

SAMSUNG
Climate Solutions

VRF



DVM S Water HP/HR Water Cooled VRF

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- Water Cooled, Variable Refrigerant Flow Heat Pump/Heat Recovery Unit R410A.
- Each unit houses one (8–12 HP) or two (20–30 HP) Inverter Scroll compressors with Flash Injection technology.
- Comes with a built-in Water Flow Controller that helps control the amount of water used to cool and heat an outdoor unit.

- Can be connected to various heat sources such as dry-air coolers, boilers, heat networks, geothermal loops and more.

Specifications



| Model | | | AM080MXWANR/EU | AM100MXWANR/EU | AM120MXWANR/EU | AM200MXWANR/EU | AM300KXWANR/EU |
|--|--------------------------|--------------------|---|----------------------------|----------------------------|----------------------------|----------------------------|
| Electrical | | | | | | | |
| Power Supply | | Ø, #, V, Hz | 3Ø, 4, 380–415 V, 50 Hz | 3Ø, 4, 380–415 V, 50 Hz | 3Ø, 4, 380–415 V, 50 Hz | 3Ø, 4, 380–415 V, 50 Hz | 3Ø, 4, 380–415 V, 50 Hz |
| Minimum SSC value | | MVA | 3.9 | 3.9 | 4.8 | 7.7 | 11.5 |
| | | A | 16.1 | 16.1 | 20 | 31.8 | 48.1 |
| MCA | | A | 20 | 20 | 25 | 40 | 63.1 |
| Interconnecting Communication Cable | | mm ² | Screened 0.75-1.5mm ² , 2 Core, F1 F2 Connection | | | | |
| Performance¹ | | | | | | | |
| Horsepower | | HP | 8 | 10 | 12 | 20 | 30 |
| Capacity (Rated) | Nominal Cooling Capacity | kW | 22.4 | 28 | 33.6 | 56 | 84 |
| | Nominal Heating Capacity | kW | 25.2 | 31.5 | 37.8 | 63 | 94.5 |
| Inlet Water Temperature Operating Range | Cooling | °C | 10.0 – 45.0 °C | 10.0 – 45.0 °C | 10.0 – 45.0 °C | 10.0 – 45.0 °C | 10.0 – 45.0 °C |
| | Heating | °C | 10.0 – 45.0 °C | 10.0 – 45.0 °C | 10.0 – 45.0 °C | 10.0 – 45.0 °C | 10.0 – 45.0 °C |
| Maximum quantity of connectable indoor units | | ea | 14 | 18 | 22 | 36 | 55 |
| Energy Efficiency² | | | | | | | |
| Rated Efficiency | EER | W/W | 6.1 | 5.75 | 5.6 | 5.2 | 5 |
| | COP | W/W | 6.35 | 6.25 | 6.05 | 5.8 | 5.6 |
| Seasonal Efficiency | η _{s,c} | % | 458.2 | 440.2 | 438.2 | 421.8 | 421.8 |
| | η _{s,h} | % | 313.4 | 313.4 | 303.8 | 289 | 280.2 |
| Heat Exchanger | | | | | | | |
| Type | | - | PHE (Plate Heat Exchanger) | PHE (Plate Heat Exchanger) | PHE (Plate Heat Exchanger) | PHE (Plate Heat Exchanger) | PHE (Plate Heat Exchanger) |
| Pipe Size | | Ø, inch | PT1-1/4 | PT1-1/4 | PT1-1/4 | PT1-1/4 | PT2 |
| Pressure Drop (Rated) | | kPa | 22 | 30 | 43 | 54 | 50 |
| Water Flow Rate (Rated) | | LPM | 80 | 96 | 114 | 190 | 285 |
| Water Flow Rate (Range) | | LPM | 48–96 | 58–115 | 68–137 | 114–228 | 170–342 |
| Max. Water Pressure | | MPa | 1.96 | 1.96 | 1.96 | 1.96 | 1.96 |
| Compressor | | | | | | | |
| Type | | - | Inverter Scroll | Inverter Scroll | Inverter Scroll | Inverter Scroll | Inverter Scroll |
| Output x n | | kW | 5.18 x 1 | 5.18 x 1 | 6.39 x 1 | 5.18 x 2 | 6.75 x 2 |
| Piping Connections | | | | | | | |
| Liquid Pipe | | Ø, mm (inch) | 9.52 (3/8) | 9.52 (3/8) | 12.7 (1/2) | 15.88 (5/8) | 19.05 (3/4) |
| Gas Pipe | | Ø, mm (inch) | 19.05 (3/4) | 22.22 (7/8) | 28.58 (1-1/8) | 28.58 (1-1/8) | 34.92 (1-3/8) |
| Discharge Gas Pipe (Only for Heat Recovery) | | Ø, mm (inch) | 15.88 (5/8) | 19.05 (3/4) | 19.05 (3/4) | 28.58 (1-1/8) | 28.58 (1-1/8) |
| Refrigerant | | | | | | | |
| Type | | | R410A (Fluorinated greenhouse gas, GWP=2088) | | | | |
| Factory Charging | | kg | 5.5 | 5.8 | 6 | 9.8 | 11 |
| | | tCO ₂ e | 11.48 | 12.11 | 12.53 | 20.46 | 22.96 |
| Sound | | | | | | | |
| Sound Pressure Level | Cooling | dB(A) | 45 | 47 | 47 | 50 | 56 |
| | Heating | dB(A) | 46 | 49 | 50 | 52 | 58 |
| Sound Power Level | | dB(A) | 70 | 70 | 70 | 73 | 75 |
| Dimensions | | | | | | | |
| Net Weight | | kg | 160.0 | 160.0 | 160.0 | 240.0 | 280.0 |
| Net Dimensions | W x H x D | mm | 770 x 1000 x 545 | 770 x 1000 x 545 | 770 x 1000 x 545 | 1100 x 1000 x 545 | 1100 x 1000 x 545 |

1 Performances are based on the following test conditions.

- Cooling: Indoor temperature: 27°C DB, 19°C WB, Inlet water temperature: 30°C

- Heating: Indoor temperature: 20°C DB, 15°C WB, Inlet water temperature: 20°C

- Equivalent refrigerant pipe length 7.5m, Level differences 0m

Anti-freeze must be used when temperature of water inlet for heating is below 10°C or ground source heat is used.

Minimum water inlet temperature for heating: - 5°C Freezing point of anti-freeze must be below -8°C.

Minimum water inlet temperature for heating: - 10°C Freezing point of anti-freeze must be below -15°C.

2 Seasonal efficiencies shown are according to EU No 2016/2281 (LOT 21) Ecodesign requirements for heat pumps/air conditioners.