

# VRV 5 S-series Air Conditioning Technical Data RXYSA8-12A



RXYSA8AMY1B  
RXYSA10AMY1B  
RXYSA12AMY1B



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## RXYSA8-12A

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# 1 Features

1 - 1 RXYSA8-12A

## Lower CO2 equivalent and market-leading flexibility

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- › Reduced CO2 equivalent thanks to the use of lower GWP R-32 refrigerant and lower refrigerant charge
- › Top sustainability over the entire lifecycle, thanks to market leading real-life seasonal efficiency
- › Suitable for projects up to 200m<sup>2</sup> with space limitations
- › Easy to transport thanks to lightweight and compact design
- › Market-leading serviceability and handling, thanks to wide access area, 7-segment display and additional handle
- › Tackle small room applications without any additional measures, thanks to Shīrudo technology
- › Specially designed indoor units for R-32, ensuring low sound and maximum efficiency



Inverter

# 2 Specifications

## 2 - 1 Specifications

| Technical Specifications                                  |                |                                   |       | RXYSA8A         | RXYSA10A        | RXYSA12A        |
|-----------------------------------------------------------|----------------|-----------------------------------|-------|-----------------|-----------------|-----------------|
| Recommended combination                                   |                |                                   |       | 4 x FXSA50A2VEB | 4 x FXSA63A2VEB | 6 x FXSA50A2VEB |
| Recommended combination 2                                 |                |                                   |       | 4 x FXFA50A2VEB | 4 x FXFA63A2VEB | 6 x FXFA50A2VEB |
| Recommended combination 3                                 |                |                                   |       | 4 x FXMA50A5VEB | 4 x FXMA63A5VEB | 6 x FXMA50A5VEB |
| Cooling capacity                                          | Prated,c       | kW                                |       | 22.4 (1)        | 28              | 33.5 (1)        |
| Heating capacity                                          | Nom.           | 6°CWB                             | kW    | 22.4 (2)        | 28              | 33.5 (2)        |
|                                                           | Prated,h       |                                   | kW    | 22.4 (2)        | 28              | 33.5 (2)        |
|                                                           | Max.           | 6°CWB                             | kW    | 25              | 31.5 (2)        | 37.5 (2)        |
| COP at nom. capacity                                      | kW/kW          |                                   | KW/KW | 3.47 (2)        | 3.83 (2)        | 3.82 (2)        |
| SCOP                                                      |                |                                   |       | 4.42            |                 | 4.64            |
| SCOP recommended combination 2                            |                |                                   |       | 4.44            | 4.42            | 4.66            |
| SCOP recommended combination 3                            |                |                                   |       | 4.46            |                 | 4.7             |
| SEER                                                      |                |                                   |       | 6.36            | 6.93            | 6.47            |
| SEER recommended combination 2                            |                |                                   |       | 7.14            | 7.13            | 7.07            |
| SEER recommended combination 3                            |                |                                   |       | 6.86            | 7.04            | 6.88            |
| ηs,c                                                      |                |                                   |       | 251.4           | 274.2           | 255.8           |
| ηs,c recommended combination 2                            |                |                                   |       | 282.7           | 282.3           | 279.7           |
| ηs,c recommended combination 3                            |                |                                   |       | 271.3           | 278.4           | 272             |
| ηs,h                                                      |                |                                   |       | 173.8           |                 | 182.6           |
| ηs,h recommended combination 2                            |                |                                   |       | 174.6           | 173.8           | 183.2           |
| ηs,h recommended combination 3                            |                |                                   |       | 175.6           | 175.4           | 184.8           |
| Space cooling                                             | A Condition    | EERd                              |       | 2.38            | 2.94            | 2.47            |
|                                                           | (35°C - 27/19) | Pdc                               | kW    | 22.4            | 28              | 33.5            |
|                                                           | B Condition    | EERd                              |       | 4.09            | 4.9             | 4.39            |
|                                                           | (30°C - 27/19) | Pdc                               | kW    | 16.5            | 20.6            | 24.7            |
|                                                           | C Condition    | EERd                              |       | 7.56            | 7.21            | 6.86            |
|                                                           | (25°C - 27/19) | Pdc                               | kW    | 10.6            | 13.3            | 15.9            |
|                                                           | D Condition    | EERd                              |       | 17.33           | 18.5            | 19.2            |
|                                                           | (20°C - 27/19) | Pdc                               | kW    | 4.7             | 5.9             | 7.1             |
|                                                           | A Condition    | EERd                              |       | 2.86            | 3               | 2.88            |
|                                                           | (35°C - 27/19) | Pdc                               | kW    | 22.4            | 28              | 33.5            |
| Space cooling recommended combination 2                   | B Condition    | EERd                              |       | 4.74            | 4.99            | 4.69            |
|                                                           | (30°C - 27/19) | Pdc                               | kW    | 16.5            | 20.6            | 24.7            |
|                                                           | C Condition    | EERd                              |       | 8.42            | 7.73            | 7.71            |
|                                                           | (25°C - 27/19) | Pdc                               | kW    | 10.6            | 13.3            | 15.9            |
|                                                           | D Condition    | EERd                              |       | 18.05           | 18.82           | 20.08           |
|                                                           | (20°C - 27/19) | Pdc                               | kW    | 5.3             | 7.3             | 7.8             |
|                                                           | A Condition    | EERd                              |       | 2.62            | 3.04            | 2.68            |
|                                                           | (35°C - 27/19) | Pdc                               | kW    | 22.4            | 28              | 33.5            |
|                                                           | B Condition    | EERd                              |       | 4.63            | 4.77            | 4.54            |
|                                                           | (30°C - 27/19) | Pdc                               | kW    | 16.5            | 20.6            | 24.7            |
| Space cooling recommended combination 3                   | C Condition    | EERd                              |       | 8.07            | 7.21            | 7.51            |
|                                                           | (25°C - 27/19) | Pdc                               | kW    | 10.6            | 13.3            | 15.9            |
|                                                           | D Condition    | EERd                              |       | 16.98           | 21.9            | 19.98           |
|                                                           | (20°C - 27/19) | Pdc                               | kW    | 5.1             | 7.1             |                 |
| Space heating (Average climate)                           | TBivalent      | COPd (declared COP)               |       | 2.21            | 2.23            | 2.2             |
|                                                           |                | Pdh (declared heating cap)        | kW    | 14.9            | 19.6            | 23.5            |
|                                                           |                | Tbiv (bivalent temperature)       | °C    | -10             | -10             |                 |
|                                                           | TOL            | Tol (temperature operating limit) | °C    | -10             | -10             |                 |
|                                                           | A Condition    | COPd (declared COP)               |       | 2.52            | 2.62            | 2.71            |
|                                                           | (-7°C)         | Pdh (declared heating cap)        | kW    | 13.2            | 17.4            | 20.8            |
|                                                           | B Condition    | COPd (declared COP)               |       | 4.32            | 4.47            | 4.63            |
|                                                           | (2°C)          | Pdh (declared heating cap)        | kW    | 8               | 10.6            | 12.7            |
|                                                           | C Condition    | COPd (declared COP)               |       | 6.32            | 6.16            | 6.51            |
|                                                           | (7°C)          | Pdh (declared heating cap)        | kW    | 5.2             | 6.8             | 8.1             |
| Space heating (Average climate) recommended combination 2 | D Condition    | COPd (declared COP)               |       | 6.95            | 5.56            | 6.34            |
|                                                           | (12°C)         | Pdh (declared heating cap)        | kW    | 2.9             | 4.7             | 4.8             |
|                                                           | A Condition    | COPd (declared COP)               |       | 2.6             | 2.7             | 2.77            |
|                                                           | (-7°C)         | Pdh (declared heating cap)        | kW    | 13.2            | 17.4            | 20.8            |
|                                                           | B Condition    | COPd (declared COP)               |       | 4.42            | 4.45            | 4.66            |
|                                                           | (2°C)          | Pdh (declared heating cap)        | kW    | 8               | 10.6            | 12.7            |
|                                                           | C Condition    | COPd (declared COP)               |       | 6.08            | 6.05            | 6.46            |
|                                                           | (7°C)          | Pdh (declared heating cap)        | kW    | 5.2             | 6.8             | 8.1             |
|                                                           | D Condition    | COPd (declared COP)               |       | 6.6             | 5.52            | 6.11            |
|                                                           | (12°C)         | Pdh (declared heating cap)        | kW    | 2.9             | 4.5             |                 |
| Space heating (Average climate) recommended combination 3 | TBivalent      | COPd (declared COP)               |       | 2.31            | 2.3             | 2.18            |
|                                                           |                | Pdh (declared heating cap)        | kW    | 14.9            | 19.6            | 23.5            |
|                                                           |                | Tbiv (bivalent temperature)       | °C    | -10             | -10             |                 |
|                                                           | TOL            | COPd (declared COP)               |       | 2.31            | 2.3             | 2.18            |
|                                                           |                | Pdh (declared heating cap)        | kW    | 14.9            | 19.6            | 23.5            |
|                                                           |                | Tol (temperature operating limit) | °C    | -10             | -10             |                 |

## 2 Specifications

### 2 - 1 Specifications

| Technical Specifications                                  |                          |                                   |                     |       | RXYSA8A                        | RXYSA10A         | RXYSA12A |
|-----------------------------------------------------------|--------------------------|-----------------------------------|---------------------|-------|--------------------------------|------------------|----------|
| Space heating (Average climate) recommended combination 3 | A Condition (-7°C)       | COPd (declared COP)               |                     |       | 2.56                           | 2.7              | 2.77     |
|                                                           |                          | Pdh (declared heating cap)        | kW                  |       | 13.2                           | 17.4             | 20.8     |
|                                                           | B Condition (2°C)        | COPd (declared COP)               |                     |       | 4.4                            | 4.47             | 4.69     |
| Space heating (Average climate) recommended combination 3 | B Condition (2°C)        | Pdh (declared heating cap)        |                     |       | 8                              | 10.6             | 12.7     |
|                                                           |                          |                                   |                     |       |                                |                  |          |
|                                                           | C Condition (7°C)        | COPd (declared COP)               |                     |       | 6.26                           | 6.19             | 6.54     |
|                                                           |                          | Pdh (declared heating cap)        | kW                  |       | 5.2                            | 6.8              | 8.1      |
|                                                           | D Condition (12°C)       | COPd (declared COP)               |                     |       | 7.11                           | 5.72             | 6.48     |
|                                                           |                          | Pdh (declared heating cap)        | kW                  |       | 3.2                            | 4.7              | 4.9      |
|                                                           | TBivalent                | COPd (declared COP)               |                     |       | 2.25                           | 2.27             | 2.18     |
|                                                           |                          | Pdh (declared heating cap)        | kW                  |       | 14.9                           | 19.6             | 23.5     |
|                                                           |                          | Tbiv (bivalent temperature)       | °C                  |       |                                | -10              |          |
|                                                           |                          | TOL                               | COPd (declared COP) |       |                                | 2.25             | 2.27     |
|                                                           |                          | Pdh (declared heating cap)        | kW                  |       | 14.9                           | 19.6             | 23.5     |
|                                                           |                          | Tol (temperature operating limit) | °C                  |       |                                | -10              |          |
| Capacity range                                            |                          |                                   | HP                  |       | 8                              | 10               | 12       |
| PED                                                       | Category                 |                                   |                     |       | Category III                   |                  |          |
|                                                           | Most critical part       | Name Ps*V                         |                     | Bar*I | Accumulator 359                |                  |          |
| Maximum number of connectable indoor units                |                          |                                   |                     |       | 26 (3)                         | 32 (3)           | 39 (3)   |
| Indoor index connection                                   | Min.                     |                                   |                     |       | 100                            | 125              | 150      |
|                                                           | Max.                     |                                   |                     |       | 260                            | 325              | 390      |
| Dimensions                                                | Unit                     | Height                            | mm                  |       | 1,430                          | 1,615            |          |
|                                                           |                          | Width                             | mm                  |       |                                | 940              |          |
|                                                           |                          | Depth                             | mm                  |       | 320                            | 460              |          |
|                                                           | Packed unit              | Height                            | mm                  |       | 1,615                          | 1,745            |          |
|                                                           |                          | Width                             | mm                  |       | 1,030                          | 1,015            |          |
|                                                           |                          | Depth                             | mm                  |       | 442                            | 575              |          |
| Weight                                                    | Unit                     | kg                                |                     | 134   | 163                            |                  |          |
|                                                           | Packed unit              | kg                                |                     | 146   | 179                            | 180              |          |
| Packing                                                   | Material                 |                                   |                     |       | Carton                         |                  |          |
|                                                           | Weight                   |                                   |                     |       | 6.7                            | 8.2              |          |
| Packing 2                                                 | Material                 |                                   |                     |       | Wood                           |                  |          |
|                                                           | Weight                   |                                   |                     |       | 5.2                            | 8.8              |          |
| Packing 3                                                 | Material                 |                                   |                     |       | Plastic                        |                  |          |
|                                                           | Weight                   |                                   |                     |       | 0.5                            | 0.4              |          |
| Casing                                                    | Colour                   |                                   |                     |       | Daikin White                   |                  |          |
|                                                           | Material                 |                                   |                     |       | Painted galvanized steel plate |                  |          |
| Heat exchanger                                            | Type                     |                                   |                     |       | Cross fin coil                 |                  |          |
|                                                           | Indoor side              |                                   |                     |       | Air                            |                  |          |
|                                                           | Outdoor side             |                                   |                     |       | Air                            |                  |          |
| Heat exchanger                                            | Air flow rate            | Cooling                           | Rated               | m³/h  | 8,620                          | 10,920           |          |
|                                                           |                          | Heating                           | Rated               | m³/h  | 8,620                          | 10,920           |          |
| Fan                                                       | Quantity                 |                                   |                     |       | 2                              |                  |          |
|                                                           | External static pressure | Max.                              |                     | Pa    | 35                             |                  |          |
| Fan motor                                                 | Quantity                 |                                   |                     |       | 2                              |                  |          |
|                                                           | Type                     |                                   |                     |       | DC Motor                       |                  |          |
| Compressor                                                | Output                   |                                   |                     |       | W                              |                  |          |
|                                                           | Quantity                 |                                   |                     |       | 200                            |                  |          |
|                                                           | Type                     |                                   |                     |       | 1                              |                  |          |
| Operation range                                           | Crankcase heater         |                                   |                     |       | W                              |                  |          |
|                                                           | Cooling                  | Min.                              | °CDB                |       | 33                             |                  |          |
|                                                           |                          | Max.                              | °CDB                |       | -5                             |                  |          |
| Sound power level                                         | Heating                  | Min.                              | °CWB                |       | 52                             |                  |          |
|                                                           |                          | Max.                              | °CWB                |       | -20                            |                  |          |
|                                                           |                          |                                   |                     | °CWB  |                                | 15.5             |          |
| Sound pressure level                                      | Cooling                  | Nom.                              | dBA                 |       | 73.2 (4)                       | 74               | 76.1 (4) |
|                                                           | Heating                  | Nom.                              | dBA                 |       | 73.5 (4)                       | 74               | 76       |
| Refrigerant                                               | Cooling                  | Nom.                              | dBA                 |       | 58.1 (5)                       | 57               | 60       |
|                                                           | Heating                  | Nom.                              | dBA                 |       | 59.4 (5)                       | 58               | 60       |
| Refrigerant                                               | Type                     |                                   |                     |       | R-32                           |                  |          |
|                                                           | GWP                      |                                   |                     |       | 675                            |                  |          |
|                                                           | Charge                   | kg                                |                     | 5.2   | 7                              | 7.1              |          |
|                                                           | Charge                   | tCO2Eq                            |                     | 3.51  | 4.73                           | 4.79             |          |
| Refrigerant oil                                           | Type                     |                                   |                     |       | FW68DE                         |                  |          |
| Piping connections                                        | Liquid                   | Type                              |                     |       |                                | Braze connection |          |
|                                                           |                          | OD                                | mm                  |       | 9.52                           | 12.7             |          |
|                                                           | Gas                      | Type                              |                     |       |                                | Braze connection |          |
|                                                           |                          | OD                                | mm                  |       | 19.1                           | 22.2             |          |
|                                                           | Total piping length      | System                            | Actual              | m     | 300 (6)                        |                  |          |

## 2 Specifications

### 2 - 1 Specifications

| Technical Specifications                                         |                           |         |      |    | RXYSA8A                       |  | RXYSA10A |  | RXYSA12A |  |
|------------------------------------------------------------------|---------------------------|---------|------|----|-------------------------------|--|----------|--|----------|--|
| Defrost method                                                   |                           |         |      |    | Reversed cycle                |  |          |  |          |  |
| Capacity control                                                 |                           | Method  |      |    | Inverter controlled           |  |          |  |          |  |
| Indication if the heater is equipped with a supplementary heater |                           |         |      |    | No                            |  |          |  |          |  |
| Supplementary heater                                             | Back-up capacity          | Heating | elbu | kW | 0                             |  |          |  |          |  |
| Power consumption in other than active mode                      | Crankcase heater mode     | Cooling | PCK  | kW | 0                             |  |          |  |          |  |
|                                                                  |                           | Heating | PCK  | kW | 0.045                         |  |          |  |          |  |
|                                                                  | Off mode                  | Cooling | POFF | kW | 0.04                          |  | 0.046    |  |          |  |
|                                                                  |                           | Heating | POFF | kW | 0.045                         |  |          |  |          |  |
|                                                                  | Standby mode              | Cooling | PSB  | kW | 0.04                          |  | 0.046    |  |          |  |
|                                                                  |                           | Heating | PSB  | kW | 0.045                         |  |          |  |          |  |
| Power consumption in other than active mode                      | Thermo-stat-off mode      | Cooling | PTO  | kW | 0                             |  |          |  |          |  |
|                                                                  |                           | Heating | PTO  | kW | 0.051                         |  |          |  |          |  |
| Cooling                                                          | Cdc (Degradation cooling) |         |      |    | 0.25                          |  |          |  |          |  |
| Heating                                                          | Cdh (Degradation heating) |         |      |    | 0.25                          |  |          |  |          |  |
| Safety devices                                                   | Item                      | 01      |      |    | High pressure switch          |  |          |  |          |  |
|                                                                  |                           | 02      |      |    | Fan driver overload protector |  |          |  |          |  |
|                                                                  |                           | 03      |      |    | Inverter overload protector   |  |          |  |          |  |

Standard accessories: Installation and operation manual;Quantity: 1;

Standard accessories: Connection pipes;Quantity: 1;

| Electrical Specifications |                                 |                |                      | RXYSA8A                      | RXYSA10A  | RXYSA12A  |
|---------------------------|---------------------------------|----------------|----------------------|------------------------------|-----------|-----------|
| Power supply              | Name                            |                |                      | Y1                           |           |           |
|                           | Phase                           |                |                      | 3N~                          |           |           |
|                           | Frequency Hz                    |                |                      | 50/60                        |           |           |
|                           | Voltage V                       |                |                      | 380-415/400                  |           |           |
| Power supply intake       |                                 |                |                      | Both indoor and outdoor unit |           |           |
| Voltage range             | Min. %                          |                |                      | -10                          |           |           |
|                           | Max. %                          |                |                      | 10                           |           |           |
| Current - 50Hz            | Nominal running current (RLA)   | Combina-tion A | Cooling              | -                            |           |           |
|                           |                                 | Combina-tion B | Cooling              | -                            |           |           |
|                           |                                 | Cooling        | A                    | 14.3 (7)                     |           | 20.5 (7)  |
|                           | Starting current (MSC) - remark |                |                      | See note 8                   |           |           |
|                           | Zmax                            | List           | No requirements      |                              |           |           |
|                           | Minimum Ssc value kVA           |                |                      | 2,684 (8)                    | 3,101 (8) | 3,383 (8) |
|                           | Minimum circuit amps (MCA) A    |                |                      | 18.5 (9)                     | 22        | 24        |
|                           | Maximum fuse amps (MFA) A       |                |                      | 25 (10)                      |           | 32 (10)   |
| Power Performance         | Power factor                    | Combina-tion B | 35°C ISO - Full load | -                            |           |           |
|                           |                                 |                | 46°C ISO - Full load | -                            |           |           |
| Wiring connections - 50Hz | For power supply                | Quantity       |                      | 5G                           |           |           |
|                           | For connec-tion with indoor     | Quantity       |                      | 2                            |           |           |
|                           |                                 | Remark         |                      | F1,F2                        |           |           |
| Current - 60Hz            | Starting current (MSC) - remark |                |                      | See note 8                   |           |           |
|                           | Zmax                            | Text           |                      | No requirements              |           |           |
|                           | Minimum Ssc value kVA           |                |                      | 2,685 (8)                    | 3,137 (8) | 3,422 (8) |
|                           | Minimum circuit amps (MCA) A    |                |                      | 18.5 (9)                     | 22        | 24        |
|                           | Maximum fuse amps (MFA) A       |                |                      | 25 (10)                      |           | 32 (10)   |
| Wiring connections - 60Hz | For power supply                | Quantity       |                      | 5G                           |           |           |
|                           | For connec-tion with indoor     | Quantity       |                      | 2                            |           |           |
|                           |                                 | Remark         |                      | F1,F2                        |           |           |
| Compressor                | Crankcase heater W              |                |                      | 33                           |           |           |

(1)Cooling: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB; equivalent piping length: 7.5m; level difference: 0m |

(2)Heating: indoor temp. 20°CDB; outdoor temp. 7°CDB, 6°CWB; equivalent refrigerant piping: 7.5m; level difference: 0m |

(3)The actual number of units depends on the connection ratio (CR) and the restrictions for the system. |

(4)Sound power level is an absolute value that a sound source generates. |

(5)Sound pressure level is a relative value, depending on the distance and acoustic environment. For more details, please refer to the sound level drawings. |

(6)Refer to refrigerant pipe selection or installation manual |

(7)RLA is based on following conditions: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB |

(8)In accordance with EN/IEC 61000-3-12, it may be necessary to consult the distribution network operator to ensure that the equipment is connected only to a supply with Ssc ≥ minimum Ssc value |

(9)MCA must be used to select the correct field wiring size. The MCA can be regarded as the maximum running current. |

(10)MFA is used to select the circuit breaker and the ground fault circuit interrupter (earth leakage circuit breaker). |

MSC means the maximum current during start up of the compressor. This unit uses only inverter compressors. Starting current is always ≤ max. running current. |

Maximum allowable voltage range variation between phases is 2%. |

Voltage range: units are suitable for use on electrical systems where voltage supplied to unit terminal is not below or above listed range limits. |

Sound values are measured in a semi-anechoic room. |

EN/IEC 61000-3-12: European/international technical standard setting the limits for harmonic currents produced by equipment connected to public low-voltage system with input current &gt; 16A and ≤ 75A per

## 2 Specifications

### 2 - 1 Specifications

phase |

Sc: Short-circuit power |

For detailed contents of standard accessories, see installation/operation manual

# 3 Options

## 3 - 1 Options

### RXYSA-AY1

VRV5-S Heat pump  
Option list

| Nr. | Item                            | RXYSA4~6A7V1B | RXYSA4~6A7Y1B | RXYSA8~12AMY1B    |
|-----|---------------------------------|---------------|---------------|-------------------|
| 1   | Refnet header                   | KHRQ22M29H    | KHRQ22M29H    | KHRQ22M29H        |
|     |                                 | -             | -             | KHRA22M65H        |
| 2   | Refnet joint                    | KHRQ22M20TA   | KHRQ22M20TA   | KHRQ22M20TA       |
|     |                                 | -             | -             | KHRQ22M29T9       |
|     |                                 | -             | -             | KHRA22M65T        |
| 3a  | Cool/heat selector (switch)     | KRC19-26      | KRC19-26      | KRC19-26          |
| 3b  | Cool/heat selector (fixing box) | KJB111A       | KJB111A       | KJB111A           |
| 4   | VRV configurator                | EKPCCAB4      | EKPCCAB4      | -                 |
| 5   | Bottom plate heater             | EKBPH250D     | EKBPH250D     | -                 |
| 6   | Sound reduction enclosure       | EKLN140A1     | EKLN140A1     | -                 |
| 7   | Demand PCB                      | -             | -             | DTA104A61/62* (4) |
| 8   | -SV- units                      | -             | -             | SV1A25A           |
|     |                                 |               |               | SV4A14A           |
|     |                                 |               |               | SV6A14A           |
|     |                                 |               |               | SV8A14A           |

Remote controllers and centralised controllers with R32 safety system functionality

| Nr. | Item          | Sound pressure level of built-in alarm | Mode             |                |                |                           |
|-----|---------------|----------------------------------------|------------------|----------------|----------------|---------------------------|
|     |               |                                        | Fully functional | Alarm only     | Supervisor     |                           |
|     |               |                                        | Built-in alarm   | Built-in alarm | Built-in alarm | External alarm connection |
| 1   | BRC1H52/82*   | -65· dBA at -1· m                      | O                | O              | O              | -                         |
| 2   | DCM601A51 (5) | Not applicable                         | -                | -              | -              | O (7)                     |
| 3   | DCM601B51 (6) | -65· dBA at -1· m                      | -                | -              | O              | O (7)                     |

#### Notes

- All options are kits
- Cool/Heat selector PCB is standard in unit.
- To mount option -3a-, option -3b- is required.
- RXYSA8~12AMY1B- is compatible with the option, but the option has to be installed inside an indoor unit.
- From software version -1.28.00- onwards.
- From software version -1.32.00- onwards.
- via WAGO module

3D127872D

# 4 Combination table

## 4 - 1 Combination Table

### RXYSA-AY1

#### VRV5-S

Heat pump

Indoor unit combination restrictions

| Indoor unit combination pattern                             | ·VRV·R32 DX· indoor unit | ·RA DX· indoor unit | Hydrobox unit | Air handling unit (AHU) <sup>(3)</sup> |
|-------------------------------------------------------------|--------------------------|---------------------|---------------|----------------------------------------|
| ·VRV· R32 DX· indoor unit                                   | O                        | X                   | X             | O <sub>2</sub>                         |
| ·RA DX· indoor unit                                         | X                        | X                   | X             | X                                      |
| Hydrobox unit                                               | X                        | X                   | X             | X                                      |
| Air handling unit (AHU) (·EKEQ*+EKE XV·) <sup>(3)</sup>     | X                        | X                   | X             | X                                      |
| Air handling unit (AHU) (·EKEACBVE+EKE XVA·) <sup>(3)</sup> | O <sub>2</sub>           | X                   | X             | O <sub>1</sub>                         |

O: Allowed

X: Not allowed

#### Notes

##### 1. O<sub>1</sub>

Combination of ·AHU· only + control box ·EKEACBVE· (not combined with ·VRV DX· indoor units)

→ ·X·-control is possible [·EKEAXVA + EKEACBVE· boxes]. No Variable Refrigerant Temperature control possible.

→ ·Y·-control is possible [·EKEAXVA + EKEACBVE· boxes]. No Variable Refrigerant Temperature control possible.

→ ·W·-control is possible [·EKEAXVA + EKEACBVE· boxes]. No Variable Refrigerant Temperature control possible.

→ ·Z,Z'·-control is possible [·EKE XVA + EKEACBVE· boxes].

##### 2. O<sub>2</sub>

Combination of ·AHU· and ·VRV DX· indoor units

→ ·Z,Z'·-control is possible [·EKE XVA + EKEACBVE· boxes].

##### 3. The following units are considered AHUs:

→ (·EKE XVA + EKEACBVE) + AHU· coil

→ ·Biddle· air curtain

3D127866A

### RXYSA-AY1

Unit combination restrictions: ·VRV5· outdoor units (all models) + ·10 / 15·-class indoor units

| Indoor unit in the system |                        |
|---------------------------|------------------------|
| FXDA10A                   | FXZA15A and/or FXAA15A |
| Yes                       | Yes                    |

1. In case the system contains the indoor unit situation as shown in the table above, and the total connection ratio (·CR·) ≤ ·85·%: no special restrictions.

Follow the restrictions that apply to regular ·VRV DX· indoor units.

2. In case the system contains the indoor unit situation as shown in the table above, and the total connection ratio (·CR·) &gt; ·85·%: special restrictions apply.

A. When the connection ratio (·CR1·) of the sum of all ·FXDA10A· units in the system ≤ ·65·%, and ALL other ·VRV DX· indoor units have an individual capacity class &gt; ·50·: no special restrictions.

B. When the connection ratio (·CR1·) of the sum of all ·FXDA10A· units in the system ≤ ·65·%, and NOT ALL other ·VRV DX· indoor units have an individual capacity class &gt; ·50·: the restrictions below apply.

° 85% &lt; CR ≤ 95% → ·CR1· of the sum of all ·FXDA10A· indoor units in the system must be ≤ ·65·%.

° 95% &lt; CR ≤ 100% → ·CR1· of the sum of all ·FXDA10A· indoor units in the system must be ≤ ·55·%.

° 100% &lt; CR ≤ 105% → ·CR1· of the sum of all ·FXDA10A· indoor units in the system must be ≤ ·40·%.

° 105% &lt; CR ≤ 130% → ·FXDA10A· cannot be used

#### Remark

Only the ·10 / 15·-class indoor units explicitly mentioned on this page are in scope. Other indoor units follow the rules that apply to regular ·VRV DX· indoor units.

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# 4 Combination table

## 4 - 1 Combination Table

### RXYSA-AY1

4

#### Unit combination restrictions: ·VRV5· outdoor units (all models) + ·10 / 15·-class indoor units

| Indoor unit in the system |                        |
|---------------------------|------------------------|
| FXDA10A                   | FXZA15A and/or FXAA15A |
| Yes                       | No                     |

1. In case the system contains the indoor unit situation as shown in the table above, and the total connection ratio (·CR·) ≤ ·85·%: no special restrictions. Follow the restrictions that apply to regular ·VRV DX· indoor units.
2. In case the system contains the indoor unit situation as shown in the table above, and the total connection ratio (·CR·) > ·85·%: special restrictions apply.
  - A. When the connection ratio (·CR1·) of the sum of all ·FXDA10A· units in the system ≤ ·65·%, and ALL other ·VRV DX· indoor units have an individual capacity class > ·50·: no special restrictions.
  - B. When the connection ratio (·CR1·) of the sum of all ·FXDA10A· units in the system ≤ ·65·%, and NOT ALL other ·VRV DX· indoor units have an individual capacity class > ·50·: the restrictions below apply.
    - \* 85% < CR ≤ 95% → ·CR1· of the sum of all ·FXDA10A· indoor units in the system must be ≤ ·65·%.
    - \* 95% < CR ≤ 100% → ·CR1· of the sum of all ·FXDA10A· indoor units in the system must be ≤ ·55·%.
    - \* 100% < CR ≤ 105% → ·CR1· of the sum of all ·FXDA10A· indoor units in the system must be ≤ ·40·%.
    - \* 105% < CR ≤ 110% → ·CR1· of the sum of all ·FXDA10A· indoor units in the system must be ≤ ·30·%.
    - \* 110% < CR ≤ 115% → ·CR1· of the sum of all ·FXDA10A· indoor units in the system must be ≤ ·20·%.
    - \* 115% < CR ≤ 120% → ·CR1· of the sum of all ·FXDA10A· indoor units in the system must be ≤ ·10·%.
    - \* 120% < CR ≤ 125% → ·CR1· of the sum of all ·FXDA10A· indoor units in the system must be ≤ ·5·%.
    - \* 125% < CR ≤ 130% → ·FXDA10A· cannot be used

#### Remark

Only the ·10 / 15·-class indoor units explicitly mentioned on this page are in scope. Other indoor units follow the rules that apply to regular ·VRV DX· indoor units.

4D141206A

### RXYSA-AY1

#### Unit combination restrictions: ·VRV5· outdoor units (all models) + ·10 / 15·-class indoor units

| Indoor unit in the system |                        |
|---------------------------|------------------------|
| FXDA10A                   | FXZA15A and/or FXAA15A |
| No                        | Yes                    |

1. In case the system contains the indoor units situation which as shown in the table above, and the total connection ratio (·CR·) ≤ ·100·%: no special restrictions. Follow the restrictions that apply to regular ·VRV DX· indoor units.
2. In case the system contains the indoor units situation which as shown in the table above, and the total connection ratio (·CR·) > ·100·%: special restrictions apply.
  - A. When the connection ratio (·CR1·) of the sum of all ·FXZA15A· and/or ·FXAA15A· units in the system ≤ ·70·%, and ALL other ·VRV DX· indoor units have an individual capacity class > ·50·: no special restrictions.
  - B. When the connection ratio (·CR1·) of the sum of all ·FXZA15A· and/or ·FXAA15A· units in the system ≤ ·70·%, and NOT ALL other ·VRV DX· indoor units have an individual capacity class > ·50·: the restrictions below apply.
    - \* 100% < CR ≤ 105% → ·CR1· of the sum of all ·FXZA15A· and/or ·FXAA15A· indoor units in the system must be ≤ ·70·%.
    - \* 105% < CR ≤ 110% → ·CR1· of the sum of all ·FXZA15A· and/or ·FXAA15A· indoor units in the system must be ≤ ·60·%.
    - \* 110% < CR ≤ 115% → ·CR1· of the sum of all ·FXZA15A· and/or ·FXAA15A· indoor units in the system must be ≤ ·40·%.
    - \* 115% < CR ≤ 120% → ·CR1· of the sum of all ·FXZA15A· and/or ·FXAA15A· indoor units in the system must be ≤ ·25·%.
    - \* 120% < CR ≤ 125% → ·CR1· of the sum of all ·FXZA15A· and/or ·FXAA15A· indoor units in the system must be ≤ ·10·%.
    - \* 125% < CR ≤ 130% → ·FXZA15A· and ·FXAA15A· cannot be used.

#### Remark

Only the ·10 / 15·-class indoor units explicitly mentioned on this page are in scope. Other indoor units follow the rules that apply to regular ·VRV DX· indoor units.

4D141206A

## 5 Capacity tables

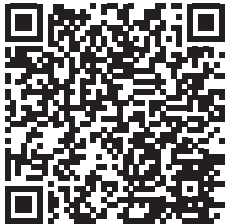
### 5 - 1 Capacity Table Legend

5

In order to fulfill more your requirements on quick access of data in the format you require, we have developed a tool to consult capacity tables.

Below you can find the link to the capacity table database and an overview of all the tools we have to help you select the correct product:

- **Capacity table database:** lets you find back and export quickly the capacity information you are looking for based upon unit model, refrigerant temperature and connection ratio.
- You can access the capacity table viewer here:  
[https://my.daikin.eu/content/denv/en\\_US/home/applications/software-finder/capacity-table-viewer.html](https://my.daikin.eu/content/denv/en_US/home/applications/software-finder/capacity-table-viewer.html)



- An overview of **all software tools** that we offer can be found here:  
[https://my.daikin.eu/denv/en\\_US/home/applications/software-finder.html](https://my.daikin.eu/denv/en_US/home/applications/software-finder.html)



# 5 Capacity tables

## 5 - 2 Capacity Correction Factor

### RXYS-A8-12AY1

#### VRV5-S

#### Heat pump

#### Integrated heating capacity coefficient

Inlet air temperature of heat exchanger

| [°CDB/°CWB] | -7/-7.6 | -5/-5.6 | -3/-3.7 | 0/-0.7 | 3/2.2 | 5/4.1 | 7/6 |
|-------------|---------|---------|---------|--------|-------|-------|-----|
|-------------|---------|---------|---------|--------|-------|-------|-----|

Integrated correction factor for frost accumulation -(C)-

| RXYS-A8  | 0,95 | 0,93 | 0,88 | 0,84 | 0,85 | 0,90 | 1,00 |
|----------|------|------|------|------|------|------|------|
| RXYS-A10 | 0,95 | 0,93 | 0,87 | 0,79 | 0,80 | 0,88 | 1,00 |
| RXYS-A12 | 0,95 | 0,92 | 0,87 | 0,75 | 0,76 | 0,85 | 1,00 |

The heating capacity tables do not take into account the capacity reduction in case of frost accumulation or defrost operation.

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

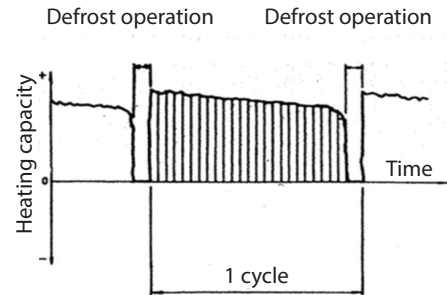
Formula

$$A = B * C$$

A = Integrated heating capacity

B = Capacity characteristics value

C = Integrated correction factor for frost accumulation (see table)

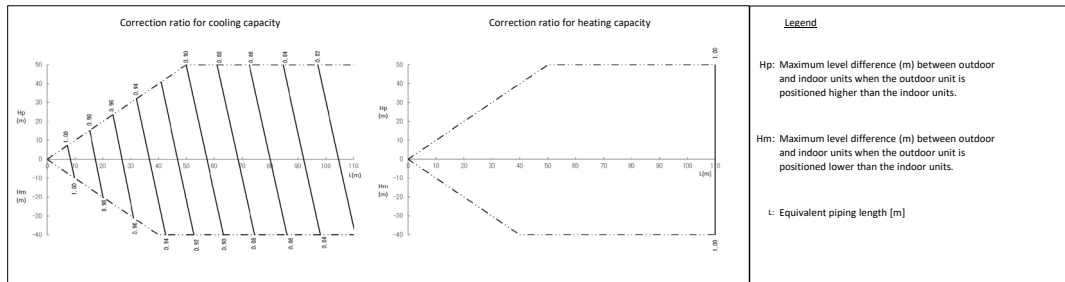


#### NOTES

1. The figure shows the integrated heating capacity for a single cycle (from one defrost operation to the next).
2. When there is an accumulation of snow against the outdoor unit heat exchanger, there will always be a temporary reduction in capacity depending on the outdoor temperature (°C DB), relative humidity (RH) and the amount of frosting which occurs.

4D148061

### RXYS-A8AY1



#### Notes

1. These figures illustrate the capacity correction factor due to the piping length for a standard indoor unit system at maximum load (with the thermostat set to maximum), under standard conditions. Moreover, under partial load conditions, there is only a minor deviation for the capacity correction ratio, as shown in the above figures.

#### Method of calculating the capacity of the outdoor units

The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity of the outdoor units as mentioned below, whichever is less.

#### Indoor connection ratio ≤ 100%

$$\text{Maximum capacity of outdoor units} = \text{Capacity of outdoor units from capacity table at 100\% connection ratio.} \times \text{Correction ratio of piping to furthest indoor unit}$$

#### Indoor connection ratio > 100%

$$\text{Maximum capacity of outdoor units} = \text{Capacity of outdoor units from capacity table at installed connection ratio.} \times \text{Correction ratio of piping to furthest indoor unit}$$

3. If the equivalent piping length is > 90 m, size up the main liquid and gas piping.

| Model | Standard liquid side Ø | Increased liquid side Ø | Standard gas side Ø | Increased gas side Ø |
|-------|------------------------|-------------------------|---------------------|----------------------|
| 8HP   | 9.5                    | 12.7                    | 19.1                | 22.2                 |

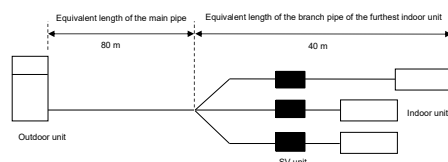
4. Overall equivalent length

$$\text{Overall equivalent length} = \text{Equivalent length of the main pipe} \times \text{Correction factor} + \text{Equivalent length of the branch pipes}$$

Choose the correction factor from the following table.

| Model | Correction ratio for cooling capacity |               | Correction ratio for heating capacity |               |
|-------|---------------------------------------|---------------|---------------------------------------|---------------|
|       | Standard size                         | Size increase | Standard size                         | Size increase |
| 8HP   | 1                                     | 0.5           | 1                                     | 0.2           |

5. Example -8HP-



#### Overall equivalent length

- Cooling mode = 80 m x 0,5 + 40 m = 80 m
- Heating mode = 80 m x 0,2 + 40 m = 56 m

#### Capacity correction ratio (height difference = 0)

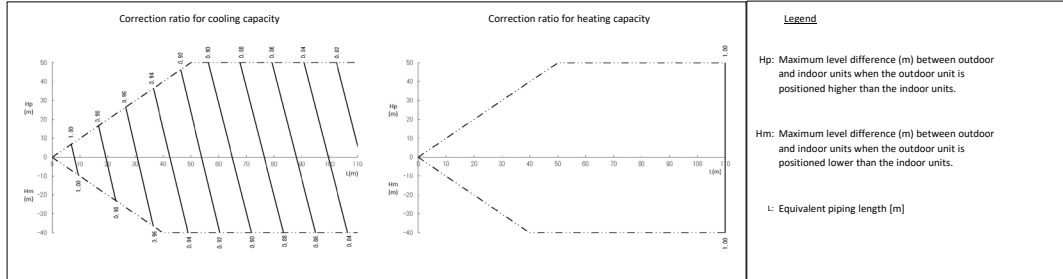
- Cooling mode = 0,86
- Heating mode = 1,00

3D148042

# 5 Capacity tables

## 5 - 2 Capacity Correction Factor

### RXYSA10AY1



#### Notes

- These figures illustrate the capacity correction factor due to the piping length for a standard indoor unit system at maximum load (with the thermostat set to maximum), under standard conditions. Moreover, under partial load conditions, there is only a minor deviation for the capacity correction ratio, as shown in the above figures.

#### Method of calculating the capacity of the outdoor units

The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity of the outdoor units as mentioned below, whichever is less.

#### Indoor connection ratio ≤ 100%

$$\text{Maximum capacity of outdoor units} = \text{Capacity of outdoor units from capacity table at 100\% connection ratio} \times \text{Correction ratio of piping to furthest indoor unit}$$

#### Indoor connection ratio > 100%

$$\text{Maximum capacity of outdoor units} = \text{Capacity of outdoor units from capacity table at installed connection ratio} \times \text{Correction ratio of piping to furthest indoor unit}$$

- If the equivalent piping length is > 90 m, size up the main liquid and gas piping.

| Model | Standard liquid side Ø | Increased liquid side Ø | Standard gas side Ø | Increased gas side Ø |
|-------|------------------------|-------------------------|---------------------|----------------------|
| 10HP  | 9.5                    | 12.7                    | 19.1                | 22.2                 |

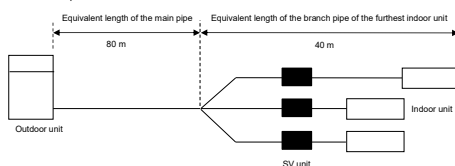
- Overall equivalent length

$$\text{Overall equivalent length} = \text{Equivalent length of the main pipe} \times \text{Correction factor} + \text{Equivalent length of the branch pipes}$$

Choose the correction factor from the following table.

| Model | Correction ratio for cooling capacity |               | Correction ratio for heating capacity |               |
|-------|---------------------------------------|---------------|---------------------------------------|---------------|
|       | Standard size                         | Size increase | Standard size                         | Size increase |
| 10HP  | 1                                     | 0.5           | 1                                     | 0.2           |

- Example - 10HP-



#### Overall equivalent length

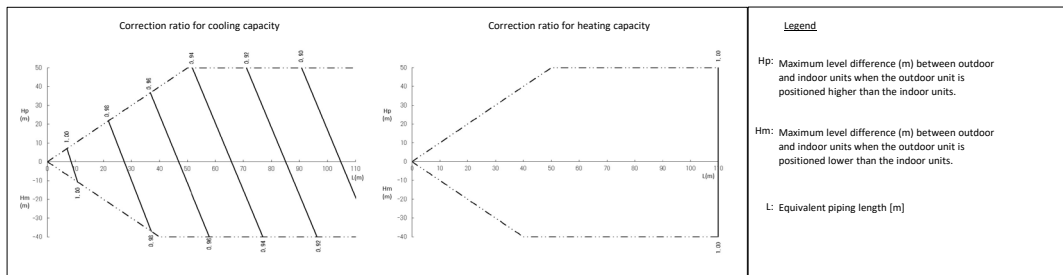
- Cooling mode = 80 m x 0.5 + 40 m = 80 m
- Heating mode = 80 m x 0.2 + 40 m = 56 m

#### Capacity correction ratio (height difference = 0)

- Cooling mode = 0.87
- Heating mode = 1.00

3D148042

### RXYSA12AY1



#### Notes

- These figures illustrate the capacity correction factor due to the piping length for a standard indoor unit system at maximum load (with the thermostat set to maximum), under standard conditions. Moreover, under partial load conditions, there is only a minor deviation for the capacity correction ratio, as shown in the above figures.

#### Method of calculating the capacity of the outdoor units

The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity of the outdoor units as mentioned below, whichever is less.

#### Indoor connection ratio ≤ 100%

$$\text{Maximum capacity of outdoor units} = \text{Capacity of outdoor units from capacity table at 100\% connection ratio} \times \text{Correction ratio of piping to furthest indoor unit}$$

#### Indoor connection ratio > 100%

$$\text{Maximum capacity of outdoor units} = \text{Capacity of outdoor units from capacity table at installed connection ratio} \times \text{Correction ratio of piping to furthest indoor unit}$$

- If the equivalent piping is > 90 m, size up the main liquid piping.

| Model | Standard liquid side Ø | Increased liquid side Ø | Standard gas side Ø | Increased gas side Ø |
|-------|------------------------|-------------------------|---------------------|----------------------|
| 12HP  | 12.7                   | 15.9                    | 22.2                | 25.4 *               |

\* If not available on-site, do not increase the piping diameter.

If not increased, do not apply a correction factor to the equivalent piping length (see note -4).

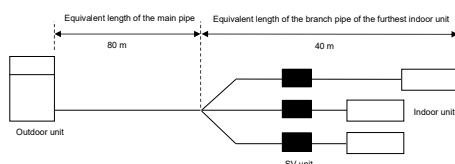
- Overall equivalent length

$$\text{Overall equivalent length} = \text{Equivalent length of the main pipe} \times \text{Correction factor} + \text{Equivalent length of the branch pipes}$$

Choose the correction factor from the following table.

| Model | Correction ratio for cooling capacity |               | Correction ratio for heating capacity |               |
|-------|---------------------------------------|---------------|---------------------------------------|---------------|
|       | Standard size                         | Size increase | Standard size                         | Size increase |
| 12HP  | 1                                     | 0.5           | 1                                     | 0.3           |

- Example - 12HP-



#### Overall equivalent length

- Cooling mode = 80 m x 0.5 + 40 m = 80 m
- Heating mode = 80 m x 0.3 + 40 m = 64 m

#### Capacity correction ratio (height difference = 0)

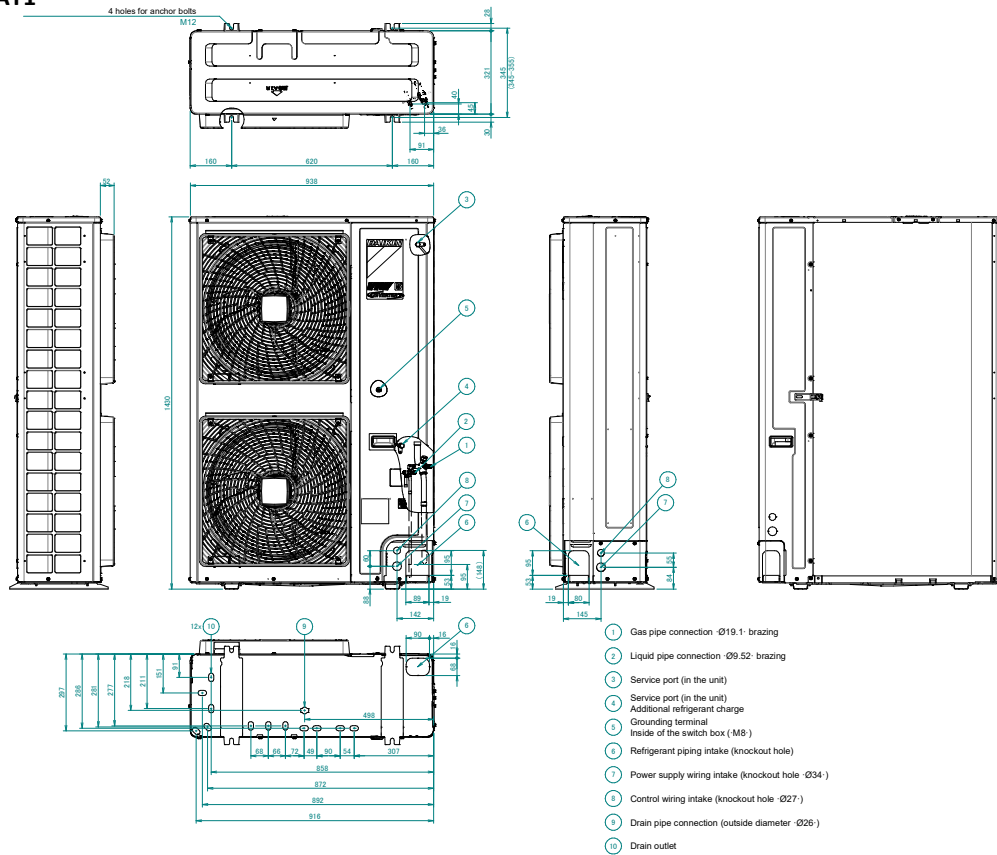
- Cooling mode = 0.93
- Heating mode = 1.00

3D148042

# 6 Dimensional drawings

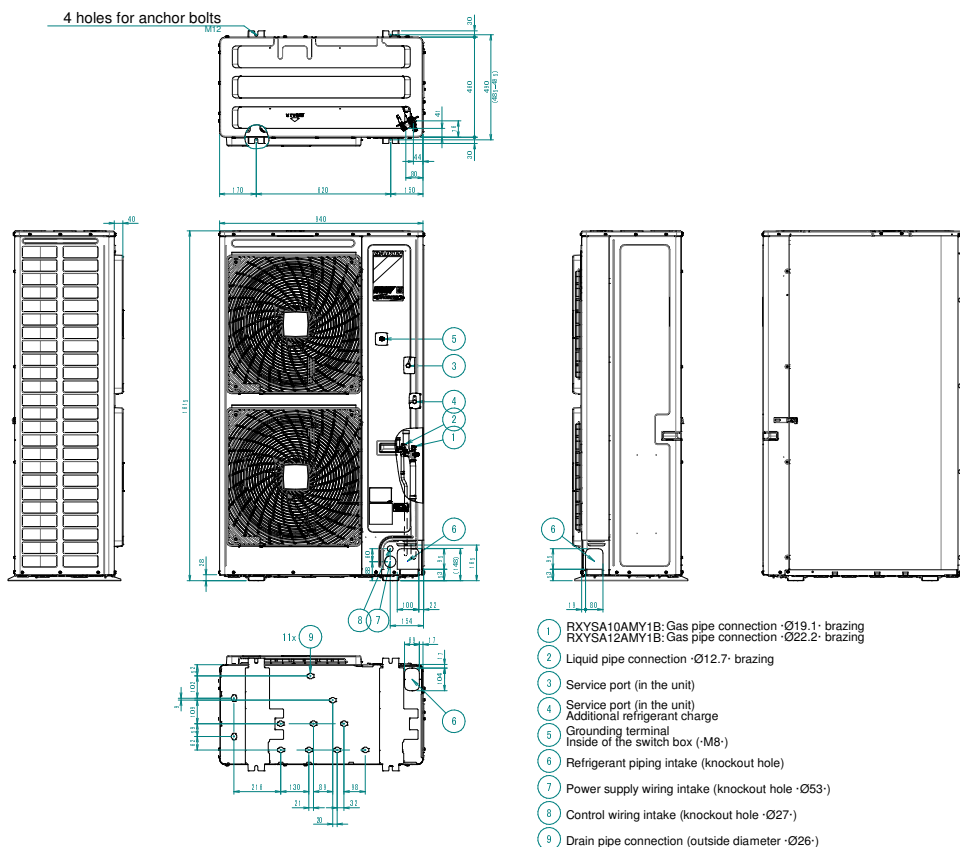
## 6 - 1 Dimensional Drawings

### RXYSA8AY1



2D148029

### RXYSA10-12AY1

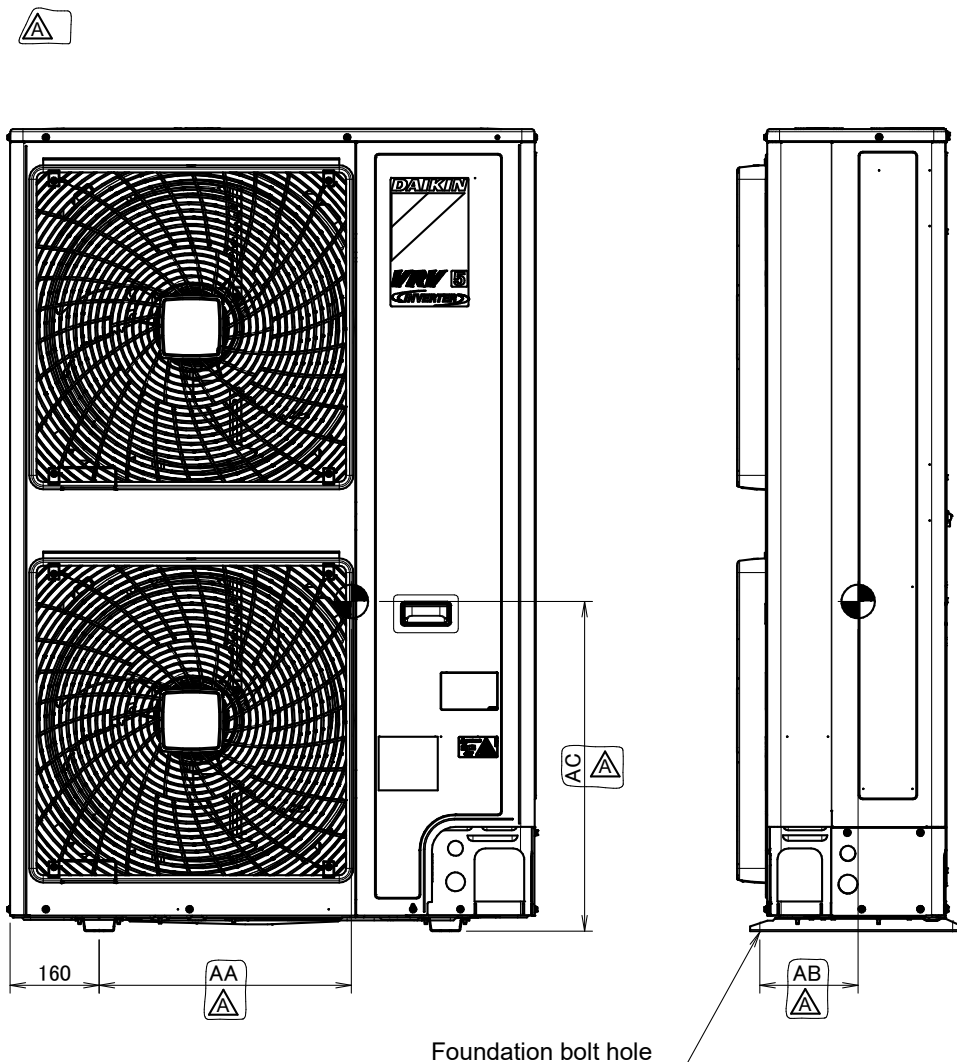


2D148030

# 7 Centre of gravity

## 7 - 1 Centre of Gravity

### RXYSA8A



| Model       | AA  | AB  | AC  |
|-------------|-----|-----|-----|
| RXYSA8AMY1B | 452 | 176 | 590 |
| ERA200AMYFB | 452 | 176 | 590 |

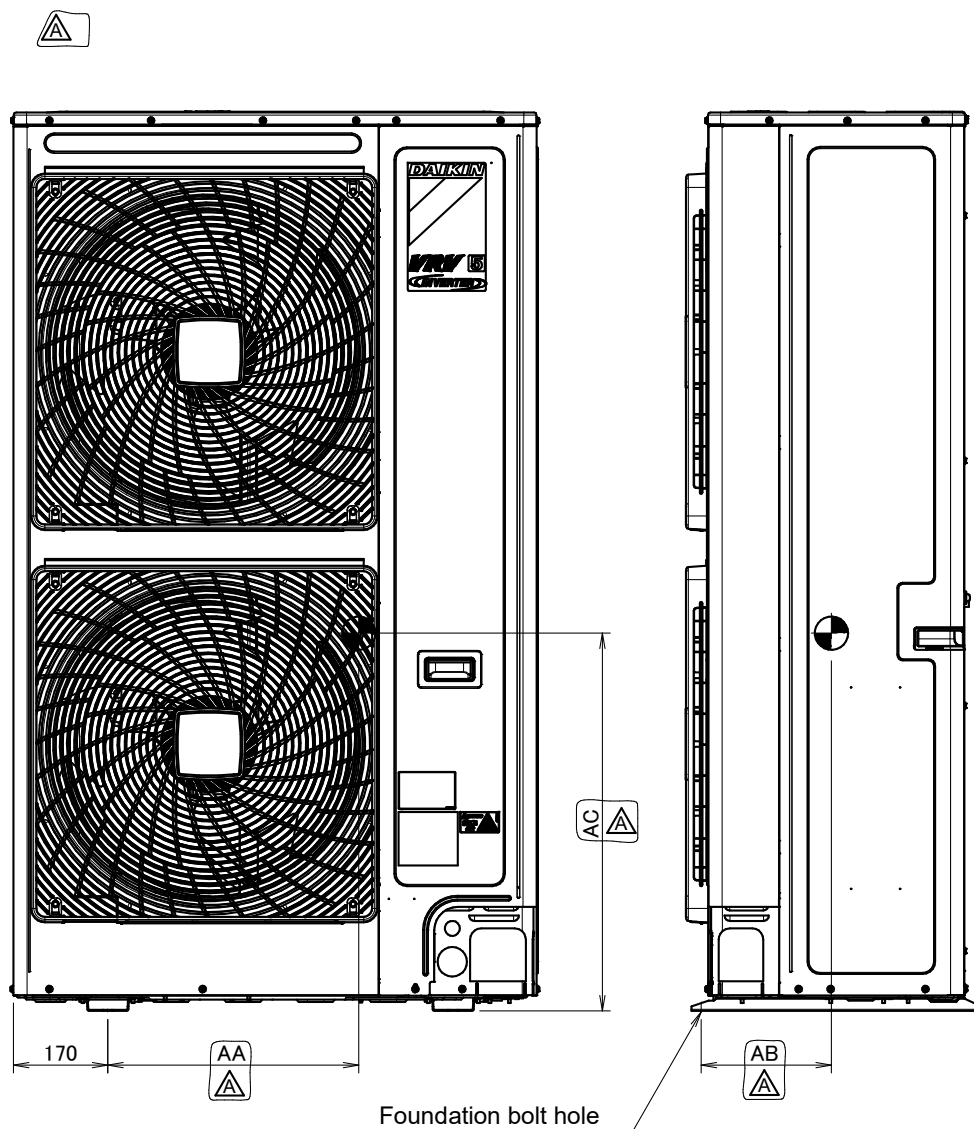
4D148037A

# 7 Centre of gravity

## 7 - 1 Centre of Gravity

**RXYSA10A**

**RXYSA12A**



| Model           | AA  | AB  | AC  |
|-----------------|-----|-----|-----|
| RXYSA10/12AMY1B | 450 | 234 | 678 |
| ERA250/300AMYFB | 450 | 234 | 678 |

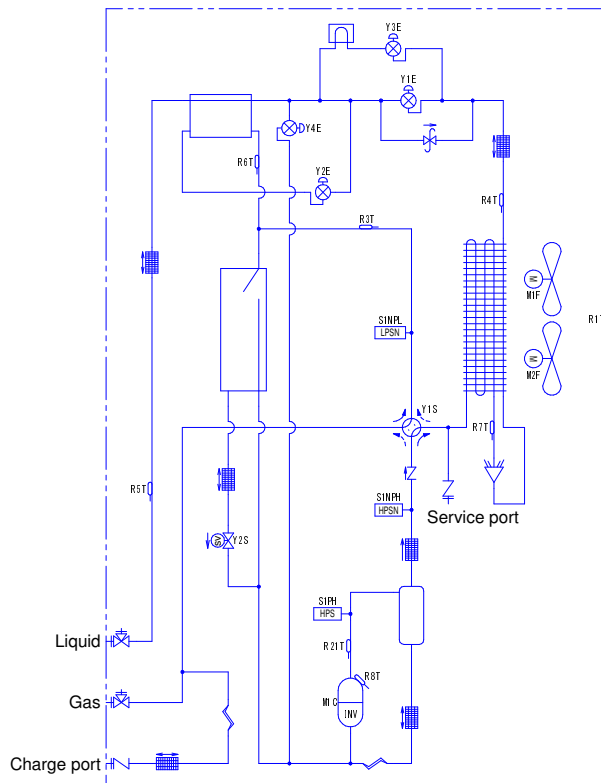
**4D148038A**

# 8 Piping diagrams

## 8 - 1 Piping Diagrams

8

RXYS8AY1

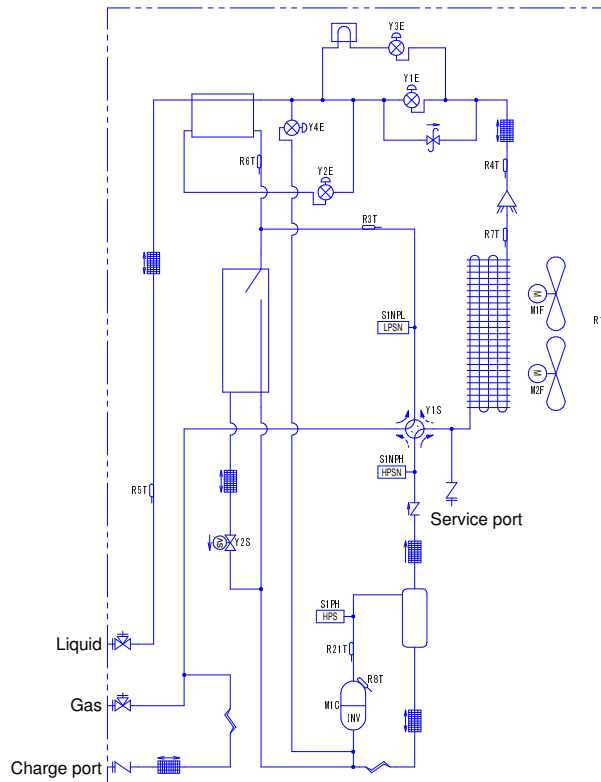


Legend

- Charge port / Service port
- Heat exchanger
- Expansion valve (electronic type)
- Propeller fan
- Oil separator
- Double tube heat exchanger
- High pressure switch
- Pressure relief valve
- Heat sink
- Filter
- 4-way valve
- Accumulator
- Capillary tube
- Low pressure sensor
- High pressure sensor
- Compressor
- Solenoid valve
- Distributor
- Stop valve
- Thermistor
- Check valve
- Cooling
- Heating

3D148027

RXYS10-12AY1



Legend

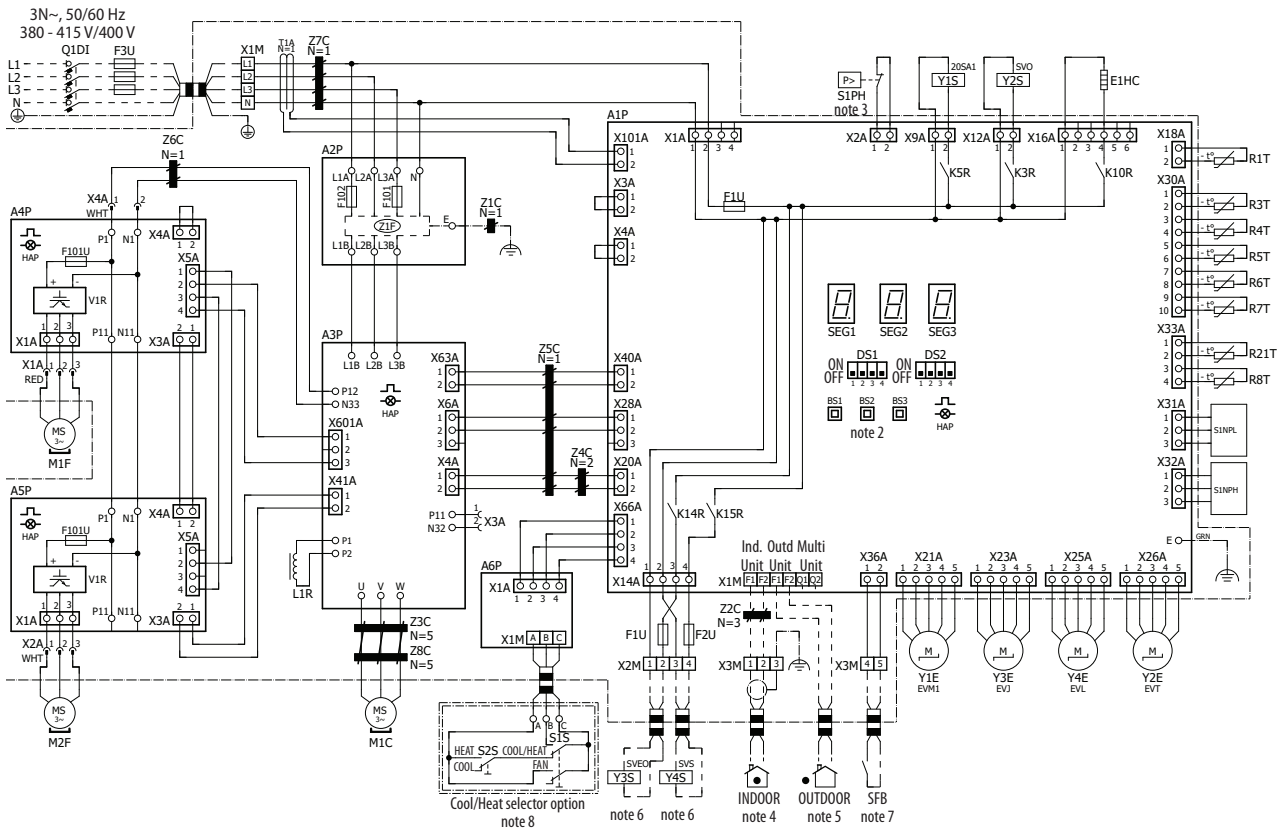
- Charge port / Service port
- Heat exchanger
- Expansion valve (electronic type)
- Propeller fan
- Oil separator
- Double tube heat exchanger
- High pressure switch
- Pressure relief valve
- Heat sink
- Filter
- 4-way valve
- Accumulator
- Capillary tube
- Low pressure sensor
- High pressure sensor
- Compressor
- Solenoid valve
- Distributor
- Stop valve
- Thermistor
- Check valve
- Cooling
- Heating

3D148028

# 9 Wiring diagrams

## 9 - 1 Wiring Diagrams - Three Phase

### RXYS8AY1



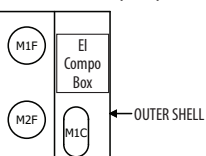
#### NOTES to go through before starting the unit

##### 1. Symbols:

- X1M : Main terminal
- : Earth wiring
- : Field wire
- : Field cable
- : Screened conductor
- ① : Several wiring possibilities
- [ ] : Option
- [ ] : Wiring depending on model
- [ ] : Not mounted in switch box
- [ ] : PCB

- Refer to the installation or service manual on how to use BS1 ~ BS3 push buttons and DS1 ~ DS2 DIP switches.
- Do not operate the unit by short-circuiting protection device S1PH.
- Refer to the installation manual for indoor-outdoor transmission F1-F2 wiring.
- When using the central control system, connect outdoor-outdoor transmission F1-F2.
- The capacity of the contact is 220~240V AC - 0.5A (Rush current needs 3A or less).
- Use dry contact for micro-current (10mA or less, 15V DC).
- When using the optional adapter, refer to the installation manual of the optional adapter.

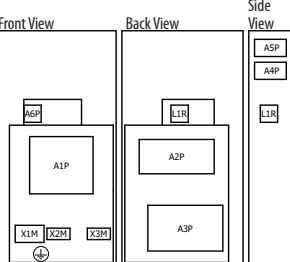
#### LAYOUT OF M1C, M1F, M2F



#### TERMINAL OF M1C



#### POSITION IN SWITCH BOX



#### LEGEND

| Part n°     | Description                                | Part n°    | Description                              |
|-------------|--------------------------------------------|------------|------------------------------------------|
| A1P         | Printed circuit board (main)               | R8T        | Thermistor (M1C body)                    |
| A2P         | Printed circuit board (noise filter)       | R21T       | Thermistor (M1C discharge pipe)          |
| A3P         | Printed circuit board (inverter)           | S1NPH      | High pressure sensor                     |
| A4P, A5P    | Printed circuit board (fan)                | S1NPL      | Low pressure sensor                      |
| A6P         | Printed circuit board (Cool/Heat Selector) | S1PH       | High pressure switch                     |
| BS* (A1P)   | Push button switch                         | S1S        | * Air control switch                     |
| DS* (A1P)   | Dipswitch                                  | S2S        | * Cool / Heat switch                     |
| E1HC        | Crank case heater                          | SEG* (A1P) | 7-segment display                        |
| F1U (A1P)   | Fuse T 10 A 250 V                          | SFB        | # Mechanical ventilation error input     |
| F1U, F2U    | Fuse T 1 A 250 V                           | T1A        | Current sensor                           |
| F101U (A5P) | Fuse                                       | V1R (A4P)  | Power module                             |
| F101U (A4P) | Fuse                                       | V1R (A5P)  | Power module                             |
| F101 (A2P)  | Fuse                                       | X*A        | Connector                                |
| F102 (A2P)  | Fuse                                       | X*M        | Terminal strip                           |
| F3U         | # Field fuse                               | Y1E        | Electronic exp. valve (Heat exch.)       |
| HAP (A*P)   | Running LED (service monitor-green)        | Y2E        | Electronic exp. valve (Subc. heat exch.) |
| K*R (A*P)   | Relay on PCB                               | Y3E        | Electronic exp. valve (Inverter cooling) |
| L1R         | Reactor                                    | Y4E        | Electronic exp. valve (Liquid injection) |
| M1C         | Motor (compressor)                         | Y1S        | Solenoid valve (4-Way valve)             |
| M1F, M2F    | Motor (fan)                                | Y2S        | Solenoid valve (Accu oil return)         |
| Q1DI        | # Earth leakage circuit breaker            | Y3S        | # Error operation output (SVEO)          |
| R1T         | Thermistor (Air)                           | Y4S        | # Leak sensor output (SVS)               |
| R3T         | Thermistor (Suction Accumulator)           | Z*C        | Noise filter (ferrite core)              |
| R4T         | Thermistor (Heat exch. liquid)             | Z1F (A2P)  | Noise filter (with surge absorber)       |
| R5T         | Thermistor (Liquid)                        |            |                                          |
| R6T         | Thermistor (Subcool heat exch. gas)        |            |                                          |
| R7T         | Thermistor (De-icer)                       |            |                                          |

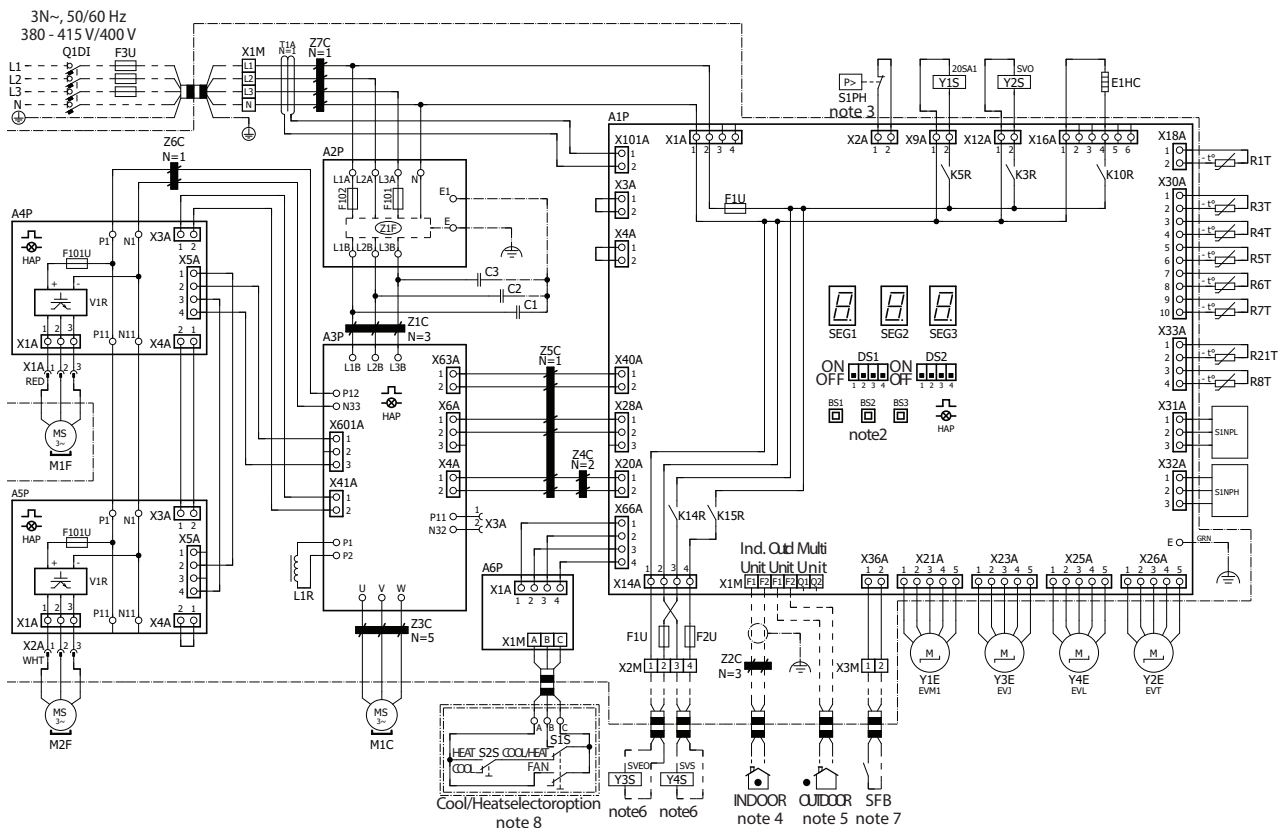
\*: optional

#: field supply

4D148025B

## 9 - 1 Wiring Diagrams - Three Phase

## 9



1. Symbols:

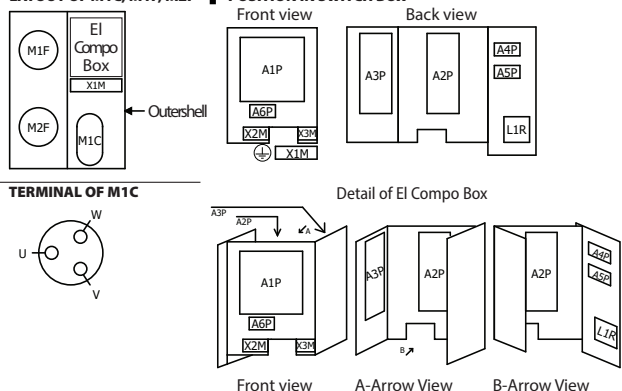
- X1M : Main terminal  
 — — — — — : Earth wiring  
 ————— : Field wire  
 ————— : Field cable  
 ————|——— : Screened conductor  
 ① : Several wiring possibilities

[ ] : Option  
 [ ] : Wiring depending on model  
 [ ] : Not mounted in switch box  
 [ ] : PCB

| Part n°     | Description                                |
|-------------|--------------------------------------------|
| A1P         | Printed circuit board (main)               |
| A2P         | Printed circuit board (noise filter)       |
| A3P         | Printed circuit board (inverter)           |
| A4P, A5P    | Printed circuit board (fan)                |
| A6P         | Printed circuit board (Cool/Heat Selector) |
| BS* (A1P)   | Push button switch                         |
| DS* (A1P)   | Dipswitch                                  |
| E1HC        | Crank case heater                          |
| F1U (A1P)   | Fuse T 10 A 250 V                          |
| F1U, F2U    | Fuse T 1 A 250 V                           |
| F101U (A4P) | Fuse                                       |
| F101U (A5P) | Fuse                                       |
| F101 (A2P)  | Fuse                                       |
| F102 (A2P)  | Fuse                                       |
| F3U         | # Field fuse                               |
| HAP (A*P)   | Running LED (service monitor-green)        |
| K*R (A*P)   | Relay on PCB                               |
| L1R         | Reactor                                    |
| M1C         | Motor (compressor)                         |
| M1F, M2F    | Motor (fan)                                |
| Q1DI        | # Earth leakage circuit breaker            |
| R1T         | Thermistor (Air)                           |
| R3T         | Thermistor (Suction Accumulator )          |
| R4T         | Thermistor (Heat exch. liquid)             |
| R5T         | Thermistor (Liquid)                        |
| R6T         | Thermistor (Subcool heat exch. gas)        |
| R7T         | Thermistor (De-icer)                       |

| Part n°    | Description                              |
|------------|------------------------------------------|
| R8T        | Thermistor (M1C body)                    |
| R21T       | Thermistor (M1C discharge pipe)          |
| S1NPH      | High pressure sensor                     |
| S1NPL      | Low pressure sensor                      |
| S1PH       | High pressure switch                     |
| S1S        | * Air control switch                     |
| S2S        | * Cool / Heat switch                     |
| SEG* (A1P) | 7-segment display                        |
| SFB        | # Mechanical ventilation error input     |
| T1A        | Current sensor                           |
| V1R (A4P)  | Power module                             |
| V1R (A5P)  | Power module                             |
| X*A        | Connector                                |
| X*M        | Terminal strip                           |
| Y1E        | Electronic exp. valve (Heat exch.)       |
| Y2E        | Electronic exp. valve (Subc. heat exch.) |
| Y3E        | Electronic exp. valve (Inverter cooling) |
| Y4E        | Electronic exp. valve (Liquid injection) |
| Y1S        | Solenoid valve (4-Way valve)             |
| Y2S        | Solenoid valve (Accu oil return)         |
| Y3S        | # Error operation output (SVEO)          |
| Y4S        | # Leak sensor output (SVS)               |
| Z*C        | Noise filter (ferrite core)              |
| Z1F (A2P)  | Noise filter (with surge absorber)       |

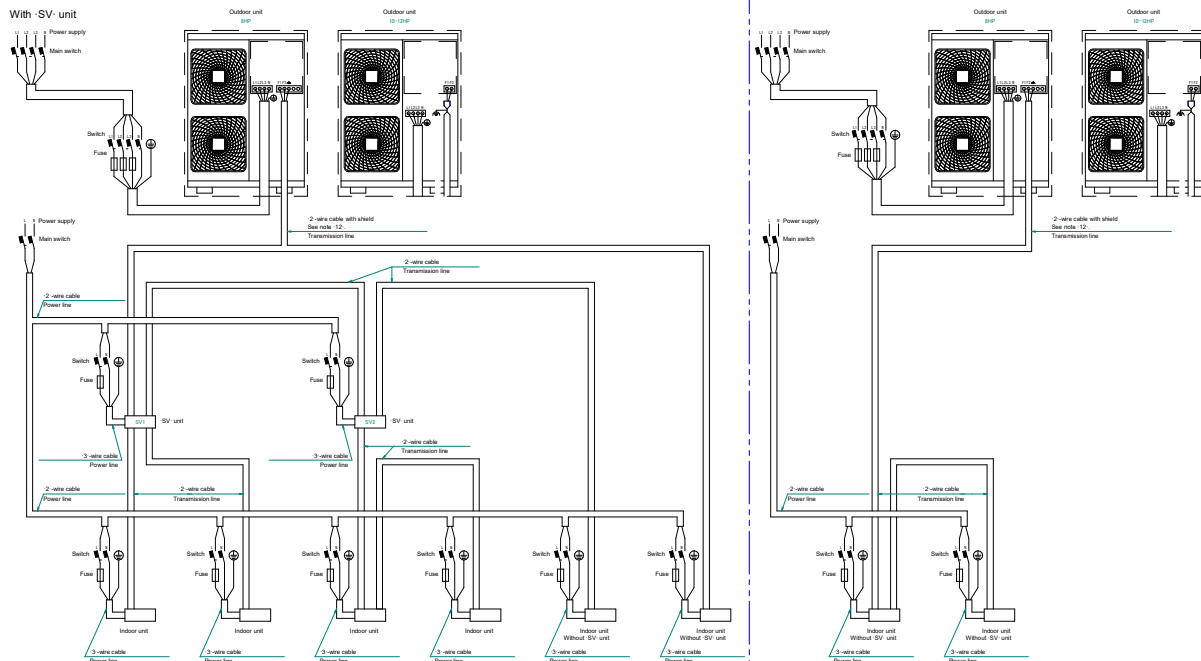
\*: optional                      #: field supply

**POSITION IN SWITCH BOX**

# 10 External connection diagrams

## 10 - 1 External Connection Diagrams

### RXYSA8-12AY1



#### Notes

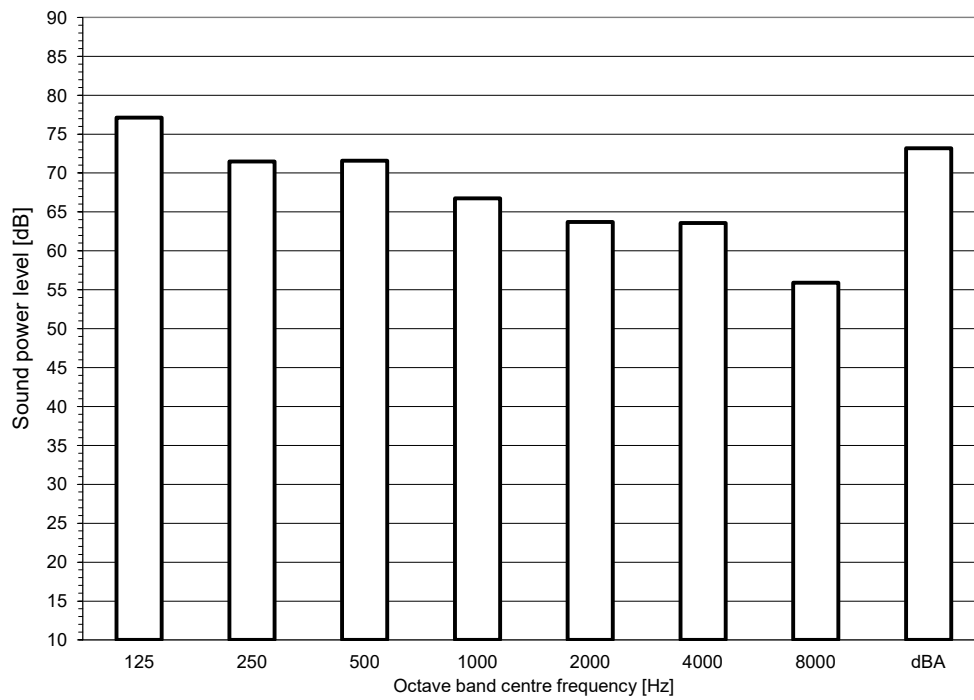
1. All wiring, components and materials to be procured on-site must comply with the applicable legislation.
2. Use copper conductors only.
3. For more details, refer to the wiring diagram of the unit.
4. Install a circuit breaker for safety.
5. All field wiring and components must be provided by an authorised electrician.
6. Unit has to be grounded in compliance with the applicable legislation.
7. The wiring shown is a general points-of-connection guide and is not intended to include all details for a specific installation.
8. Make sure to install the switch and the fuse to the power line of each equipment.
9. Install a main switch to (if necessary) immediately interrupt all the system's power sources.
10. If there exists the possibility of reversed phase, loose phase or momentary blackout, or if the power goes on and off while the product is operating, attach a reversed phase protection circuit locally.
11. Running the product in reversed phase may break the compressor and other parts.
12. Install an earth leakage circuit breaker.
13. See outdoor unit manual for shielding the -F1F2- wire.

1D148054

# 11 Sound data

## 11 - 1 Sound Power Spectrum - Cooling

RYSA8AY1

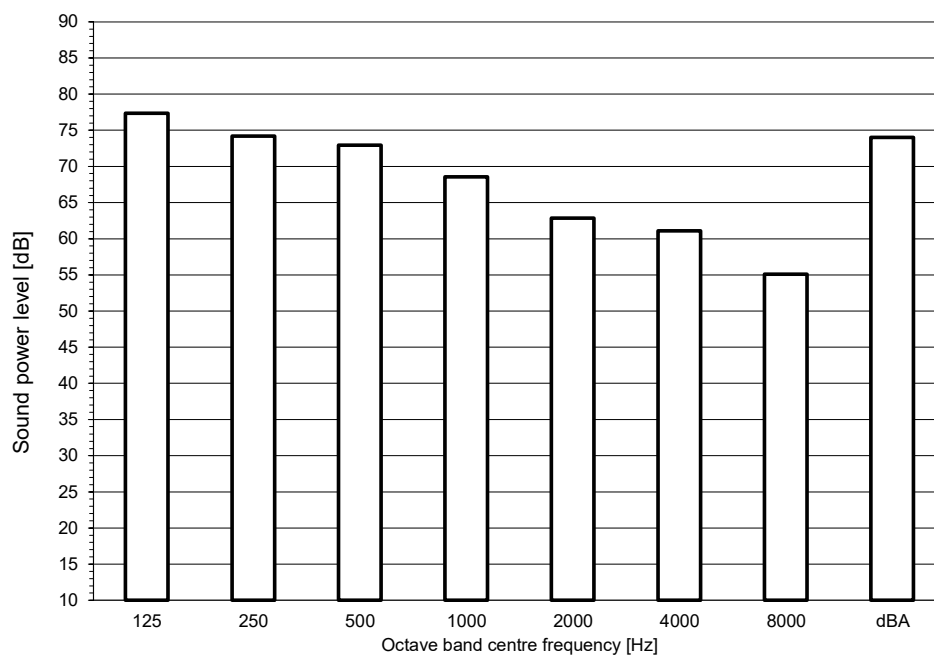
Cooling  
Sound power


### Notes

- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity 0dB =  $10^{-12}$  W
- Measured according to ISO 3744

3D148045

RYSA10AY1

Cooling  
Sound power


### Notes

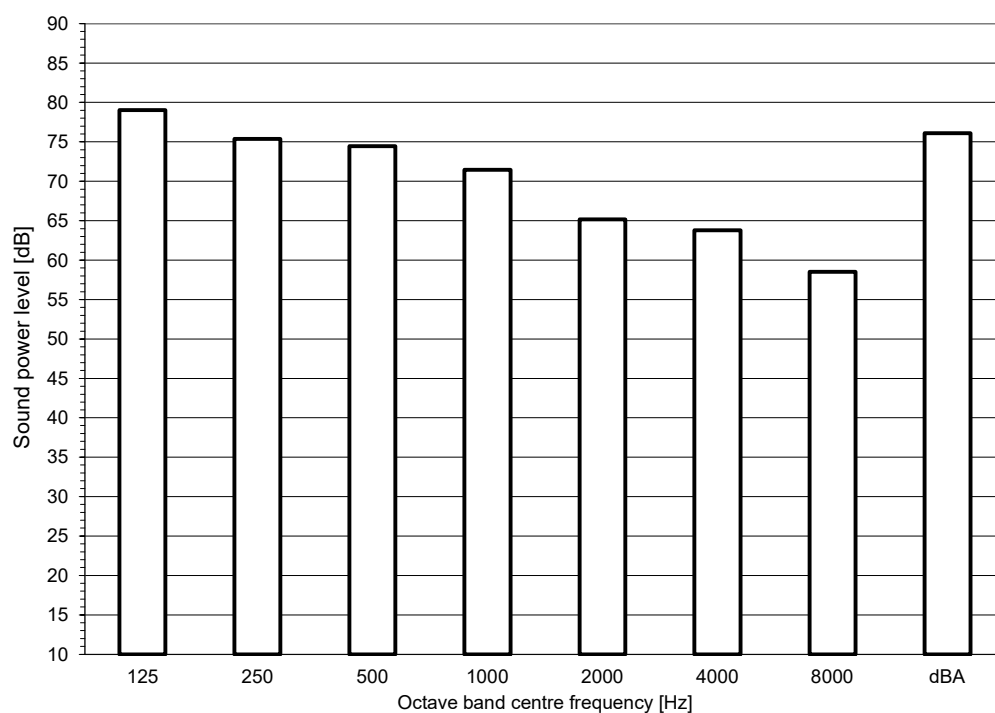
- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity 0dB =  $10^{-12}$  W
- Measured according to ISO 3744

3D148046

# 11 Sound data

## 11 - 1 Sound Power Spectrum - Cooling

RXYSA12AY1

Cooling  
Sound power


### Notes

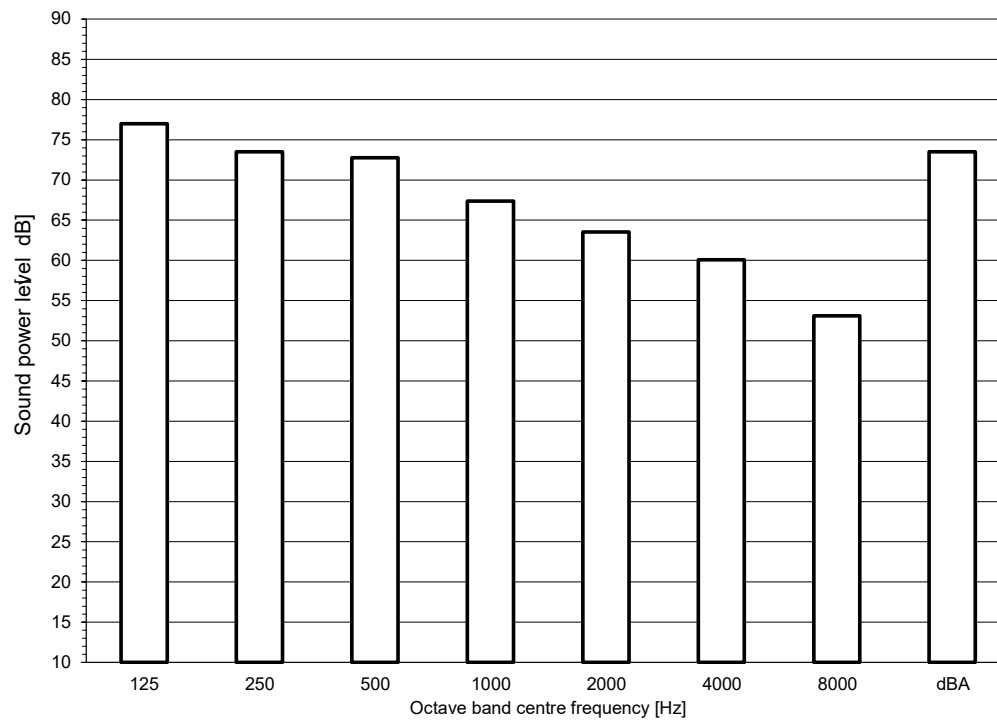
- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity 0dB =  $10^{-12}$  W
- Measured according to ISO 3744

3D148047

# 11 Sound data

## 11 - 2 Sound Power Spectrum - Heating

RXYSA8AY1

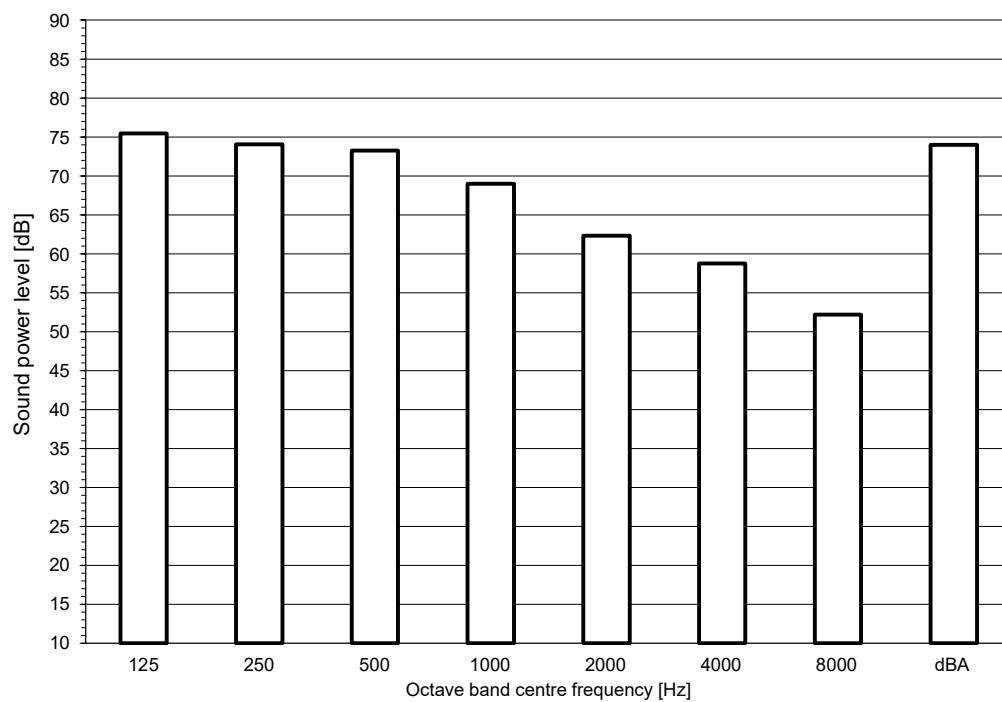
Heating  
Sound power


### Notes

- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity  $0\text{ dB} = 10^{-12} \text{ W}$ .
- Measured according to ISO 3744

3D148045

RXYSA10AY1

Heating  
Sound power


### Notes

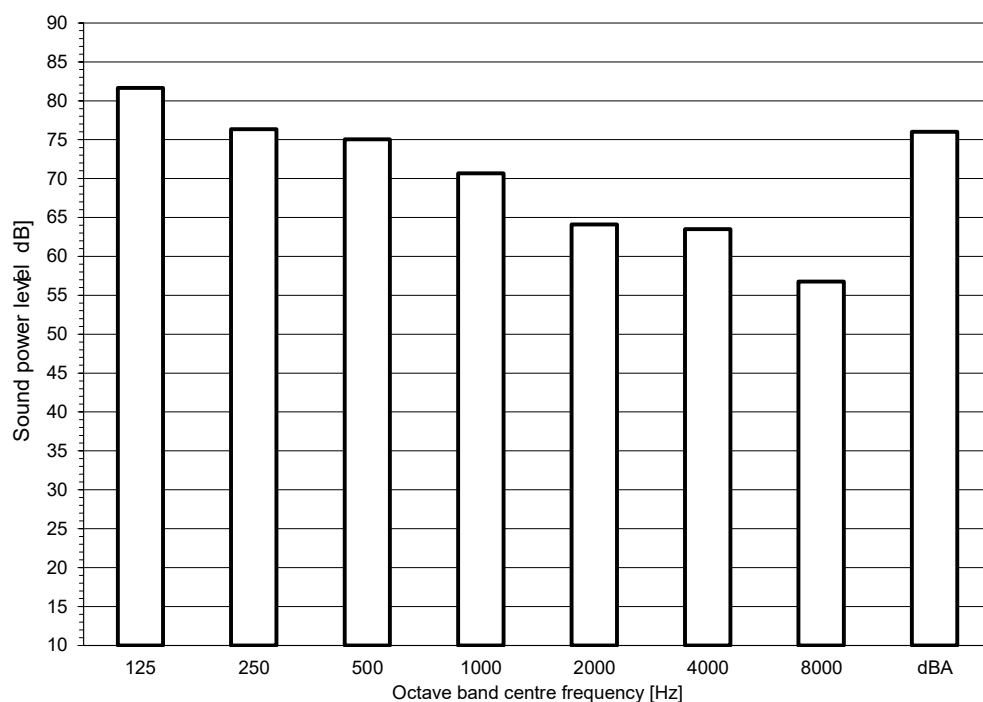
- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity  $0\text{ dB} = 10^{-12} \text{ W}$ .
- Measured according to ISO 3744

3D148046

# 11 Sound data

## 11 - 2 Sound Power Spectrum - Heating

RXYSA12AY1

Heating  
Sound power


### Notes

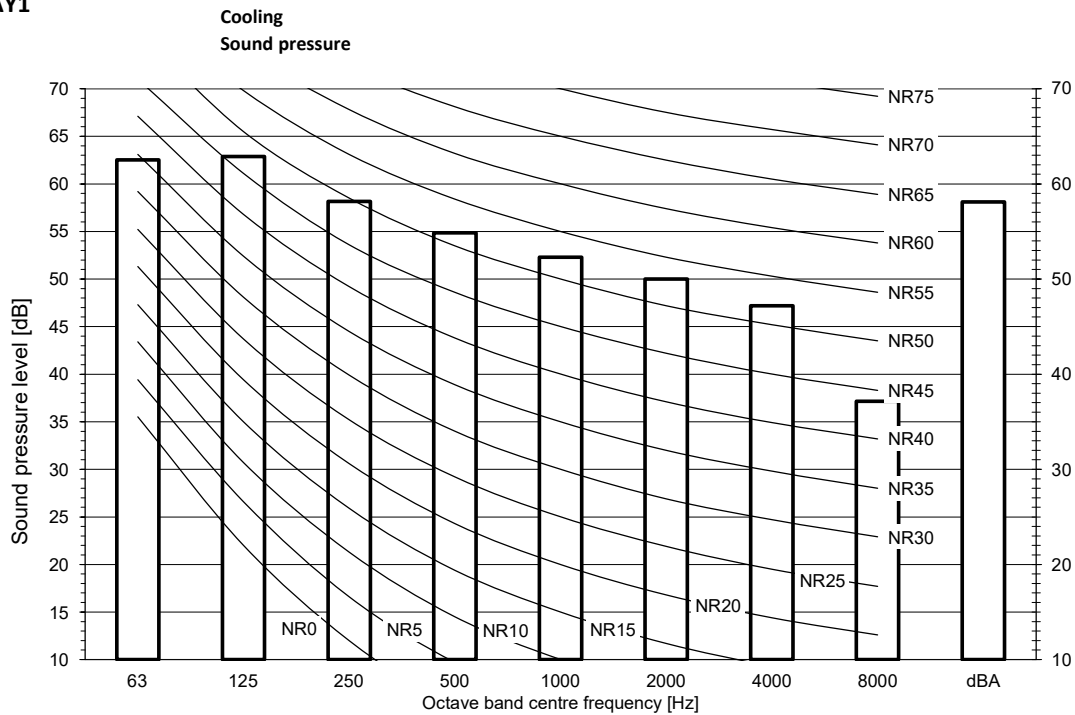
- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity 0dB =  $10^{-12}$  W.
- Measured according to ISO 3744

3D148047

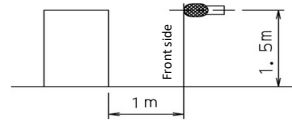
# 11 Sound data

## 11 - 3 Sound Pressure Spectrum - Cooling

RXYSA8AY1

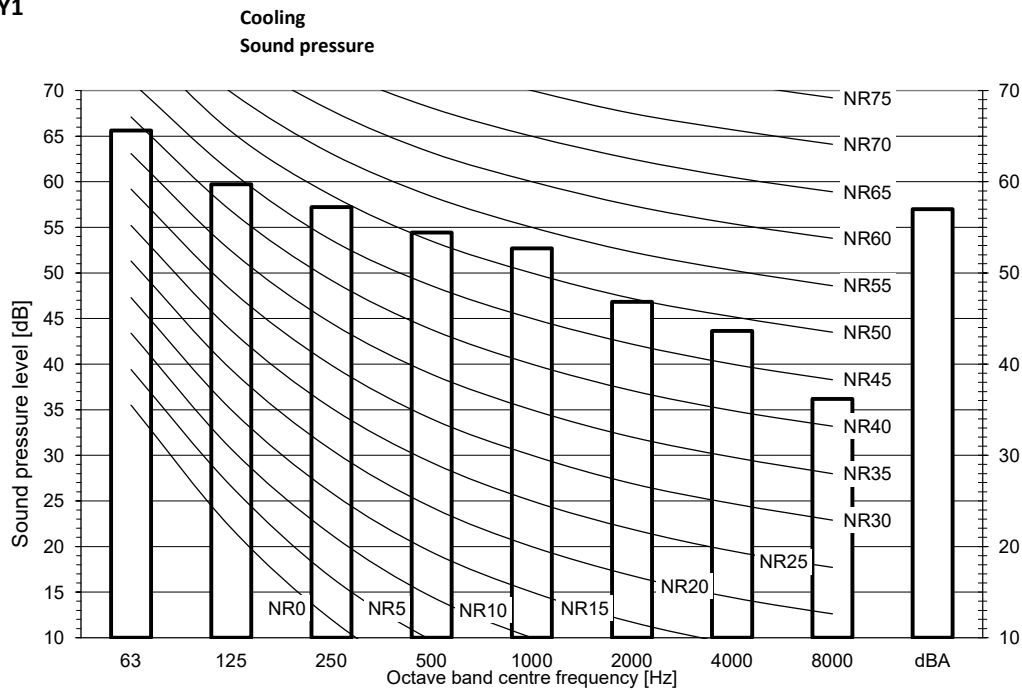


- Notes
- Data is valid at free field condition.
  - Data is valid at nominal operation condition.
  - dBA = A-weighted sound pressure level (A scale according to IEC).
  - Reference acoustic pressure 0 dB = 20  $\mu$ Pa

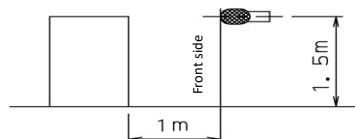


3D148045

RXYSA10AY1



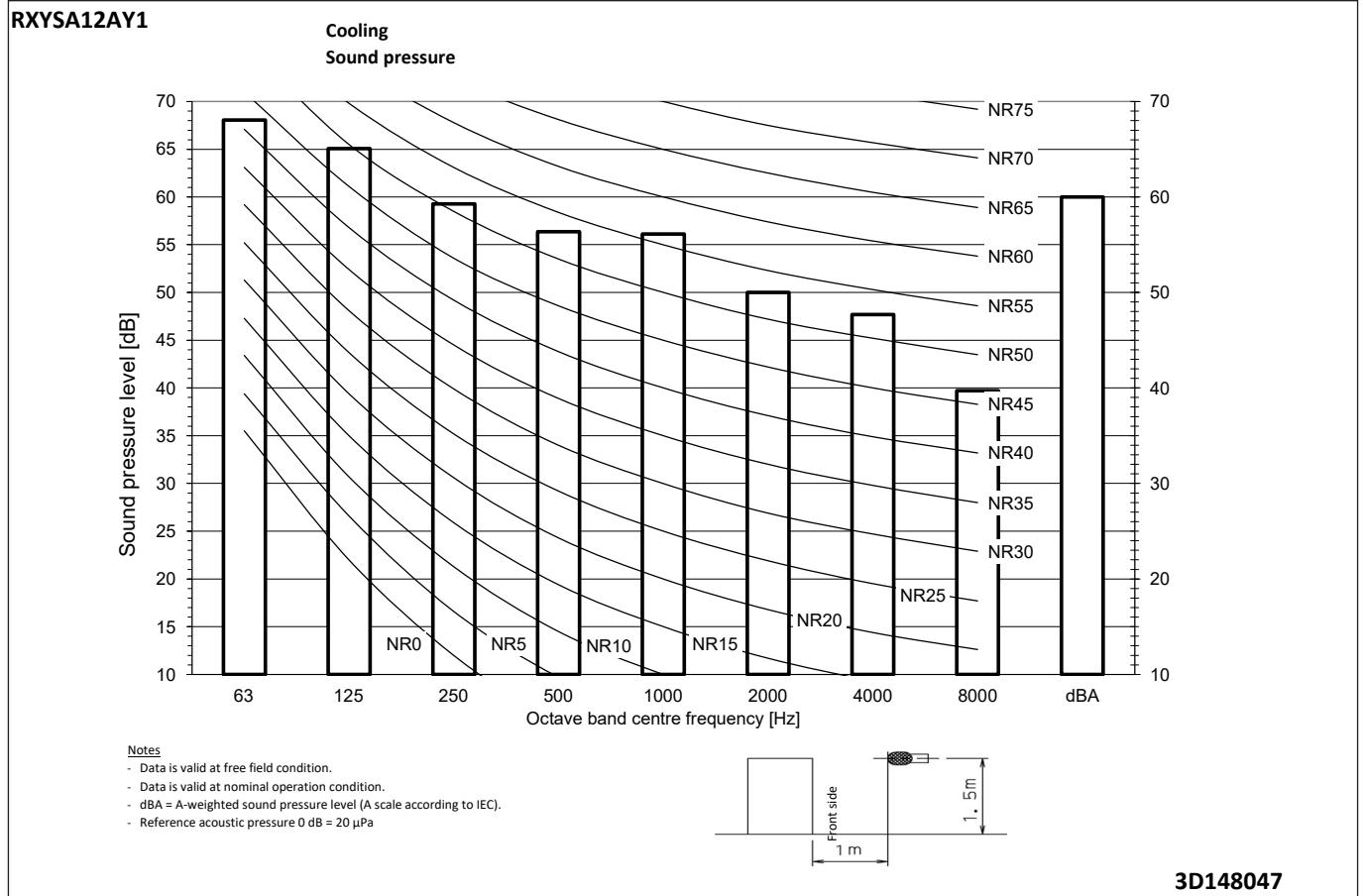
- Notes
- Data is valid at free field condition.
  - Data is valid at nominal operation condition.
  - dBA = A-weighted sound pressure level (A scale according to IEC).
  - Reference acoustic pressure 0 dB = 20  $\mu$ Pa



3D148046

# 11 Sound data

## 11 - 3 Sound Pressure Spectrum - Cooling

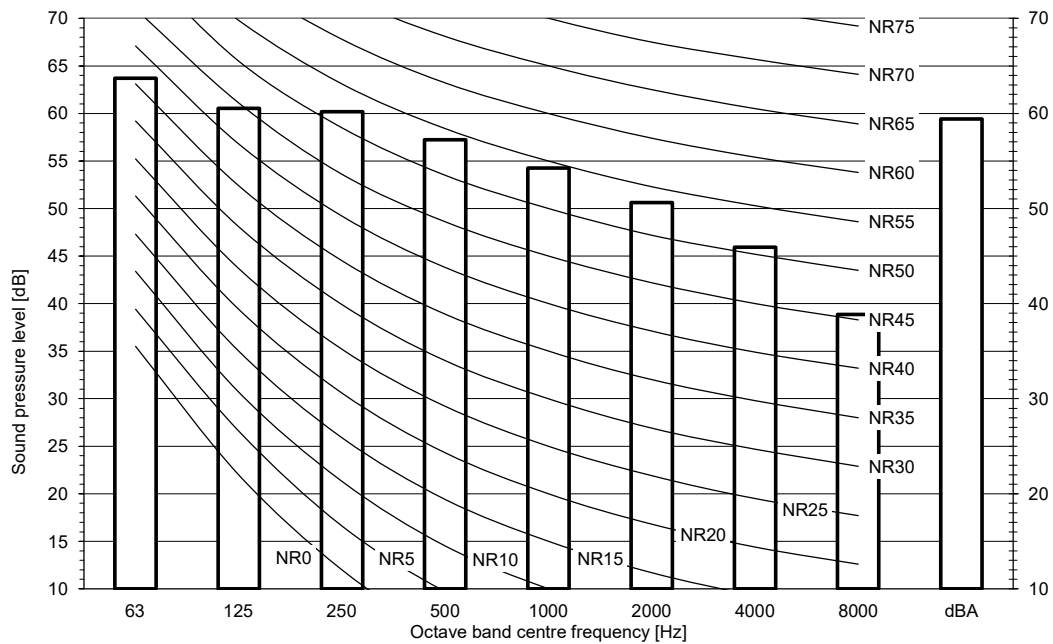


# 11 Sound data

## 11 - 4 Sound Pressure Spectrum - Heating

RXYSA8AY1

Heating  
Sound pressure



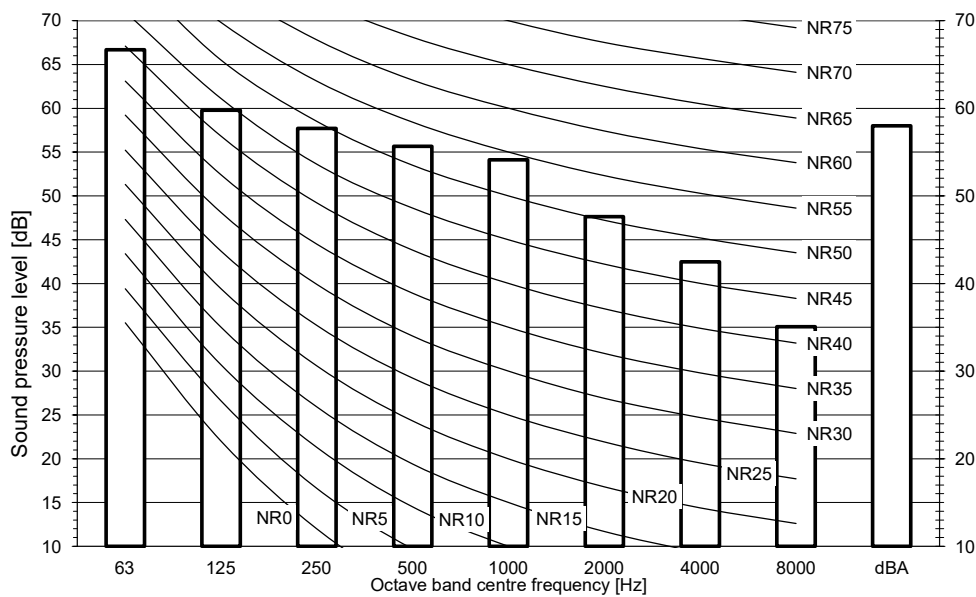
**Notes**

- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20  $\mu$ Pa

3D148045

RXYSA10AY1

Heating  
Sound pressure



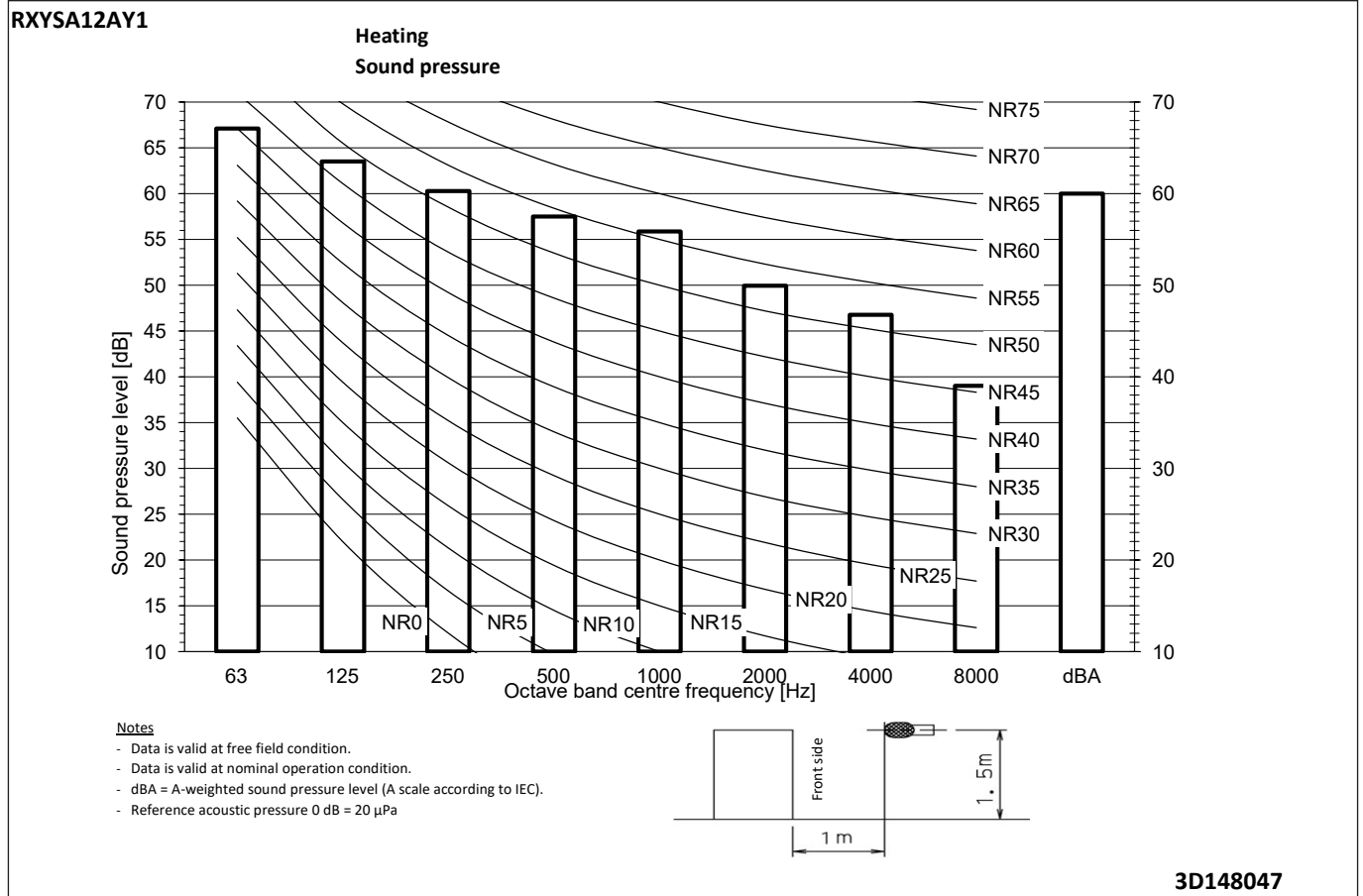
**Notes**

- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20  $\mu$ Pa

3D148046

# 11 Sound data

## 11 - 4 Sound Pressure Spectrum - Heating



# 11 Sound data

## 11 - 5 Sound Pressure Spectrum Quiet Mode

### RXYSA8-12AY1

11

#### Mini VRV 5 - S Heat pump Low noise data (level ·1-5·)

|     | Capacity ratio |
|-----|----------------|
| LN1 | 90%            |
| LN2 | 75%            |
| LN3 | 60%            |
| LN4 | 45%            |
| LN5 | 30%            |

| 8HP | Cooling           |                      | Heating           |                      |
|-----|-------------------|----------------------|-------------------|----------------------|
|     | Sound power [dBA] | Sound pressure [dBA] | Sound power [dBA] | Sound pressure [dBA] |
| LN1 | 70.8              | 56.1                 | 70.7              | 56.6                 |
| LN2 | 66.0              | 51.0                 | 66.0              | 51.5                 |
| LN3 | 62.0              | 46.0                 | 62.0              | 46.5                 |
| LN4 | 58.0              | 41.0                 | 58.0              | 42.0                 |
| LN5 | 54.0              | 37.0                 | 54.0              | 38.0                 |

| 10HP | Cooling           |                      | Heating           |                      |
|------|-------------------|----------------------|-------------------|----------------------|
|      | Sound power [dBA] | Sound pressure [dBA] | Sound power [dBA] | Sound pressure [dBA] |
| LN1  | 71.0              | 54.0                 | 71.0              | 56.0                 |
| LN2  | 66.0              | 49.0                 | 67.0              | 52.0                 |
| LN3  | 62.0              | 44.0                 | 63.1              | 48.0                 |
| LN4  | 59.0              | 40.0                 | 59.0              | 44.0                 |
| LN5  | 56.0              | 36.0                 | 55.0              | 39.0                 |

| 12HP | Cooling           |                      | Heating           |                      |
|------|-------------------|----------------------|-------------------|----------------------|
|      | Sound power [dBA] | Sound pressure [dBA] | Sound power [dBA] | Sound pressure [dBA] |
| LN1  | 74.1              | 57.6                 | 74.0              | 58.0                 |
| LN2  | 70.0              | 53.0                 | 71.0              | 55.0                 |
| LN3  | 65.5              | 48.0                 | 68.0              | 52.0                 |
| LN4  | 61.5              | 43.0                 | 64.0              | 48.0                 |
| LN5  | 57.5              | 39.0                 | 59.0              | 43.0                 |

LN1: Low noise level ·1·  
LN2: Low noise level ·2·  
LN3: Low noise level ·3·  
LN4: Low noise level ·4·  
LN5: Low noise level ·5·

4D148044

# 11 Sound data

## 11 - 5 Sound Pressure Spectrum Quiet Mode

### RXYSA8-12AY1

#### Notes

##### Sound power

dBA = A-weighted sound power level (A scale according to IEC).

Reference acoustic intensity 0dB =  $10^{-12}$  W/m<sup>2</sup>

Measured according to ISO 3744

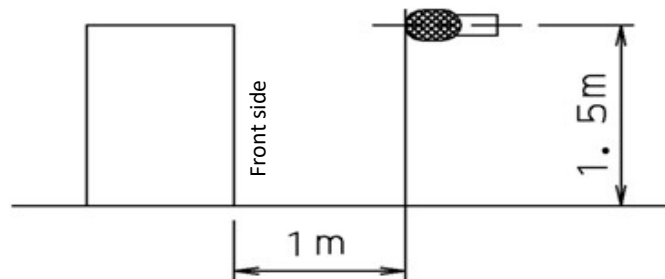
##### Sound pressure

Data is valid at free field condition.

Data is valid at nominal operation condition.

dBA = A-weighted sound pressure level (A scale according to IEC).

Reference acoustic pressure 0 dB = 20 μPa



4D148044

# 11 Sound data

## 11 - 6 Sound power spectrum at high ESP

11

RXYSA-AY1

**VRV5-S**  
**Heat pump**  
**High ESP**

| 4HP  | Cooling           | Heating           |
|------|-------------------|-------------------|
|      | Sound power [dBA] | Sound power [dBA] |
| ESP1 | 70                | 72                |
| ESP2 | 75                | 77                |

| 5HP  | Cooling           | Heating           |
|------|-------------------|-------------------|
|      | Sound power [dBA] | Sound power [dBA] |
| ESP1 | 71                | 76                |
| ESP2 | 75                | 77                |

| 6HP  | Cooling           | Heating           |
|------|-------------------|-------------------|
|      | Sound power [dBA] | Sound power [dBA] |
| ESP1 | 71                | 78                |
| ESP2 | 75                | 78                |

| 8HP  | Cooling           | Heating           |
|------|-------------------|-------------------|
|      | Sound power [dBA] | Sound power [dBA] |
| ESP1 | 73,2              | 73,5              |

| 10HP | Cooling           | Heating           |
|------|-------------------|-------------------|
|      | Sound power [dBA] | Sound power [dBA] |
| ESP1 | 76,1              | 76                |

| 12HP | Cooling           | Heating           |
|------|-------------------|-------------------|
|      | Sound power [dBA] | Sound power [dBA] |
| ESP1 | 76,1              | 76                |

Sound power is measured on a freestanding unit.  
Actual sound is depending on the installation of the duct.

4D127882A

# 12 Installation

## 12 - 1 Installation Method

### RXYSA8-12AY1

Single unit  | Single row of units 

#### Suction side

In the illustration below, the service space at the suction side is based on 35°C DB and cooling operation. Foresee more space in the following cases:

- When the suction side temperature regularly exceeds this temperature.
- When the heat load of the outdoor units is expected to regularly exceed the maximum operating capacity.

#### Discharge side

Take refrigerant piping work into account when positioning the units. If your layout does not match with any of the layouts below, contact your dealer.

Single unit  | Single row of units 

| A~E     | $H_B, H_D, H_U$                 | (mm)                            |            |             |             |              |            |            |
|---------|---------------------------------|---------------------------------|------------|-------------|-------------|--------------|------------|------------|
|         |                                 | a                               | b          | c           | d           | e            | $e_B$      | $e_D$      |
| B       | -                               |                                 | $\geq 100$ |             |             |              |            |            |
| A,B,C   | -                               | $\geq 100^{(1)}$                | $\geq 100$ | $\geq 100$  |             |              |            |            |
| B,E     | -                               |                                 | $\geq 100$ |             |             | $\geq 1,000$ |            | $\leq 500$ |
| A,B,C,E | -                               | $\geq 150^{(1)}$                | $\geq 150$ | $\geq 150$  |             | $\geq 1,000$ |            | $\leq 500$ |
| D       | -                               |                                 |            |             | $\geq 500$  |              |            |            |
| D,E     | -                               |                                 |            |             | $\geq 1000$ | $\geq 1,000$ | $\leq 500$ |            |
| B,D     | -                               |                                 | $\geq 100$ |             | $\geq 1000$ |              |            |            |
| B,D,E   | $H_B < H_D$                     | $H_B \leq \frac{1}{2}H_U$       | $\geq 250$ |             | $\geq 1000$ | $\geq 1,000$ | $\leq 500$ |            |
|         |                                 | $\frac{1}{2}H_U > H_B \leq H_D$ | $\geq 250$ |             | $\geq 1250$ | $\geq 1,000$ | $\leq 500$ |            |
|         |                                 | $H_D > H_U$                     | ⊘          |             |             |              |            |            |
|         | $H_B > H_D$                     | $H_D \leq \frac{1}{2}H_U$       | $\geq 100$ |             | $\geq 1000$ | $\geq 1000$  |            | $\leq 500$ |
|         |                                 | $\frac{1}{2}H_U < H_D \leq H_U$ | $\geq 200$ |             | $\geq 1000$ | $\geq 1000$  |            | $\leq 500$ |
|         |                                 | $H_D > H_U$                     | $\geq 200$ |             | $\geq 1700$ | $\geq 1000$  |            | $\leq 500$ |
| A,B,C   | -                               | $\geq 200^{(1)}$                | $\geq 300$ | $\geq 1000$ |             |              |            |            |
| A,B,C,E | -                               | $\geq 200^{(1)}$                | $\geq 300$ | $\geq 1000$ |             | $\geq 1000$  |            | $\leq 500$ |
| D       | -                               |                                 |            |             | $\geq 1000$ |              |            |            |
| D,E     | -                               |                                 |            |             | $\geq 1000$ | $\geq 1000$  | $\leq 500$ |            |
| B,D     | $H_D > H_U$                     |                                 | $\geq 300$ |             | $\geq 1000$ |              |            |            |
|         | $H_D \leq \frac{1}{2}H_U$       |                                 | $\geq 250$ |             | $\geq 1500$ |              |            |            |
|         | $\frac{1}{2}H_U < H_D \leq H_U$ |                                 | $\geq 300$ |             | $\geq 1500$ |              |            |            |
| B,D,E   | $H_B < H_D$                     | $H_B \leq \frac{1}{2}H_U$       | $\geq 300$ |             | $\geq 1000$ | $\geq 1000$  | $\leq 500$ |            |
|         |                                 | $\frac{1}{2}H_U > H_B \leq H_D$ | $\geq 300$ |             | $\geq 1250$ | $\geq 1000$  | $\leq 500$ |            |
|         |                                 | $H_D > H_U$                     | ⊘          |             |             |              |            |            |
|         | $H_B > H_D$                     | $H_D \leq \frac{1}{2}H_U$       | $\geq 250$ |             | $\geq 1500$ | $\geq 1000$  |            | $\leq 500$ |
|         |                                 | $\frac{1}{2}H_U < H_D \leq H_U$ | $\geq 300$ |             | $\geq 1500$ | $\geq 1000$  |            | $\leq 500$ |
|         |                                 | $H_D > H_U$                     | $\geq 300$ |             | $\geq 2200$ | $\geq 1000$  |            | $\leq 500$ |

1

1+2

(1) For better serviceability, use a distance  $\geq 250$  mm

A,B,C,D Obstacles (walls/baffle plates)

E Obstacle (roof)

a,b,c,d,e Minimum service space between the unit and obstacles A, B, C, D and E

$e_B$  Maximum distance between the unit and the edge of obstacle E, in the direction of obstacle B

$e_D$  Maximum distance between the unit and the edge of obstacle E, in the direction of obstacle D

$H_U$  Height of the unit

$H_B, H_D$  Height of obstacles B and D

1 Seal the bottom of the installation frame to prevent discharged air from flowing back to the suction side through the bottom of the unit.

2 Maximum two units can be installed.

⊘ Not allowed

1D148060



# 12 Installation

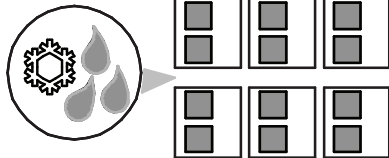
## 12 - 1 Installation Method

### RXYSA8-12AY1

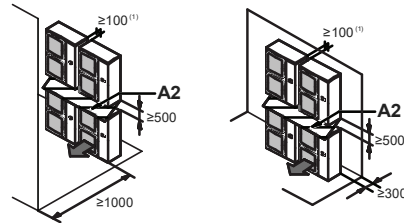
Stacked units (max.2 levels) 

Stacked units (max.2 levels) 

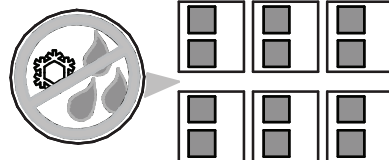
A1



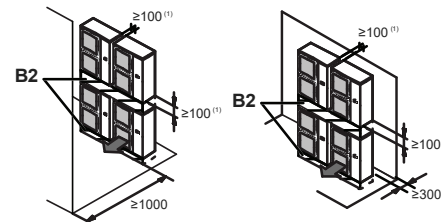
A2



B1



B2



(1) For better serviceability, use a distance  $\geq 250$  mm

A1=>A2 (A1) If there is danger of drainage dripping and freezing between the upper and lower units...

(A2) Then install a roof between the upper and lower units. Install the upper unit high enough above the lower unit to prevent ice buildup at the upper unit's bottom plate.

B1=>B2 (B1) If there is no danger of drainage dripping and freezing between the upper and lower units...

(B2) Then it is not required to install a roof, but seal the gap between the upper and lower units to prevent discharged air from flowing back to the suction side through the bottom of the unit.

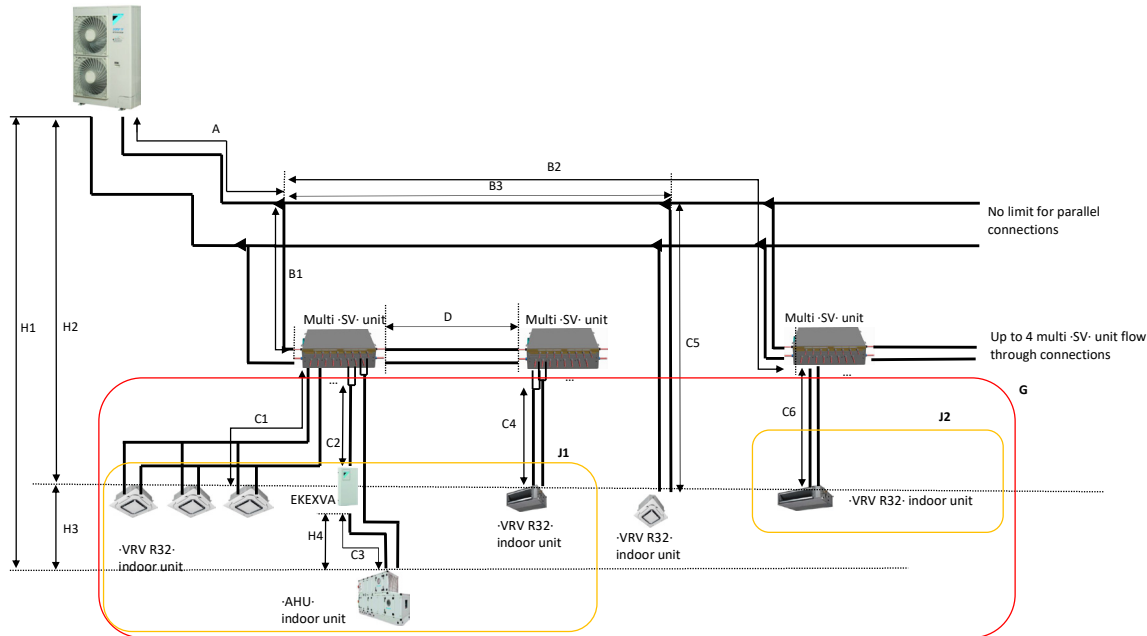
1D148060

# 12 Installation

## 12 - 2 Refrigerant Pipe Selection

### RXYSAS-12AY1

12



3D148055

### RXYSAS-12AY1

#### VRV5-S Heat pump Piping restrictions

|                                                         | Total                |                              |                                             | Allowed capacity                                                       |                         |
|---------------------------------------------------------|----------------------|------------------------------|---------------------------------------------|------------------------------------------------------------------------|-------------------------|
|                                                         | Capacity             | Maximum indoor unit quantity | Maximum total indoor capacity BHP/10HP/12HP | Maximum downstream number of ports – flow through connection -SV- unit | VRV DX indoor unit      |
|                                                         |                      | (*)                          | [G]                                         | [J1], [J2]                                                             | Air handling unit (AHU) |
| VRV R32 DX indoor units only                            | 50 ~ 130%            | 39                           | 260/325/390                                 | 16                                                                     | 50 ~ 130%               |
| AHU only (EKEKVA + EKEACBVE) Pair (*)                   | 65/75 ~ 110%(*3)(*4) | 6 (*2)(*6)                   | 220/275/330                                 | 16                                                                     | -                       |
| AHU only (EKEKVA + EKEACBVE) Multi (*)                  | 65/75 ~ 110%(*3)(*4) | 6 (*2)(*6)                   | 220/275/330                                 | 16                                                                     | 65/75 ~ 110%(*3)(*4)    |
| VRV R32 DX indoor unit + AHU(EKEKVA + EKEACBVE) Mix (*) | 50 ~ 110% (*3)       | 29 (*2)(*7)                  | 220/275/330                                 | 16                                                                     | 50 ~ 110%               |

#### Notes

- Excluding -SV- units and including -EKEKVA- kits.
- For connection with -AHU-  
-EKEKVA- kits are also considered indoor units.
- Restrictions regarding the air handling unit capacity.
- 75% ≤ Capacity ≤ 110%: default situation  
-65% ≤ Capacity < 75%: Allowed if stricter AHU volume limitations are valid.  
Refer to the databook of -EKEACBVE- for details.
- Pair AHU = system with 1 air handling unit connected to one outdoor unit system  
Mixed AHU = mix of AHU units and -VRV R32 DX- indoor units connected to one outdoor unit system
- Number of AHUs that can be connected in case of pair or multi layout depends on the control types:  
-X- control is possible (up to 3 - [(EKEKVA+EKEACBVE)- boxes] can be connected to one outdoor unit (system)).  
-Y- control is possible (up to 3 - [(EKEKVA+EKEACBVE)- boxes] can be connected to one outdoor unit (system)).  
-W- control is possible (up to 3 - [(EKEKVA+EKEACBVE)- boxes] can be connected to one outdoor unit (system)).  
-Z- control is possible (the allowed number of [(EKEKVA + EKEACBVE)- boxes] is determined by the connection ratio and the capacity of the outdoor unit).
- Maximum indoor unit quantity is based upon combination of one minimum AHU class in combination of multiple minimum DX indoor class.

#### About ventilation applications

- Biddle- air curtains are considered air handling units, following air handling unit limitations.  
For more information on the operation range, refer to the documentation of -Biddle- unit.
- EKEKVA + EKEACBVE- units combined with an air handling unit are considered air handling units, following air handling unit limitations.  
For more information on the operation range, refer to the documentation of -EKEKVA + EKEACBVE- unit.
- EKVDX(VAM + DX)- units are considered to be regular VRV DX indoor units.  
For more information on the operation range, refer to the documentation of -EKVDX- unit.
- Because there is no refrigerant connection with the outdoor unit (only F1/F2 communication), -VAM- units don't have connection limitations.  
However, since there is communication via F1/F2, count them as regular indoor unit when calculating the maximum allowed number of connectable indoor units (in case of usage of centralized controllers).

#### Amount of units connectable to -SV- unit

|                        | SV1A                                         | SV4A                                          | SV6A                                          | SV8A                                          | Multi -SV- per branch                    | Multi -SV- when 2 branches are combined  |
|------------------------|----------------------------------------------|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------|------------------------------------------|------------------------------------------|
| VRV R32 DX indoor unit | Maximum -5- units<br>Maximum -250- class(*8) | Maximum -20- units<br>Maximum -400- class(*8) | Maximum -30- units<br>Maximum -600- class(*8) | Maximum -40- units<br>Maximum -650- class(*8) | Maximum -5- units<br>Maximum -140- class | Maximum -5- units<br>Maximum -250- class |

#### Notes

- Excluding -SV1A- units  
In case the indoor unit capacity class exceeds -140-, two branch ports need to be combined. Refer to the installation manual for more details.
- Maximum indoor capacity class is limited by outdoor unit capacity class.

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# 12 Installation

## 12 - 2 Refrigerant Pipe Selection

### RXYSA8-12AY1

#### VRV5-S Heat pump Piping restrictions

| Indoor connection         |            | Maximum piping length                                                                |                                                            |                                        | Maximum height difference                                                                     |                  |                   | Total piping length |
|---------------------------|------------|--------------------------------------------------------------------------------------|------------------------------------------------------------|----------------------------------------|-----------------------------------------------------------------------------------------------|------------------|-------------------|---------------------|
|                           |            | Longest pipe from the outdoor unit to indoor unit                                    | Longest pipe after first branch or SV-unit                 | Allowed piping length -EKEKXA- to AHU- | Indoor-to-outdoor Outdoor unit higher than indoor unit / Indoor unit higher than outdoor unit | Indoor-to-indoor | -EKEKXA- to -AHU- | Piping length       |
|                           |            | Actual / Equivalent<br>Maximum: -(A+B1+C1, A+B1+C2+C3, A+B1+D+C4, A+B3+C5, A+B2+C6)- | Actual<br>Maximum: -(B1+C1,B1+C2+C3,B1+D+C4, B3+C5,B2+C6)- | Actual<br>Maximum: -(C3)-              | Maximum: -(H1, H2)-                                                                           | Maximum: -(H3)-  | Maximum: -(H4)-   |                     |
| -VRV R32 DX- indoor units | 8HP        | 100/130 m                                                                            | 40 m                                                       | -                                      | 50/40 m                                                                                       | 15 m             | -                 | 300 m               |
|                           | 10-12HP    | 120/150 m                                                                            | 40 m                                                       |                                        | 50/40 m                                                                                       | 15 m             |                   | 300 m               |
| -AHU- connection          | Pair       | 50/55 m (*1)                                                                         | -                                                          | 5m                                     | 40/40 m                                                                                       | -                | 5 m               | 150m(*4)            |
|                           | Multi (*2) | 50/55 m (*1)                                                                         | 40m                                                        | 5m                                     | 40/40 m                                                                                       | 15m              | 5 m               | 300m                |
|                           | Mix (*3)   | 50/55 m (*1)                                                                         | 40m                                                        | 5m                                     | 40/40 m                                                                                       | 15m              | 5 m               | 300m                |

#### Notes

- The allowable minimum length is 5- m.
- Multiple air handling units (-AHU-) (-EKEKXA + EKEACBVE- hits).
- Mix of air handling units (-EKEKXA+EKEACBVE-) and -VRV R32 DX- indoor units.
- Up to 3 piping branches are possible in case of an AHU with an interlaced heat exchanger.
- Evaluation required if indoor unit can be direct connected (room volume in function of charge amount).

For more information, refer to safety system explanation.

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# 12 Installation

## 12 - 3 Refrigerant Charge Information

RXYSA8-12A

### Requirements for R32 units

To comply with the requirements of enhanced tightness refrigerating systems of the IEC 60335-2-40:2022, this system is equipped with an alarm in the remote controller and shut-off valves in the ·SV· unit.

These safety measures are installation specific and can be determined using the requirements mentioned in the outdoor unit manual.

The ·SV· unit is prearranged for a ventilated enclosure as countermeasure.

### Outdoor unit installation

The outdoor unit has to be installed outside. For indoor installation of the outdoor unit, additional measures can be necessary to comply with the applicable legislation.

### Indoor unit installation

The total amount of refrigerant in the system shall be less than or equal to the maximum allowed total refrigerant amount.

The maximum allowed total refrigerant amount depends on the area of the rooms being served by the system and the rooms in the lowest underground floor.

Note: The total refrigerant charge amount in the system MUST always be lower than ·79.8· [kg].

Depending on the smallest room size in which the indoor unit is installed/conditioning and the total amount of refrigerant in the system, different safety measures can be applied.

Follow the flowchart. Details are described in the manual of the outdoor unit.

Use the graph or table ·1· to determine the required safety measures for the indoor unit.

Note: If the installation height is more than ·2.2· m, different boundaries for the applicable safety measures can apply.

To know which safety measure is required in case the installation height is more than ·2.2· m, refer to VRV Xpress (<https://vrvxpress.daikin.eu/>).

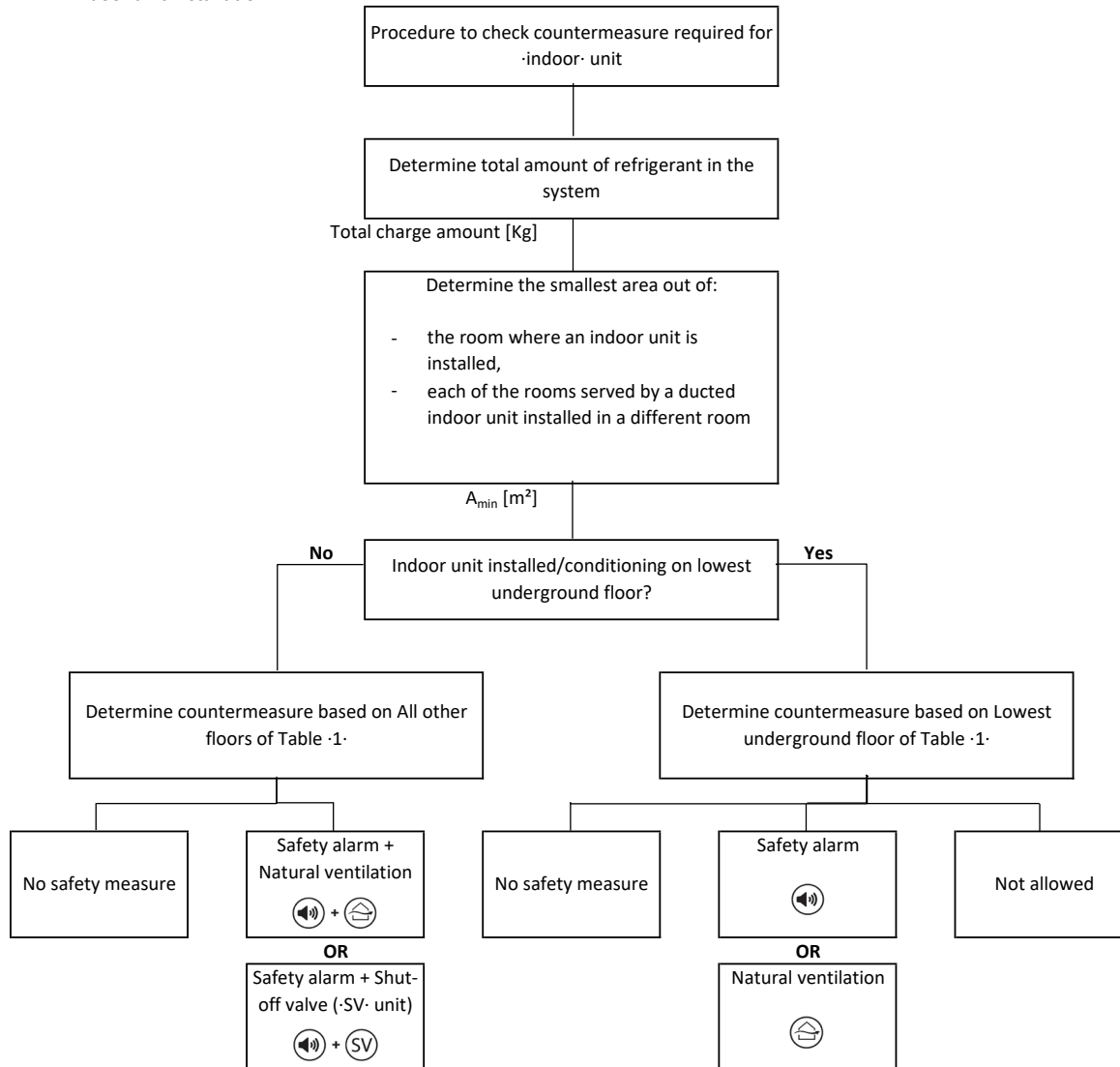
4D149568A

# 12 Installation

## 12 - 3 Refrigerant Charge Information

RXYSAB-12A

### Indoor unit installation



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# 12 Installation

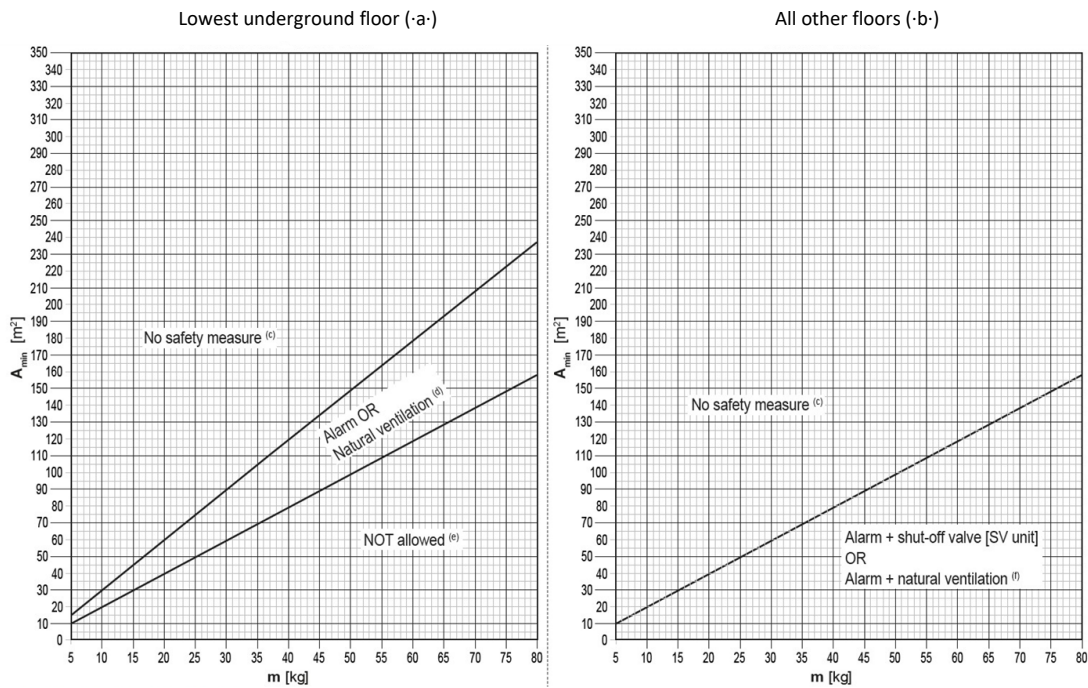
## 12 - 3 Refrigerant Charge Information

RXYSAB-12A

12

### Indoor unit installation

Table ·1·



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# 12 Installation

## 12 - 3 Refrigerant Charge Information

### RXYSAB-12A

#### Indoor unit installation

| m [kg] | Amin [m <sup>2</sup> ]         |                                           |                         | m [kg] | Amin [m <sup>2</sup> ]         |                                           |                         |
|--------|--------------------------------|-------------------------------------------|-------------------------|--------|--------------------------------|-------------------------------------------|-------------------------|
|        | Lowest underground floor (-a-) |                                           | All other floors (-b-)  |        | Lowest underground floor (-a-) |                                           | All other floors (-b-)  |
|        | No safety measure (-c-)        | Safety alarm OR Natural ventilation (-d-) | No safety measure (-c-) |        | No safety measure (-c-)        | Safety alarm OR Natural ventilation (-d-) | No safety measure (-c-) |
| 5      | 15                             | 10                                        | 10                      | 43     | 128                            | 85                                        | 85                      |
| 6      | 18                             | 12                                        | 12                      | 44     | 131                            | 87                                        | 87                      |
| 7      | 21                             | 14                                        | 14                      | 45     | 134                            | 89                                        | 89                      |
| 8      | 24                             | 16                                        | 16                      | 46     | 137                            | 91                                        | 91                      |
| 9      | 27                             | 18                                        | 18                      | 47     | 140                            | 93                                        | 93                      |
| 10     | 30                             | 20                                        | 20                      | 48     | 143                            | 95                                        | 95                      |
| 11     | 33                             | 22                                        | 22                      | 49     | 146                            | 97                                        | 97                      |
| 12     | 36                             | 24                                        | 24                      | 50     | 149                            | 99                                        | 99                      |
| 13     | 39                             | 26                                        | 26                      | 51     | 152                            | 101                                       | 101                     |
| 14     | 42                             | 28                                        | 28                      | 52     | 154                            | 103                                       | 103                     |
| 15     | 45                             | 30                                        | 30                      | 53     | 157                            | 105                                       | 105                     |
| 16     | 48                             | 32                                        | 32                      | 54     | 160                            | 107                                       | 107                     |
| 17     | 51                             | 34                                        | 34                      | 55     | 163                            | 109                                       | 109                     |
| 18     | 54                             | 36                                        | 36                      | 56     | 166                            | 111                                       | 111                     |
| 19     | 57                             | 38                                        | 38                      | 57     | 169                            | 113                                       | 113                     |
| 20     | 60                             | 40                                        | 40                      | 58     | 172                            | 115                                       | 115                     |
| 21     | 63                             | 42                                        | 42                      | 59     | 175                            | 117                                       | 117                     |
| 22     | 66                             | 44                                        | 44                      | 60     | 178                            | 119                                       | 119                     |
| 23     | 69                             | 46                                        | 46                      | 61     | 181                            | 121                                       | 121                     |
| 24     | 72                             | 48                                        | 48                      | 62     | 184                            | 123                                       | 123                     |
| 25     | 75                             | 50                                        | 50                      | 63     | 187                            | 125                                       | 125                     |
| 26     | 77                             | 52                                        | 52                      | 64     | 190                            | 127                                       | 127                     |
| 27     | 80                             | 54                                        | 54                      | 65     | 193                            | 129                                       | 129                     |
| 28     | 83                             | 56                                        | 56                      | 66     | 196                            | 131                                       | 131                     |
| 29     | 86                             | 58                                        | 58                      | 67     | 199                            | 133                                       | 133                     |
| 30     | 89                             | 60                                        | 60                      | 68     | 202                            | 135                                       | 135                     |
| 31     | 92                             | 62                                        | 62                      | 69     | 205                            | 137                                       | 137                     |
| 32     | 95                             | 64                                        | 64                      | 70     | 208                            | 139                                       | 139                     |
| 33     | 98                             | 66                                        | 66                      | 71     | 211                            | 141                                       | 141                     |
| 34     | 101                            | 68                                        | 68                      | 72     | 214                            | 143                                       | 143                     |
| 35     | 104                            | 70                                        | 70                      | 73     | 217                            | 145                                       | 145                     |
| 36     | 107                            | 72                                        | 72                      | 74     | 220                            | 147                                       | 147                     |
| 37     | 110                            | 74                                        | 74                      | 75     | 223                            | 149                                       | 149                     |
| 38     | 113                            | 76                                        | 76                      | 76     | 226                            | 151                                       | 151                     |
| 39     | 116                            | 77                                        | 77                      | 77     | 229                            | 153                                       | 153                     |
| 40     | 119                            | 79                                        | 79                      | 78     | 231                            | 154                                       | 154                     |
| 41     | 122                            | 81                                        | 81                      | 79     | 234                            | 156                                       | 156                     |
| 42     | 125                            | 83                                        | 83                      | 80     | 237                            | 158                                       | 158                     |

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# 12 Installation

## 12 - 3 Refrigerant Charge Information

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### RXYSAB-12A

#### Indoor unit installation

Safety measures include:

#### No safety measure

When the room area is sufficiently large, no safety measures are required.

#### Safety alarm

Do not use the safety alarm as the only safety measure in case the indoor unit is installed in an occupied space where people are restricted in their movement.

When the R32 sensor in the indoor unit detects a refrigerant leak, it will activate the alarm that will warn the user visually and audibly.

Each indoor unit must be connected with an R32 safety system compatible remote controller (e.g. ·BRC1H52/82\*· or later type).

Each indoor unit must be connected to a separate remote controller. In case indoor units are operating under group control, it is possible to only use one remote controller per room.

In case the indoor unit is serving a different room than where it is installed, a remote controller is required in both the installed and the served room.

For buildings where sleeping facilities are offered (e.g. hotel), where persons are restricted in their movements (e.g. hospital), where an uncontrolled number of persons is present or buildings where people are not aware of the safety precautions:

It is mandatory to install one of the following devices at a location with 24-hour monitoring.

- a supervisor remote controller
- or a centralised controller, e.g. iTM with external alarm via WAGO module,
- iTM with built-in alarm, ...

The alarm should always be ·15· dB louder than the background noise of the room.

For details, see the manual of the ·outdoor· unit.

#### Natural ventilation

Natural ventilation is a safety measure where ventilation is made to a place where sufficient air is available to dilute the leaked refrigerant such as a large space.

#### Step ·1·

Determine total room area, which is the total area of the space that has natural ventilation and the space in which the indoor unit is installed.

#### Step ·2·

Use the graph or table to determine the total refrigerant charge limit in the system.

See table ·2·.

If the installation height is more than ·2.2· m, a higher total refrigerant charge limit of the system can apply.

To know the total refrigerant charge limit of the system in case the installation height is more than ·2.2· m, refer to the online tool (VRV Xpress).

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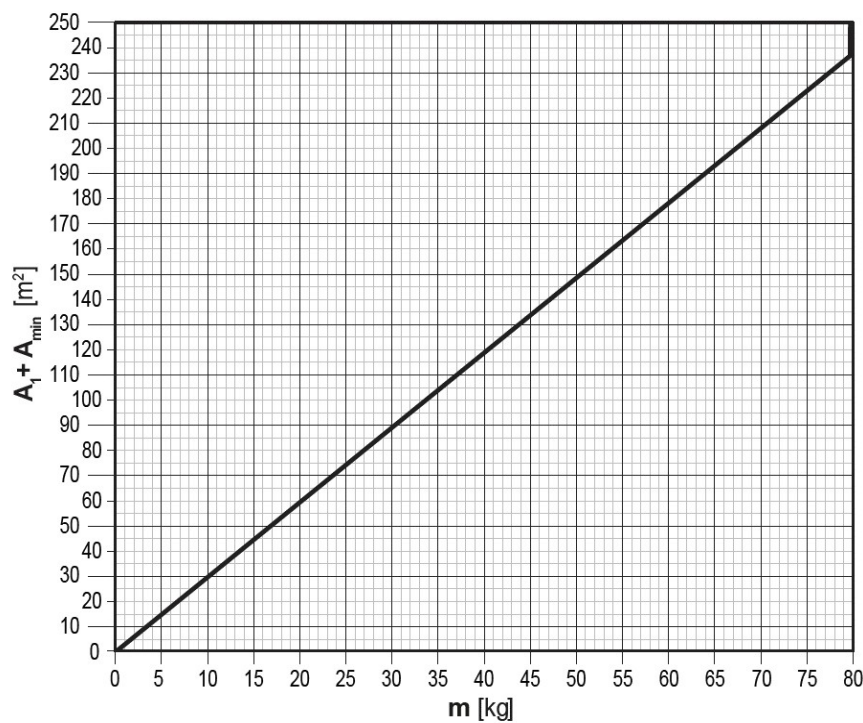
# 12 Installation

## 12 - 3 Refrigerant Charge Information

RXYSAB-12A

### Indoor unit installation

Table 2



### Step 3

The total amount of refrigerant in the system shall be less than or equal to the maximum allowed total refrigerant amount.

If NOT, natural ventilation safety measure is not allowed.

### Step 4

The partition between two rooms on the same floor MUST meet one of the two requirements for natural ventilation.

For details, see the manual of the outdoor unit.

### Shut-off valves

SV unit which has shut-off valves needs to be installed to reduce the amount of refrigerant leakage in to the room where the indoor unit is installed.

When the R32 sensor in the indoor unit detects a refrigerant leak, the corresponding shut-off valves in the SV unit close.

Follow the flowchart. Details are described in the manual of the outdoor unit.

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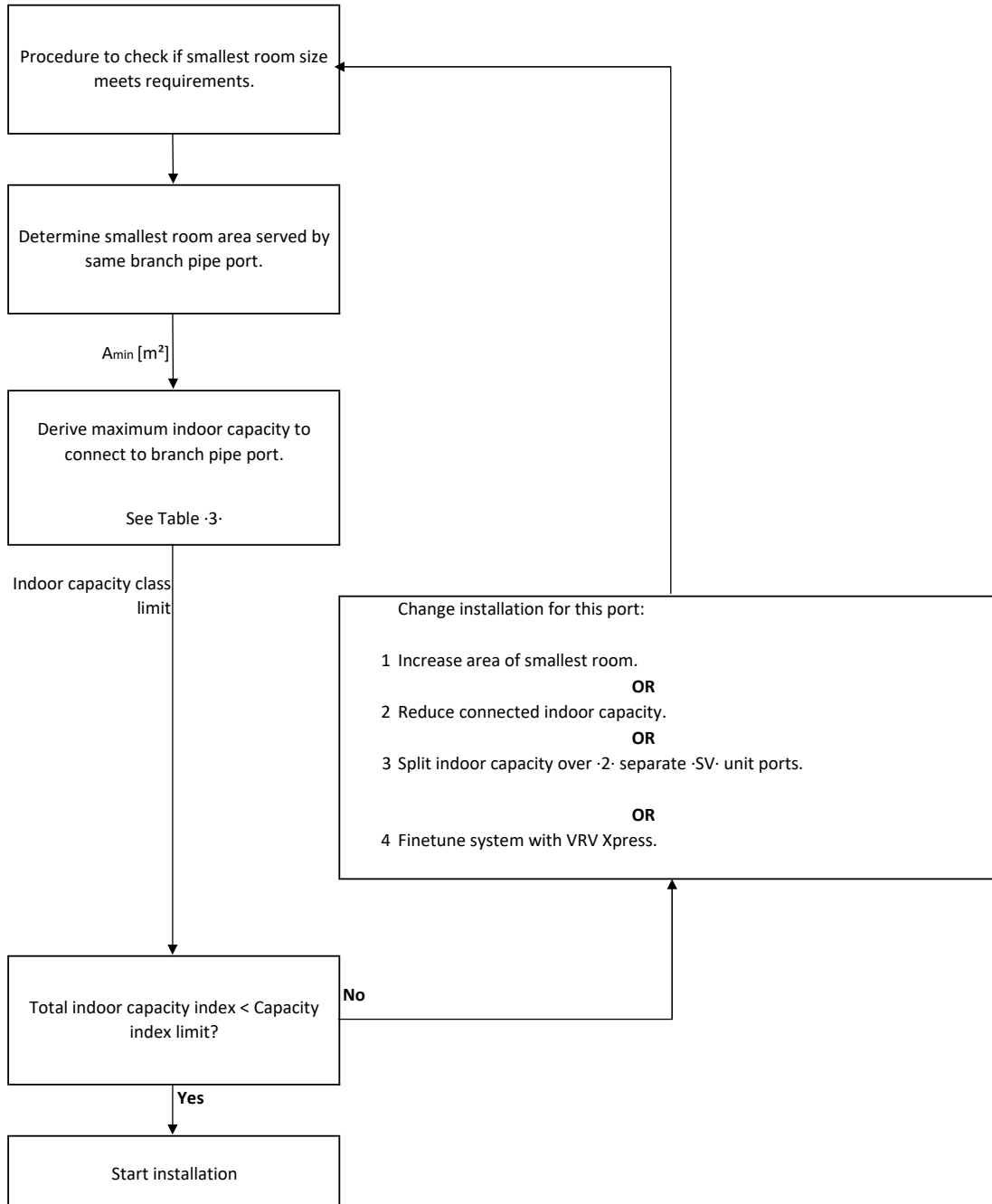
# 12 Installation

## 12 - 3 Refrigerant Charge Information

RXYSAB-12A

### Indoor unit installation

Flowchart (for EACH ·SV· unit branch pipe port)



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# 12 Installation

## 12 - 3 Refrigerant Charge Information

RXYSAS-12A

### Indoor unit installation

Table 3

| Area of installed/conditioned room [m <sup>2</sup> ] | Maximum total indoor unit capacity class |                                |                             |
|------------------------------------------------------|------------------------------------------|--------------------------------|-----------------------------|
|                                                      | 1 indoor unit per branch pipe port (a)   | 2-5 units per branch pipe port |                             |
|                                                      |                                          | 40 m after first branch (b)    | 90 m after first branch (c) |
| < 5                                                  | -                                        | -                              | -                           |
| 5                                                    | 10                                       | -                              | -                           |
| 6                                                    | 25                                       | -                              | -                           |
| 7                                                    | 32                                       | -                              | -                           |
| 8                                                    | 40                                       | -                              | -                           |
| 9                                                    | 71                                       | -                              | -                           |
| 10                                                   | 80                                       | -                              | -                           |
| 11                                                   | 80                                       | 20                             | -                           |
| 12                                                   | 80                                       | 25                             | -                           |
| 13                                                   | 80                                       | 32                             | -                           |
| 14                                                   | 80                                       | 32                             | -                           |
| 15                                                   | 125                                      | 40                             | -                           |
| 20                                                   | 200                                      | 50                             | 40                          |
| 25                                                   | 250                                      | 71                             | 71                          |
| 30                                                   | 250                                      | 125                            | 125                         |
| 35                                                   | 250                                      | 200                            | 200                         |
| 40                                                   | 250                                      | 200                            | 200                         |
| ≥ 45                                                 | 250                                      | 250                            | 250                         |

- (a) 1 indoor unit connected to a single branch pipe port.
- (b) 2 to 5 indoor units connected to a single branch pipe port, 40 m after first refrigerant branch.
- (c) 2 to 5 indoor units connected to a single branch pipe port, 90 m after first refrigerant branch.

Note: In case the indoor unit capacity class allowed per branch pipe port exceeds 140, use SV1A unit or combine two ports while using SV4~8A unit.

Note: The values in Table 3 are under the assumption of worst case indoor unit volume and 40 m piping between indoor and SV unit.

In VRV Xpress (<https://vrvxpress.daikin.eu/>) it is possible to add custom piping lengths and indoor units, which can lead to lower minimum room area requirements.

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# 12 Installation

## 12 - 3 Refrigerant Charge Information

12

RXYSA8-12A

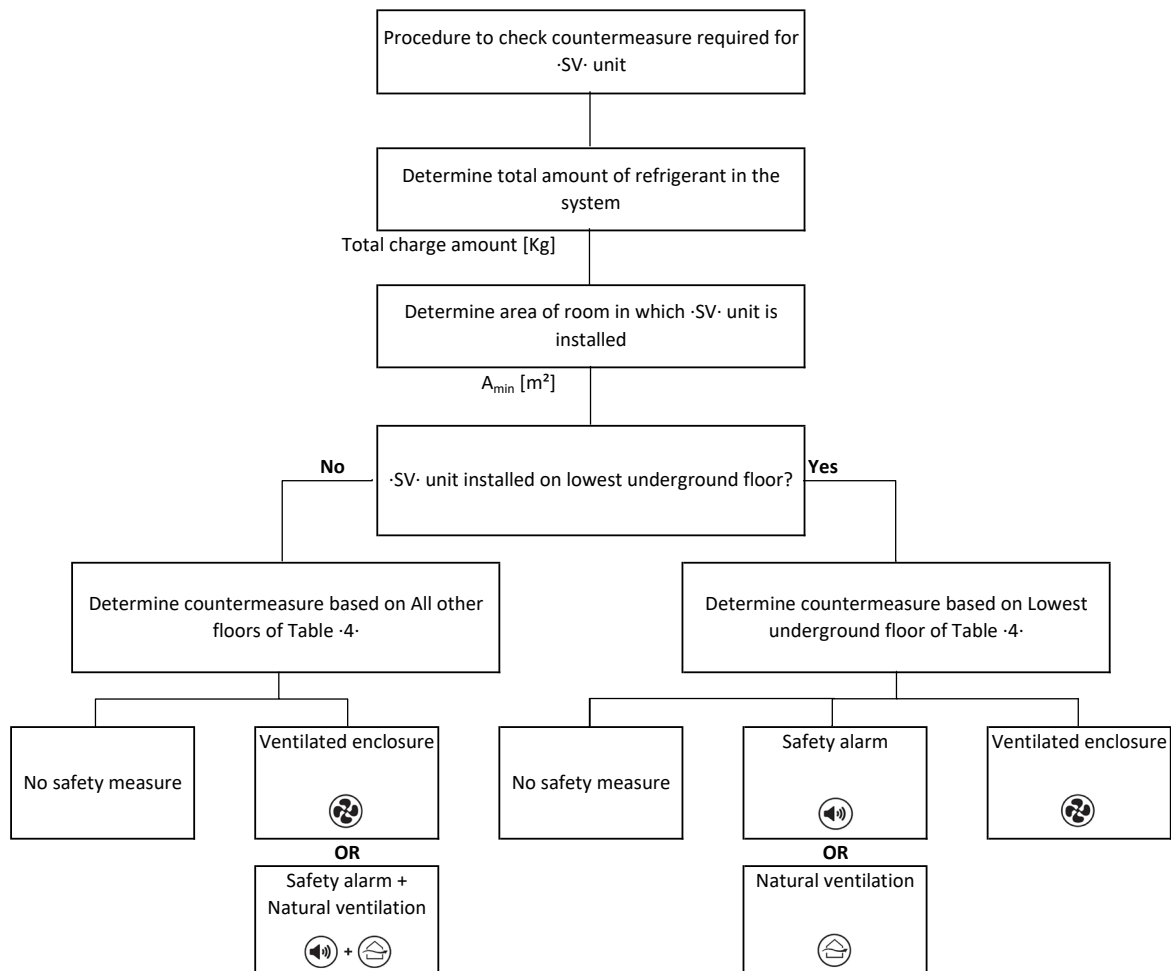
### ·SV· unit installation

Depending on the room size in which the ·SV· unit is installed and the total amount of refrigerant in the system, different safety measures can be applied.

Follow the flowchart. Details are described in the manual of ·SV· unit.

Note: If the installation height is more than 2.2 m, different boundaries for the applicable safety measures can apply.

To know which safety measure is required in case the installation height is more than 2.2 m, refer to VRV Xpress (<https://vrvxpress.daikin.eu/>).



\* Do NOT use the external safety alarm if the ·SV· unit is installed in an occupied space where people are restricted in their movement.

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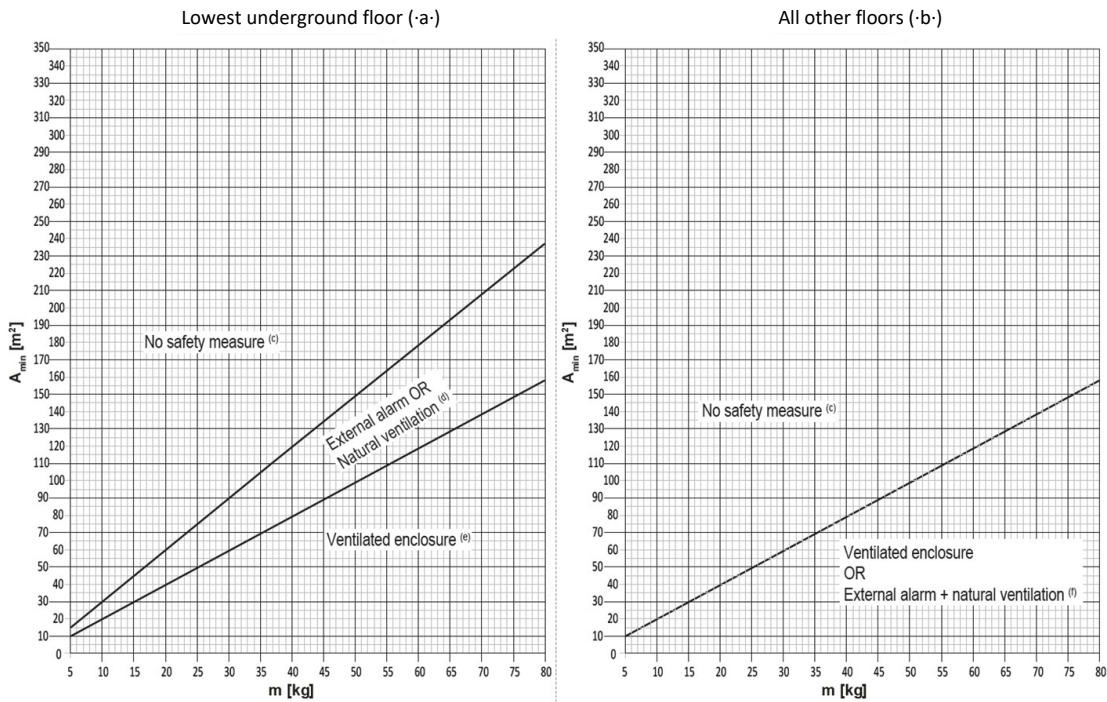
# 12 Installation

## 12 - 3 Refrigerant Charge Information

RXYSA8-12A

•SV• unit installation

Table 4



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# 12 Installation

## 12 - 3 Refrigerant Charge Information

### RXYSA8-12A

•SV• unit installation

| m [kg] | Amin [m <sup>2</sup> ]         |                                           |                         | m [kg] | Amin [m <sup>2</sup> ]         |                                           |                         |
|--------|--------------------------------|-------------------------------------------|-------------------------|--------|--------------------------------|-------------------------------------------|-------------------------|
|        | Lowest underground floor (-a-) |                                           | All other floors (-b-)  |        | Lowest underground floor (-a-) |                                           | All other floors (-b-)  |
|        | No safety measure (-c-)        | Safety alarm OR Natural ventilation (-d-) | No safety measure (-c-) |        | No safety measure (-c-)        | Safety alarm OR Natural ventilation (-d-) | No safety measure (-c-) |
| 5      | 15                             | 10                                        | 10                      | 43     | 128                            | 85                                        | 85                      |
| 6      | 18                             | 12                                        | 12                      | 44     | 131                            | 87                                        | 87                      |
| 7      | 21                             | 14                                        | 14                      | 45     | 134                            | 89                                        | 89                      |
| 8      | 24                             | 16                                        | 16                      | 46     | 137                            | 91                                        | 91                      |
| 9      | 27                             | 18                                        | 18                      | 47     | 140                            | 93                                        | 93                      |
| 10     | 30                             | 20                                        | 20                      | 48     | 143                            | 95                                        | 95                      |
| 11     | 33                             | 22                                        | 22                      | 49     | 146                            | 97                                        | 97                      |
| 12     | 36                             | 24                                        | 24                      | 50     | 149                            | 99                                        | 99                      |
| 13     | 39                             | 26                                        | 26                      | 51     | 152                            | 101                                       | 101                     |
| 14     | 42                             | 28                                        | 28                      | 52     | 154                            | 103                                       | 103                     |
| 15     | 45                             | 30                                        | 30                      | 53     | 157                            | 105                                       | 105                     |
| 16     | 48                             | 32                                        | 32                      | 54     | 160                            | 107                                       | 107                     |
| 17     | 51                             | 34                                        | 34                      | 55     | 163                            | 109                                       | 109                     |
| 18     | 54                             | 36                                        | 36                      | 56     | 166                            | 111                                       | 111                     |
| 19     | 57                             | 38                                        | 38                      | 57     | 169                            | 113                                       | 113                     |
| 20     | 60                             | 40                                        | 40                      | 58     | 172                            | 115                                       | 115                     |
| 21     | 63                             | 42                                        | 42                      | 59     | 175                            | 117                                       | 117                     |
| 22     | 66                             | 44                                        | 44                      | 60     | 178                            | 119                                       | 119                     |
| 23     | 69                             | 46                                        | 46                      | 61     | 181                            | 121                                       | 121                     |
| 24     | 72                             | 48                                        | 48                      | 62     | 184                            | 123                                       | 123                     |
| 25     | 75                             | 50                                        | 50                      | 63     | 187                            | 125                                       | 125                     |
| 26     | 77                             | 52                                        | 52                      | 64     | 190                            | 127                                       | 127                     |
| 27     | 80                             | 54                                        | 54                      | 65     | 193                            | 129                                       | 129                     |
| 28     | 83                             | 56                                        | 56                      | 66     | 196                            | 131                                       | 131                     |
| 29     | 86                             | 58                                        | 58                      | 67     | 199                            | 133                                       | 133                     |
| 30     | 89                             | 60                                        | 60                      | 68     | 202                            | 135                                       | 135                     |
| 31     | 92                             | 62                                        | 62                      | 69     | 205                            | 137                                       | 137                     |
| 32     | 95                             | 64                                        | 64                      | 70     | 208                            | 139                                       | 139                     |
| 33     | 98                             | 66                                        | 66                      | 71     | 211                            | 141                                       | 141                     |
| 34     | 101                            | 68                                        | 68                      | 72     | 214                            | 143                                       | 143                     |
| 35     | 104                            | 70                                        | 70                      | 73     | 217                            | 145                                       | 145                     |
| 36     | 107                            | 72                                        | 72                      | 74     | 220                            | 147                                       | 147                     |
| 37     | 110                            | 74                                        | 74                      | 75     | 223                            | 149                                       | 149                     |
| 38     | 113                            | 76                                        | 76                      | 76     | 226                            | 151                                       | 151                     |
| 39     | 116                            | 77                                        | 77                      | 77     | 229                            | 153                                       | 153                     |
| 40     | 119                            | 79                                        | 79                      | 78     | 231                            | 154                                       | 154                     |
| 41     | 122                            | 81                                        | 81                      | 79     | 234                            | 156                                       | 156                     |
| 42     | 125                            | 83                                        | 83                      | 80     | 237                            | 158                                       | 158                     |

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# 12 Installation

## 12 - 3 Refrigerant Charge Information

### RXYSA8-12A

#### ·SV· unit installation

Safety measures include:

#### No safety measure

When the room area is sufficiently large, no safety measures are required.

#### Safety alarm

An external alarm circuit (field supply) must be connected to the SVS output of the ·SV· unit.

When the R32 sensor in the ·SV· unit detects a refrigerant leak, the SVS output closes and activates the alarm. An error message is displayed on the remote controllers of the connected indoor units.

- This alarm system must warn audibly AND visibly (e.g. a loud buzzer AND a flashing light). The audible alarm must be ·15· dBA above the background sound level at all times.
- At least one alarm must be installed in the occupied space in which the ·SV· unit is installed.
- For the occupancy listed below, the alarm system must additionally warn at a supervised location with 24-hour monitoring. To warn at a supervised location, connect a supervisor remote controller (e.g. ·BRC1H52\*·) to the system
  - with sleeping facilities.
  - where an uncontrolled number of people are present.
  - accessible for persons not familiar with the necessary safety precautions.
  - where people are restricted in their movement
- Do NOT use the external safety alarm as the only safety measure if the ·SV· unit is installed in an occupied space where people are restricted in their movement.

For details, see the manual of the ·SV· unit.

#### Natural ventilation

Natural ventilation is a safety measure where ventilation is made to a place where sufficient air is available to dilute the leaked refrigerant such as a large space.

#### Step ·1·

Determine total room area, which is the total area of the space that has natural ventilation and the space in which the indoor unit is installed.

#### Step ·2·

Use the graph or table to determine the total refrigerant charge limit in the system.

See table ·5·.

Note: If the installation height is more than ·2.2· m, different boundaries for the applicable safety measures can apply.

To know the total refrigerant charge limit of the system in case the installation height is more than ·2.2· m, refer to the online tool (VRV Xpress).

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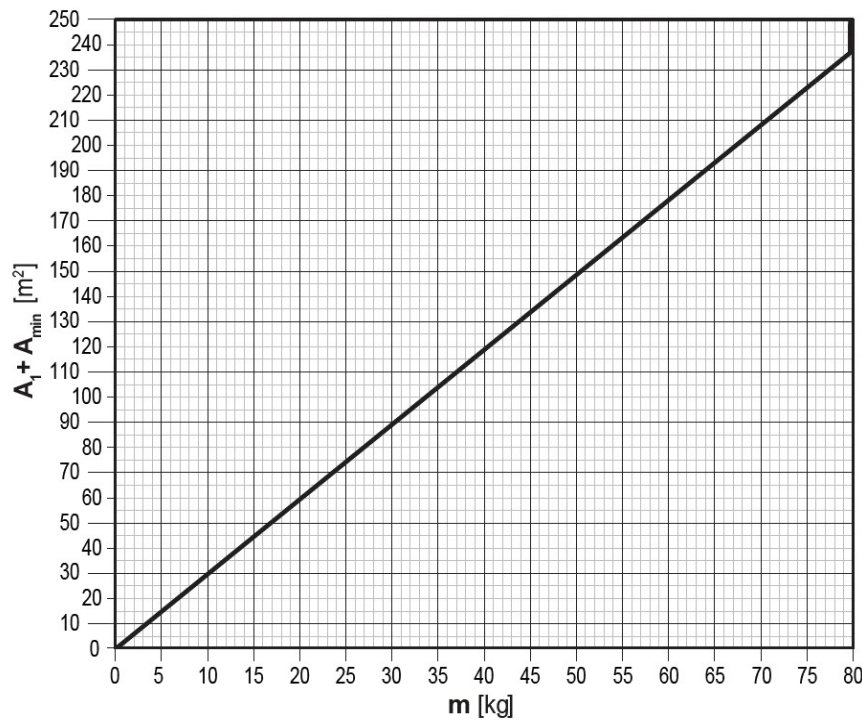
# 12 Installation

## 12 - 3 Refrigerant Charge Information

RXYSA8-12A

·SV· unit installation

Table ·5·



| $A_1 + A_2$ [m <sup>2</sup> ] | m [kg] |
|-------------------------------|--------|
| 0                             | 0      |
| 10                            | 3.3    |
| 20                            | 6.7    |
| 30                            | 10.1   |
| 40                            | 13.5   |
| 50                            | 16.8   |
| 60                            | 20.2   |
| 70                            | 23.6   |
| 80                            | 27.0   |
| 90                            | 30.3   |
| 100                           | 33.7   |
| 110                           | 37.1   |
| 120                           | 40.5   |
| 130                           | 43.9   |
| 140                           | 47.2   |
| 150                           | 50.6   |
| 160                           | 54.0   |
| 170                           | 57.4   |
| 180                           | 60.7   |
| 190                           | 64.1   |
| 200                           | 67.5   |
| 210                           | 70.9   |
| 220                           | 74.2   |
| 230                           | 77.6   |
| 236                           | 79.6   |
| 237                           | 79.8   |
| 240                           | 79.8   |
| 250                           | 79.8   |

Step ·3·

The total amount of refrigerant in the system shall be less than or equal to the maximum allowed total refrigerant amount.

If NOT, natural ventilation safety measure is not allowed.

Step ·4·

The partition between two rooms on the same floor MUST meet one of the two requirements for natural ventilation.

For details, see the manual of the ·SV· unit.

### Ventilated enclosure

For the ventilated enclosure safety measure, ductwork and an extraction fan are installed.

When the R32 sensor in the ·SV· unit detects a refrigerant leak, it will activate the safety measures.

This includes:

- opening the damper of the unit to allow air to enter and evacuate the refrigerant leak.
- activating the fan output signal to trigger an extraction fan to operate.
- displaying an error message on the remote controllers of the connected indoor units.

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# 12 Installation

## 12 - 3 Refrigerant Charge Information

### RXYSA8-12A

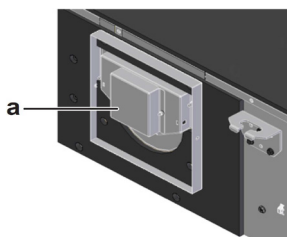
#### ·SV· unit installation

The information in the table below must be taken into account in case a ventilated enclosure is used as a safety measure.

|                 |                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ductwork        | The evacuation ductwork MUST vent outside the building or to another room with minimum room area requirements.<br>Refer to the installation and operation manual of ·SV· unit· for details.<br><br>Avoid that dirt and small animals can enter the ductwork and lead to an obstruction. Example: install a non-return valve, grille, filter or other component in the evacuation duct.      |
| Extraction fan  | The extraction fan must have a CE marking and cannot act as an ignition source during normal operation. This requirement is met if the fan motor has an IP4X rating or better.                                                                                                                                                                                                              |
| Replacement air | Make sure that sufficient air is available for the extraction of a refrigerant leak. The extraction airflow rate must be maintained for at least ·8· hours.<br><br>This is achieved by providing a sufficiently large air volume around the ·SV· unit, or by providing sufficient replacement air around the ·SV· unit (e.g. natural openings or a dedicated opening in the false ceiling). |
| Maintenance     | Maintain the evacuation channel to avoid dust and dirt from building up and obstructing the flow path.                                                                                                                                                                                                                                                                                      |

A damper at the air inlet of the ·SV· unit enables a choice between 3 types of configurations (see below).

The damper opens when a refrigerant leak has been detected in the ·SV· unit. This creates an airflow path from the leaking ·SV· unit to the extraction fan.



a Damper

When a ventilated enclosure is required, the following requirements apply.

- Pressure inside the ·SV· unit has to be more than ·20· Pa below the ambient pressure.
- Minimum airflow rate

| Model  | Minimum airflow rate [m <sup>3</sup> /h] |
|--------|------------------------------------------|
| SV1A   | 82                                       |
| SV4A   | 82                                       |
| SV6-8A | 84                                       |

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# 12 Installation

## 12 - 3 Refrigerant Charge Information

12

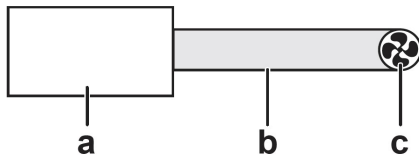
RXYSA8-12A

### •SV• unit installation

External fan needs to be selected in order to meet these requirements. The available calculation method depends on the configuration.

#### Possible configurations

One •SV• unit – one extraction fan

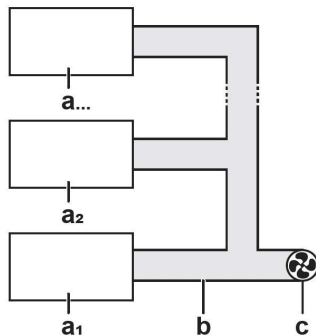


- a** SV unit
- b** Ductwork
- c** Extraction fan

#### Calculation method for selection of external fan

- Manual calculation: see •SV• unit manual for details
- VRV Xpress: see <https://vrvxpress.daikin.eu/>

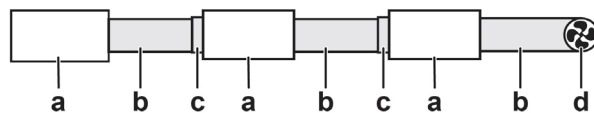
Multiple •SV• units in parallel – one extraction fan



- a<sub>#</sub>** SV unit #
- b** Ductwork
- c** Extraction fan

- VRV Xpress: see <https://vrvxpress.daikin.eu/>

Multiple •SV• units in series – one extraction fan



- a** SV unit
- b** Ductwork
- c** EKBSDCK
- d** Extraction fan

- VRV Xpress: see <https://vrvxpress.daikin.eu/>

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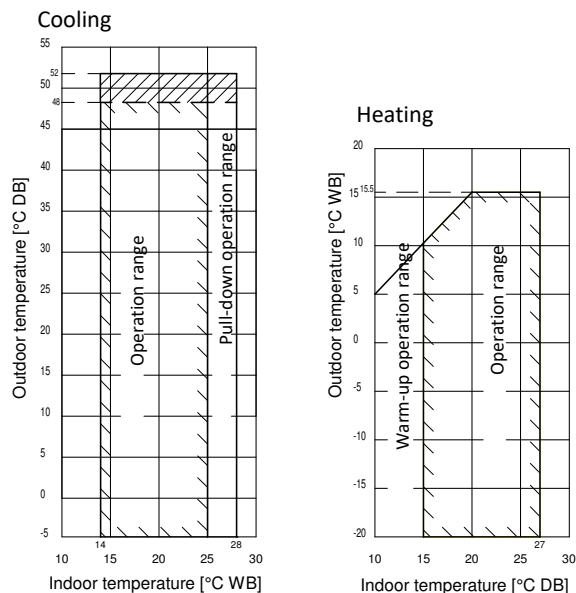
# 13 Operation range

## 13 - 1 Operation Range

### RXYSA8-12AY1

#### Notes

- These figures assume the following operation conditions  
Indoor and outdoor units  
Equivalent piping length: -5m  
Level difference: 0m
- Depending on operation and installation conditions, the indoor unit can change over to freeze-up operation (indoor de-icing).
- To reduce the freeze-up operation (indoor de-icing) frequency, it is recommended to install the outdoor unit in a location not exposed to wind.
- Operation range is valid in case direct expansion indoor units are used.  
If other indoor units are used, refer to the documentation of the respective indoor units.
- ///: Unit operation is possible, but no guaranteed capacity
- If the unit is selected to operate at ambient temperatures <-5°C for 5 days or more, with relative humidity levels >95%, it is recommended to apply a Daikin range specifically designed for such application.  
For more information, contact your dealer.



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# 14 Appropriate Indoors

## 14 - 1 Appropriate Indoors

14

### RXYSA8-12A

#### Recommended indoor units for ·RXYSA\*A\*· outdoor units

| ·· HP | 8        | 10       | 12       |
|-------|----------|----------|----------|
|       | 4xFXSA50 | 4xFXSA63 | 6xFXSA50 |

For details about the allowed combinations, see the engineering databook.

#### Appropriate indoor units for ·RXYSA\*A\*· outdoor units

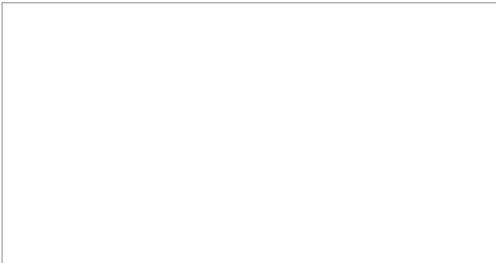
##### Covered by ·ENER LOT21·

FXFA20-25-32-40-50-63-80-100-125  
 FXZA15-20-25-32-40-50  
 FXSA15-20-25-32-40-50-63-80-100-125-140  
 FXDA10-15-20-25-32-40-50-63  
 FXAA15-20-25-32-40-50-63  
 FXMA50-63-80-100-125-200-250  
 FXHA32-50-63-100  
 FXUA50-71-100  
 FXKA20-25-32-40-50-63  
 FXNA20-25-32-40-50-63

##### Outside the scope of ·ENER LOT21·

EKVDX32-50-80-100  
 EKEXVA50-63-80-100-125-140-200-250-300-350-400-450-500 + EKEACBVE  
 CYAS100\*80, CYAS150\*80, CYAS200\*100, CYAS250\*140  
 CYAM100\*80, CYAM150\*80, CYAM200\*100, CYAM250\*140  
 CYAL100\*125, CYAL150\*200, CYAL200\*250, CYAL250\*250

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