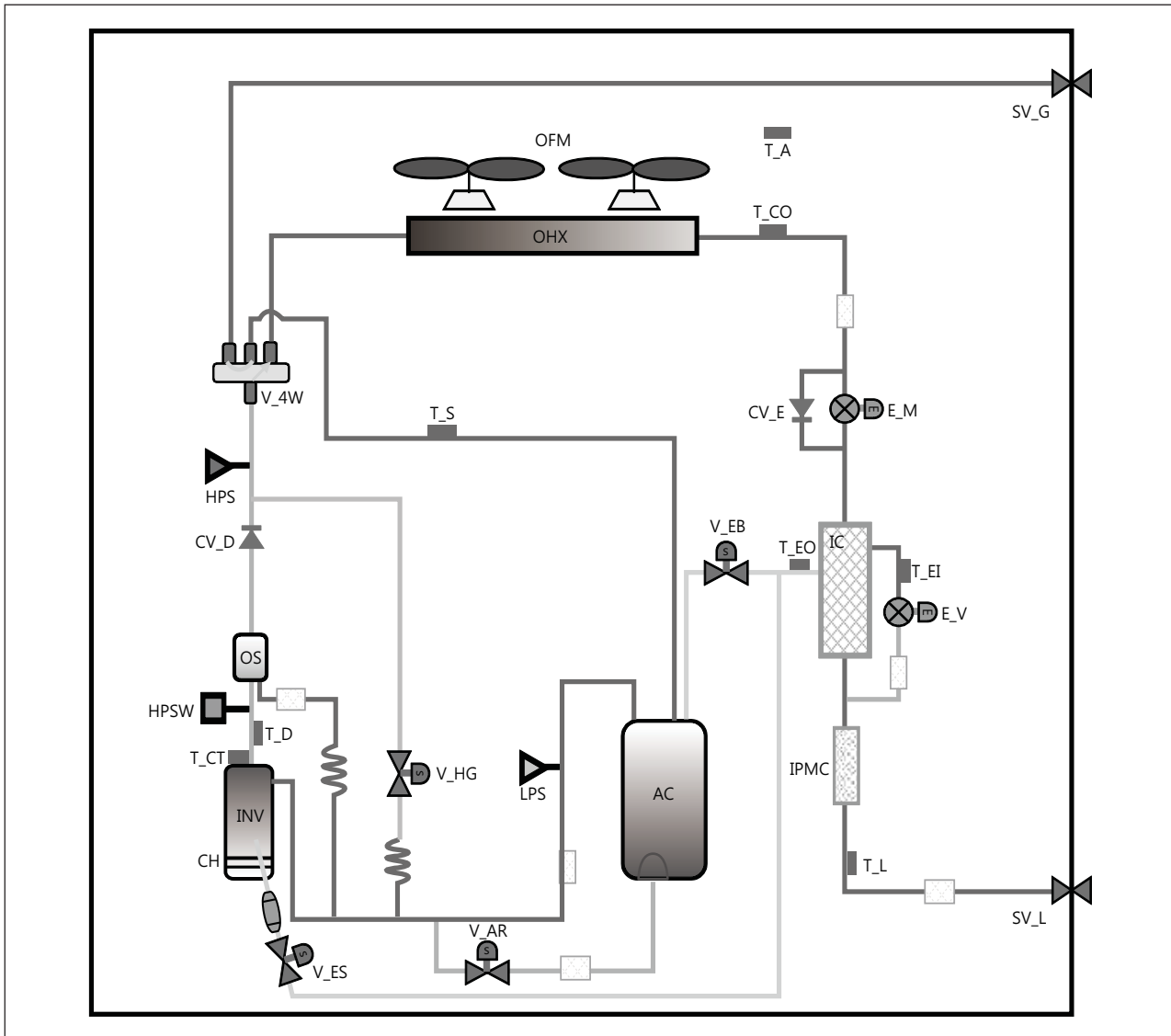
| Classification | Description |
|----------------|------------------------|
| INV | Inverter Compressor |
| OFM | Outdoor Fan Motor |
| OHX | Outdoor Heat Exchanger |
| AC | Accumulator |
| OS | Oil Separator |
| IC | Intercooler |
| IPMC | IPM Cooler |
| CH | Crank Case Heater |
| HPS | High Pressure Sensor |
| LPS | Low Pressure Sensor |
| HPSW | High Pressure Switch |
| E_M | Main EEV |
| E_EV | EVI EEV |
| V_ES | EVI Solenoid Valve |
| V_EB | EVI Bypass Valve |

| Classification | Description |
|----------------|-----------------------------------|
| V_HG | Hot Gas Bypass Valve |
| V_4W | 4way Valve |
| V_AR | Accumulator Oil Return Valve |
| CV_E | EEV Bypass Check Valve |
| CV_D | Discharge Check Valve |
| T_D | Discharge Temperature Sensor |
| T_S | Suction Temperature Sensor |
| T_CO | Condenser Out Temperature Sensor |
| T_EI | EVI In Temperature Sensor |
| T_EO | EVI Out Temperature Sensor |
| T_L | Liquid Tube Temperature Sensor |
| T_CT | Compressor Top Temperature Sensor |
| T_A | Ambient Temperature Sensor |
| SV_G | Gas Pipe Service Valve |
| SV_L | Liquid Pipe Service Valve |

8 Cycle diagram

Heat Pump

AM140FXVAGH/EU



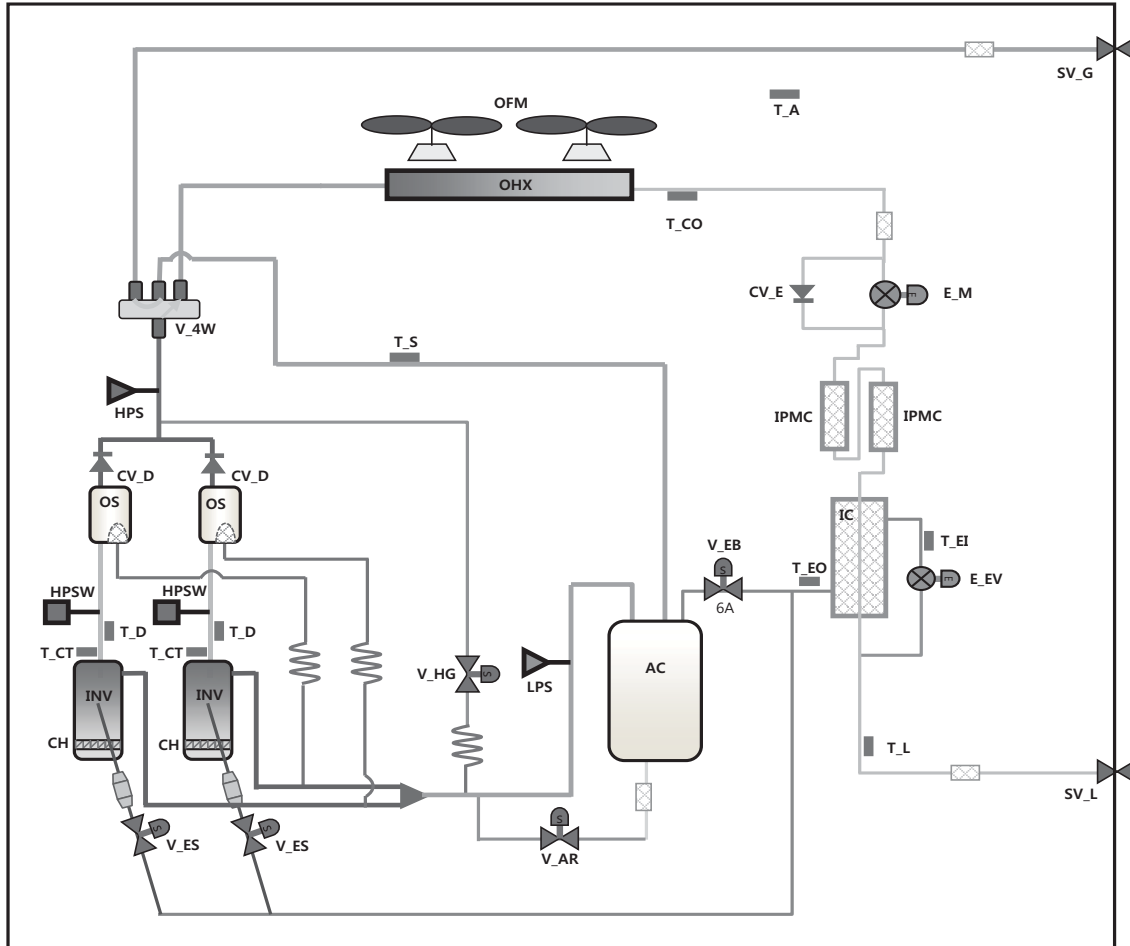
| Classification | Description |
|----------------|------------------------|
| INV | Inverter Compressor |
| OFM | Outdoor Fan Motor |
| OHX | Outdoor Heat Exchanger |
| AC | Accumulator |
| OS | Oil Separator |
| IC | Intercooler |
| IPMC | IPM Cooler |
| CH | Crank Case Heater |
| HPS | High Pressure Sensor |
| LPS | Low Pressure Sensor |
| HPSW | High Pressure Switch |
| E_M | Main EEV |
| E_EV | EVI EEV |
| V_ES | EVI Solenoid Valve |
| V_EB | EVI Bypass Valve |

| Classification | Description |
|----------------|-----------------------------------|
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| V_4W | 4way Valve |
| V_AR | Accumulator Oil Return Valve |
| CV_E | EEV Bypass Check Valve |
| CV_D | Discharge Check Valve |
| T_D | Discharge Temperature Sensor |
| T_S | Suction Temperature Sensor |
| T_CO | Condenser Out Temperature Sensor |
| T_EI | EVI In Temperature Sensor |
| T_EO | EVI Out Temperature Sensor |
| T_L | Liquid Tube Temperature Sensor |
| T_CT | Compressor Top Temperature Sensor |
| T_A | Ambient Temperature Sensor |
| SV_G | Gas Pipe Service Valve |
| SV_L | Liquid Pipe Service Valve |

8 Cycle diagram

Heat Pump

AM160FXVAGH/EU, AM180FXVAGH/EU, AM200FXVAGH/EU, AM220FXVAGH/EU



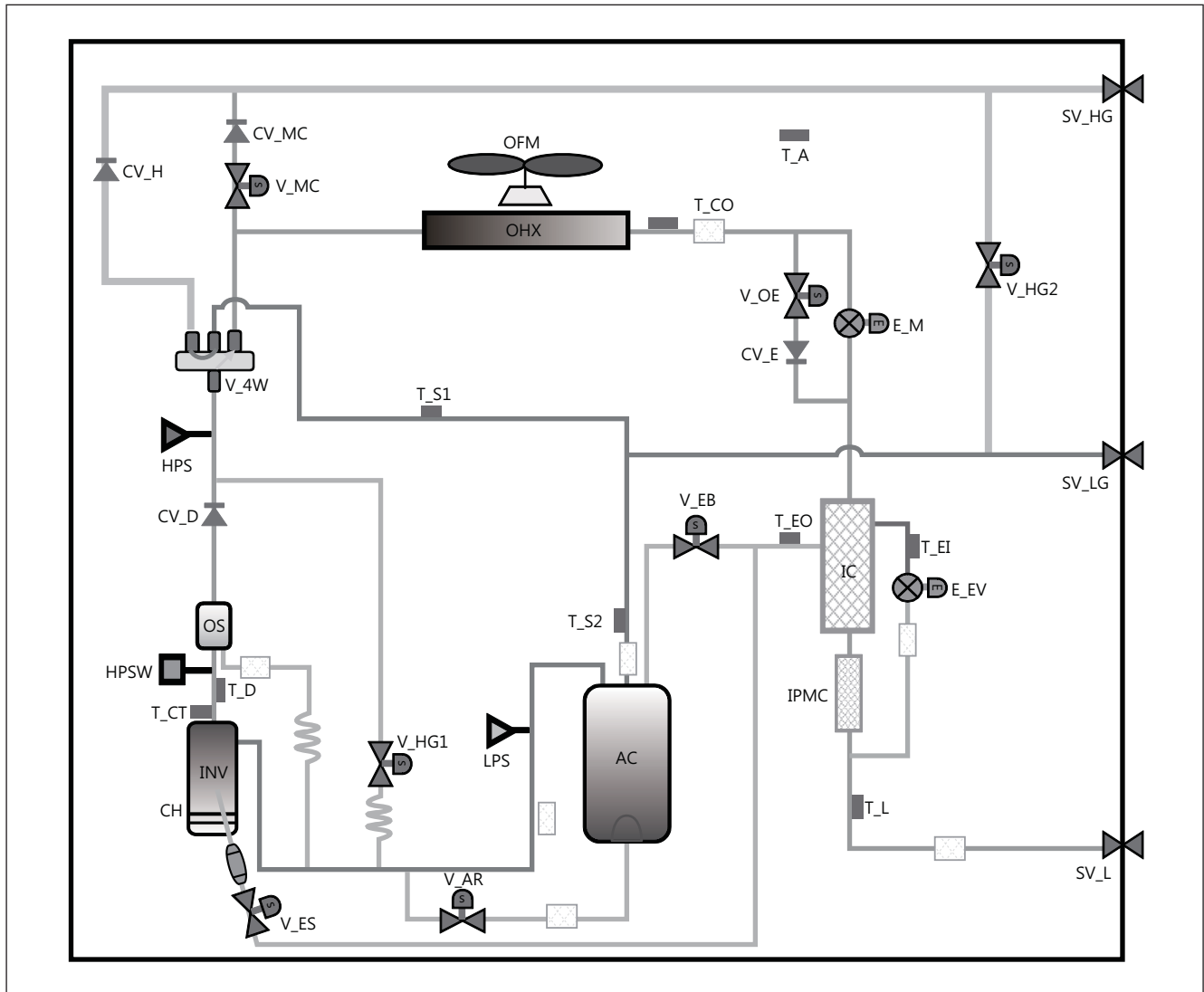
| Classification | Description |
|----------------|------------------------|
| INV | Inverter Compressor |
| OFM | Outdoor Fan Motor |
| OHX | Outdoor Heat Exchanger |
| AC | Accumulator |
| OS | Oil Separator |
| IC | Intercooler |
| IPMC | IPM Cooler |
| CH | Crank Case Heater |
| HPS | High Pressure Sensor |
| LPS | Low Pressure Sensor |
| HPSW | High Pressure Switch |
| E_M | Main EEV |
| E_EV | EVI EEV |
| V_ES | EVI Solenoid Valve |
| V_EB | EVI Bypass Valve |

| Classification | Description |
|----------------|-----------------------------------|
| V_HG | Hot Gas Bypass Valve |
| V_4W | 4way Valve |
| V_AR | Accumulator Oil Return Valve |
| CV_E | EEV Bypass Check Valve |
| CV_D | Discharge Check Valve |
| T_D | Discharge Temperature Sensor |
| T_S | Suction Temperature Sensor |
| T_CO | Condenser Out Temperature Sensor |
| T_EI | EVI In Temperature Sensor |
| T_EO | EVI Out Temperature Sensor |
| T_L | Liquid Tube Temperature Sensor |
| T_CT | Compressor Top Temperature Sensor |
| T_A | Ambient Temperature Sensor |
| SV_G | Gas Pipe Service Valve |
| SV_L | Liquid Pipe Service Valve |

8 Cycle diagram

Heat Recovery

AM080HXVAGR/EU, AM100HXVAGR/EU, AM120HXVAGR/EU



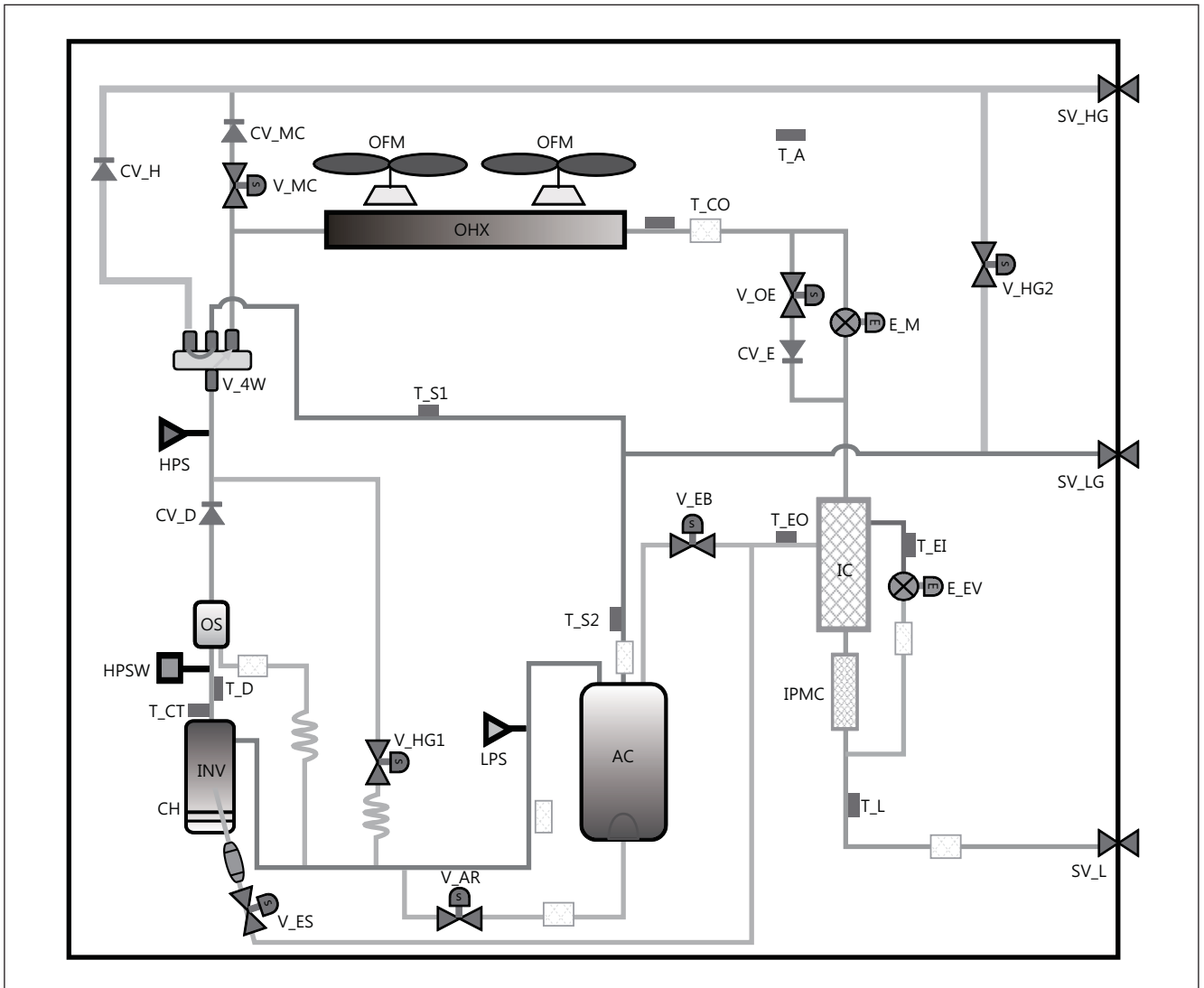
| Classification | Description |
|----------------|------------------------|
| INV | Inverter Compressor |
| OFM | Outdoor Fan Motor |
| OHX | Outdoor Heat Exchanger |
| AC | Accumulator |
| OS | Oil Separator |
| IC | Intercooler |
| IPMC | IPM Cooler |
| CH | Crank Case Heater |
| HPS | High Pressure Sensor |
| LPS | Low Pressure Sensor |
| HPSW | High Pressure Switch |
| E_M | Main EEV |
| E_EV | EVI EEV |
| V_MC | Main Cooling Valve |
| V_ES | EVI Solenoid Valve |
| V_EB | EVI Bypass Valve |
| V_HG1 | Hot Gas Bypass Valve 1 |
| V_HG2 | Hot Gas Bypass Valve 2 |

| Classification | Description |
|----------------|------------------------------|
| V_4W | 4Way Valve |
| V_AR | Accumulator Oil Return Valve |
| V_OE | Outdoor EEV Valve |
| CV_E | EEV Bypass Check Valve |
| CV_D | Discharge Check Valve |
| CV_H | HR Check valve |
| CV_MC | Main Cooling Check Valve |
| T_D | Discharge Temp. Sensor |
| T_S1 | Suction Temp. Sensor 1 |
| T_S2 | Suction Temp. Sensor 2 |
| T_CO | Cond Out Temp. Sensor |
| T_EI | EVI In Temp. Sensor |
| T_EO | EVI Out Temp. Sensor |
| T_L | Liquid Tube Temp. Sensor |
| T_CT | Comp. Top Temp. Sensor |
| T_A | Ambient Temp. Sensor |
| SV_HG | Low Gas Pipe Service Valve |
| SV_LG | Ambient Temp. Sensor |
| SV_L | Liquid Pipe Service Valve |

8 Cycle diagram

Heat Recovery

AM140HXVAGR/EU



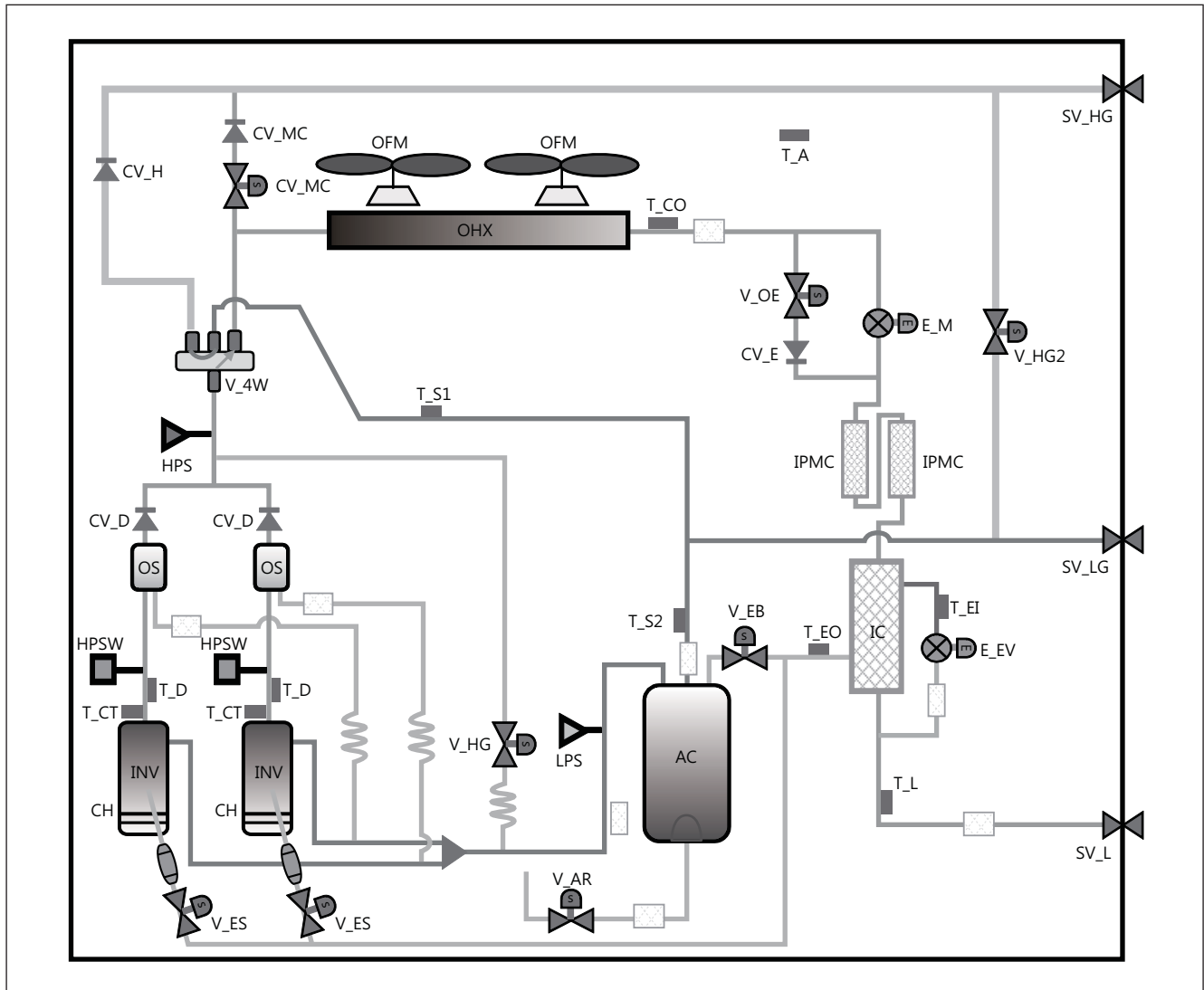
| Classification | Description |
|----------------|------------------------|
| INV | Inverter Compressor |
| OFM | Outdoor Fan Motor |
| OHX | Outdoor Heat Exchanger |
| AC | Accumulator |
| OS | Oil Separator |
| IC | Intercooler |
| IPMC | IPM Cooler |
| CH | Crank Case Heater |
| HPS | High Pressure Sensor |
| LPS | Low Pressure Sensor |
| HPSW | High Pressure Switch |
| E_M | Main EEV |
| E_EV | EVI EEV |
| V_MC | Main Cooling Valve |
| V_ES | EVI Solenoid Valve |
| V_EB | EVI Bypass Valve |
| V_HG1 | Hot Gas Bypass Valve 1 |
| V_HG2 | Hot Gas Bypass Valve 2 |

| Classification | Description |
|----------------|------------------------------|
| V_4W | 4Way Valve |
| V_AR | Accumulator Oil Return Valve |
| V_OE | Outdoor EEV Valve |
| CV_E | EEV Bypass Check Valve |
| CV_D | Discharge Check Valve |
| CV_H | HR Check valve |
| CV_MC | Main Cooling Check Valve |
| T_D | Discharge Temp. Sensor |
| T_S1 | Suction Temp. Sensor 1 |
| T_S2 | Suction Temp. Sensor 2 |
| T_CO | Cond Out Temp. Sensor |
| T_EI | EVI In Temp. Sensor |
| T_EO | EVI Out Temp. Sensor |
| T_L | Liquid Tube Temp. Sensor |
| T_CT | Comp. Top Temp. Sensor |
| T_A | Ambient Temp. Sensor |
| SV_HG | Low Gas Pipe Service Valve |
| SV_LG | Ambient Temp. Sensor |
| SV_L | Liquid Pipe Service Valve |

8 Cycle diagram

Heat Recovery

AM160HXVAGR/EU, AM180HXVAGR/EU, AM200HXVAGR/EU, AM220HXVAGR/EU



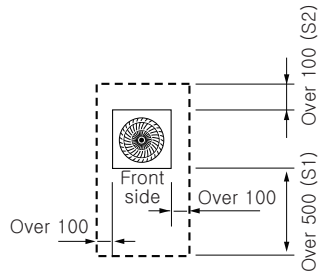
| Classification | Description |
|----------------|------------------------|
| INV | Inverter Compressor |
| OFM | Outdoor Fan Motor |
| OHX | Outdoor Heat Exchanger |
| AC | Accumulator |
| OS | Oil Separator |
| IC | Intercooler |
| IPMC | IPM Cooler |
| CH | Crank Case Heater |
| HPS | High Pressure Sensor |
| LPS | Low Pressure Sensor |
| HPSW | High Pressure Switch |
| E_M | Main EEV |
| E_EV | EVI EEV |
| V_MC | Main Cooling Valve |
| V_ES | EVI Solenoid Valve |
| V_EB | EVI Bypass Valve |
| V_HG1 | Hot Gas Bypass Valve 1 |
| V_HG2 | Hot Gas Bypass Valve 2 |

| Classification | Description |
|----------------|------------------------------|
| V_4W | 4Way Valve |
| V_AR | Accumulator Oil Return Valve |
| V_OE | Outdoor EEV Valve |
| CV_E | EEV Bypass Check Valve |
| CV_D | Discharge Check Valve |
| CV_H | HR Check valve |
| CV_MC | Main Cooling Check Valve |
| T_D | Discharge Temp. Sensor |
| T_S1 | Suction Temp. Sensor 1 |
| T_S2 | Suction Temp. Sensor 2 |
| T_CO | Cond Out Temp. Sensor |
| T_EI | EVI In Temp. Sensor |
| T_EO | EVI Out Temp. Sensor |
| T_L | Liquid Tube Temp. Sensor |
| T_CT | Comp. Top Temp. Sensor |
| T_A | Ambient Temp. Sensor |
| SV_HG | Low Gas Pipe Service Valve |
| SV_LG | Ambient Temp. Sensor |
| SV_L | Liquid Pipe Service Valve |

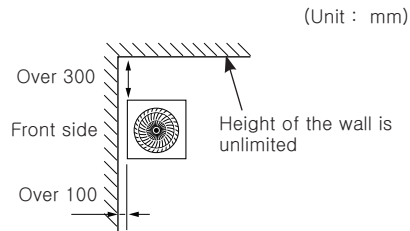
9 Installation

1. Space requirement for installation

1) Single installation

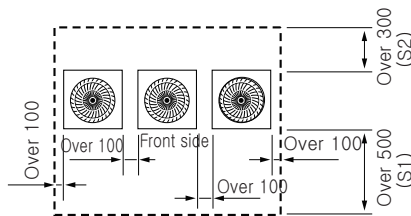


<Case 1>

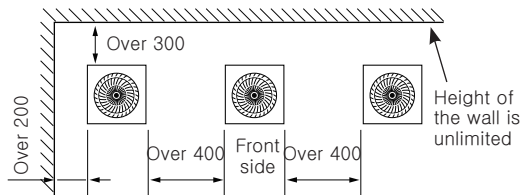


<Case 2>

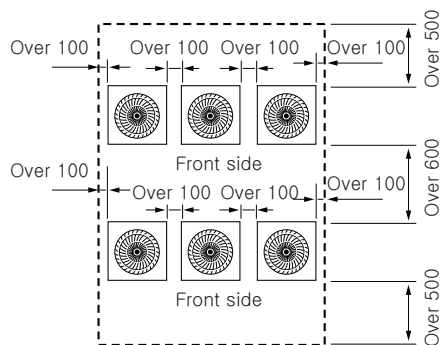
2) Module installation



<Case 1>

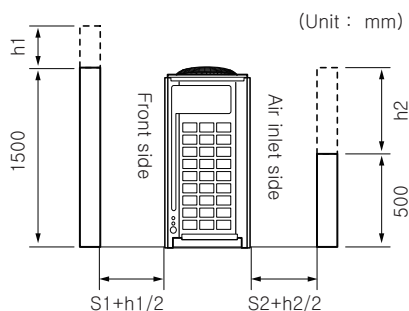


<Case 2>



<Case 3>

► For <Case 1> or <Case 3>



- Height of the wall on the front side should not be higher than 1500mm.
- Height of the wall on the air inlet side should not be higher than 500mm.
- 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 distance] should be added to the service space (S_1 , S_2)

✓ Note

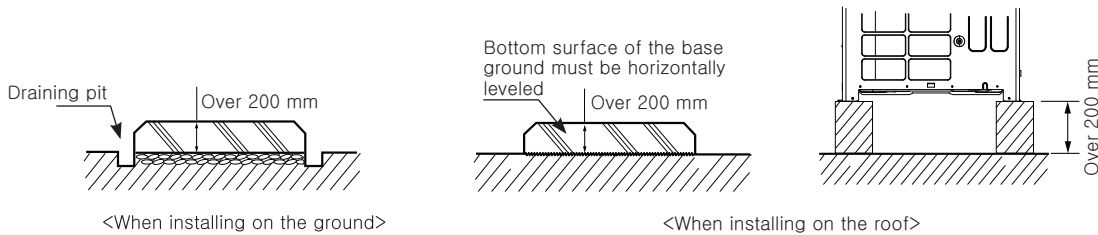
- ◆ Space requirement was decided based on following conditions: Cooling mode, outdoor temperature of 35 °C. Larger space is required if the outdoor temperature is higher than 35 °C or if the place is heated easily by quantity of solar radiation.
- ◆ When you secure installation space, consider path 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 of space between the product, but product's performance may decrease depending on the installation environment.

9 Installation

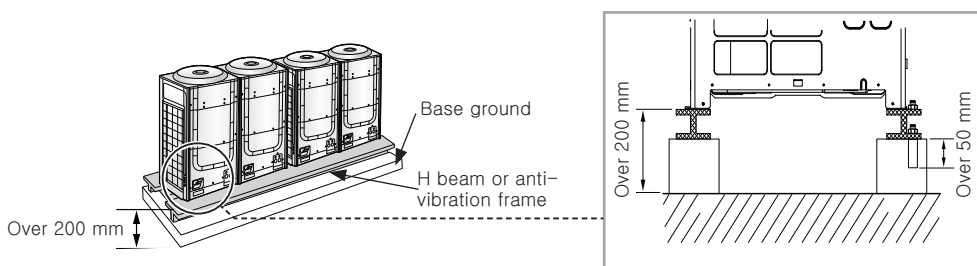
2. Base construction and installation of the outdoor unit

- ◆ Make sure that the height of the base ground is 200mm or higher to protect the outdoor unit from rain water or other external conditions. Also, install a draining pit around the base ground and connect the drain pipe to the drainage.
- ◆ Considering the vibration and weight of the outdoor unit, strength of the base ground must be strong to prevent noise and the top surface of it should be flat.
- ◆ Base ground should be 1.5 times larger than the bottom of the outdoor unit.
- ◆ Outdoor unit must be fixed firmly so that it can withstand the wind speed of 30m/s. If you cannot fix the outdoor unit on the base ground, fix it by side or use extra structure.
- ◆ In heating operation, defrost water may form so you must really care about the drainage and waterproofing the floor. To prevent defrost water from stagnating or freezing, construct a drainage with over 1/50 slope. (Ice may form on the floor in winter time.)
- ◆ It is necessary to add wire mesh or steel bar during concrete construction for the base ground to prevent damages or cracks.
- ◆ When installing multiple outdoor units at the same place, construct a H beam or an anti-vibration frame on the base ground to install the outdoor unit.
- ◆ After installing a H beam or an anti-vibration frame, apply corrosion protection and other necessary coating.
- ◆ When concrete construction for outdoor unit installation is completed, install an anti-vibration pad (t=20mm or more) or an anti-vibration frame to prevent vibration of the outdoor unit from transferring to the base ground.
- ◆ Place the outdoor unit on a H beam or an anti-vibration frame and fix it with the bolt, nut and washer. (The bearing force has to be over 3.5kN)

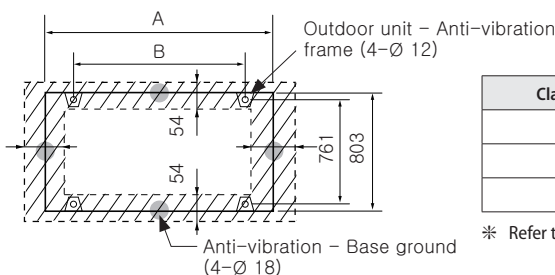
1) Base ground construction



2) Outdoor unit installation



3) Outdoor unit base mount and anchor bolt position



(Unit : mm)

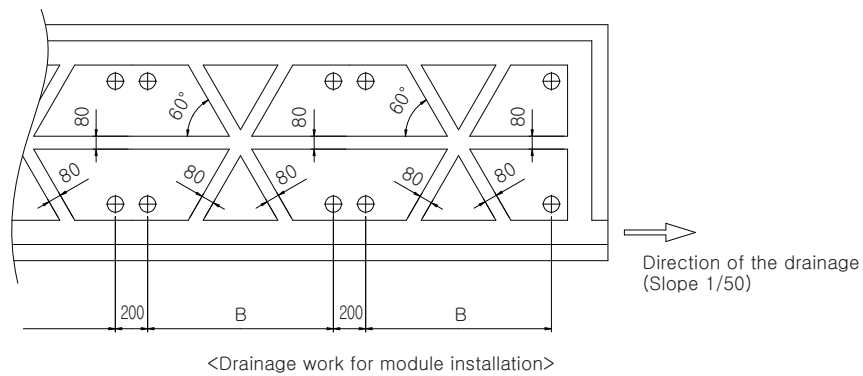
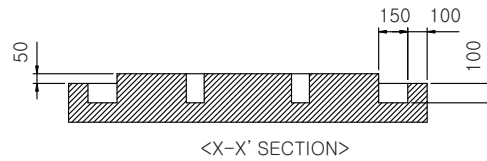
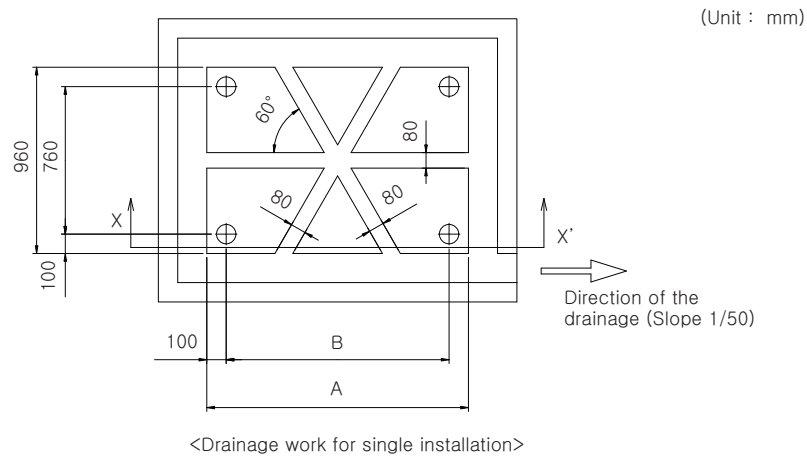
| Classification | Small type | Large type |
|----------------|------------------------------|--|
| Models | AM080/100/120* <i>XVAG</i> * | AM140/160/180/200/220/240/260* <i>XVAG</i> * |
| A | 880 | 1,295 |
| B | 740 | 1,150 |

* Refer to the blueprints in technical data book to make a holes for connecting the anti-vibration pad

9 Installation

4) Examples of draining work

- ▶ Construct the drainage ditch with reinforced concretes and make sure that water-proofing work is done.
- ▶ For smooth draining of defrost water, make sure to apply 1/50 slope.
- ▶ Construct a drainage around the outdoor unit to prevent the defrost water (from the outdoor unit) from stagnating, overflowing or freezing near the installation space.
- ▶ When the outdoor unit is installed on the roof, check the strength and waterproof status of the roof.



(Unit : mm)

| Classification | Small type | Large type |
|----------------|---------------------|-------------------------------------|
| Models | AM080/100/120*XVAG* | AM140/160/180/200/220/240/260*XVAG* |
| A | 940 | 1,350 |
| B | 740 | 1,150 |

9 Installation

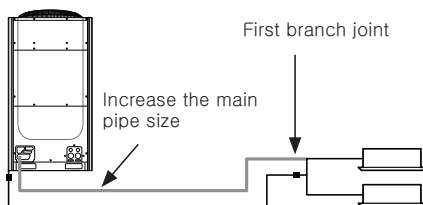
3. Refrigerant pipe installation

1) Refrigerant pipe work

- ▶ The length of refrigerant pipe should be as short as possible and the height difference between an indoor and outdoor unit should be minimized.
- ▶ Piping work must be done within allowable piping length, height difference, and the allowable length after branching.
- ▶ The pressure of the R-410A is high. Use only certified refrigerant pipe and follow the installation method.
- ▶ After installing the pipes, calculate the total length of the pipe to check if additional refrigerant is needed. When you need to charge the additional refrigerant, make sure to use R-410A refrigerant.
- ▶ Use clean refrigerant pipe and there shouldn't be any harmful ion, oxide, dust, iron content or moisture inside pipe.
- ▶ Use tools and accessories that fit on R-410A only

| Tool | Installation process/purpose | Compatibility with conventional tool | |
|--------------------------------|---|--|---|
| Pipe cutter | Refrigerant pipe installation | Pipe cutting | Compatible |
| Flaring tool | | Pipe flaring | |
| Refrigerant machine oil | | Apply refrigerant oil on flared part | Exclusive ether oil, ester oil, alkali benzene oil or synthetic oil |
| Torque wrench | | Connect flare nut with pipe | Compatible |
| Pipe bender | | Pipe bending | |
| Nitrogen gas | Air tightness test | Prevent oxidation within the pipe | Compatible |
| Welder | | Pipe welding | |
| Manifold gage | Air tightness test ~ additional refrigerant charging | Vacuuming, charging refrigerant and checking operation | Need exclusive one to prevent mixture of R-22 refrigerant oil use and also the measurement is not available due to high pressure |
| Refrigerant charging hose | | | Need exclusive one since there is risk of refrigerant leakage or inflow of impurities |
| Vacuum pump | Pipe drying | | Compatible (Use products which contain the check valve to prevent the oil from flowing backward into the outdoor unit.) Use the one that can be vacuumed up to -100.7kpa(5Torr). |
| Scale for refrigerant charging | | | Compatible |
| Gas leak detector | | Gas leak test | Need exclusive one (Ones used for R-134a is compatible) |
| Flare nut | Must use the flare nut equipped with the product . Refrigerant leakage may occur when the conventional flare nut for R-22 is used | | |

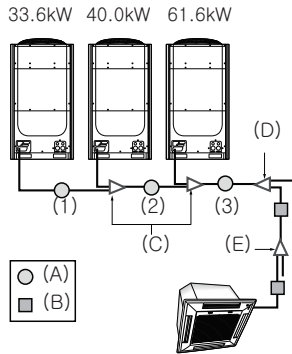
2) Selecting refrigerant pipe



- ▶ Install the refrigerant pipe according to main pipe size of each outdoor unit capacity.
- ▶ When the pipe length (including elbow) between an outdoor unit and the farthest indoor unit exceeds 90m, you must increase the size of the pipe (main pipe) by one grade which connects between the outdoor unit to the first branch joint.
- ▶ For H/R model, When the pipe length (including elbow) between an outdoor unit and the farthest indoor unit exceeds 90m, you must increase the size of the liquid pipe by one grade among the pipes(main pipe) which connects between the outdoor unit to the first branch joint.

9 Installation

(1) Heat Pump



Ex.) 135.2 kW

| Capacity (kW) | No. | Pipe size (mm) | |
|---------------|-----|----------------|----------|
| | | Liquid pipe | Gas pipe |
| 33.6kW | (1) | Ø 12.70 | Ø 28.58 |
| 73.6kW | (2) | Ø 19.05 | Ø 34.92 |
| 135.2kW | (3) | Ø 19.05 | Ø 41.28 |

① Size of the pipe connected to the outdoor unit (A)

Select the size of the pipe according to the below table.

| Outdoor unit capacity (kW) | *Maximum pipe length within 90m (Main pipe diameter) | | *Maximum pipe length over 90m (Main pipe diameter) | | |
|----------------------------|---|---------------|---|---------------------------|---------------------------|
| | Liquid pipe (mm) | gas pipe (mm) | Liquid pipe (mm) | gas pipe (mm) | |
| 22.4 kW | Ø 9.52 | Ø 19.05 | Ø 12.70 | Ø 22.22 | |
| 28.0 kW | | Ø 22.22 | | Ø 25.40 ^{note1)} | |
| 33.6 kW | Ø 12.70 | Ø 28.58 | Ø 15.88 | Ø 28.58 | |
| 40.0 kW | | | | Ø 19.05 | Ø 31.75 ^{note2)} |
| 45.0 kW | | | | | |
| 50.4 kW | Ø 15.88 | Ø 34.92 | Ø 19.05 | Ø 38.10 ^{note3)} | |
| 56.0 kW | | | | | |
| 61.6 kW | | | | | |
| 67.2 kW | Ø 19.05 | Ø 41.28 | Ø 22.22 | Ø 41.28 | |
| 72.8 kW ~ 84.0 kW | | | | | |
| 89.6 kW ~ 95.2 kW | | | | | |
| 101.6 kW | Ø 22.22 | Ø 53.98 | Ø 25.40 ^{note1)} | Ø 53.98 | |
| 106.6 kW ~ 135.2 kW | | | | | |
| 140.2 kW ~ 168.2 kW | Ø 22.22 | Ø 53.98 | Ø 25.40 ^{note1)} | Ø 53.98 | |
| 173.6 kW ~ 224.8 kW | | | | | |

*Maximum pipe length : The pipe length between an outdoor unit and the farthest indoor unit

② Size of the pipe between branch joints (B)

Select the pipe size according to the sum of indoor unit capacity which will be connected after the branch.

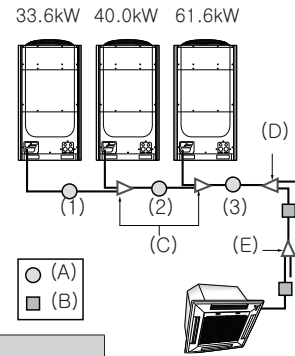
| Indoor unit capacity (kW) | Branch pipe length within 45m | | Branch pipe length between 45~90m | |
|------------------------------------|-------------------------------|---------------|-----------------------------------|---------------------------|
| | Liquid pipe (mm) | Gas pipe (mm) | Liquid pipe (mm) | Gas pipe (mm) |
| 15.0 kW and below | Ø 9.52 | Ø 15.88 | Ø 12.70 | Ø 19.05 |
| Over 15.0 kW ~ 22.4 kW and below | | Ø 19.05 | | Ø 22.22 |
| Over 22.4 kW ~ 28.1 kW and below | | Ø 22.22 | | Ø 25.40 ^{note1)} |
| Over 28.1 kW ~ 40.0 kW and below | Ø 12.70 | Ø 28.58 | Ø 15.88 | Ø 28.58 |
| Over 40.0 kW ~ 45.0 kW and below | | | | Ø 31.75 ^{note2)} |
| Over 45.0 kW ~ 63.3 kW and below | Ø 15.88 | Ø 34.92 | Ø 19.05 | Ø 38.10 ^{note3)} |
| Over 63.3 kW ~ 70.3 kW and below | | | | |
| Over 70.3 kW ~ 98.4 kW and below | Ø 19.05 | Ø 41.28 | Ø 22.22 | Ø 41.28 |
| Over 98.4 kW ~ 135.2 kW and below | | | | |
| Over 135.2 kW ~ 169.0 kW and below | Ø 22.22 | Ø 53.98 | Ø 25.40 ^{note1)} | Ø 53.98 |
| Over 169.0 kW | | | | |

Note1) If Ø 25.40 pipe is not available on site, use Ø 28.58 pipe.

Note2) If Ø 31.75 pipe is not available on site, use Ø 34.92 pipe.

Note3) If Ø 38.10 pipe is not available on site, use Ø 41.28 pipe.

9 Installation



- ③ Size of the pipe between the branch joint and the indoor unit
Make a selection according to outdoor unit capacity.

| Indoor unit capacity (kW) | Pipe size (O.D. mm) | |
|-----------------------------|---------------------|----------|
| | Liquid pipe | Gas pipe |
| 6.0 kW and below | Ø 6.35 | Ø 12.70 |
| 7.1 kW ~ 16.0 kW and below | Ø 9.52 | Ø 15.88 |
| 20.0 kW ~ 23.0 kW and below | Ø 9.52 | Ø 19.05 |
| Over 23.0 kW | Ø 9.52 | Ø 22.22 |

- ④ Branch joint

- ▶ Branch joint between outdoor units (C)

| Classification | Model name | Specification (kW) |
|------------------------------|-------------|--------------------|
| Y-joint for outdoor unit (C) | MXJ-TA3419M | 135.2 kW and below |
| | MXJ-TA4122M | Over 140.2 kW |

- ▶ First branch joint (D)

Make a selection according to outdoor unit capacity.

| Classification | Outdoor unit capacity (kW) | Model name of the branch joint |
|----------------|----------------------------|--------------------------------|
| Y-joint (D) | 40.0 kW and below | MXJ-YA2512M |
| | 45.0 kW | MXJ-YA2812M |
| | 50.4 kW ~ 67.2 kW | MXJ-YA2815M |
| | 73.6 kW ~ 95.2 kW | MXJ-YA3419M |
| | 101.6 kW ~ 135.2 kW | MXJ-YA4119M |
| | 140.2 kW and over | MXJ-YA4422M |

- ▶ Branch joint (E)

Select a branch joint according to the sum of indoor unit capacity which will be connected after the branch.

< Y-joint >

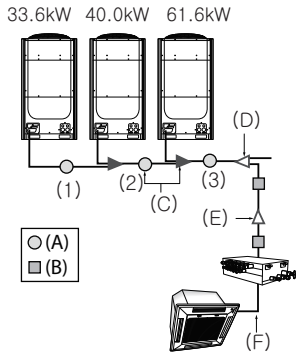
| Classification | Model name | Specification (kW) |
|----------------|-------------|-----------------------------------|
| Y-joint (E) | MXJ-YA1509M | 15.0 kW and below |
| | MXJ-YA2512M | Over 15.0 kW ~ 40.0 kW and below |
| | MXJ-YA2812M | Over 40.0 kW ~ 45.0 kW and below |
| | MXJ-YA2815M | Over 45.0 kW ~ 70.3 kW and below |
| | MXJ-YA3419M | Over 70.3 kW ~ 98.4 kW and below |
| | MXJ-YA4119M | Over 98.4 kW ~ 135.2 kW and below |
| | MXJ-YA4422M | Over 135.2 kW |

< Distribution header >

| Classification | Model name | Specification (kW) |
|-------------------------|-------------|---|
| Distribution header (E) | MXJ-HA2512M | 45.0 kW and below (for 4 rooms) |
| | MXJ-HA3115M | 70.3 kW and below (for 8 rooms) |
| | MXJ-HA3819M | Over 70.3 kW ~ 135.2 kW and below (for 8 rooms) |

9 Installation

(2) Heat Recovery



Ex.) 135.2 kW

| Capacity | No. | Pipe size (mm) | | |
|----------|-----|----------------|----------|------------------------|
| | | Liquid pipe | Gas pipe | High pressure gas pipe |
| 33.6 kW | (1) | Ø 12.70 | Ø 28.58 | Ø 19.05 |
| 73.6 kW | (2) | Ø 19.05 | Ø 34.92 | Ø 28.58 |
| 135.2 kW | (3) | Ø 19.05 | Ø 41.28 | Ø 34.92 |

① Size of the pipe connected to the outdoor unit (A)

Select the size of the pipe according to the below table.

| Outdoor unit capacity (kW) | Main pipe length within 90m | | | Size Up (Main pipe length over 90m) | | |
|----------------------------|-----------------------------|----------------------------|-----------------------------|-------------------------------------|----------------------------|-----------------------------|
| | Liquid pipe (mm) | Low pressure gas pipe (mm) | High pressure gas pipe (mm) | Liquid pipe (mm) | Low pressure gas pipe (mm) | High pressure gas pipe (mm) |
| 22.4 kW | Ø 9.52 | Ø 19.05 | Ø 15.88 | Ø 12.70 | Ø 19.05 | Ø 15.88 |
| 28.0 kW | | Ø 22.22 | Ø 19.05 | | Ø 22.22 | Ø 19.05 |
| 33.6 kW | Ø 12.70 | Ø 28.58 | Ø 22.22 | Ø 15.88 | Ø 28.58 | Ø 22.22 |
| 40.0 kW | | | | | | |
| 45.0 kW | | | | | | |
| 50.4 kW | Ø 15.88 | Ø 28.58 | Ø 28.58 | Ø 19.05 | Ø 28.58 | Ø 28.58 |
| 56.0 kW | | | | | | |
| 61.6 kW | Ø 19.05 | Ø 34.92 | Ø 28.58 | Ø 19.05 | Ø 34.92 | Ø 28.58 |
| 67.2 kW | | | | | | |
| 72.8 kW ~ 84.0 kW | Ø 22.22 | Ø 41.28 | Ø 34.92 | Ø 22.22 | Ø 41.28 | Ø 34.92 |
| 89.6 kW ~ 95.2 kW | | | | | | |
| 101.6 kW | | | | | | |
| 106.6 kW ~ 135.2 kW | Ø 22.22 | Ø 53.98 | Ø 41.28 | Ø 25.40 | Ø 53.98 | Ø 41.28 |
| 140.2 kW ~ 168.2 kW | | | | | | |
| 173.6 kW ~ 224.8 kW | Ø 22.22 | Ø 53.98 | Ø 41.28 | Ø 25.40 | Ø 53.98 | Ø 41.28 |

Note1) If Ø 25.40 pipe is not available on site, use Ø 28.58 pipe

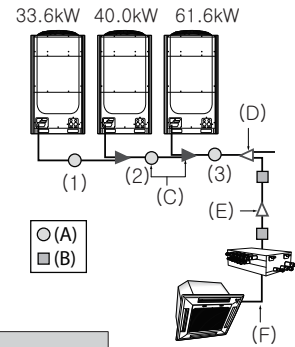
※For HR model, only increase the size of the liquid pipe if pipe length exceeds 90m

② Size of the pipe between branch joints (B)

Select the pipe size according to the sum of indoor unit capacity which will be connected after the branch.

| Indoor unit capacity (kW) | Pipe size (mm) | | |
|------------------------------------|----------------|-----------------------|------------------------|
| | Liquid pipe | Low pressure gas pipe | High pressure gas pipe |
| 15.0 kW and below | Ø 9.52 | Ø 15.88 | Ø 15.88 |
| Over 15.0 kW ~ 22.4 kW and below | | Ø 19.05 | |
| Over 22.4 kW ~ 28.1 kW and below | | Ø 22.22 | |
| Over 28.1 kW ~ 33.6 kW and below | Ø 12.70 | Ø 28.58 | Ø 19.05 |
| Over 33.6 kW ~ 45.0 kW and below | | | |
| Over 45.0 kW ~ 50.4 kW and below | Ø 15.88 | Ø 34.92 | Ø 22.22 |
| Over 50.4 kW ~ 63.3 kW and below | | | |
| Over 63.3 kW ~ 70.3 kW and below | | | |
| Over 70.3 kW ~ 98.4 kW and below | Ø 19.05 | Ø 41.28 | Ø 28.58 |
| Over 98.4 kW ~ 105.5 kW and below | | | |
| Over 105.5 kW ~ 135.2 kW and below | Ø 22.22 | Ø 53.98 | Ø 34.92 |
| Over 135.2 kW ~ 169.0 kW and below | | | |
| Over 169.0 kW | Ø 22.22 | Ø 53.98 | Ø 41.28 |

9 Installation



- ③ Size of the pipe between the branch joint and the indoor unit
Make a selection according to outdoor unit capacity.

| Indoor unit capacity (kW) | Pipe size (O.D. mm) | |
|-----------------------------|---------------------|----------|
| | Liquid pipe | Gas pipe |
| 6.0 kW and below | Ø 6.35 | Ø 12.70 |
| 7.1 kW ~ 16.0 kW and below | Ø 9.52 | Ø 15.88 |
| 20.0 kW ~ 23.0 kW and below | Ø 9.52 | Ø 19.05 |
| Over 23.0 kW | Ø 9.52 | Ø 22.22 |

- ④ Branch joint

► Branch joint between outdoor units (C)

| Classification | Model name | Specification (kW) |
|---------------------------------|-------------|--------------------|
| Liquid/Low pressure Y-joint (C) | MXJ-TA3419M | 135.2 kW and below |
| | MXJ-TA4122M | Over 140.2 kW |
| High pressure Y-joint (C) | MXJ-TA3100M | 135.2 kW and below |
| | MXJ-TA3800M | Over 140.2 kW |

► First branch joint (D)

Make a selection according to outdoor unit capacity.

| Classification | Outdoor unit capacity (kW) | Model name of the branch joint |
|---------------------------------|----------------------------|--------------------------------|
| Liquid/Low pressure Y-joint (C) | 40.0 kW and below | MXJ-YA2512M |
| | 45.0 kW | MXJ-YA2812M |
| | 50.4 kW ~ 67.2 kW | MXJ-YA2815M |
| | 73.6 kW ~ 95.2 kW | MXJ-YA3419M |
| | 101.6 kW ~ 135.2 kW | MXJ-YA4119M |
| | 140.2 kW and over | MXJ-YA4422M |
| High pressure Y-joint (C) | 22.4 kW | MXJ-YA1500M |
| | 28.0 kW ~ 67.2 kW | MXJ-YA2500M |
| | 73.6 kW ~ 135.2 kW | MXJ-YA3100M |
| | 140.2 kW and over | MXJ-YA3800M |

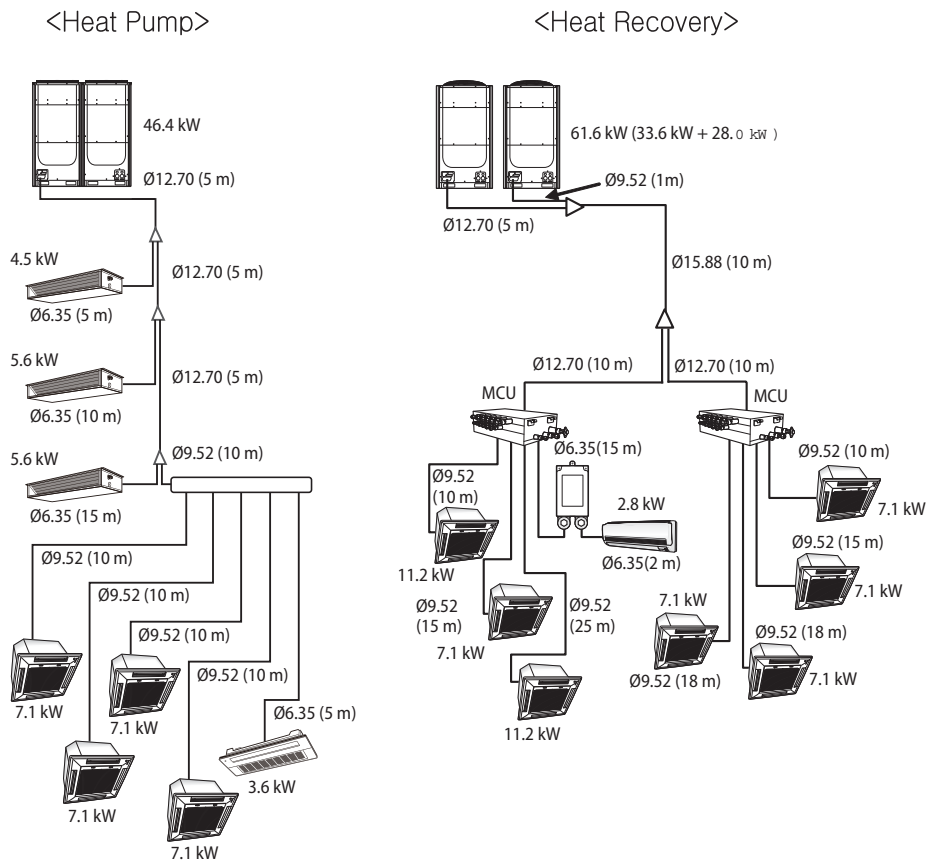
► Branch joint (E)

Select a branch joint according to the sum of indoor unit capacity which will be connected after the branch.

| Classification | Model name | Specification (kW) |
|---------------------------|-------------|-----------------------------------|
| Y-joint (E) | MXJ-YA1509M | 15.0 kW and below |
| | MXJ-YA2512M | Over 15.0 kW ~ 40.0 kW and below |
| | MXJ-YA2812M | Over 40.0 kW ~ 45.0 kW and below |
| | MXJ-YA2815M | Over 45.0 kW ~ 70.3 kW and below |
| | MXJ-YA3419M | Over 70.3 kW ~ 98.4 kW and below |
| | MXJ-YA4119M | Over 98.4 kW ~ 135.2 kW and below |
| | MXJ-YA4422M | Over 135.2 kW |
| Y-joint (E) (Only H/R) | MXJ-YA1500M | 22.4 kW and below |
| | MXJ-YA2500M | Over 22.4 kW ~ 70.3 kW and below |
| | MXJ-YA3100M | Over 70.3 kW ~ 135.2 kW and below |
| | MXJ-YA3800M | Over 135.2 kW |

9 Installation

(3) Additional refrigerant



► Basic amount of refrigerant within the outdoor unit (kg)

- Amount of additional refrigerant has to be calculated based on the sum of all liquid pipe length.

| Classification | AM080FXVAG* | AM100FXVAG* | AM120FXVAG* | AM140FXVAG* | AM160FXVAG* |
|----------------|-------------|-------------|-------------|-------------|-------------|
| Basic type | 5.5 | 5.2 | 5.5 | 7.7 | 7.4 |
| Classification | AM180FXVAG* | AM200FXVAG* | AM220FXVAG* | AM240HXVAG* | AM260HXVAG* |
| Basic type | 8.7 | 8.4 | 8.4 | 14.3 | 14.3 |

► Amount of additional refrigerant depending on the pipe size (@)

- Amount of additional refrigerant has to be calculated based on the sum of all liquid pipe length.

- For the indoor unit already connected to EEV kit, the additional refrigerant charging is 0.01kg per meter regardless of the pipe size.

| Size of liquid pipe | Ø 6.35 | Ø 9.52 | Ø 12.70 | Ø 15.88 | Ø 19.05 | Ø 22.22 | Ø 25.40 | Ø 28.58 |
|--------------------------|--------|--------|---------|---------|---------|---------|---------|---------|
| Additional amount (kg/m) | 0.02 | 0.06 | 0.125 | 0.18 | 0.27 | 0.35 | 0.53 | 0.65 |

9 Installation

► Amount of additional refrigerant for each indoor unit (b)

| Capacity (kW) | 1.5 | 1.7 | 2.2 | 2.8 | 3.6 | 4.5 | 5.6 | 6 | 7.1 | 8.2 | 9 | 11.2 | 12.8 | 14 | 16 | 18 | 22 | 22.4 | 28 | 32 | 50 | 500 CMH | 1000 CMH |
|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|------|------|------|----|----|-----|------------|-------------|
| Model | | | | | | | | | | | | | | | | | | | | | | | |
| Slim 1way cassette (JSF) (AM***FN1DEH*) | | | 0.25 | 0.25 | 0.25 | | | | | | | | | | | | | | | | | | |
| Interior 1way cassette (AM***HN1DEH*) | | 0.15 | 0.15 | | | | | | | | | | | | | | | | | | | | |
| 2way cassette (AM***FN2DEH*) | | | | | | | 0.31 | 0.47 | | | | | | | | | | | | | | | |
| 4Way Casette S (AM***FN4DEH*) | | | | | | 0.45 | 0.45 | 0.45 | 0.45 | 0.57 | 0.69 | 0.69 | | | | | | | | | | | |
| Floor Standing Unit (AM***FNFDEH*) | | | | | 0.22 | 0.32 | 0.32 | | | | | | | | | | | | | | | | |
| ERV plus (AM***FNKDEH*) | | | | | | | | | | | | | | | | | | | | | | 0.11 | 0.36 |
| 4way cassette S (600 x 600) (AM***FNNDEH*) | 0.29 | | 0.29 | 0.29 | 0.29 | 0.37 | 0.37 | 0.37 | | | | | | | | | | | | | | | |
| Slim duct (AM***FNLDEH*) | | 0.17 | 0.17 | 0.17 | 0.26 | 0.35 | 0.35 | 0.45 | | 0.42 | 0.42 | 0.62 | 0.62 | | | | | | | | | | |
| MSP duct (AM***FNMDEH*) | | | 0.24 | 0.24 | 0.24 | 0.28 | 0.28 | 0.28 | | 0.32 | 0.54 | 0.68 | 0.68 | | | | | | | | | | |
| Ceiling (AM***FNCDEH* / AM***JNCDKH*) | | | | | | | 0.39 | 0.39 | | | 0.56 | 0.95 | | | | | | | | | | | |
| Console (AM***FNJDEH*) | | | | 0.27 | 0.27 | 0.27 | | | | | | | | | | | | | | | | | |
| Neo forte (AM***FNTDEH*) | 0.24 | | 0.24 | 0.24 | 0.24 | 0.36 | 0.36 | | | | | | | | | | | | | | | | |
| Neo forte (with EEV) (AM***FNQDEH*) | 0.34 | | 0.34 | 0.34 | 0.34 | 0.51 | 0.51 | 0.51 | | | | | | | | | | | | | | | |
| AR5000 (AM***JNADKH*) | 0.16 | | 0.16 | 0.19 | 0.25 | 0.25 | 0.52 | 0.52 | 0.52 | | | | | | | | | | | | | | |
| AR5000 (with EEV) (AM***JNVDKH*) | 0.22 | | 0.22 | 0.25 | 0.34 | 0.34 | 0.71 | 0.71 | 0.71 | | | | | | | | | | | | | | |
| HSP duct (AM***FNHDEH*) | | | | | | | | | | | | 0.68 | 0.68 | 0.68 | | | 1.18 | 1.18 | | | | | |
| Big duct (AM***JNCDKH*) | | | | | | | | | | | | | | | | 1.15 | 1.15 | | | | | | |
| Hydro Unit HE (AM***FNBD***) | | | | | | | | | | | | | | | 0.6 | | | | | | 0.7 | 1.2 | |
| Hydro Unit HT (AM***FNBF***) | | | | | | | | | | | | | | | | | | | | | | | |
| MCU (MCU-S*NEE*N) | | | | | | | | | | | | | | | | | | | | | | | |

► If AHU kit is included among the indoor units, you must add 0.063kg of refrigerant for every 1kW of the AHU capacity increase.

► Method to calculate total amount of additional refrigerant

- Amount of additional refrigerant depending on the pipe length (a)
- Amount of additional refrigerant for each indoor unit (b) = Σ(Amount of additional refrigerant for each connected indoor unit)
Refer to the table

- Total amount of additional refrigerant = a+b

Sum of total amount of additional refrigerant and the basic amount of refrigerant should not exceed 100kg. If the refrigerant exceeds 100kg, separate the module so that weight of the refrigerant doesn't exceed 100kg.

Ex.) For AM200FXVAGT, basic amount of refrigerant is 8.4kg, therefore total amount of additional refrigerant (a+b) should not exceed 91.6 kg.

9 Installation

▶ Example of refrigerant calculation for HP models

| Classification | Size of liquid pipe | Length (m) | Unit amount of refrigerant (kg/m) | Amount of additional refrigerant (kg) | Total amount of additional refrigerant (kg) |
|-----------------|---------------------|------------|-----------------------------------|---------------------------------------|---|
| | | | | × | Σ(×) |
| Liquid pipe () | ∅ 6.35 | 35 | 0.02 | 0.7 | 5.575 |
| | ∅ 9.52 | 50 | 0.06 | 3.0 | |
| | ∅ 12.70 | 15 | 0.125 | 1.875 | |

| Classification | Model name of indoor unit | Number of units | Unit amount of refrigerant (kg/EA) | Amount of additional refrigerant (kg) | Total amount of additional refrigerant (kg) |
|-----------------|------------------------------|-----------------|------------------------------------|---------------------------------------|---|
| | | | | × | Σ(×) |
| Indoor unit () | 4way cassette (AM071FN4DEH*) | 4 | 0.45 | 1.80 | 3.10 |
| | Slim duct (AM056FNLDEH*) | 2 | 0.35 | 0.70 | |
| | Slim duct (AM045FNLDEH*) | 1 | 0.35 | 0.35 | |
| | 1way cassette (AM036FN1DEH*) | 1 | 0.25 | 0.25 | |

- Total amount of refrigerant (@+ⓑ) = 5.575+3.10 = 8.675 (kg)

▶ Example of refrigerant calculation for HR models

| Classification | Size of liquid pipe | Length (m) | Unit amount of refrigerant (kg/m) | Amount of additional refrigerant (kg) | Total amount of additional refrigerant (kg) |
|-----------------|--------------------------------|------------|-----------------------------------|---------------------------------------|---|
| | | | | × | Σ(×) |
| Liquid pipe () | ∅ 6.35 | 15 | 0.02 | 0.3 | 11.965 |
| | ∅ 9.52 | 112 | 0.06 | 6.72 | |
| | ∅ 12.70 | 25 | 0.125 | 3.125 | |
| | ∅ 15.88 | 10 | 0.18 | 1.8 | |
| | ∅ 6.35 (EEV Kit ~ indoor unit) | 2 | 0.01 | 0.02 | |

| Classification | Model name of indoor unit | Number of units | Unit amount of refrigerant (kg/EA) | Amount of additional refrigerant (kg) | Total amount of additional refrigerant (kg) |
|-----------------|------------------------------|-----------------|------------------------------------|---------------------------------------|---|
| | | | | × | Σ(×) |
| Indoor unit () | 4way cassette (AM071FN4DEH*) | 5 | 0.45 | 2.25 | 4.66 |
| | 4way cassette (AM112FN4DEH*) | 2 | 0.57 | 1.14 | |
| | Neo forte (AM028FNTDEH*) | 1 | 0.27 | 0.27 | |
| | MCU | 2 | 0.5 | 1 | |

- Total amount of refrigerant (@+ⓑ) = 11.965+4.66 = 16.625 (kg)

9 Installation

3) Temper grade and minimum thickness of the refrigerant pipe

| Outer diameter (mm) | Minimum thickness (mm) | Temper grade |
|---------------------|------------------------|--------------|
| Ø 6.35 | 0.70 | Annealed |
| Ø 9.52 | 0.70 | |
| Ø 12.70 | 0.80 | |
| Ø 15.88 | 1.00 | |
| Ø 19.05 | 0.90 | Drawn |
| Ø 22.22 | 0.90 | |
| Ø 25.40 | 1.00 | |
| Ø 28.58 | 1.10 | |
| Ø 31.75 | 1.10 | |
| Ø 34.92 | 1.21 | |
| Ø 38.10 | 1.35 | |
| Ø 41.28 | 1.43 | |
| Ø 44.45 | 1.60 | |
| Ø 50.80 | 2.00 | |
| Ø 53.98 | 2.10 | |

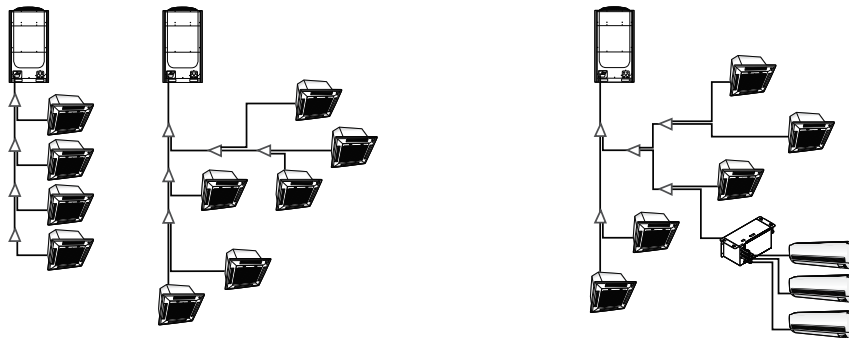
※For pipes larger than Ø 19.05, drawn type (C1220T-1/2H or C1220T-H) type copper pipe must be used. If a annealed type (C1220T-O) copper pipe is used, pipe may break due to its low pressure resistance and cause personal injury.

9 Installation

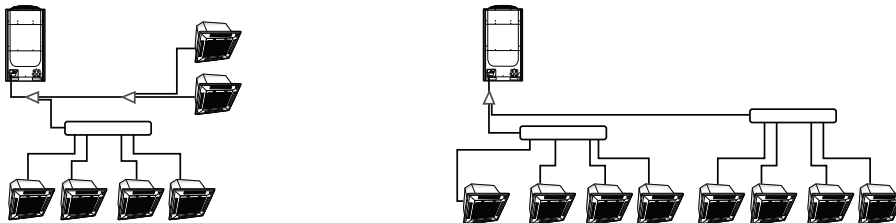
4) Examples of refrigerant pipe installation

(1) Heat Pump

<Using Y-joint>

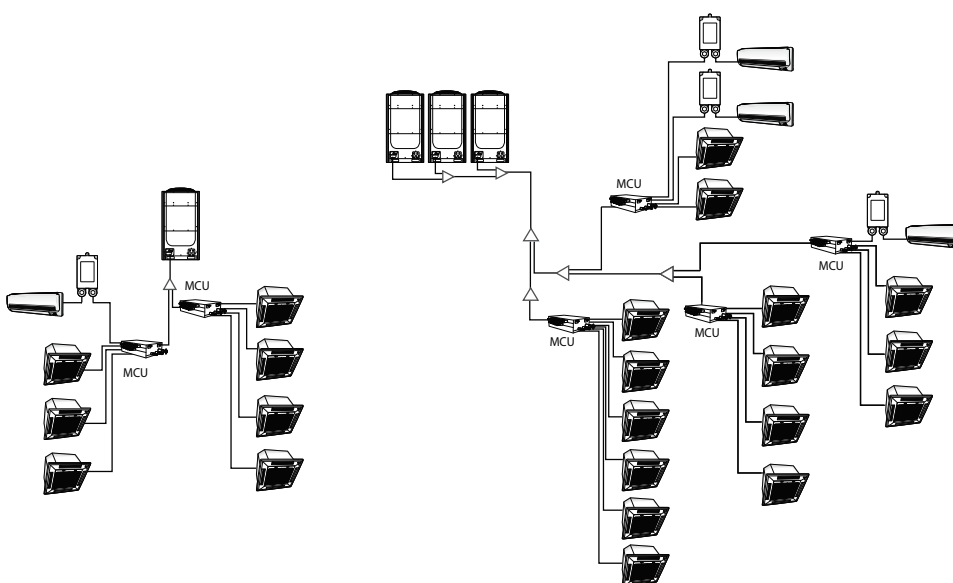


<Using distribution header>



(2) Heat Recovery

<Using Y-joint>



9 Installation

5) Allowable length of the refrigerant pipe and the installation examples

(1) Heat Pump

| Classification | Single Installation | Module installation |
|---|---------------------|---------------------|
| Installing only with Y-joint | | |
| Installing with Y-joint and distribution header | | |
| Installing only with distribution header | | |

| Classification | | | | Example | Remarks | |
|----------------------------------|---|-----------------------------------|---|---|--|--|
| Maximum allowable length of pipe | Outdoor unit ~ Indoor unit | Actual length (Equivalent length) | 200m and below (220m and below) | Installing only with Y-joint | $a+b+c+d+e+f+g+p \leq 200m(220m)$ | Equivalent length Y-joint: 0.5 m, Distribution header: 1 m |
| | | | | Installing with Y-joint and distribution header | $a+b+h \leq 200m(220m)$, $a+i+k \leq 200m(220m)$ | |
| | | | | Installing only with distribution header | $a+i \leq 200m(220m)$ | |
| | Outdoor unit ~ Outdoor unit (Module installation) | Total length of pipe (m) | 1,000 m or less | Installing only with Y-joint | - | - |
| | | | | Installing with Y-joint and distribution header | $a+b+c+d+e+f+g+p+h+i \leq 1000m$ | - |
| | | | | Installing only with distribution header | $a+b+c+d+e+f+g+p+h+i \leq 1000m$ | - |
| | Pipe length | 10 m or less | $r \leq 10 m, s \leq 10 m, t \leq 10 m$ | | | |
| | Equivalent length | 13 m or less | $r \leq 13m, s \leq 13m, t \leq 13m$ | | | |

9 Installation

| Classification | | Example | | Remarks | |
|---|---|---|----------------------------------|---------------------------------------|-------------|
| Maximum allowable height difference of pipe | Outdoor unit ~ Indoor unit | 110/40m <small>Note 2)</small> | H1 ≤ 110/40m | | |
| | Indoor unit ~ Indoor unit | 50m or less | H2 ≤ 50m | | |
| | | But, when AM***FNQDEH* is installed, H2 is 15 m or less | | | |
| Maximum allowable length after branch joint | First branch joint ~ Farthest Indoor unit | Pipe length | 45 m or less | $b+c+d+e+f+g+p \leq 45m, i \leq 45 m$ | - |
| | | | 45 m~90 m <small>Note 1)</small> | Required conditions must be satisfied | Exclude H/R |

| EEV kit | | Model name | | Remarks | |
|-----------------------|--------------------|--------------|--------------|----------|--|
| EEV kit ~ Indoor unit | Actual pipe length | 2 m | MEV-E24SA | 1 indoor | Apply to products without EEV (Wall mount & ceiling) |
| | | | MEV-E32SA | | |
| | 20 m or less | 2 indoor | MXD-E24K132A | | |
| | | | MXD-E24K200A | | |
| | | | MXD-E32K200A | | |
| | | 3 indoor | MXD-E24K232A | | |
| | | | MXD-E24K300A | | |
| | | | MXD-E32K224A | | |
| | | MXD-E32K300A | | | |

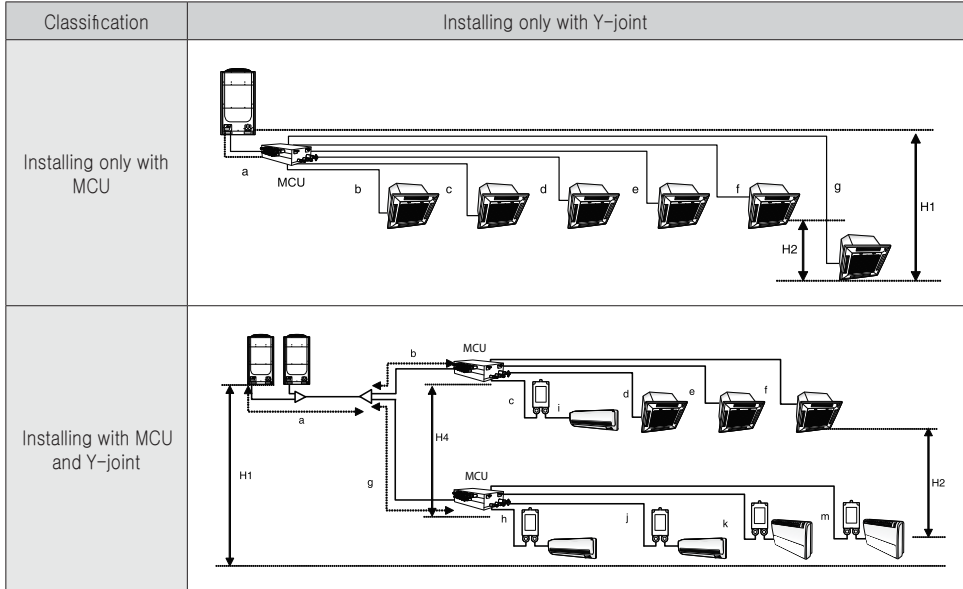
| Classification | Condition | Example |
|--|---|---------|
| First branch joint ~ Farthest Indoor unit | $45m \leq b+c+d+e+f+g+p \leq 90m$: branch pipes (b, c, d, e, f, g) size must be increased by 1 grade | |
| Total length of extended pipe | If the size of pipe (main pipe), between the first branch joint and the outdoor unit, is not increased by 1 grade, $a+(b+c+d+e+f+g) \times 2 + h+i+j+k+l+m+n+p \leq 1000 m$ | |
| | If the size of pipe (main pipe), between the first branch joint and the outdoor unit, is increased by 1 grade, $(a+b+c+d+e+f+g) \times 2 + h+i+j+k+l+m+n+p \leq 1000 m$ | |
| Each Y-joint ~ Each indoor unit | $h, i, j, \dots p \leq 45 m$ | |
| Difference between the distance of the outdoor unit to the farthest indoor unit and nearest indoor unit $\leq 45m, (a+b+c+d+e+g+p)-(a+h) \leq 45m$ | | |

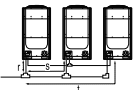
Note 1) Required condition

Note 2) When indoor unit is located at higher level than outdoor unit, allowable height difference is 40m, but when the indoor unit is located at lower level than outdoor unit, allowable height difference is 110m (If the height difference is over 50m, decide if you need to install PDM kit)
 Model name of the PDM kit: MXD-A38K2A, MXDA12K2A, MXD-A58K2A

9 Installation

(2) Heat Recovery



| Items | | | Examples | | Remarks | |
|---|---|----------------------------|---|--|---|---|
| Max. piping length | Outdoor ~ Indoor unit | Piping (Equivalent piping) | 200 m below (220 m below) | Using MCU only $a+g \leq 200 \text{ m (220 m)}$ | Equivalent pipe length Y joint : 0.5 m Header : 1 m MCU : 1 m | |
| | | | | Using Y-joint and MCU $a+g+m \leq 200 \text{ m (220 m)}$ | | |
| | | Total piping | 1000 m below | Using MCU only $a+b+c+d+e+f+g \leq 1000 \text{ m}$ | - | |
| | | | | Using Y-joint and MCU $a+b+c+d+e+f+g+p+h+i+j+k+m \leq 1000 \text{ m}$ | - | |
| Outdoor unit ~ Outdoor unit (Module installation) | Piping | 10 m below | $r \leq 10, s \leq 10, t \leq 10 \text{ m}$ | |  | |
| | Equivalent piping | 13 m below | $r \leq 13, s \leq 13, t \leq 13 \text{ m}$ | | | |
| Level difference | Outdoor ~ Indoor unit | Piping | 110 m / 40 m ^{Note1)} | $H1 \leq 110 \text{ m/40 m}$ | | - |
| | Indoor ~ Indoor unit | Piping | 15 m below | $H2 \leq 15 \text{ m}$ | | - |
| | MCU ~ MCU | Piping | 15 m below | $H4 \leq 15 \text{ m}$ | | - |
| Allowable length after branch | The first branch ~ the farthest indoor unit | Piping | 45 m below | Using MCU only | 45 m | - |
| | | | | Using Y-joint and MCU | $g+m \leq 45 \text{ m}$ | |

| Distribution kit | | | Model | | Remarks |
|------------------|--------------------------------------|-----|--|--|--|
| Allowable | From distribution kit to indoor unit | 2 m | MEV-E24SA, MEV-E32SA (For 1 indoor unit) | | For wall-mounted & ceiling indoor unit |

Note 1) As an outdoor unit is located in a lower position than indoor unit, level difference is 40 m. If outdoor unit is located in a higher position than indoor unit, level difference is 110 m or under. (If the level difference is higher than 50 m, make a decision simulating by PDM kit installation guide software whether the PDM kit should be installed or not.)

*PDM kit: Pressure Drop Modulation kit

※Total refrigerant amount of the system must be less than 100 kg. If total refrigerant amount of system is over than 100 kg, the system has to be divided into smaller system, each less than 100 kg.

9 Installation

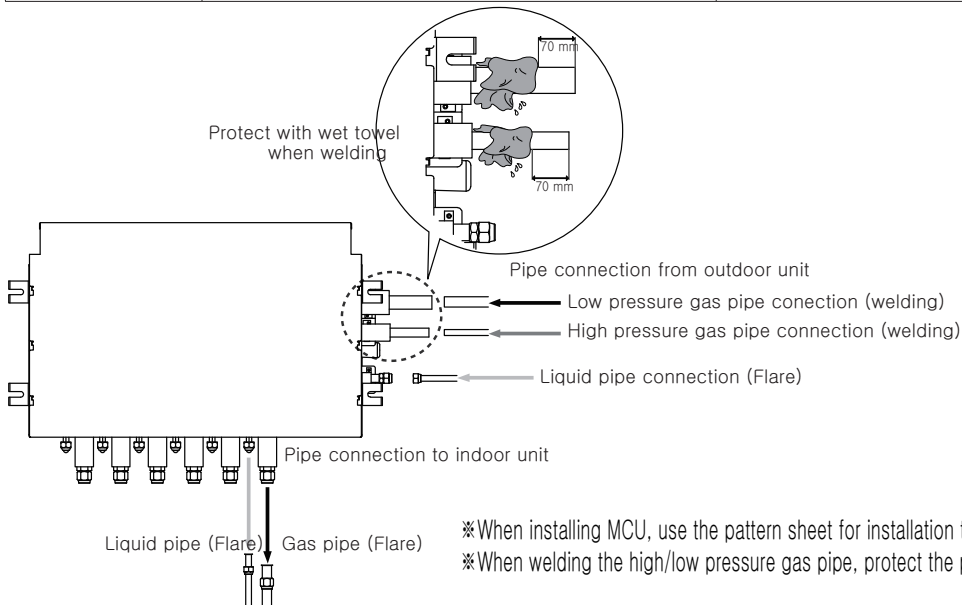
6) Installing the MCU

(1) MCU specification

| Model | MCU-S6NEE1N | MCU-S4NEE1N | MCU-S4NEE2N |
|--|---------------|---------------|--|
| Exterior of MCU | | | |
| Number of connectable indoor units | Up to 6 units | Up to 4 units | Up to 2 units ※ Refer the detail information of installation manual |
| Maximum capacity of connectable indoor units | 56 kW | 56 kW | 56 kW |

(2) Installing the indoor units

| Model | MCU-S6NEE1N | MCU-S4NEE1N | MCU-S4NEE2N |
|-------------------------|--|-------------|--|
| Example installing | | | |
| Installing indoor units | <p>The indoor unit's capacity which is under 14kW, can be connected in the MCU. Do not connect the indoor unit's capacity exceeds 14kW.</p> <p>Single capacity range under 10.0kW</p> <ul style="list-style-type: none"> - Connect the liquid, gas pipe of indoor unit to each single port in MCU. <p>Single capacity range between 11.2kW to 14.0kW</p> <ul style="list-style-type: none"> - Join two ports in the MCU with offered Y-connector(liquid, gas), then connect to indoor unit as above. <p>* Reference of continuous cooling.</p> <p>In case of continuous cooling at below -5 °C(23 °F) ambient condition, join two ports in the MCU with offered Y-connector, then connect to indoor unit even though unit's capacity is between 5.0kW to 10.0kW.</p> <p>Option switch and key function needs to be set. Detail information refer to pages 87~89.</p> | | <p>The indoor unit's capacity which is greater than or equal to 11.2kW, can be connected in the MCU. Do not connect the indoor unit's capacity not exceeding 11.2kW.</p> <p>Single capacity range between 11.2kW to 28.0kW</p> <ul style="list-style-type: none"> - Join two ports in the MCU with offered Y-connector(liquid, gas), then connect to indoor unit as above. |



9 Installation

4. Electrical wiring work

1) Specification of the circuit breaker and power cable

Single (Heat pump)

| Model | MCA | MFA |
|-------------|------|-----|
| AM080FXVAGH | 22.5 | 30 |
| AM100FXVAGH | 29.9 | 40 |
| AM120FXVAGH | 31.3 | 40 |
| AM140FXVAGH | 31.3 | 40 |
| AM160FXVAGH | 40.0 | 40 |
| AM180FXVAGH | 48.9 | 50 |
| AM200FXVAGH | 52.5 | 75 |
| AM220FXVAGH | 55.6 | 75 |
| AM240HXVAGH | 60.5 | 75 |
| AM260HXVAGH | 63.8 | 75 |

Standard module (Heat pump)

| Model | MCA | MFA |
|--------------|-------|-----|
| AM280HXVAGH1 | 62.7 | 75 |
| AM300HXVAGH1 | 70.5 | 90 |
| AM320HXVAGH1 | 73.7 | 90 |
| AM340HXVAGH1 | 76.5 | 90 |
| AM360HXVAGH1 | 76.5 | 90 |
| AM380HXVAGH1 | 84.2 | 100 |
| AM400HXVAGH1 | 91.3 | 100 |
| AM420HXVAGH1 | 95.2 | 125 |
| AM440HXVAGH1 | 97.9 | 125 |
| AM460HXVAGH1 | 104.0 | 125 |
| AM480HXVAGH1 | 104.0 | 125 |
| AM500HXVAGH1 | 111.7 | 125 |
| AM520HXVAGH1 | 119.5 | 125 |
| AM540HXVAGH1 | 122.7 | 150 |
| AM560HXVAGH1 | 125.4 | 150 |
| AM580HXVAGH1 | 125.4 | 150 |
| AM600HXVAGH1 | 133.1 | 150 |
| AM620HXVAGH1 | 140.9 | 200 |
| AM640HXVAGH1 | 144.1 | 200 |
| AM660HXVAGH1 | 146.9 | 200 |
| AM680HXVAGH1 | 152.9 | 200 |
| AM700HXVAGH1 | 152.9 | 200 |
| AM720HXVAGH1 | 160.6 | 200 |
| AM740HXVAGH1 | 168.4 | 200 |
| AM760HXVAGH1 | 171.6 | 200 |
| AM780HXVAGH1 | 174.4 | 200 |
| AM800HXVAGH1 | 174.4 | 200 |

9 Installation

Compact module (Heat pump)

| Model | MCA | MFA |
|--------------|-------|-----|
| AM360HXVAGH2 | 88.0 | 100 |
| AM380HXVAGH2 | 91.3 | 100 |
| AM460HXVAGH2 | 110.0 | 125 |
| AM480HXVAGH2 | 112.8 | 125 |
| AM500HXVAGH2 | 124.3 | 150 |
| AM520HXVAGH2 | 127.6 | 150 |
| AM580HXVAGH2 | 137.5 | 150 |
| AM600HXVAGH2 | 140.3 | 200 |
| AM620HXVAGH2 | 151.8 | 200 |
| AM640HXVAGH2 | 155.1 | 200 |
| AM680HXVAGH2 | 158.4 | 200 |
| AM700HXVAGH2 | 161.7 | 200 |
| AM720HXVAGH2 | 173.3 | 200 |
| AM740HXVAGH2 | 176.6 | 200 |
| AM760HXVAGH2 | 188.1 | 200 |
| AM780HXVAGH2 | 191.4 | 200 |

Single (Heat recovery)

| Model | MCA | MFA |
|-------------|------|-----|
| AM080FXVAGR | 22.5 | 30 |
| AM100FXVAGR | 29.9 | 40 |
| AM120FXVAGR | 31.3 | 40 |
| AM140FXVAGR | 31.3 | 40 |
| AM160FXVAGR | 40.0 | 40 |
| AM180FXVAGR | 48.9 | 50 |
| AM200FXVAGR | 52.5 | 75 |
| AM220FXVAGR | 55.6 | 75 |

Standard module (Heat recovery)

| Model | MCA | MFA |
|-------------|-------|-----|
| AM240FXVAGR | 55.0 | 75 |
| AM260FXVAGR | 55.0 | 75 |
| AM280FXVAGR | 62.7 | 75 |
| AM300FXVAGR | 70.5 | 90 |
| AM320FXVAGR | 73.7 | 90 |
| AM340FXVAGR | 76.5 | 90 |
| AM360FXVAGR | 76.5 | 90 |
| AM380FXVAGR | 84.2 | 100 |
| AM400FXVAGR | 92.4 | 100 |
| AM420FXVAGR | 95.2 | 125 |
| AM440FXVAGR | 97.9 | 125 |
| AM460FXVAGR | 104.0 | 125 |
| AM480FXVAGR | 104.0 | 125 |
| AM500FXVAGR | 111.7 | 125 |
| AM520FXVAGR | 119.5 | 125 |
| AM540FXVAGR | 122.7 | 150 |
| AM560FXVAGR | 125.4 | 150 |
| AM580FXVAGR | 125.4 | 150 |
| AM600FXVAGR | 133.1 | 150 |

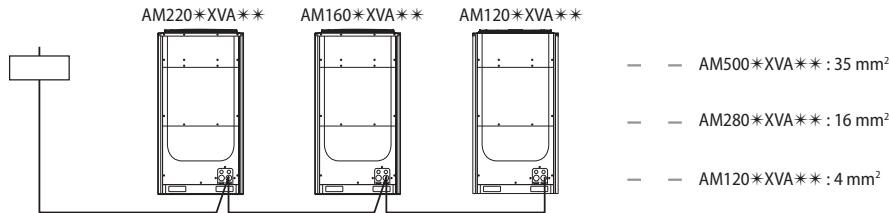
9 Installation

| Model | MCA | MFA |
|-------------|-------|-----|
| AM600FXVAGR | 133.1 | 150 |
| AM620FXVAGR | 141.4 | 200 |
| AM640FXVAGR | 144.1 | 200 |
| AM660FXVAGR | 146.9 | 200 |
| AM680FXVAGR | 152.9 | 200 |
| AM700FXVAGR | 152.9 | 200 |
| AM720FXVAGR | 160.6 | 200 |
| AM740FXVAGR | 168.4 | 200 |
| AM760FXVAGR | 171.6 | 200 |
| AM780FXVAGR | 174.4 | 200 |
| AM800FXVAGR | 174.4 | 200 |

* When installing outdoor units in module, select the power supply cable according to the sum of outdoor unit capacity. (Refer to the table for each model)

* Power Supply cords of parts of appliances for outdoor use shall not be lighter than polychloroprene sheathed flexible cord. (Code designation IEC:60245 IEC 66 / CENELEC: H07RN-F)

Ex.) AM500*XVA**



9 Installation



- This device is intended for the connection to a power supply system with a maximum permissible system impedance shown in the table (on the left page) at the interface point (power service box) of the user's supply.
- The user must ensure that this device is connected only to a power supply system which fulfills the requirement above. If necessary, the user can ask the public power supply company for the system impedance at the interface point.
- This equipment complies with IEC 61000-3-12 provided that the short-circuit power S_{sc} is greater than or equal to $S_{sc}(*2)$ at the interface point between the user's supply and the public system. It is the responsibility of the installer or user of the equipment to ensure, by consultation with the distribution network operator if necessary, that the equipment is connected only to a supply with a short-circuit power S_{sc} greater than or equal to $S_{sc}(*2)$.

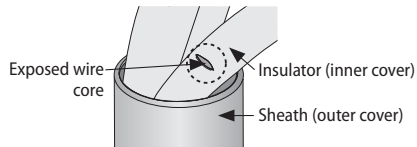
[$S_{sc}(*2)$]

| Model | S_{sc} [MVA] | Model | S_{sc} [MVA] |
|-------------|----------------|-------------|----------------|
| AM080FXVAG* | 3.3 | AM180FXVAG* | 7.6 |
| AM100FXVAG* | 4.5 | AM200FXVAG* | 8.1 |
| AM120FXVAG* | 5.3 | AM220FXVAG* | 8.6 |
| AM140FXVAG* | 5.3 | AM240HXVAG* | 11.7 |
| AM160FXVAG* | 6.8 | AM260HXVAG* | 8.6 |



Caution for electrical work

- You must install ELCB or MCCB + ELB
 - ELCB: Earth leakage breaker
 - MCCB: Molded case circuit breaker
 - ELB: Earth leakage breaker
- Do not operate the outdoor unit before completing the refrigerant pipe work.
- Do not disconnect or change the cable inside the product. It may cause damage to the product.
- Specification of the power cable is selected based on following installation condition; culvert installation/ ambient temperature 30 °C/ single multi conductor cables. If the condition is different from the ones stated, please consult an electrical installation expert and re-select the power cable.
 - If the length of power cable exceed 50m, re-select the power cable considering the voltage drop.
- Use a power cable made out of incombustible material for the insulator (inner cover) and the sheath (outer cover).
- Do not use the power cable with the core wire exposed due to insulator damage occurred during removal of the sheath. When the core wire is exposed, it may cause fire.



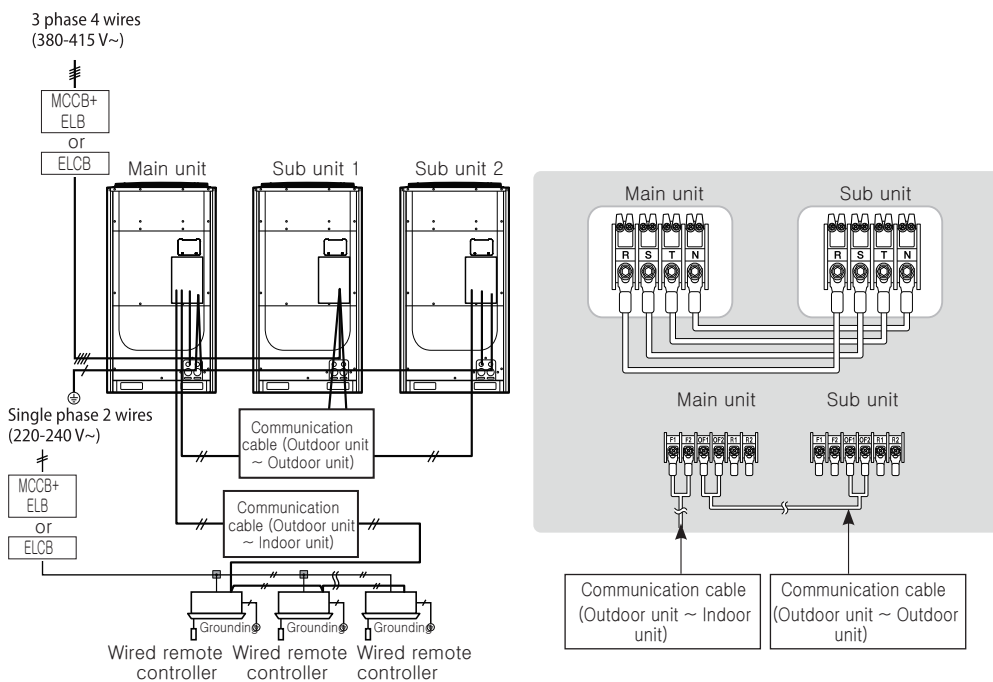
<The example of exposed core wire>

9 Installation

2) Power wiring diagram

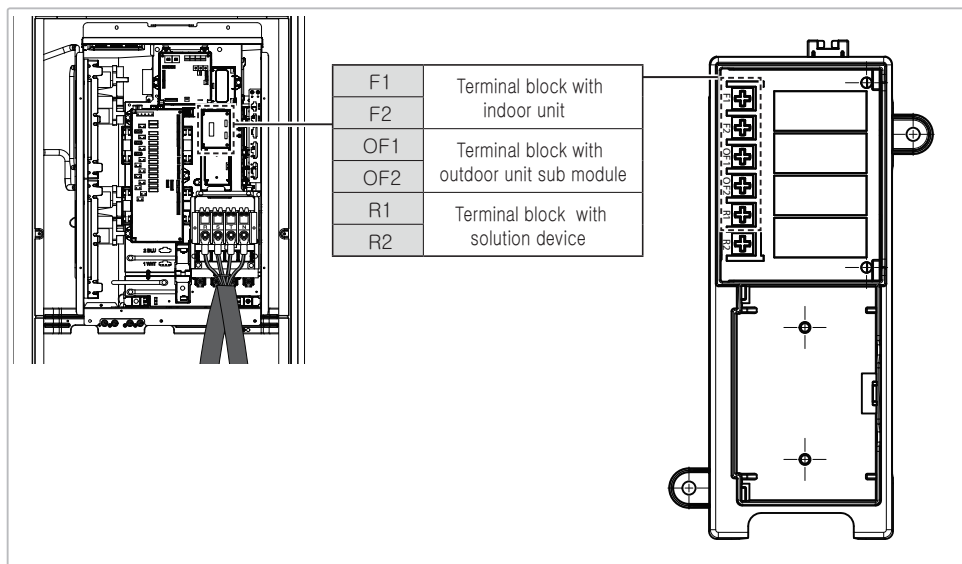
(1) Supplying 3 phase 4 wires (380-415 V~)

- ▶ Connect a power cable of the outdoor unit after checking that R-S-T-N (3 phase 4 wire) is properly connected. (If the 380-415 V power is supplied to the N phase, PCB and other electrical part will be damaged.)
- ▶ Communication cable between indoor and outdoor units and communication cable between outdoor units has no polarity.
- ▶ Arrange the cables with a cable tie.
- ※ ELCB and ELB must be installed since there is risk of electric shock or fire when they are not installed.



3) Installing the Solution device

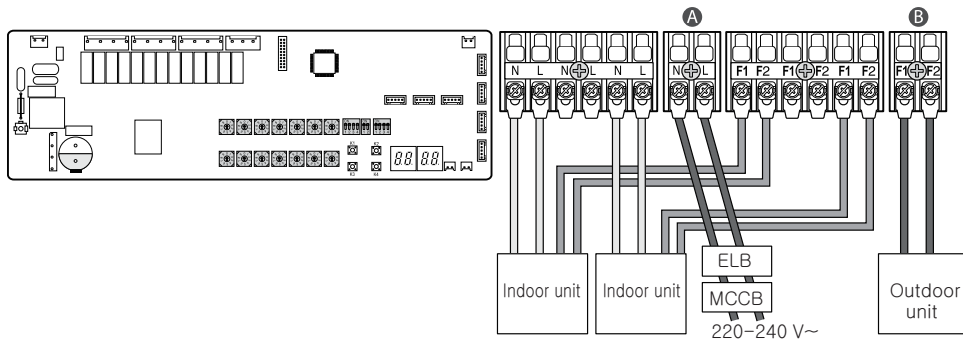
- ▶ When the number of indoor units installed with the outdoor unit is 16 or less



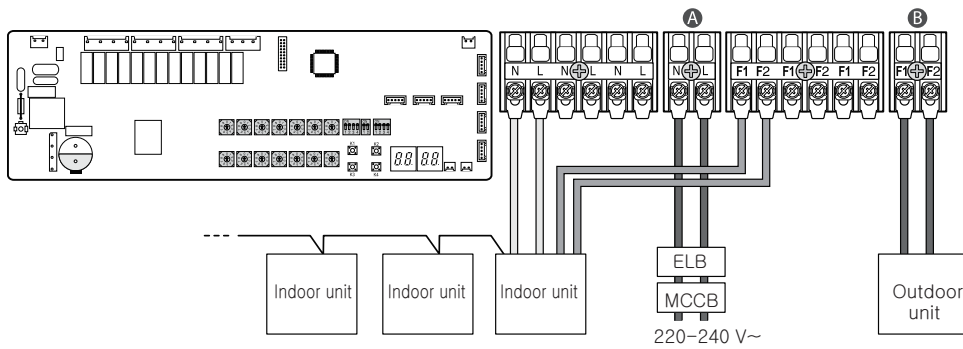
9 Installation

4) Connecting the MCU

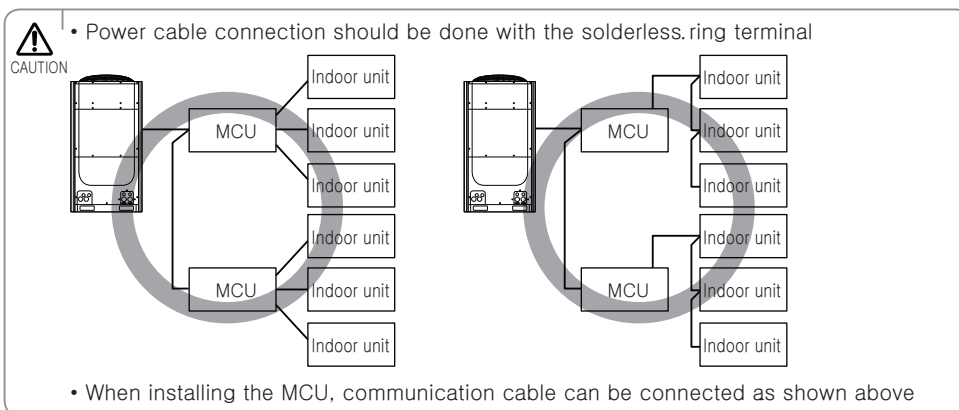
(1) Example 1



(2) Example 2



- ▶ **A** Power must be supplied to the MCU separately from the outdoor unit.
- ▶ **B** Connect the communication cable of the outdoor unit (F1, F2) to the communication cable of the MCU (F1, F2)



9 Installation

5) Grounding work

(1) Grounding the power cable

- ▶ The standard of grounding may vary according to the rated voltage and installation place of the air conditioner.
- ▶ Ground the power cable according to the following table.

| Installation place | Power condition | |
|--------------------|--|--|
| | Voltage to ground is lower than 150V | Voltage to ground is over 150V |
| High humidity | Must perform the grounding work 3. ^{Note 1)} (Including the case where earth leakage breaker is installed) | |
| Average humidity | Perform grounding work 3. ^{Note 1)} | Must perform the grounding work 3. ^{Note 1)} (Including the case where earth leakage breaker is installed) |
| Low humidity | Perform grounding work 3, if possible, for your safety. ^{Note 2)} | |

Note 1) About grounding work 3.

- Grounding work must be done by an expert (with qualification).
- Check if the grounding resistance is lower than 100Ω . When installing a earth leakage breaker (that can cut the electric circuit within 0.5 second in case of a short circuit), allowable grounding resistance should be $30\sim 500\Omega$.

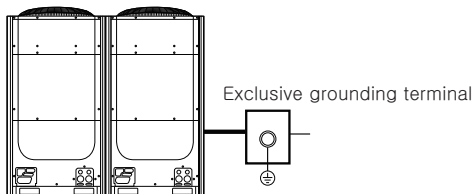
Note 2) Grounding at dry place

- The grounding resistance should be lower than 100Ω . Even in worst case, grounding resistance should be lower than 250Ω .

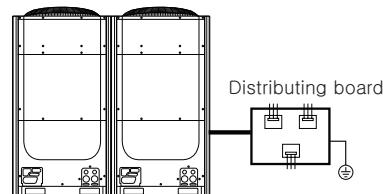
(2) Performing the grounding work

- ▶ Use a rated grounding cable by referring to the specification of the electric cable for the outdoor unit.

※When using the exclusive grounding terminal
(When the grounding terminal is already built on the house)



※When using grounding of the switch board





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