# VRV IV+ heat pump, without continuous heating Air Conditioning Technical Data

# RXYQ-UD


RXYQ8U5Y1BD
RXYQ10U5Y1BD
RXYQ12U5Y1BD
RXYQ14U5Y1BD
RXYQ16U5Y1BD
RXYQ18U5Y1BD
RXYQ20U5Y1BD
RXYQ22U5Y1BD
RXYQ24U5Y1BD
RXYQ26U5Y1BD
RXYQ28U5Y1BD
RXYQ30U5Y1BD
RXYQ32U5Y1BD
RXYQ34U5Y1BD
RXYQ36U5Y1BD
RXYQ38U5Y1BD
RXYQ40U5Y1BD
RXYQ42U5Y1BD
RXYQ44U5Y1BD
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RXYQ50U5Y1BD
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RXYQ54U5Y1BD

EEDEN23

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# RXYQ-UD

# 1 Features

## 1 - 1 RXYQ-UD

### Daikin's solution for comfort & low energy consumption

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- By choosing this product with LOOP by Daikin you support the reuse of refrigerant
- Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, hot water, air handling units and Biddle air curtains
- Wide range of indoor units: possibility to combine VRV with stylish indoor units (Daikin Emura, Perfera)
- Incorporates VRV IV standards & technologies: Variable Refrigerant Temperature, VRV configurator, 7 segment display and full inverter compressors, 4-side heat exchanger, refrigerant cooled PCB, new DC fan motor, ...
- Customize your VRV for best seasonal efficiency & comfort with the weather dependant Variable Refrigerant Temperature function. Increased seasonal efficiency with up to 28%. No more cold draft by supply of high outblow temperatures
- Free combination of outdoor units to meet installation space or efficiency requirements
- Fits any building as also indoor installation is possible as a result of high external static pressure of up to 78.4 Pa. Indoor installation leads to less piping length, lower installation costs, increased efficiency and better visual aesthetics
- Simplified installation & guaranteed optimal efficiency with automatic charging & testing
- Easy compliance with F-gas regulation thanks to automated refrigerant containment check
- Wide piping flexibility: 30m indoor height difference, maximum piping length: 190m, total piping length: 1,000m
- The ability to control each conditioned zone individually keeps VRV system running costs to an absolute minimum
- Spread your installation cost by phased installation
- Keep your system in top condition via the Daikin Cloud Service: 24/7 monitoring for maximum efficiency, extented lifetime and immediate service support thanks to failure prediction
- Available as heating only by irreversible field setting

Inverter


Replacement technology

Variable refrigerant temperature

# 2 Specifications

## 2 - 1 Specifications

| Technical Specifications | | | | | RXYQ8UD | RXYQ10UD | RXYQ12UD | RXYQ14UD | RXYQ16UD | RXYQ18UD | RXYQ20UD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Recommended combination | | | | | 4 x FXFQ50AVEB | 4 x FXFQ63AVEB | 6 x FXFQ50AVEB | 1 x FXFQ50AVEB + 5 x FXFQ63AVEB | 4 x FXFQ63AVEB + 2 x FXFQ80AVEB | 3 x FXFQ50AVEB + 5 x FXFQ63AVEB | 2 x FXFQ50AVEB + 6 x FXFQ63AVEB |
| Recommended combination 2 | | | | | 4 x FXSQ50A2VEB | 4 x FXSQ63A2VEB | 6 x FXSQ50A2VEB | 1 x FXSQ50A2VEB + 5 x FXSQ63A2VEB | 4 x FXSQ63A2VEB + 2 x FXSQ80A2VEB | 3 x FXSQ50A2VEB + 5 x FXSQ63A2VEB | 2 x FXSQ50A2VEB + 6 x FXSQ63A2VEB |
| Recommended combination 3 | | | | | 4 x FXMQ50P7VEB | 4 x FXMQ63P7VEB | 6 x FXMQ50P7VEB | 1 x FXMQ50P7VEB + 5 x FXMQ63P7VEB | 4 x FXMQ63P7VEB + 2 x FXMQ80P7VEB | 3 x FXMQ50P7VEB + 5 x FXMQ63P7VEB | 2 x FXMQ50P7VEB + 6 x FXMQ63P7VEB |
| Cooling capacity | Prated,c | | | kW | 22.4 (1) | 28.0 (1) | 33.5 (1) | 40.0 (1) | 45.0 (1) | 50.4 (1) | 52.0 (1) |
| Heating capacity | Nom. | 6°CWB | | kW | 22.4 (2) | 28.0 (2) | 33.5 (2) | 40.0 (2) | 45.0 (2) | 50.4 (2) | 56.0 (2) |
| | Prated,h | | | kW | 22.4 (2) | 28.0 (2) | 33.5 (2) | 40.0 (2) | 45.0 (2) | 50.4 (2) | 56.0 (2) |
| | Max. | 6°CWB | | kW | 25.0 (2) | 31.5 (2) | 37.5 (2) | 45.0 (2) | 50.0 (2) | 56.5 (2) | 63.0 (2) |
| Power input - 50Hz | Heating | Nom. | 6°CWB | kW | 5.40 (2) | 7.58 (2) | 9.65 (2) | 10.69 (2) | 12.54 (2) | 14.22 (2) | 17.47 (2) |
| COP at nom. capacity | 6°CWB | | | kW/kW | 4.15 (2) | 3.69 (2) | 3.47 (2) | 3.74 (2) | 3.59 (2) | 3.54 (2) | 3.20 (2) |
| ESEER - Automatic | | | | | 7.53 | 7.20 | 6.96 | 6.83 | 6.50 | 6.38 | 5.67 |
| ESEER - Standard | | | | | 6.37 | 5.67 | 5.50 | 5.31 | 5.05 | 4.97 | 4.42 |
| SCOP | | | | | 4.3 | | 4.1 | 4.0 | | 4.2 | 4.0 |
| SCOP recommended combination 2 | | | | | 4.2 | 4.3 | 4.1 | 4.0 | 4.1 | 4.2 | 4.0 |
| SCOP recommended combination 3 | | | | | 4.2 | 4.1 | | 4.0 | | 4.1 | 3.9 |
| SEER | | | | | 7.6 | 6.8 | 6.3 | | 6.0 | | 5.9 |
| SEER recommended combination 2 | | | | | 6.9 | 6.8 | 5.9 | 6.3 | 5.9 | 6.0 | 5.9 |
| SEER recommended combination 3 | | | | | 7.5 | 6.8 | 6.2 | | 5.8 | 6.0 | 5.9 |
| ηs,c | | | | % | 302.4 | 267.6 | 247.8 | 250.7 | 236.5 | 238.3 | 233.7 |
| ηs,h | | | | % | 167.9 | 168.2 | 161.4 | 155.4 | 157.8 | 163.1 | 156.6 |
| Space cooling | A Condition | EERd | | | 3.0 | 2.3 | 2.4 | 2.6 | 2.1 | 1.9 | |
| | (35°C - 27/19) | Pdc | | kW | 22.4 | 28.0 | 33.5 | 40.0 | 45.0 | 50.4 | 52.0 |
| | B Condition | EERd | | | 5.2 | 4.7 | 4.3 | 4.1 | 3.9 | 3.8 | 3.7 |
| | (30°C - 27/19) | Pdc | | kW | 16.5 | 20.6 | 24.7 | 29.5 | 33.2 | 37.1 | 38.3 |
| | C Condition | EERd | | | 9.5 | 8.3 | 7.7 | 7.8 | 7.7 | 7.5 | 7.3 |
| | (25°C - 27/19) | Pdc | | kW | 10.6 | 13.3 | 15.9 | 18.9 | 21.3 | 23.9 | 24.6 |
| | D Condition | EERd | | | 18.8 | 17.0 | 13.9 | 14.3 | 14.2 | 18.3 | |
| | (20°C - 27/19) | Pdc | | kW | 8.0 | 9.3 | 9.4 | 8.4 | 9.5 | 11.5 | |
| Space cooling recommended combination 2 | A Condition | EERd | | | 2.6 | 2.4 | | 2.6 | 2.1 | 1.9 | |
| | (35°C - 27/19) | Pdc | | kW | 22.4 | 28.0 | 33.5 | 40.0 | 45.0 | 50.4 | 52.0 |
| | B Condition | EERd | | | 4.9 | 4.7 | 4.0 | 4.1 | 3.8 | 3.7 | 3.6 |
| | (30°C - 27/19) | Pdc | | kW | 16.5 | 20.6 | 24.7 | 29.5 | 33.2 | 37.1 | 38.3 |
| | C Condition | EERd | | | 8.8 | 8.5 | 7.1 | 7.9 | 7.6 | 7.5 | 7.3 |
| | (25°C - 27/19) | Pdc | | kW | 10.6 | 13.3 | 15.9 | 18.9 | 21.3 | 23.9 | 24.6 |
| | D Condition | EERd | | | 15.1 | 17.2 | 13.1 | 14.0 | | 18.1 | 18.9 |
| | (20°C - 27/19) | Pdc | | kW | 8.8 | 9.3 | 9.1 | 8.4 | 9.5 | 11.4 | 10.9 |
| Space cooling recommended combination 3 | A Condition (35°C - 27/19) | EERd | | | 3.0 | 2.3 | 2.4 | 2.6 | 2.1 | 1.9 | |
| Space cooling recommended combination 3 | A Condition (35°C - 27/19) | Pdc | | kW | 22.4 | 28.0 | 33.5 | 40.0 | 45.0 | 50.4 | 52.0 |
| | B Condition | EERd | | | 5.1 | 4.7 | 4.2 | 4.0 | 3.7 | | 3.6 |
| | (30°C - 27/19) | Pdc | | kW | 16.5 | 20.6 | 24.7 | 29.5 | 33.2 | 37.1 | 38.3 |
| | C Condition | EERd | | | 9.6 | 8.4 | 7.7 | | 7.4 | 7.6 | 7.3 |
| | (25°C - 27/19) | Pdc | | kW | 10.6 | 13.3 | 15.9 | 19.0 | 21.3 | 23.9 | 24.6 |
| | D Condition | EERd | | | 16.0 | 16.9 | 13.7 | 14.0 | 14.1 | 18.3 | |
| | (20°C - 27/19) | Pdc | | kW | 9.1 | 9.3 | 9.4 | 8.4 | 9.5 | 11.6 | |
| Space heating (Average climate) | TBivalent | COPd (declared COP) | | | 2.5 | 2.4 | 2.0 | 2.3 | 2.2 | 1.9 | 1.8 |
| | | Pdh (declared heating cap) | | kW | 13.7 | 16.0 | 18.4 | 20.6 | 23.2 | 27.9 | 31.0 |
| | | Tbiv (bivalent temperature) | | °C | -10 | | | | | | |
| | TOL | COPd (declared COP) | | | 2.5 | 2.4 | 2.0 | 2.3 | 2.2 | 1.9 | 1.8 |
| | | Pdh (declared heating cap) | | kW | 13.7 | 16.0 | 18.4 | 20.6 | 23.2 | 27.9 | 31.0 |
| | | Tol (temperature operating limit) | | °C | -10 | | | | | | |
| | A Condition | COPd (declared COP) | | | 2.7 | 2.6 | 2.4 | 2.6 | | 2.4 | 2.1 |
| | (-7°C) | Pdh (declared heating cap) | | kW | 12.1 | 14.2 | 16.3 | 18.2 | 20.5 | 24.7 | 27.4 |
| | B Condition | COPd (declared COP) | | | 3.9 | | | 3.5 | | 3.7 | 3.6 |
| | (2°C) | Pdh (declared heating cap) | | kW | 7.4 | 8.6 | 9.9 | 11.1 | 12.5 | 15.0 | 16.7 |
| | C Condition | COPd (declared COP) | | | 6.3 | 6.4 | 6.1 | | 6.3 | 6.7 | 6.5 |
| | (7°C) | Pdh (declared heating cap) | | kW | 5.0 | 5.5 | 6.4 | 7.1 | 8.0 | 9.7 | 10.7 |
| | D Condition | COPd (declared COP) | | | 7.9 | 8.2 | 7.9 | 8.5 | 8.6 | 9.0 | 9.1 |
| | (12°C) | Pdh (declared heating cap) | | kW | 5.9 | | 6.3 | 4.9 | | 7.1 | |

# 2 Specifications

## 2 - 1 Specifications



| Technical Specifications | | | | | RXYQ8UD | RXYQ10UD | RXYQ12UD | RXYQ14UD | RXYQ16UD | RXYQ18UD | RXYQ20UD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Space heating (Average climate) recommended combination 2 | A Condition (-7°C) | COPd (declared COP) | | | 2.7 | | 2.4 | 2.6 | | 2.4 | 2.2 |
| | | Pdh (declared heating cap) | | kW | 12.1 | 14.2 | 16.3 | 18.2 | 20.5 | 24.7 | 27.4 |
| | B Condition (2°C) | COPd (declared COP) | | | 3.9 | 4.0 | 3.9 | 3.5 | | 3.8 | 3.7 |
| | | Pdh (declared heating cap) | | kW | 7.4 | 8.6 | 9.9 | 11.1 | 12.2 | 15.0 | 16.7 |
| | C Condition (7°C) | COPd (declared COP) | | | 6.3 | 6.5 | 6.1 | | 6.3 | 6.8 | 6.5 |
| | | Pdh (declared heating cap) | | kW | 5.0 | 5.5 | 6.4 | 7.1 | 8.0 | 9.7 | 10.7 |
| | D Condition (12°C) | COPd (declared COP) | | | 7.8 | 8.3 | 7.9 | 8.6 | 8.7 | 9.1 | 9.2 |
| | | Pdh (declared heating cap) | | kW | 5.9 | 6.0 | 6.4 | 4.9 | 5.0 | 7.2 | |
| | TBivalent | COPd (declared COP) | | | 2.4 | | 1.9 | 2.3 | 2.2 | 1.9 | 1.8 |
| | | Pdh (declared heating cap) | | kW | 13.7 | 16.0 | 18.4 | 20.6 | 23.2 | 27.9 | 31.0 |
| | | Tbiv (bivalent temperature) | | °C | -10 | | | | | | |
| | TOL | COPd (declared COP) | | | 2.4 | | 1.9 | 2.3 | 2.2 | 1.9 | 1.8 |
| | | Pdh (declared heating cap) | | kW | 13.7 | 16.0 | 18.4 | 20.6 | 23.2 | 27.9 | 31.0 |
| | | Tol (temperature operating limit) | | °C | -10 | | | | | | |
| Space heating (Average climate) recommended combination 3 | A Condition (-7°C) | COPd (declared COP) | | | 2.7 | 2.6 | 2.4 | 2.6 | | 2.4 | 2.1 |
| | | Pdh (declared heating cap) | | kW | 12.1 | 14.2 | 16.3 | 18.2 | 20.5 | 24.7 | 27.4 |
| Space heating (Average climate) recommended combination 3 | B Condition (2°C) | COPd (declared COP) | | | 3.9 | 3.7 | 3.9 | 3.5 | | 3.7 | 3.6 |
| | | Pdh (declared heating cap) | | kW | 7.4 | 8.6 | 9.9 | 11.1 | 12.5 | 15.0 | 16.7 |
| | C Condition (7°C) | COPd (declared COP) | | | 6.2 | 6.4 | 6.0 | 6.1 | 6.2 | 6.5 | 6.3 |
| | | Pdh (declared heating cap) | | kW | 4.9 | 5.5 | 6.4 | 7.1 | 8.0 | 9.7 | 10.7 |
| | D Condition (12°C) | COPd (declared COP) | | | 7.8 | 8.1 | 7.8 | 8.5 | 8.6 | 8.7 | |
| | | Pdh (declared heating cap) | | kW | 5.8 | 5.9 | 6.2 | 4.9 | | 6.9 | |
| | TBivalent | COPd (declared COP) | | | 2.5 | 2.4 | 2.0 | 2.3 | 2.2 | 1.9 | 1.8 |
| | | Pdh (declared heating cap) | | kW | 13.7 | 16.0 | 18.4 | 20.6 | 23.2 | 27.9 | 31.0 |
| | | Tbiv (bivalent temperature) | | °C | -10 | | | | | | |
| | TOL | COPd (declared COP) | | | 2.5 | 2.4 | 2.0 | 2.3 | 2.2 | 1.9 | 1.8 |
| | | Pdh (declared heating cap) | | kW | 13.7 | 16.0 | 18.4 | 20.6 | 23.2 | 27.9 | 31.0 |
| | | Tol (temperature operating limit) | | °C | -10 | | | | | | |
| Capacity range | | | | HP | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| PED | Category | | | | Category II | | | | | | |
| | Most critical part | Name | | | Accumulator | | | | | | |
| | | Ps*V | | Bar*l | 325 | | | 415 | | 493 | |
| Maximum number of connectable indoor units | | | | | 64 (3) | | | | | | |
| Indoor index connection | Min. | | | | 100.0 | 125.0 | 150.0 | 175.0 | 200.0 | 225.0 | 250.0 |
| | Max. | | | | 260.0 | 325.0 | 390.0 | 455.0 | 520.0 | 585.0 | 650.0 |
| Dimensions | Unit | Height | | mm | 1,685 | | | | | | |
| | | Width | | mm | 930 | | | 1,240 | | | |
| | | Depth | | mm | 765 | | | | | | |
| | Packed unit | Height | | mm | 1,820 | | | | | | |
| | | Width | | mm | 995 | | | 1,305 | | | |
| | | Depth | | mm | 860 | | | | | | |
| Weight | Unit | | | kg | 201 | | | 281 | | 314 | |
| | Packed unit | | | kg | 219 | | | 302 | | 335 | |
| Packing | Material | | | | Carton | | | | | | |
| | Weight | | | kg | 4.7 | | | 5.7 | | | |
| Packing 2 | Material | | | | Wood | | | | | | |
| | Weight | | | kg | 12.1 | | | 14.7 | | | |
| Packing 3 | Material | | | | Plastic | | | | | | |
| | Weight | | | kg | 0.5 | | | 0.7 | | | |
| Casing | Colour | | | | Ivory white | | | | | | |
| | Material | | | | Painted galvanized steel plate | | | | | | |
| Heat exchanger | Type | | | | Cross fin coil | | | | | | |
| | Indoor side | | | | Air | | | | | | |
| Heat exchanger | Outdoor side | | | | Air | | | | | | |
| | Air flow rate | Cooling | Rated | $m^3/h$ | 9,720 | 10,500 | 11,100 | 13,380 | 15,600 | 15,060 | 15,660 |
| | | Heating | Rated | $m^3/h$ | 9,720 | 10,500 | 11,100 | 13,380 | 15,600 | 15,060 | 15,660 |
| Fan | Quantity | | | | 1 | | | 2 | | | |
| | External static pressure | Max. | | Pa | 78 | | | | | | |
| Fan motor | Quantity | | | | 1 | | | 2 | | | |
| | Type | | | | DC motor | | | | | | |
| | Output | | | W | 550 | | | 750 | | | |
| Compressor | Quantity | | | | 1 | | | 2 | | | |
| | Type | | | | Hermetically sealed scroll compressor | | | | | | |
| Operation range | Cooling | Min. | | °CDB | -5.0 | | | | | | |
| | | Max. | | °CDB | 43.0 | | | | | | |
| | Heating | Min. | | °CWB | -20.0 | | | | | | |
| | | Max. | | °CWB | 15.5 | | | | | | |
| Sound power level | Cooling | Nom. | | dBA | 78.0 (4) | 79.1 (4) | 83.4 (4) | 80.9 (4) | 85.6 (4) | 83.8 (4) | 87.9 (4) |
| | Heating | Prated,h | | dBA | 79.6 (4) | 80.9 (4) | 83.5 (4) | 83.1 (4) | 86.5 (4) | 85.3 (4) | 89.8 (4) |
| Sound pressure level | Cooling | Nom. | | dBA | 57.0 (5) | | 61.0 (5) | 60.0 (5) | 63.0 (5) | 62.0 (5) | 65.0 (5) |

# 2 Specifications

## 2 - 1 Specifications

| Technical Specifications | | | | | RXYQ8UD | RXYQ10UD | RXYQ12UD | RXYQ14UD | RXYQ16UD | RXYQ18UD | RXYQ20UD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Refrigerant | Type | | | | R-410A | | | | | | |
| | GWP | | | | 2,087.5 | | | | | | |
| | Charge | | | kg | 5.9 | 6.0 | 6.3 | 10.3 | 11.3 | 11.7 | 11.8 |
| Refrigerant oil | Type | | | | Synthetic (ether) oil FVC68D | | | | | | |
| Piping connections | Liquid | Type | | | Braze connection | | | | | | |
| | | OD | | mm | 9.52 | | 12.7 | | | 15.9 | |
| | Gas | Type | | | Braze connection | | | | | | |
| | | OD | | mm | 19.1 | 22.2 | 28.6 | | | | |
| | Total piping length | System | Actual | m | 1,000 (6) | | | | | | |
| 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 | 0.0 | | | | | | |
| Power consumption in other than active mode | Crankcase heater mode | Cooling | PCK | kW | 0.000 | | | | | | |
| | | Heating | PCK | kW | 0.052 | | | 0.077 | | 0.089 | |
| | Off mode | Cooling | POFF | kW | 0.041 | | | 0.074 | | 0.075 | |
| | | Heating | POFF | kW | 0.052 | | | 0.077 | | 0.089 | |
| | Standby mode | Cooling | PSB | kW | 0.041 | | | 0.074 | | 0.075 | |
| | | Heating | PSB | kW | 0.052 | | | 0.077 | | 0.089 | |
| | Thermo-stat-off mode | Cooling | PTO | kW | 0.005 | | | 0.010 | | | |
| Power consumption in other than active mode | Thermo-stat-off mode | Heating | PTO | kW | 0.056 | | | 0.097 | | 0.098 | |
| 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 | | | | | | |
| | | 04 | | | PC board fuse | | | | | | |
| | | 05 | | | Leakage current detector | | | | | | |

Standard accessories: Installation manual;Quantity: 1;

Standard accessories: Operation manual;Quantity: 1;

Standard accessories: Connection pipes;Quantity: 1;

| Electrical Specifications | | | | | RXYQ8UD | RXYQ10UD | RXYQ12UD | RXYQ14UD | RXYQ16UD | RXYQ18UD | RXYQ20UD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Power supply | Name | | | | Y1 | | | | | | |
| | Phase | | | | 3N~ | | | | | | |
| | Frequency | | | Hz | 50 | | | | | | |
| | Voltage | | | V | 380-415 | | | | | | |
| Power supply intake | | | | | Both indoor and outdoor unit | | | | | | |
| Voltage range | Min. | | | % | -10 | | | | | | |
| | Max. | | | % | 10 | | | | | | |
| Current - 50Hz | Nominal running current (RLA) | Combination A | Cooling | | - | | | | | | |
| | | Combination B | Cooling | | - | | | | | | |
| | Starting current (MSC) - remark | | | | See note 7 | | | | | | |
| | Zmax | List | | | No requirements | | | | | | |
| | Minimum Ssc value | | | kVa | 4,050 (7) | 5,535 (7) | 6,038 (7) | 6,793 (7) | 7,547 (7) | 8,805 (7) | 9,812 (7) |
| | Minimum circuit amps (MCA) | | | A | 16.1 (8) | 22.0 (8) | 24.0 (8) | 27.0 (8) | 31.0 (8) | 35.0 (8) | 39.0 (8) |
| | Maximum fuse amps (MFA) | | | A | 20 (9) | 25 (9) | 32 (9) | | 40 (9) | | 50 (9) |
| | Full load amps (FLA) | Total | | A | 1.2 (10) | 1.3 (10) | 1.5 (10) | 1.8 (10) | 2.6 (10) | | |
| Power Performance | Power factor | Combination B | 35°C ISO - Full load | | - | | | | | | |
| | | | 46°C ISO - Full load | | - | | | | | | |
| Wiring connections - 50Hz | For power supply | Quantity | | | 5G | | | | | | |
| | For connection with indoor | Quantity | | | 2 | | | | | | |
| | | Remark | | | F1,F2 | | | | | | |

(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)Actual number of connectable indoor units depends on the indoor unit type (VRV indoor, Hydrobox, RA indoor, etc.) and the connection ratio restriction for the system (50% <= CR <= 130%) |
(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)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 wih Ssc ≥ minimum Ssc value |
(8)MCA must be used to select the correct field wiring size. The MCA can be regarded as the maximum running current. |
(9)MFA is used to select the circuit breaker and the ground fault circuit interrupter (earth leakage circuit breaker). |

# 2 Specifications

## 2 - 1 Specifications



(10)FLA means the nominal running current of the fan |
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. |
The AUTOMATIC ESEER value corresponds with normal VRV4 Heat Pump operation, taking into account advanced energy saving operation funcitonality ( variable refrigerant temperature ) |
The STANDARD ESEER value corresponds with normal VRV4 Heat Pump operation, not taking into account advanced energy saving operation functionality |
Sound values are measured in a semi-anechoic room. |
Soundpressure system [dBA] = 10*log[10^(A/10)+10^(B/10)+10^(C/10)] , with Unit A = A dBA, Unit B = B dBA, Unit C = C dBA |
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 > 16A and ≤ 75A per phase |
Ssc: Short-circuit power |
For detailed contents of standard accessories, see installation/operation manual |
Multi combination (22~54HP) data is corresponding with the standard multi combination

| Technical specifications System | | | | | RXYQ22UD | RXYQ24UD | RXYQ26UD | RXYQ28UD | RXYQ30UD | RXYQ32UD | RXYQ34UD | RXYQ36UD | RXYQ38UD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| System | Outdoor unit module 1 | | | | RXYQ10U | RXYQ8U | RXYQ12U | | | RXYQ16U | | | RXYQ8U |
| | Outdoor unit module 2 | | | | RXYQ12U | RXYQ16U | RXYQ14U | RXYQ16U | RXYQ18U | RXYQ16U | RXYQ18U | RXYQ20U | RXYQ10U |
| | Outdoor unit module 3 | | | | - | | | | | | | | RXYQ20U |
| Recommended combination | | | | | 6 x FXFQ50AVEB + 4 x FXFQ63AVEB | 4 x FXFQ50AVEB + 4 x FXFQ63AVEB + 2 x FXFQ80AVEB | 7 x FXFQ50AVEB + 5 x FXFQ63AVEB | 6 x FXFQ50AVEB + 4 x FXFQ63AVEB + 2 x FXFQ80AVEB | 9 x FXFQ50AVEB + 5 x FXFQ63AVEB | 8 x FXFQ63AVEB + 4 x FXFQ80AVEB | 3 x FXFQ50AVEB + 9 x FXFQ63AVEB + 2 x FXFQ80AVEB | 2 x FXFQ50AVEB + 10 x FXFQ63AVEB + 2 x FXFQ80AVEB | 6 x FXFQ50AVEB + 10 x FXFQ63AVEB |
| Recommended combination 2 | | | | | 6 x FXSQ50A2VEB + 4 x FXSQ63A2VEB | 4 x FXSQ50A2VEB + 4 x FXSQ63A2VEB + 2 x FXSQ80A2VEB | 7 x FXSQ50A2VEB + 5 x FXSQ63A2VEB | 6 x FXSQ50A2VEB + 4 x FXSQ63A2VEB + 2 x FXSQ80A2VEB | 9 x FXSQ50A2VEB + 5 x FXSQ63A2VEB | 8 x FXSQ63A2VEB + 4 x FXSQ80A2VEB | 3 x FXSQ50A2VEB + 9 x FXSQ63A2VEB + 2 x FXSQ80A2VEB | 2 x FXSQ50A2VEB + 10 x FXSQ63A2VEB + 2 x FXSQ80A2VEB | 6 x FXSQ50A2VEB + 10 x FXSQ63A2VEB |
| Recommended combination 3 | | | | | 6 x FXMQ50P7VEB + 4 x FXMQ63P7VEB | 4 x FXMQ50P7VEB + 4 x FXMQ63P7VEB + 2 x FXMQ80P7VEB | 7 x FXMQ50P7VEB + 5 x FXMQ63P7VEB | 6 x FXMQ50P7VEB + 4 x FXMQ63P7VEB + 2 x FXMQ80P7VEB | 9 x FXMQ50P7VEB + 5 x FXMQ63P7VEB | 8 x FXMQ63P7VEB + 4 x FXMQ80P7VEB | 3 x FXMQ50P7VEB + 9 x FXMQ63P7VEB + 2 x FXMQ80P7VEB | 2 x FXMQ50P7VEB + 10 x FXMQ63P7VEB + 2 x FXMQ80P7VEB | 6 x FXMQ50P7VEB + 10 x FXMQ63P7VEB |
| Cooling capacity | Prated,c | | | kW | 61.5 (1) | 67.4 (1) | 73.5 (1) | 78.5 (1) | 83.9 (1) | 90.0 (1) | 95.4 (1) | 97.0 (1) | 102.4 (1) |
| Heating capacity | Nom. | 6°CWB | | kW | 61.5 (2) | 67.4 (2) | 73.5 (2) | 78.5 (2) | 83.9 (2) | 90.0 (2) | 95.4 (2) | 101.0 (2) | 106.4 (2) |
| | Prated,h | | | kW | 61.5 (2) | 67.4 (2) | 73.5 (2) | 78.5 (2) | 83.9 (2) | 90.0 (2) | 95.4 (2) | 101.0 (2) | 106.4 (2) |
| | Max. | 6°CWB | | kW | 69.0 (2) | 75.0 (2) | 82.5 (2) | 87.5 (2) | 94.0 (2) | 100.0 (2) | 106.5 (2) | 113.0 (2) | 119.5 (2) |
| Power input - 50Hz | Heating | Nom. | 6°CWB | kW | 17.23 (2) | 17.94 (2) | 20.33 (2) | 22.19 (2) | 23.87 (2) | 25.08 (2) | 26.76 (2) | 30.02 (2) | 30.45 (2) |
| COP at nom. capacity | 6°CWB | | | kW/kW | 3.57 (2) | 3.76 (2) | 3.61 (2) | 3.54 (2) | 3.51 (2) | 3.59 (2) | 3.56 (2) | 3.36 (2) | 3.49 (2) |
| ESEER - Automatic | | | | | 7.07 | 6.81 | 6.89 | 6.69 | 6.60 | 6.50 | 6.44 | 6.02 | 6.36 |
| ESEER - Standard | | | | | 5.58 | 5.42 | 5.39 | 5.23 | 5.17 | 5.05 | 5.01 | 4.68 | 5.03 |
| SCOP | | | | | 4.4 | 4.3 | 4.2 | | 4.3 | 4.2 | | 4.1 | 4.3 |
| SCOP recommended combination 2 | | | | | 4.4 | 4.3 | 4.2 | | 4.3 | 4.2 | 4.3 | 4.2 | 4.3 |
| SCOP recommended combination 3 | | | | | 4.3 | 4.2 | | | 4.3 | 4.1 | 4.2 | 4.1 | 4.2 |
| SEER | | | | | 6.9 | 6.8 | 6.7 | 6.5 | | 6.4 | | 6.3 | 6.9 |
| SEER recommended combination 2 | | | | | 6.7 | 6.6 | 6.5 | | | 6.3 | | | 6.8 |
| SEER recommended combination 3 | | | | | 6.9 | 6.7 | 6.6 | 6.4 | 6.5 | 6.2 | 6.3 | | 6.9 |
| ηs,c | | | | % | 274.5 | 269.9 | 264.2 | 257.8 | 256.8 | 251.7 | 253.3 | 250.8 | 272.4 |
| ηs,h | | | | % | 171.2 | 167.0 | 164.6 | 166.0 | 169.8 | 163.1 | 166.2 | 162.4 | 167.5 |
| Space cooling | A Condition | EERd | | | 2.6 | 2.5 | 2.6 | 2.3 | 2.1 | 2.3 | 2.1 | | 2.4 |
| | (35°C - 27/19) | Pdc | | kW | 61.5 | 67.4 | 73.5 | 78.5 | 83.9 | 90.0 | 95.4 | 97.0 | 102.4 |
| | B Condition | EERd | | | 4.8 | 4.6 | | 4.4 | 4.3 | | 4.2 | 4.1 | 4.5 |
| | (30°C - 27/19) | Pdc | | kW | 45.3 | 49.7 | 54.2 | 57.8 | 61.8 | 66.3 | 70.3 | 71.5 | 75.5 |
| | C Condition | EERd | | | 8.5 | 8.6 | 8.2 | 8.1 | 8.2 | 8.1 | | 7.9 | 8.5 |
| | (25°C - 27/19) | Pdc | | kW | 29.1 | 31.9 | 34.8 | 37.2 | 39.7 | 42.6 | 45.2 | 45.9 | 48.5 |
| | D Condition | EERd | | | 16.0 | 15.2 | 14.2 | 14.3 | 16.8 | 14.3 | 16.8 | 16.7 | 17.9 |
| | (20°C - 27/19) | Pdc | | kW | 18.8 | 15.8 | 16.2 | 16.5 | 21.0 | 19.0 | 20.1 | 20.4 | 21.6 |
| Space cooling recommended combination 2 | A Condition | EERd | | | 2.6 | 2.4 | 2.6 | 2.3 | 2.1 | 2.2 | 2.1 | | 2.3 |
| | (35°C - 27/19) | Pdc | | kW | 61.5 | 67.4 | 73.5 | 78.5 | 83.9 | 90.0 | 95.4 | 97.0 | 102.4 |
| | B Condition | EERd | | | 4.6 | 4.5 | 4.4 | 4.3 | | 4.2 | | 4.1 | 4.5 |
| | (30°C - 27/19) | Pdc | | kW | 45.3 | 49.7 | 54.1 | 57.8 | 61.8 | 66.3 | 70.3 | 71.5 | 75.4 |
| | C Condition | EERd | | | 8.2 | 8.4 | 7.9 | 7.8 | 7.9 | 8.0 | 8.1 | 7.9 | 8.4 |
| | (25°C - 27/19) | Pdc | | kW | 29.1 | 31.9 | 34.8 | 37.2 | 39.7 | 42.6 | 45.2 | 45.9 | 48.5 |
| Space cooling recommended combination 2 | D Condition | EERd | | | 15.6 | 14.7 | 13.6 | 13.8 | 16.1 | 14.0 | 16.5 | | 17.8 |
| | (20°C - 27/19) | Pdc | | kW | 18.4 | 15.4 | 15.7 | 16.5 | 20.5 | 18.9 | 20.1 | 20.4 | 21.6 |
| Space cooling recommended combination 3 | A Condition | EERd | | | | 2.5 | | 2.3 | 2.1 | 2.2 | 2.1 | | 2.4 |
| | (35°C - 27/19) | Pdc | | kW | 61.5 | 67.4 | 73.5 | 78.5 | 83.9 | 90.0 | 95.4 | 97.0 | 102.4 |
| | B Condition | EERd | | | 4.8 | 4.5 | | 4.3 | | 4.1 | | 4.0 | 4.5 |
| | (30°C - 27/19) | Pdc | | kW | 45.3 | 49.7 | 54.2 | 57.8 | 61.8 | 66.3 | 70.3 | 71.5 | 75.5 |
| | C Condition | EERd | | | 8.5 | 8.4 | 8.1 | 8.0 | 8.2 | 7.8 | 8.0 | 7.8 | 8.5 |
| | (25°C - 27/19) | Pdc | | kW | 29.1 | 31.9 | 34.8 | 37.2 | 39.7 | 42.6 | 45.2 | 45.9 | 48.5 |
| | D Condition | EERd | | | 15.8 | 15.2 | 14.0 | 14.1 | 16.6 | 13.8 | 16.6 | 16.5 | 17.9 |
| | (20°C - 27/19) | Pdc | | kW | 18.8 | 15.7 | 16.0 | 16.6 | 21.0 | 19.0 | 20.1 | 20.4 | 21.6 |

# 2 Specifications

## 2 - 1 Specifications

| Technical specifications System | | | | | RXYQ22UD | RXYQ24UD | RXYQ26UD | RXYQ28UD | RXYQ30UD | RXYQ32UD | RXYQ34UD | RXYQ36UD | RXYQ38UD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Space heating (Average climate) | TBivalent | COPd (declared COP) | | | 2.3 | 2.5 | 2.3 | 2.2 | 2.1 | 2.4 | 2.2 | 2.1 | 2.2 |
| | | Pdh (declared heating cap) | | kW | 34.4 | 36.9 | 39.0 | 41.6 | 46.3 | 46.4 | 51.1 | 54.2 | 60.7 |
| | | Tbiv (bivalent temperature) | | °C | -10 | | | | | | | | |
| | TOL | COPd (declared COP) | | | 2.3 | 2.5 | 2.3 | 2.2 | 2.1 | 2.4 | 2.2 | 2.1 | 2.2 |
| | | Pdh (declared heating cap) | | kW | 34.4 | 36.9 | 39.0 | 41.6 | 46.3 | 46.4 | 51.1 | 54.2 | 60.7 |
| | | Tol (temperature operating limit) | | °C | -10 | | | | | | | | |
| | A Condition | COPd (declared COP) | | | 2.6 | 2.8 | 2.6 | | 2.7 | 2.6 | 2.5 | | |
| | (-7°C) | Pdh (declared heating cap) | | kW | 30.4 | 32.6 | 34.5 | 36.8 | 41.0 | | 45.2 | 47.9 | 53.7 |
| | B Condition | COPd (declared COP) | | | 4.0 | 3.7 | 3.8 | | 3.9 | 3.6 | 3.7 | | 3.9 |
| | (2°C) | Pdh (declared heating cap) | | kW | 18.5 | 19.9 | 21.0 | 22.4 | 24.9 | 25.0 | 27.5 | 29.2 | 32.7 |
| | C Condition | COPd (declared COP) | | | 6.3 | | 6.1 | 6.2 | 6.5 | 6.3 | 6.5 | 6.4 | 6.5 |
| | (7°C) | Pdh (declared heating cap) | | kW | 11.9 | 13.0 | 13.5 | 14.4 | 16.0 | 16.1 | 17.7 | 18.8 | 21.3 |
| | D Condition | COPd (declared COP) | | | 8.2 | 8.9 | 8.8 | | 9.0 | | 8.8 | 8.6 | 8.7 |
| | (12°C) | Pdh (declared heating cap) | | kW | 6.0 | 5.7 | 6.0 | 6.4 | 7.1 | | 7.9 | 8.3 | 13.1 |
| Space heating (Average climate) recommended combination 2 | A Condition | COPd (declared COP) | | | 2.6 | 2.7 | 2.6 | | | 2.7 | 2.6 | 2.5 | |
| | (-7°C) | Pdh (declared heating cap) | | kW | 30.4 | 32.6 | 34.5 | 36.8 | 41.0 | | 45.2 | 47.9 | 53.7 |
| | B Condition | COPd (declared COP) | | | 4.1 | 3.7 | 3.8 | | 3.9 | 3.6 | 3.8 | 3.7 | 3.9 |
| | (2°C) | Pdh (declared heating cap) | | kW | 18.5 | 19.9 | 21.0 | 22.4 | 24.9 | 25.0 | 27.5 | 29.2 | 32.7 |
| | C Condition | COPd (declared COP) | | | 6.3 | | 6.1 | 6.3 | 6.6 | 6.3 | 6.6 | 6.5 | |
| | (7°C) | Pdh (declared heating cap) | | kW | 11.9 | 13.1 | | 14.4 | 16.0 | 16.1 | 17.7 | 18.8 | 21.3 |
| | D Condition | COPd (declared COP) | | | 8.4 | 9.0 | 8.9 | | 9.1 | | 8.9 | 8.8 | |
| | (12°C) | Pdh (declared heating cap) | | kW | 6.0 | 5.7 | 6.0 | 6.4 | 7.2 | 7.1 | 7.9 | 8.3 | 13.2 |
| | TBivalent | COPd (declared COP) | | | 2.2 | 2.4 | 2.2 | | 2.1 | 2.4 | 2.2 | | 2.3 |
| | | Pdh (declared heating cap) | | kW | 34.4 | 36.9 | 39.0 | 41.6 | 46.3 | 46.4 | 51.1 | 54.2 | 60.7 |
| | | Tbiv (bivalent temperature) | | °C | -10 | | | | | | | | |
| | TOL | COPd (declared COP) | | | 2.2 | 2.4 | 2.2 | | 2.1 | 2.4 | 2.2 | | 2.3 |
| | | Pdh (declared heating cap) | | kW | 34.4 | 36.9 | 39.0 | 41.6 | 46.3 | 46.4 | 51.1 | 54.2 | 60.7 |
| Space heating (Average climate) recommended combination 2 | TOL | Tol (temperature operating limit) | | °C | -10 | | | | | | | | |
| Space heating (Average climate) recommended combination 3 | A Condition | COPd (declared COP) | | | 2.6 | 2.7 | 2.6 | | 2.5 | 2.7 | 2.6 | 2.4 | 2.5 |
| | (-7°C) | Pdh (declared heating cap) | | kW | 30.4 | 32.6 | 34.5 | 36.8 | 41.0 | | 45.2 | 47.9 | 53.7 |
| | B Condition | COPd (declared COP) | | | 4.0 | 3.7 | 3.8 | | 3.9 | 3.6 | 3.7 | 3.6 | 3.8 |
| | (2°C) | Pdh (declared heating cap) | | kW | 18.5 | 19.9 | 21.0 | 22.4 | 24.9 | 25.0 | 27.5 | 29.2 | 32.7 |
| | C Condition | COPd (declared COP) | | | 6.2 | 6.3 | 6.1 | 6.2 | 6.3 | | 6.4 | 6.3 | |
| | (7°C) | Pdh (declared heating cap) | | kW | 11.9 | 12.9 | 13.5 | 14.4 | 16.0 | 16.1 | 17.7 | 18.8 | 21.2 |
| | D Condition | COPd (declared COP) | | | 8.2 | 8.9 | 8.8 | 9.0 | 8.6 | 9.0 | 8.9 | 8.3 | 8.5 |
| | (12°C) | Pdh (declared heating cap) | | kW | 6.0 | 5.7 | 6.0 | 6.4 | 7.1 | | 7.9 | 8.3 | 12.9 |
| | TBivalent | COPd (declared COP) | | | 2.3 | 2.4 | 2.2 | | 2.1 | 2.4 | 2.2 | 2.1 | 2.2 |
| | | Pdh (declared heating cap) | | kW | 34.4 | 36.9 | 39.0 | 41.6 | 46.3 | 46.4 | 51.1 | 54.2 | 60.7 |
| | | Tbiv (bivalent temperature) | | °C | -10 | | | | | | | | |
| | TOL | COPd (declared COP) | | | 2.3 | 2.4 | 2.2 | | 2.1 | 2.4 | 2.2 | 2.1 | 2.2 |
| | | Pdh (declared heating cap) | | kW | 34.4 | 36.9 | 39.0 | 41.6 | 46.3 | 46.4 | 51.1 | 54.2 | 60.7 |
| | | Tol (temperature operating limit) | | °C | -10 | | | | | | | | |
| Capacity range | | | | HP | 22 | 24 | 26 | 28 | 30 | 32 | 34 | 36 | 38 |
| PED | Category | | | | Category II | | | | | | | | |
| Maximum number of connectable indoor units | | | | | 64 (3) | | | | | | | | |
| Indoor index connection | Min. | | | | 275.0 | 300.0 | 325.0 | 350.0 | 375.0 | 400.0 | 425.0 | 450.0 | 475.0 |
| | Max. | | | | 715.0 | 780.0 | 845.0 | 910.0 | 975.0 | 1,040.0 | 1,105.0 | 1,170.0 | 1,235.0 |
| Heat exchanger | Indoor side | | | | Air | | | | | | | | |
| | Outdoor side | | | | Air | | | | | | | | |
| | Air flow rate | Cooling | Rated | $m^3/h$ | 21,600 | 25,320 | 24,480 | 26,700 | 26,160 | 31,200 | 30,660 | 31,260 | 35,880 |
| | | Heating | Rated | $m^3/h$ | 21,600 | 25,320 | 24,480 | 26,700 | 26,160 | 31,200 | 30,660 | 31,260 | 35,880 |
| Sound power level | Cooling | Nom. | | dBA | 84.8 (4) | 86.3 (4) | 85.3 (4) | 87.6 (4) | 86.6 (4) | 88.6 (4) | 87.8 (4) | 89.9 (4) | 88.8 (4) |
| | Heating | Prated,h | | dBA | 85.4 (4) | 87.3 (4) | 86.3 (4) | 88.3 (4) | 87.5 (4) | 89.5 (4) | 88.9 (4) | 91.5 (4) | 90.7 (4) |
| Sound pressure level | Cooling | Nom. | | dBA | 62.5 (5) | 64.0 (5) | 63.5 (5) | 65.1 (5) | 64.5 (5) | 66.0 (5) | 65.5 (5) | 67.1 (5) | 66.2 (5) |
| Refrigerant | Type | | | | R-410A | | | | | | | | |
| | GWP | | | | 2,087.5 | | | | | | | | |
| Refrigerant oil | Type | | | | Synthetic (ether) oil FVC68D | | | | | | | | |
| Piping connections | Liquid | Type | | | Braze connection | | | | | | | | |
| | | OD | | mm | 15.9 | | 19.1 | | | | | | |
| | Gas | Type | | | Braze connection | | | | | | | | |
| | | OD | | mm | 28.6 | 34.9 | | | | | | 41.3 | |
| | Total piping length | System | Actual | m | 1,000 (6) | | | | | | | | |
| Indication if the heater is equipped with a supplementary heater | | | | | no | | | | | | | | |
| Supplementary heater | Back-up capacity | Heating | elbu | kW | 0.0 | | | | | | | | |

# 2 Specifications

## 2 - 1 Specifications



| Technical specifications System | | | | | RXYQ22UD | RXYQ24UD | RXYQ26UD | RXYQ28UD | RXYQ30UD | RXYQ32UD | RXYQ34UD | RXYQ36UD | RXYQ38UD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Power consumption in other than active mode | Crankcase heater mode | Cooling | PCK | kW | 0.000 | | | | | | | | |
| | | Heating | PCK | kW | 0.103 | 0.129 | | | 0.141 | 0.154 | 0.166 | | 0.192 |
| | Off mode | Cooling | POFF | kW | 0.081 | 0.115 | | | 0.116 | 0.149 | 0.150 | | 0.157 |
| | | Heating | POFF | kW | 0.103 | 0.129 | | | 0.141 | 0.154 | 0.166 | | 0.192 |
| | Standby mode | Cooling | PSB | kW | 0.081 | 0.115 | | | 0.116 | 0.149 | 0.150 | | 0.157 |
| | | Heating | PSB | kW | 0.103 | 0.129 | | | 0.141 | 0.154 | 0.166 | | 0.192 |
| | Thermo-stat-off mode | Cooling | PTO | kW | 0.009 | 0.014 | | | | 0.019 | | | |
| | | Heating | PTO | kW | 0.113 | 0.154 | | | 0.155 | 0.195 | 0.196 | | 0.211 |
| Cooling | Cdc (Degradation cooling) | | | | 0.25 | | | | | | | | |
| Heating | Cdh (Degradation heating) | | | | 0.25 | | | | | | | | |

| Technical specifications System | | | | | RXYQ40UD | RXYQ42UD | RXYQ44UD | RXYQ46UD | RXYQ48UD | RXYQ50UD | RXYQ52UD | RXYQ54UD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| System | Outdoor unit module 1 | | | | RXYQ10U | | RXYQ12U | RXYQ14U | RXYQ16U | | | RXYQ18U |
| | Outdoor unit module 2 | | | | RXYQ12U | RXYQ16U | | | | | RXYQ18U | |
| | Outdoor unit module 3 | | | | RXYQ18U | RXYQ16U | | | | RXYQ18U | | |
| Recommended combination | | | | | 9 x FXFQ50AVEB + 9 x FXFQ63AVEB | 12 x FXFQ63AVEB + 4 x FXFQ80AVEB | 6 x FXFQ50AVEB + 8 x FXFQ63AVEB + 4 x FXFQ80AVEB | 1 x FXFQ50AVEB + 13 x FXFQ63AVEB + 4 x FXFQ80AVEB | 12 x FXFQ63AVEB + 6 x FXFQ80AVEB | 3 x FXFQ50AVEB + 13 x FXFQ63AVEB + 4 x FXFQ80AVEB | 6 x FXFQ50AVEB + 14 x FXFQ63AVEB + 2 x FXFQ80AVEB | 9 x FXFQ50AVEB + 15 x FXFQ63AVEB |
| Recommended combination 2 | | | | | 9 x FXSQ50A2VEB + 9 x FXSQ63A2VEB | 12 x FXSQ63A2VEB + 4 x FXSQ80A2VEB | 6 x FXSQ50A2VEB + 8 x FXSQ63A2VEB + 4 x FXSQ80A2VEB | 1 x FXSQ50A2VEB + 13 x FXSQ63A2VEB + 4 x FXSQ80A2VEB | 12 x FXSQ63A2VEB + 6 x FXSQ80A2VEB | 3 x FXSQ50A2VEB + 13 x FXSQ63A2VEB + 4 x FXSQ80A2VEB | 6 x FXSQ50A2VEB + 14 x FXSQ63A2VEB + 2 x FXSQ80A2VEB | 9 x FXSQ50A2VEB + 15 x FXSQ63A2VEB |
| Recommended combination 3 | | | | | 9 x FXMQ50P7VEB + 9 x FXMQ63P7VEB | 12 x FXMQ63P7VEB + 4 x FXMQ80P7VEB | 6 x FXMQ50P7VEB + 8 x FXMQ63P7VEB + 4 x FXMQ80P7VEB | 1 x FXMQ50P7VEB + 13 x FXMQ63P7VEB + 4 x FXMQ80P7VEB | 12 x FXMQ63P7VEB + 6 x FXMQ80P7VEB | 3 x FXMQ50P7VEB + 13 x FXMQ63P7VEB + 4 x FXMQ80P7VEB | 6 x FXMQ50P7VEB + 14 x FXMQ63P7VEB + 2 x FXMQ80P7VEB | 9 x FXMQ50P7VEB + 15 x FXMQ63P7VEB |
| Cooling capacity | Prated,c | | | kW | 111.9 (1) | 118.0 (1) | 123.5 (1) | 130.0 (1) | 135.0 (1) | 140.4 (1) | 145.8 (1) | 151.2 (1) |
| Heating capacity | Nom. | 6°CWB | | kW | 111.9 (2) | 118.0 (2) | 123.5 (2) | 130.0 (2) | 135.0 (2) | 140.4 (2) | 145.8 (2) | 151.2 (2) |
| | Prated,h | | | kW | 111.9 (2) | 118.0 (2) | 123.5 (2) | 130.0 (2) | 135.0 (2) | 140.4 (2) | 145.8 (2) | 151.2 (2) |
| | Max. | 6°CWB | | kW | 125.5 (2) | 131.5 (2) | 137.5 (2) | 145.0 (2) | 150.0 (2) | 156.5 (2) | 163.0 (2) | 169.5 (2) |
| Power input - 50Hz | Heating | Nom. | 6°CWB | kW | 31.45 (2) | 32.66 (2) | 34.73 (2) | 35.77 (2) | 37.62 (2) | 39.30 (2) | 40.98 (2) | 42.66 (2) |
| COP at nom. capacity | 6°CWB | | | kW/kW | 3.56 (2) | 3.61 (2) | 3.56 (2) | 3.63 (2) | 3.59 (2) | 3.57 (2) | 3.56 (2) | 3.54 (2) |
| ESEER - Automatic | | | | | 6.74 | 6.65 | 6.62 | 6.60 | 6.50 | 6.46 | 6.42 | 6.38 |
| ESEER - Standard | | | | | 5.29 | 5.19 | 5.17 | 5.13 | 5.05 | 5.02 | 4.99 | 4.97 |
| SCOP | | | | | 4.3 | 4.2 | | 4.1 | | 4.2 | 4.3 | |
| SCOP recommended combination 2 | | | | | 4.4 | 4.3 | 4.2 | | | | 4.3 | |
| SCOP recommended combination 3 | | | | | 4.3 | 4.2 | | 4.1 | | 4.2 | | |
| SEER | | | | | 6.7 | 6.6 | 6.5 | 6.4 | | | | |
| SEER recommended combination 2 | | | | | 6.6 | | 6.3 | 6.4 | 6.3 | | 6.4 | |
| SEER recommended combination 3 | | | | | 6.7 | 6.5 | 6.3 | | 6.2 | 6.3 | 6.4 | |
| ηs,c | | | | % | 263.5 | 261.2 | 255.9 | 254.9 | 251.7 | 252.8 | 253.7 | 254.1 |
| ηs,h | | | | % | 170.0 | 165.5 | 164.5 | 162.0 | 162.8 | 165.2 | 167.2 | 169.4 |
| Space cooling | A Condition | EERd | | | 2.2 | 2.3 | | 2.4 | 2.3 | 2.1 | 2.0 | 1.9 |
| | (35°C - 27/19) | Pdc | | kW | 111.9 | 118.0 | 123.5 | 130.0 | 135.0 | 140.4 | 145.8 | 151.2 |
| | B Condition | EERd | | | 4.5 | 4.4 | | | 4.3 | 4.2 | | 4.1 |
| | (30°C - 27/19) | Pdc | | kW | 82.5 | 86.9 | 91.0 | 95.8 | 99.5 | 103.4 | 107.4 | 111.4 |
| | C Condition | EERd | | | 8.3 | 8.2 | | | 8.1 | | | |
| | (25°C - 27/19) | Pdc | | kW | 53.0 | 55.9 | 58.5 | 61.6 | 64.0 | 66.5 | 69.1 | 71.6 |
| | D Condition | EERd | | | 16.0 | 15.4 | 14.4 | | 14.3 | 15.9 | 17.6 | 19.1 |
| | (20°C - 27/19) | Pdc | | kW | 23.6 | 24.8 | 26.0 | 27.4 | 28.4 | 29.6 | 30.7 | 34.4 |
| Space cooling recommended combination 2 | A Condition | EERd | | | 2.2 | | 2.3 | | 2.2 | 2.1 | 2.0 | 1.9 |
| | (35°C - 27/19) | Pdc | | kW | 111.9 | 118.0 | 123.5 | 130.0 | 135.0 | 140.4 | 145.8 | 151.2 |
| | B Condition | EERd | | | 4.4 | | 4.3 | | 4.2 | | 4.1 | |
| | (30°C - 27/19) | Pdc | | kW | 82.4 | 86.9 | 91.0 | 95.8 | 99.5 | 103.5 | 107.4 | 111.4 |
| | C Condition | EERd | | | 8.1 | 8.2 | 7.9 | 8.1 | 8.0 | | 8.1 | |
| | (25°C - 27/19) | Pdc | | kW | 53.0 | 55.9 | 58.5 | 61.6 | 63.9 | 66.5 | 69.0 | 71.6 |
| Space cooling recommended combination 2 | D Condition | EERd | | | 15.9 | 15.3 | | 14.0 | | 15.6 | 17.4 | 18.9 |
| | (20°C - 27/19) | Pdc | | kW | 23.6 | 24.8 | 26.0 | 27.4 | 28.4 | 29.6 | 30.7 | 34.1 |
| Space cooling recommended combination 3 | A Condition | EERd | | | 2.2 | | 2.3 | | 2.2 | 2.1 | 2.0 | 1.9 |
| | (35°C - 27/19) | Pdc | | kW | 111.9 | 118.0 | 123.5 | 130.0 | 135.0 | 140.4 | 145.8 | 151.2 |
| | B Condition | EERd | | | 4.4 | 4.3 | | 4.2 | | 4.1 | | |
| | (30°C - 27/19) | Pdc | | kW | 82.5 | 87.0 | 91.0 | 95.8 | 99.5 | 103.5 | 107.4 | 111.4 |
| | C Condition | EERd | | | 8.4 | 8.0 | 7.9 | | 7.8 | 7.9 | 8.0 | 8.2 |
| | (25°C - 27/19) | Pdc | | kW | 53.0 | 55.9 | 58.5 | 61.6 | 63.9 | 66.5 | 69.1 | 71.6 |
| | D Condition | EERd | | | 16.1 | 15.2 | 14.2 | 13.9 | 13.8 | 15.6 | 17.5 | 19.1 |
| | (20°C - 27/19) | Pdc | | kW | 23.6 | 24.8 | 26.0 | 27.4 | 28.4 | 29.6 | 30.7 | 34.7 |

# 2 Specifications

## 2 - 1 Specifications

| Technical specifications System | | | | | RXYQ40UD | RXYQ42UD | RXYQ44UD | RXYQ46UD | RXYQ48UD | RXYQ50UD | RXYQ52UD | RXYQ54UD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Space heating (Average climate) | TBivalent | COPd (declared COP) | | | 2.2 | 2.4 | 2.3 | 2.4 | | 2.3 | 2.2 | 2.1 |
| | | Pdh (declared heating cap) | | kW | 62.3 | 62.4 | 64.8 | 67.0 | 69.6 | 74.3 | 79.0 | 83.7 |
| | | Tbiv (bivalent temperature) | | °C | -10 | | | | | | | |
| | TOL | COPd (declared COP) | | | 2.2 | 2.4 | 2.3 | 2.4 | | 2.3 | 2.2 | 2.1 |
| | | Pdh (declared heating cap) | | kW | 62.3 | 62.4 | 64.8 | 67.0 | 69.6 | 74.3 | 79.0 | 83.7 |
| | | Tol (temperature operating limit) | | °C | -10 | | | | | | | |
| | A Condition | COPd (declared COP) | | | 2.6 | 2.7 | | | | | 2.6 | |
| | (-7°C) | Pdh (declared heating cap) | | kW | 55.1 | 55.2 | 57.3 | 59.3 | 61.6 | 65.7 | 69.9 | 74.0 |
| | B Condition | COPd (declared COP) | | | 4.0 | 3.7 | | 3.6 | | 3.7 | 3.8 | 3.9 |
| | (2°C) | Pdh (declared heating cap) | | kW | 33.5 | 33.6 | 34.9 | 36.1 | 37.5 | 40.0 | 42.5 | 45.1 |
| | C Condition | COPd (declared COP) | | | 6.5 | 6.3 | | 6.2 | 6.3 | 6.5 | 6.6 | 6.8 |
| | (7°C) | Pdh (declared heating cap) | | kW | 21.6 | | 22.4 | 23.2 | 24.1 | 25.7 | 27.4 | 29.0 |
| | D Condition | COPd (declared COP) | | | 8.7 | 8.6 | | 8.7 | 8.8 | 8.9 | 9.0 | |
| | (12°C) | Pdh (declared heating cap) | | kW | 13.1 | 9.9 | 10.0 | 10.3 | 10.7 | 12.0 | 14.2 | |
| Space heating (Average climate) recommended combination 2 | A Condition | COPd (declared COP) | | | 2.6 | 2.7 | | | | | 2.6 | |
| | (-7°C) | Pdh (declared heating cap) | | kW | 55.1 | 55.2 | 57.3 | 59.3 | 61.6 | 65.7 | 69.9 | 74.0 |
| | B Condition | COPd (declared COP) | | | 4.0 | 3.7 | | 3.6 | | 3.7 | 3.8 | 3.9 |
| | (2°C) | Pdh (declared heating cap) | | kW | 33.5 | 33.6 | 34.9 | 36.1 | 37.5 | 40.0 | 42.6 | 45.1 |
| | C Condition | COPd (declared COP) | | | 6.5 | 6.4 | | 6.3 | | 6.5 | 6.7 | 6.8 |
| | (7°C) | Pdh (declared heating cap) | | kW | 21.6 | | 22.4 | 22.8 | 24.1 | 25.7 | 27.4 | 29.0 |
| | D Condition | COPd (declared COP) | | | 8.8 | 8.7 | | 8.8 | 8.9 | 9.0 | 9.1 | |
| | (12°C) | Pdh (declared heating cap) | | kW | 13.2 | 10.0 | | 10.3 | 10.7 | 12.2 | 14.4 | |
| | TBivalent | COPd (declared COP) | | | 2.2 | 2.4 | 2.3 | 2.4 | | 2.3 | 2.2 | 2.1 |
| | | Pdh (declared heating cap) | | kW | 62.3 | 62.4 | 64.8 | 67.0 | 69.6 | 74.3 | 79.0 | 83.7 |
| | | Tbiv (bivalent temperature) | | °C | -10 | | | | | | | |
| | TOL | COPd (declared COP) | | | 2.2 | 2.4 | 2.3 | 2.4 | | 2.3 | 2.2 | 2.1 |
| | | Pdh (declared heating cap) | | kW | 62.3 | 62.4 | 64.8 | 67.0 | 69.6 | 74.3 | 79.0 | 83.7 |
| Space heating (Average climate) recommended combination 2 | TOL | Tol (temperature operating limit) | | °C | -10 | | | | | | | |
| Space heating (Average climate) recommended combination 3 | A Condition | COPd (declared COP) | | | 2.6 | 2.7 | 2.6 | 2.7 | | 2.6 | | 2.5 |
| | (-7°C) | Pdh (declared heating cap) | | kW | 55.1 | 55.2 | 57.3 | 59.3 | 61.6 | 65.7 | 69.9 | 74.0 |
| | B Condition | COPd (declared COP) | | | 3.9 | 3.7 | | 3.6 | | | 3.7 | 3.8 |
| | (2°C) | Pdh (declared heating cap) | | kW | 33.5 | 33.6 | 34.9 | 36.1 | 37.5 | 40.0 | 42.5 | 45.1 |
| | C Condition | COPd (declared COP) | | | 6.4 | 6.3 | 6.2 | | 6.3 | 6.4 | | 6.5 |
| | (7°C) | Pdh (declared heating cap) | | kW | 21.6 | | 22.4 | 23.2 | 24.1 | 25.7 | 27.3 | 29.0 |
| | D Condition | COPd (declared COP) | | | 8.4 | 8.6 | | 8.7 | 8.8 | | 8.7 | |
| | (12°C) | Pdh (declared heating cap) | | kW | 12.8 | 9.9 | 10.0 | 10.3 | 10.7 | 11.8 | 13.7 | |
| | TBivalent | COPd (declared COP) | | | 2.2 | 2.4 | 2.3 | 2.4 | | 2.2 | | 2.1 |
| | | Pdh (declared heating cap) | | kW | 62.3 | 62.4 | 64.8 | 67.0 | 69.6 | 74.3 | 79.0 | 83.7 |
| | | Tbiv (bivalent temperature) | | °C | -10 | | | | | | | |
| | TOL | COPd (declared COP) | | | 2.2 | 2.4 | 2.3 | 2.4 | | 2.2 | | 2.1 |
| | | Pdh (declared heating cap) | | kW | 62.3 | 62.4 | 64.8 | 67.0 | 69.6 | 74.3 | 79.0 | 83.7 |
| | | Tol (temperature operating limit) | | °C | -10 | | | | | | | |
| Capacity range | | | | HP | 40 | 42 | 44 | 46 | 48 | 50 | 52 | 54 |
| PED | Category | | | | Category II | | | | | | | |
| Maximum number of connectable indoor units | | | | | 64 (3) | | | | | | | |
| Indoor index connection | Min. | | | | 500.0 | 525.0 | 550.0 | 575.0 | 600.0 | 625.0 | 650.0 | 675.0 |
| | Max. | | | | 1,300.0 | 1,365.0 | 1,430.0 | 1,495.0 | 1,560.0 | 1,625.0 | 1,690.0 | 1,755.0 |
| Heat exchanger | Indoor side | | | | Air | | | | | | | |
| | Outdoor side | | | | Air | | | | | | | |
| | Air flow rate | Cooling | Rated | $m^3/h$ | 36,660 | 41,700 | 42,300 | 44,580 | 46,800 | 46,260 | 45,720 | 45,180 |
| | | Heating | Rated | $m^3/h$ | 36,660 | 41,700 | 42,300 | 44,580 | 46,800 | 46,260 | 45,720 | 45,180 |
| Sound power level | Cooling | Nom. | | dBA | 87.3 (4) | 89.1 (4) | 89.8 (4) | 89.3 (4) | 90.4 (4) | 89.8 (4) | 89.3 (4) | 88.6 (4) |
| | Heating | Prated,h | | dBA | 88.4 (4) | 90.1 (4) | 90.5 (4) | 90.4 (4) | 91.3 (4) | 90.9 (4) | 90.5 (4) | 90.1 (4) |
| Sound pressure level | Cooling | Nom. | | dBA | 65.2 (5) | 66.5 (5) | 67.2 (5) | 67.0 (5) | 67.8 (5) | 67.5 (5) | 67.1 (5) | 66.8 (5) |
| Refrigerant | Type | | | | R-410A | | | | | | | |
| | GWP | | | | 2,087.5 | | | | | | | |
| Refrigerant oil | Type | | | | Synthetic (ether) oil FVC68D | | | | | | | |
| Piping connections | Liquid | Type | | | Braze connection | | | | | | | |
| | | OD | | mm | 19.1 | | | | | | | |
| | Gas | Type | | | Braze connection | | | | | | | |
| | | OD | | mm | 41.3 | | | | | | | |
| | Total piping length | System | Actual | m | 1,000 (6) | | | | | | | |
| Indication if the heater is equipped with a supplementary heater | | | | | no | | | | | | | |
| Supplementary heater | Back-up capacity | Heating | elbu | kW | 0.0 | | | | | | | |

# 2 Specifications

## 2 - 1 Specifications



| Technical specifications System | | | | | RXYQ40UD | RXYQ42UD | RXYQ44UD | RXYQ46UD | RXYQ48UD | RXYQ50UD | RXYQ52UD | RXYQ54UD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Power consumption in other than active mode | Crankcase heater mode | Cooling | PCK | kW | 0.000 | | | | | | | |
| | | Heating | PCK | kW | 0.192 | 0.206 | | 0.231 | | 0.243 | 0.255 | 0.267 |
| | Off mode | Cooling | POFF | kW | 0.157 | 0.190 | | 0.223 | | 0.224 | 0.225 | 0.226 |
| | | Heating | POFF | kW | 0.192 | 0.206 | | 0.231 | | 0.243 | 0.255 | 0.267 |
| | Standby mode | Cooling | PSB | kW | 0.157 | 0.190 | | 0.223 | | 0.224 | 0.225 | 0.226 |
| | | Heating | PSB | kW | 0.192 | 0.206 | | 0.231 | | 0.243 | 0.255 | 0.267 |
| | Thermo-stat-off mode | Cooling | PTO | kW | 0.019 | 0.024 | | 0.029 | | | | |
| | | Heating | PTO | kW | 0.211 | 0.251 | | 0.292 | | 0.293 | 0.294 | |
| Cooling | Cdc (Degradation cooling) | | | | 0.25 | | | | | | | |
| Heating | Cdh (Degradation heating) | | | | 0.25 | | | | | | | |

| Electrical specifications System | | | | | RXYQ22UD | RXYQ24UD | RXYQ26UD | RXYQ28UD | RXYQ30UD | RXYQ32UD | RXYQ34UD | RXYQ36UD | RXYQ38UD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Power supply | Name | | | | Y1 | | | | | | | | |
| | Phase | | | | 3N~ | | | | | | | | |
| | Frequency | | | Hz | 50 | | | | | | | | |
| | Voltage | | | V | 380-415 | | | | | | | | |
| Power supply intake | | | | | Both indoor and outdoor unit | | | | | | | | |
| Voltage range | Min. | | | % | -10 | | | | | | | | |
| | Max. | | | % | 10 | | | | | | | | |
| Current - 50Hz | Nominal running current (RLA) | Combination A | Cooling | | - | | | | | | | | |
| | | Combination B | Cooling | | - | | | | | | | | |
| | Starting current (MSC) - remark | | | | See note 7 | | | | | | | | |
| | Zmax | List | | | No requirements | | | | | | | | |
| | Minimum Ssc value | | | kVa | 11,573 (7) | 11,597 (7) | 12,831 (7) | 13,585 (7) | 14,843 (7) | 15,094 (7) | 16,352 (7) | 17,359 (7) | 19,397 (7) |
| | Minimum circuit amps (MCA) | | | A | 46.0 (8) | | 51.0 (8) | 55.0 (8) | 59.0 (8) | 62.0 (8) | 66.0 (8) | 70.0 (8) | 76.0 (8) |
| | Maximum fuse amps (MFA) | | | A | 63 (9) | | | | 80 (9) | | | | 100 (9) |
| Power Performance | Power factor | Combination B | 35°C ISO - Full load | | - | | | | | | | | |
| | | | 46°C ISO - Full load | | - | | | | | | | | |
| Wiring connections - 50Hz | For power supply | Quantity | | | 5G | | | | | | | | |
| | For connection with indoor | Quantity | | | 2 | | | | | | | | |
| | | Remark | | | F1,F2 | | | | | | | | |

| Electrical specifications System | | | | | RXYQ40UD | RXYQ42UD | RXYQ44UD | RXYQ46UD | RXYQ48UD | RXYQ50UD | RXYQ52UD | RXYQ54UD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Power supply | Name | | | | Y1 | | | | | | | |
| | Phase | | | | 3N~ | | | | | | | |
| | Frequency | | | Hz | 50 | | | | | | | |
| | Voltage | | | V | 380-415 | | | | | | | |
| Power supply intake | | | | | Both indoor and outdoor unit | | | | | | | |
| Voltage range | Min. | | | % | -10 | | | | | | | |
| | Max. | | | % | 10 | | | | | | | |
| Current - 50Hz | Nominal running current (RLA) | Combination A | Cooling | | - | | | | | | | |
| | | Combination B | Cooling | | - | | | | | | | |
| | Starting current (MSC) - remark | | | | See note 7 | | | | | | | |
| | Zmax | List | | | No requirements | | | | | | | |
| | Minimum Ssc value | | | kVa | 20,378 (7) | 20,629 (7) | 21,132 (7) | 21,887 (7) | 22,641 (7) | 23,899 (7) | 25,157 (7) | 26,415 (7) |
| | Minimum circuit amps (MCA) | | | A | 81.0 (8) | 84.0 (8) | 86.0 (8) | 89.0 (8) | 93.0 (8) | 97.0 (8) | 101.0 (8) | 105.0 (8) |
| | Maximum fuse amps (MFA) | | | A | 100 (9) | | | | 125 (9) | | | |
| Power Performance | Power factor | Combination B | 35°C ISO - Full load | | - | | | | | | | |
| | | | 46°C ISO - Full load | | - | | | | | | | |
| Wiring connections - 50Hz | For power supply | Quantity | | | 5G | | | | | | | |
| | For connection with indoor | Quantity | | | 2 | | | | | | | |
| | | Remark | | | F1,F2 | | | | | | | |

# 3 Options

## 3 - 1 Options

**RXYQ-UD**



| No | Item | | RXYQ8U * RYYQ8U RXYQQ8U | RXYQ10-12U * RYYQ10-12U RXYQQ10-12U | RXYQ14-18U * RYYQ14-18U RXYQQ14-18U | RXYQ20U * RYYQ20U RXYQQ20U | RYYQ22~54U RXYQ22~54U * RXYQQ22~42U |
|---|---|---|---|---|---|---|---|
| I. | Refnet header | | KHRQ22M29H | | | | |
| | | | KHRQ22M64H | | | | |
| | | | --- | --- | --- | KHRQ22M75H | |
| II. | Refnet joint | | KHRQ22M20T | | | | |
| | | | KHRQ22M29T9 | | | | |
| | | | KHRQ22M64T | | | | |
| | | | --- | --- | --- | KHRQ22M75T | |
| III. | Outdoor multi-connection kit | See note ·2·. | --- | --- | --- | --- | BHFQ22P1007 |
| IV. | Outdoor multi-connection kit | See note ·2·. | --- | --- | --- | --- | BHFQ22P1517 |

| No | Item | | 8HP | 10HP | 12HP | 14HP | 16HP | 18HP | 20HP |
|---|---|---|---|---|---|---|---|---|---|
| 1a | Cool/heat selector (switch) | See note ·3·. | KRC19-26A | | | | | | |
| 1b | Cool/heat selector (PCB) | | BRP2A81 | | | | | | |
| 1c | Cool/heat selector (fixing box) | | KJB111A | | | | | | |
| 2 | VRV configurator | | EKPCCAB* | | | | | | |
| 3 | Heater tape kit PCB | | EKBPH012T7A | | | EKBPH020T7A | | | |
| 4 | Demand PCB | See | DTA104A61/62* | | | | | | |
| 5 | Demand PCB mounting plate | See note ·4·. | --- | | | KKSB26B1* | | | |

**Notes**

1 All options are kits
2 Only for multi units
3 To mount option ·1a·, option ·1c· is required.
4 To install the demand PCB on the large casing type, the demand PCB mounting plate is required.

*Medium casing type ·VRV4· heat pump: modules ·8~12·HP*
*Large casing type ·VRV4· heat pump: modules ·14~20·HP*

**3D120006B**

# 4 Combination table

## 4 - 1 Combination Table

**RXYQ-UD**

4

### Unit combination restrictions: VRV4 outdoor units (all models) + 15-class indoor units

Units in scope: FXZQ15A and FXAQ15A.

1. In case the system contains these indoor units 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 these indoor units and the total connection ratio (CR) > 100%: special restrictions apply.
   A. When the connection ratio (CR1) of the sum of all FXZQ15A and/or FXAQ15A 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 FXZQ15A and/or FXAQ15A 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 FXZQ15A and/or FXAQ15A indoor units in the system must be ≤ 70%.
   - 105% < CR ≤ 110% → CR1 of the sum of all FXZQ15A and/or FXAQ15A indoor units in the system must be ≤ 60%.
   - 110% < CR ≤ 115% → CR1 of the sum of all FXZQ15A and/or FXAQ15A indoor units in the system must be ≤ 40%.
   - 115% < CR ≤ 120% → CR1 of the sum of all FXZQ15A and/or FXAQ15A indoor units in the system must be ≤ 25%.
   - 120% < CR ≤ 125% → CR1 of the sum of all FXZQ15A and/or FXAQ15A indoor units in the system must be ≤ 10%.
   - 125% < CR ≤ 130% → FXZQ15A andFXAQ15A cannot be used

**REMARK**

Only the 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.

**3D104665**

**RXYQ-UD**

Heat pump VRV4

Multi-unit standard combinations table

| | | 8HP | 10HP | 12HP | 14HP | 16HP | 18HP | 20HP |
|---|---|---|---|---|---|---|---|---|
| Heat pump | RXYQ8* / RYYQ8* / RXYQQ8* | 1 | | | | | | |
| | RXYQ10* / RYYQ10* / RXYQQ10* | | 1 | | | | | |
| | RXYQ12* / RYYQ12* / RXYQQ12* | | | 1 | | | | |
| | RXYQ14* / RYYQ14* / RXYQQ14* | | | | 1 | | | |
| | RXYQ16* / RYYQ16* / RXYQQ16* | | | | | 1 | | |
| | RXYQ18* / RYYQ18* / RXYQQ18* | | | | | | 1 | |
| | RXYQ20* / RYYQ20* / RXYQQ20* | | | | | | | 1 |
| Multi-combination with 2 outdoor units | RXYQ22* / RYYQ22* / RXYQQ22* | | 1 | 1 | | | | |
| | RXYQ24* / RYYQ24* / RXYQQ24* | 1 | | | | 1 | | |
| | RXYQ26* / RYYQ26* / RXYQQ26* | | | 1 | 1 | | | |
| | RXYQ28* / RYYQ28* / RXYQQ28* | | | 1 | | 1 | | |
| | RXYQ30* / RYYQ30* / RXYQQ30* | | | 1 | | | 1 | |
| | RXYQ32* / RYYQ32* / RXYQQ32* | | | | | 2 | | |
| | RXYQ34* / RYYQ34* / RXYQQ34* | | | | | 1 | 1 | |
| | RXYQ36* / RYYQ36* / RXYQQ36* | | | | | 1 | | 1 |
| Multi-combination with 3 outdoor units | RXYQ38* / RYYQ38* / RXYQQ38* | 1 | 1 | | | | | 1 |
| | RXYQ40* / RYYQ40* / RXYQQ40* | | 1 | 1 | | | 1 | |
| | RXYQ42* / RYYQ42* / RXYQQ42* | | 1 | | | 2 | | |
| | RXYQ44* / RYYQ44* | | | 1 | | 2 | | |
| | RXYQ46* / RYYQ46* | | | | 1 | 2 | | |
| | RXYQ48* / RYYQ48* | | | | | 3 | | |
| | RXYQ50* / RYYQ50* | | | | | 2 | 1 | |
| | RXYQ52* / RYYQ52* | | | | | 1 | 2 | |
| | RXYQ54* / RYYQ54* | | | | | | 3 | |

**Remark**

RYYQ8~20 = Single continuous heating
RYYQ22~54 Multi continuous heating
RXYQ8~20 = Single non-continuous heating
RXYQ22~54 Multi non-continuous heating
RXYQQ8~20 Single non-continuous heating replacement (VRV4-Q)
RXYQQ22~4 Multi non-continuous heating replacement (VRV4-Q)

1) For single unit installation RYYQ* units (continuous heating) and RXYQ* units (non-continuous heating)
2) "Non-continuous heating" multi-outdoor-unit combinations consist of RXYQ8~20 units (e.g. RXYQ36*=RXYQ16*+RXYQ20*).
3) "Continuous heating" multi-outdoor-unit combinations consist of RYMQ8~20 units (e.g. RYYQ36*=RYMQ16*+RYMQ20*).
   → RYMQ* units can only be used in multi-outdoor-unit combinations and cannot be used as standalone units.
4) RYYQ8~20* units cannot be used in multi-outdoor-unit combinations.
5) RYYQ8~20 "Continuous heating" multi-outdoor-unit combinations cannot contain RXYQ* units.
6) RXYQ8~20 "Non-continuous heating" multi-outdoor-unit combinations cannot contain RYMQ* units.
7) Multi "non-continuous heating" replacement models only consist of RXYQQ8-20 modules (e.g. RXYQQ36*=RXYQQ16*+RXYQQ20*).
8) Replacement units cannot be combined with other units.
9) T-series outdoor units and U-series outdoor units cannot share the same refrigerant circuit. When combining these units, make sure they are part of separate refrigerant circuits.

**3D120060**

# 4 Combination table

## 4 - 1 Combination Table

**RXYQ-UD**

**VRV4**
**Heat pump**
**Indoor unit combination restrictions**
**(1/2)**

| Indoor unit combination pattern | VRV* DX indoor unit | RA DX indoor unit | Hydrobox unit | Air handling unit (AHU) (3) |
|---|---|---|---|---|
| VRV* DX indoor unit | O | O | O | O |
| RA DX indoor unit | O | O | X | X |
| Hydrobox unit | O | X | $O_1$ | X |
| Air handling unit (3) | O | X | X | $O_2$ |

**O:** Allowed
**X**: Not allowed

**Notes**

1. VRV* DX indoor unit
   - When combining VRV DX indoor units with other types of indoor units, respect the following combination patterns:
   *Example*
   Allowed : *(VRV DX indoor unit + Hydrobox unit) or (VRV DX indoor unit + RA DX indoor unit) or (VRV DX indoor unit + AHU)*
   Not allowed : *[VRV DX indoor unit + (RA DX indoor unit & (Hydrobox unit or AHU))] or [VRV DX indoor unit + (Hydrobox unit & (RA DX indoor unit or AHU))]*

2. $O_1$
   - Only connect Hydrobox units to a VRV IV Heat Pump in combination with a VRV DX indoor unit.
     → Refer to the connection ratio restrictions (3D079540 & 3D117169).
     → Connection with only Hydrobox units: refer to the Daikin Altherma solutions.
   - Only connect Hydrobox units of the HXY* series.
     → HXHD* series Hydrobox units are not allowed.

3. $O_2$
   - *Combination of AHU only + control box EKEQFA (the combination with VRV DX indoor units is not allowed; maximum 54HP for 400 + 2x500 class EKEXV kit)*
     → X-control is possible (up to 3x [EKEXV+EKEQFA* boxes] can be connected to one outdoor unit (system)). No Variable Refrigerant Temperature control possible.
     → Y-control is possible (up to 3x [EKEXV+EKEQFA* boxes] can be connected to one outdoor unit (system)). No Variable Refrigerant Temperature control possible.
     → W-control is possible (up to 3x [EKEXV+EKEQFA* boxes] can be connected to one outdoor unit (system)). No Variable Refrigerant Temperature control possible.
   - *Combination of AHU only + control box EKEQMA (not combined with VRV DX indoor units)*
     → Z-control is possible (the allowed number of [EKEXV + EKEQMA boxes] is determined by the connection ratio (90-110%) and the capacity of the outdoor unit.

4. Combination of AHU and VRV DX indoor units
   → Z-control is possible (EKEQMA* boxes are allowed, but with a limited connection ratio).

5. The combination of AHU with Hydrobox units or RA DX indoor units is not allowed.

6. (3) The following units are considered AHUs:
   → EKEXV + EKEQ(MA/FA) + AHU coil
   → Biddle air curtain
   → FXMQ_MF units

Information
- VKM units are considered to be regular VRV DX indoor units.

**3D079543F**

**RXYQ-UD**

**VRV4**
**Heat pump**
**Indoor unit combination restrictions**
**(2/2)**

| Combination table | RYYQ* Single continuous heating | RYYQ* Multi continuous heating | RXYQ* RXMLQ* RXYLQ* Single non-continuous heating | RXYQ* RXMLQ* RXYLQ* Multi non-continuous heating |
|---|---|---|---|---|
| VRV* DX indoor unit | O | O | O | O |
| RA DX indoor unit | O | X | O | X |
| Hydrobox unit | O | $O_1$ | O | $O_1$ |
| Air handling unit (AHU) (2) | O | O | O | O |

**O:** Allowed
**X**: Not allowed

**Notes**

1. $O_1$
   - Available upon request through the SPN procedure.

2. (2) The following units are considered AHUs:
   → EKEXV + EKEQ(MA/FA) + AHU coil
   → Biddle air curtain
   → FXMQ_MF units

**3D079543F**

# 4 Combination table

## 4 - 1 Combination Table

**RXYQ-UD**



Compatibility list: ·VRV4· heat pump - ·RA DX· indoor unit

| | | |
|---|---|---|
| **Wall mounted type** | *Emura* | FTXJ20A<br>FTXJ25A<br>FTXJ35A<br>FTXJ42A<br>FTXJ50A |
| | *Stylish* | FTXA20<br>FTXA25<br>FTXA35<br>FTXA42<br>FTXA50 |
| | *FTXM* | FTXM20R<br>FTXM25R<br>FTXM35R<br>FTXM42R<br>FTXM50R<br>FTXM60R<br>FTXM71R |
| **Ceiling/wall mounted** | *Flex* | FLXS25B<br>FLXS35B<br>FLXS50B<br>FLXS60B |
| **Floor standing type** | *FVXM* | FVXM25F<br>FVXM35F<br>FVXM50F<br>FVXM25A<br>FVXM35A<br>FVXM50A<br>CVXM20A |
| | *Nexura* | FVXG25K<br>FVXG35K<br>FVXG50K |

**Remark**

The limitations on the use of ·RA DX· indoor units with the ·VRV4· Heat Pump are subject to the rules set out in drawings ·3D079543· and ·3D079540·.

If you want to connect ·RA·/·SA· ·DX· cassette, ceiling-mounted, or duct indoor units, use their ·VRV DX· indoor unit equivalents instead.

**3D082373H**

# 5 Capacity tables

## 5 - 1 Capacity Table Legend

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

- 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

# 5 Capacity tables

## 5 - 2 Capacity Correction Factor

**RXYQ-UD**



### VRV4
### Heat pump
### Integrated heating capacity coefficient

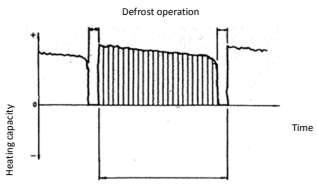
The heating capacity tables do not take into account the capacity reduction in case of frost accumulation or defrost operation.
The capacity values that take these factors into account, or in other words, the integrated heating capacity values, can be calculated as follows:

Formula

**A =** Integrated heating capacity
**B =** Capacity characteristics value (see table)
**C =** Integrated correction factor for frost accumulation (see table)
**A = B * C**

Inlet air temperature of heat exchanger

| [°CDB/°CWB] | -7/-7,6 or less | -5/-5,6 | -3/-3,7 | 0/-0,7 | 3/2,2 | 5/4,1 | 7/6 |
|---|---|---|---|---|---|---|---|
| Integrated correction factor for frost accumulation C | | | | | | | |
| 8HP | 0,95 | 0,93 | 0,88 | 0,84 | 0,85 | 0,90 | 1,00 |
| 10HP | 0,95 | 0,93 | 0,87 | 0,79 | 0,80 | 0,88 | 1,00 |
| 12HP | 0,95 | 0,92 | 0,87 | 0,75 | 0,76 | 0,85 | 1,00 |
| 14HP | 0,95 | 0,92 | 0,86 | 0,72 | 0,73 | 0,84 | 1,00 |
| 16HP | 0,95 | 0,92 | 0,86 | 0,72 | 0,72 | 0,83 | 1,00 |
| 18HP | 0,95 | 0,93 | 0,88 | 0,84 | 0,85 | 0,90 | 1,00 |
| 20HP | 0,95 | 0,93 | 0,88 | 0,84 | 0,85 | 0,90 | 1,00 |
| 22HP | 0,95 | 0,92 | 0,87 | 0,77 | 0,78 | 0,86 | 1,00 |
| 24HP | 0,95 | 0,92 | 0,87 | 0,75 | 0,76 | 0,85 | 1,00 |
| 26HP | 0,95 | 0,92 | 0,86 | 0,73 | 0,74 | 0,84 | 1,00 |
| 28HP | 0,95 | 0,92 | 0,86 | 0,73 | 0,74 | 0,84 | 1,00 |
| 30HP | 0,95 | 0,93 | 0,87 | 0,80 | 0,81 | 0,88 | 1,00 |
| 32HP | 0,95 | 0,92 | 0,86 | 0,71 | 0,72 | 0,83 | 1,00 |
| 34HP | 0,95 | 0,92 | 0,87 | 0,78 | 0,79 | 0,87 | 1,00 |
| 36HP | 0,95 | 0,92 | 0,87 | 0,78 | 0,79 | 0,87 | 1,00 |
| 38HP | 0,95 | 0,93 | 0,88 | 0,83 | 0,84 | 0,89 | 1,00 |
| 40HP | 0,95 | 0,93 | 0,87 | 0,80 | 0,81 | 0,88 | 1,00 |
| 42HP | 0,95 | 0,92 | 0,86 | 0,73 | 0,74 | 0,84 | 1,00 |
| 44HP | 0,95 | 0,92 | 0,86 | 0,72 | 0,73 | 0,84 | 1,00 |
| 46HP | 0,95 | 0,92 | 0,86 | 0,72 | 0,72 | 0,83 | 1,00 |
| 48HP | 0,95 | 0,92 | 0,86 | 0,71 | 0,72 | 0,83 | 1,00 |
| 50HP | 0,95 | 0,92 | 0,87 | 0,76 | 0,77 | 0,86 | 1,00 |
| 52HP | 0,95 | 0,93 | 0,87 | 0,80 | 0,81 | 0,88 | 1,00 |
| 54HP | 0,95 | 0,93 | 0,88 | 0,84 | 0,85 | 0,90 | 1,00 |




Notes

The figure shows the integrated heating capacity for a single cycle (from one defrost operation to the next).

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.

The multi-combination data 22~54HP corresponds with the standard multi-combination of drawing 3D079534.

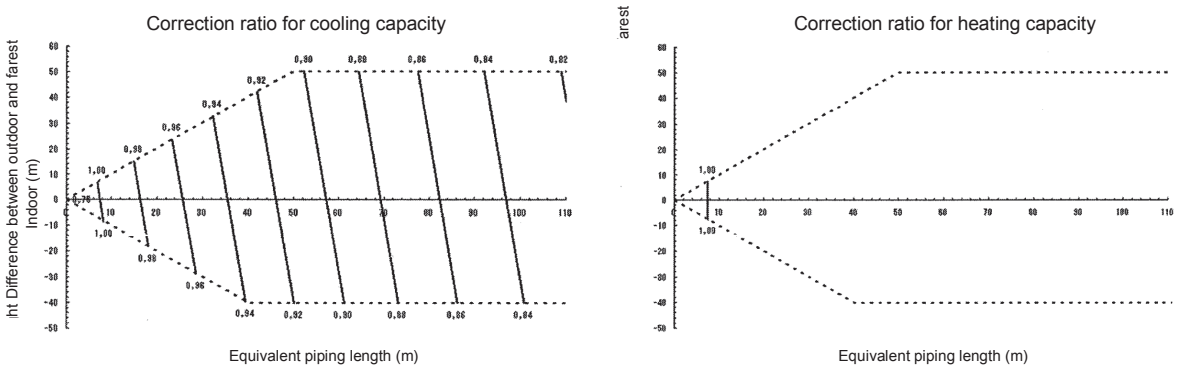
**3D079898A**

# 5 Capacity tables

## 5 - 2 Capacity Correction Factor



### RXYQ8UD




**NOTES**

1. These figures illustrate the correction ratio for piping length in capacity 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, shown it the above figures.

2. With this outdoor unit, constant evaporating pressure control when cooling and constant condensing pressure control when heating is carried out.

3. 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 smaller.

   Condition: Indoor connection ratio does not exceed 100%.

   | Maximum capacity of outdoor units | = | Capacity of outdoor units from capacity table at the 100% connection ratio |
   |---|---|---|
   | | x | Correction ratio of piping to furthest indoor |

   Condition: Indoor connection ratio exceeds 100%.

   | Maximum capacity of outdoor units | = | Capacity of outdoor units from capacity table at installed connection ratio |
   |---|---|---|
   | | x | Correction ratio of piping to furthest indoor |

4. When level difference is 50 m or more (see installation manual and 3D079540 / 3D079543) and equivalent pipe length is 90 m or more, the diameter of the main gas and liquid pipes (outdoor unit - branch sections) must be increased.
   For new diameters, see below.

| Model | Gas | Liquid |
|---|---|---|
| 8HP | 22.2 | 12.7 |

5. When the pipe length after the first refrigerant branch kit is more than 40 m, pipe size between first and final branch kit must be increased (only for VRV DX indoor units; details see installation manual).
   *Refer to the installation manual for allowed system setups and rules for deicated indoor connection types.

   Diameter of main pipes (standard size)

| Model | Gas | Liquid |
|---|---|---|
| 8HP | 19.1 | 9.5 |

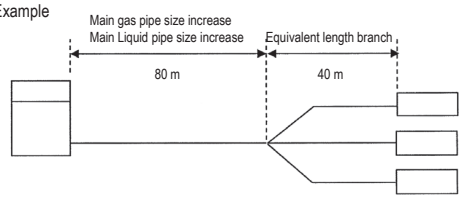
6. Equivalent length used in the above figures is based upon the following equivalent length

   | Equivalent piping length | = | |
   |---|---|---|
   | Equivalent length of main pipe | x | Correction factor |
   | + | | |
   | Equivalent length of branch pipes | | |

   Choose the correction factor from the following table. When cooling capacity is calculated: gas pipe size When heating capacity is calculated: liquid pipe size

| | Correction factor | |
|---|---|---|
| | Standard size | Size increase |
| Cooling (gas pipe) | 1.0 | 0.5 |
| Heating (liquid pipe) | 1.0 | 0.5 |

   Example




   In the above case (Cooling) Overall equivalent length = 80 m x 0.5 + 40 m = 80 m
   (Heating) Overall equivalent length = 80 m x 0.5 + 40 m = 80 m
   The rete of change in cooling capacity when height difference = 0 is thus approximately 0.86
   heating capacity when height difference = 0 is thus approximately 1.0

**3D079897A**

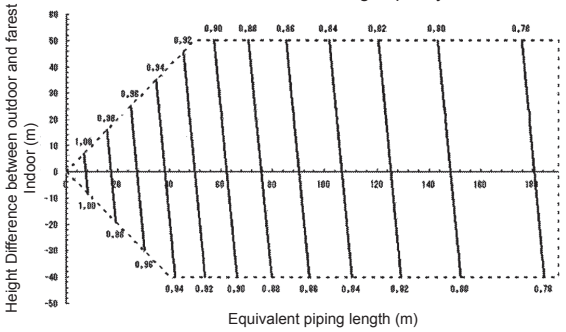
# 5 Capacity tables

## 5 - 2 Capacity Correction Factor

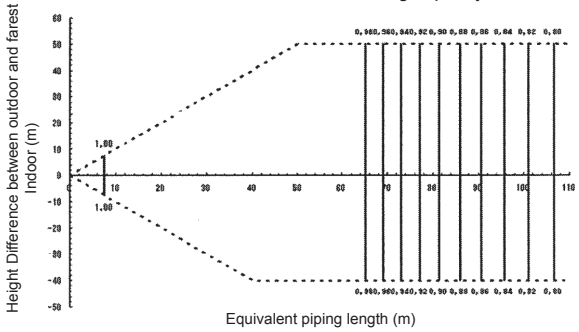


### RXYQ10UD

Correction ratio for cooling capacity




Correction ratio for heating capacity




**NOTES**

1. These figures illustrate the correction ratio for piping length in capacity 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, shown it the above figures.

2. With this outdoor unit, constant evaporating pressure control when cooling and constant condensing pressure control when heating is carried out.

3. 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 smaller.

   Condition: Indoor connection ratio does not exceed 100%.

   | Maximum capacity of outdoor units | = | Capacity of outdoor units from capacity table at the 100% connection ratio |
   |---|---|---|
   | | x | Correction ratio of piping to furthest indoor |

   Condition: Indoor connection ratio exceeds 100%.

   | Maximum capacity of outdoor units | = | Capacity of outdoor units from capacity table at installed connection ratio |
   |---|---|---|
   | | x | Correction ratio of piping to furthest indoor |

4. When level difference is 50 m or more (see installation manual and 3D079540 / 3D079543) and equivalent pipe length is 90 m or more, the diameter of the main gas and liquid pipes (outdoor unit - branch sections) must be increased. For new diameters, see below.

| Model | Gas | Liquid |
|---|---|---|
| RXYQ10P | 25.4* | 12.7 |

   *If not available on site, do not increase. If not increased correction factor should be applied to the equivalent length (see note 6).

5. When the pipe length after the first refrigerant branch kit is more than 40 m, pipe size between first and final branch kit must be increased (only for VRV DX indoor units; details see installation manual).
   *Refer to the installation manual for allowed system setups and rules for dedicated indoor connection types.
   Diameter of main pipes (standard size)

| Model | Gas | Liquid |
|---|---|---|
| 10 HP | 22.2 | 9.5 |

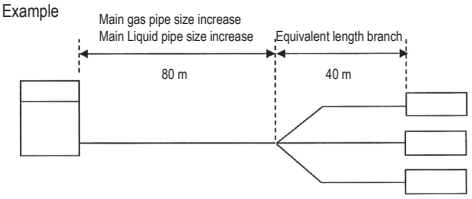
6. Equivalent length used in the above figures is based upon the following equivalent length

   | Equivalent piping length | = | |
   |---|---|---|
   | Equivalent length of main pipe | x | Correction factor |
   | + | | |
   | Equivalent length of branch pipes | | |

   Choose the correction factor from the following table. When cooling capacity is calculated: gas pipe size When heating capacity is calculated: liquid pipe size

| | Correction factor | |
|---|---|---|
| | Standard size | Size increase |
| Cooling (gas pipe) | 1.0 | 0.5 |
| Heating (liquid pipe) | 1.0 | 0.5 |

   Example




   In the above case (Cooling) Overall equivalent length = 80 m x 0.5 + 40 m = 80 m
   (Heating) Overall equivalent length = 80 m x 0.5 + 40 m = 80 m
   The rete of change in cooling capacity when height difference = 0 is thus approximately 0.87
   heating capacity when height difference = 0 is thus approximately 0.90

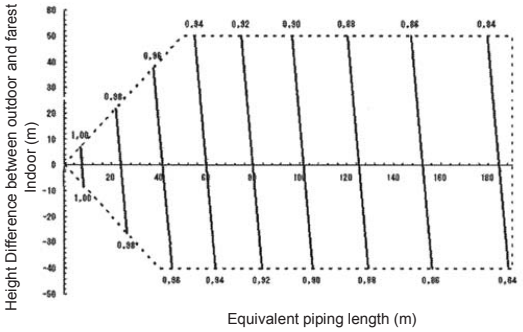
**3D079897A**

# 5 Capacity tables

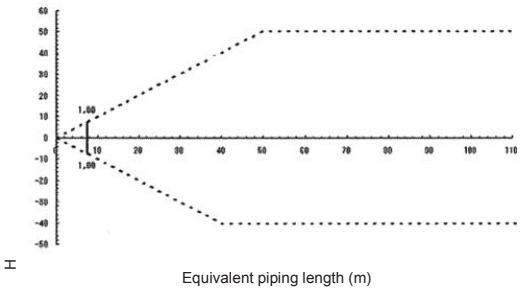
## 5 - 2 Capacity Correction Factor

### RXYQ12,14,24,36UD

Correction ratio for cooling capacity




Correction ratio for heating capacity




**NOTES**

1. These figures illustrate the correction ratio for piping length in capacity 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, shown it the above figures.
2. With this outdoor unit, constant evaporating pressure control when cooling and constant condensing pressure control when heating is carried out.
3. 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 smaller.

   Condition: Indoor connection ratio does not exceed 100%.

   Maximum capacity of outdoor units = Capacity of outdoor units from capacity table at the 100% connection ratio
   x Correction ratio of piping to furthest indoor

   Condition: Indoor connection ratio exceeds 100%.

   Maximum capacity of outdoor units = Capacity of outdoor units from capacity table at installed connection ratio
   x Correction ratio of piping to furthest indoor
4. When level difference is 50 m or more (see installation manual and 3D079540 / 3D079543) and equivalent pipe length is 90 m or more, the diameter of the main gas and liquid pipes (outdoor unit - branch sections) must be increased. For new diameters, see below.

| Model | Gas | Liquid |
|---|---|---|
| 12 HP | 28.6 | 15.9 |
| 14 HP | 28.6 | 15.9 |
| 24 HP | 34.9 | 19.1 |
| 36 HP | 41.3 | 22.2 |

5. When the pipe length after the first refrigerant branch kit is more than 40 m, pipe size between first and final branch kit must be increased (only for VRV DX indoor units; details see installation manual).
   *Refer to the installation manual for allowed system setups and rules for dedicated indoor connection types.

   Diameter of main pipes (standard size)

| Model | Gas | Liquid |
|---|---|---|
| 12 HP | 28.6 | 12.7 |
| 14 HP | 28.6 | 12.7 |
| 24 HP | 34.9 | 15.9 |
| 36 HP | 41.3 | 19.1 |

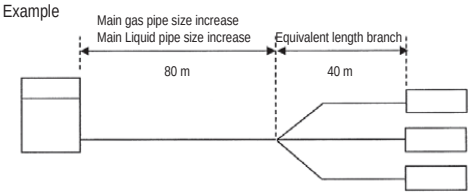
6. Equivalent length used in the above figures is based upon the following equivalent length

   Equivalent piping length = Equivalent length of main pipe x Correction factor
   + Equivalent length of branch pipes

   Choose a correction factor from the following table. When cooling capacity is calculated: gas pipe size When heating capacity is calculated: liquid pipe size

| | Correction factor | |
|---|---|---|
| | Standard size | Size increase |
| Cooling (gas pipe) | 1,0 | |
| Heating (liquid pipe) | 1,0 | 0,5 |

   Example




   In the above case (Cooling) Overall equivalent length = 80 m x 1.0 + 40 m = 120 m
   (Heating) Overall equivalent length = 80 m x 0.5 + 40 m = 80 m
   The rate of change in cooling capacity when height difference = 0 is thus approximately 0.89
   heating capacity when height difference = 0 is thus approximately 1.0

3D079897A

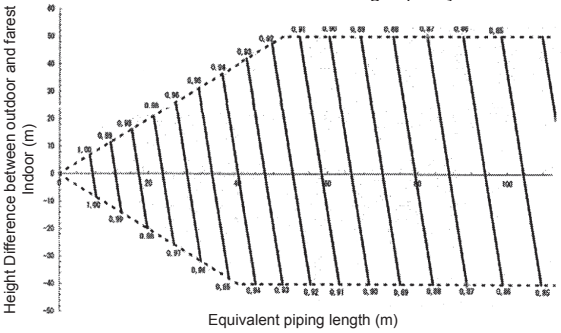
# 5 Capacity tables

## 5 - 2 Capacity Correction Factor

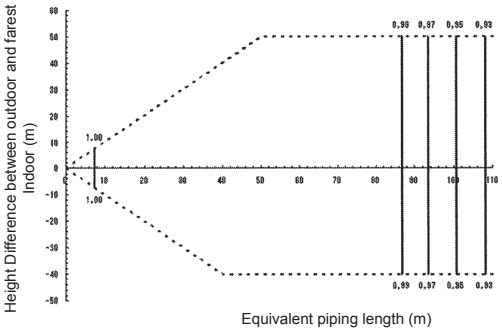


### RXYQ16UD

Correction ratio for cooling capacity




Correction ratio for heating capacity




**NOTES**

1. These figures illustrate the correction ratio for piping length in capacity 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, shown it the above figures.
2. With this outdoor unit, constant evaporating pressure control when cooling and constant condensing pressure control when heating is carried out.
3. 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 smaller.

   Condition: Indoor connection ratio does not exceed 100%.

   | Maximum capacity of outdoor units | = | Capacity of outdoor units from capacity table at the 100% connection ratio |
   |---|---|---|
   | | x | Correction ratio of piping to furthest indoor |

   Condition: Indoor connection ratio exceeds 100%.

   | Maximum capacity of outdoor units | = | Capacity of outdoor units from capacity table at installed connection ratio |
   |---|---|---|
   | | x | Correction ratio of piping to furthest indoor |

4. When level difference is 50 m or more (see installation manual and 3D079540 / 3D079543) and equivalent pipe length is 90 m or more, the diameter of the main gas and liquid pipes (outdoor unit - branch sections) must be increased. For new diameters, see below.

   | Model | Gas | Liquid |
   |---|---|---|
   | 16 HP | 31.8* | 15.9 |

   *If not available on site, do not increase. If not increased correction factor should be applied to the equivalent length (see note 6).
5. When the pipe length after the first refrigerant branch kit is more than 40 m, pipe size between first and final branch kit must be increased (only for VRV DX indoor units; details see installation manual).
   *Refer to the installation manual for allowed system setups and rules for dedicated indoor connection types.

   Diameter of main pipes (standard size)

   | Model | Gas | Liquid |
   |---|---|---|
   | 16 HP | 28.6 | 12.7 |

6. Equivalent length used in the above figures is based upon the following equivalent length

   Equivalent piping length =

   Equivalent length of main pipe x Correction factor

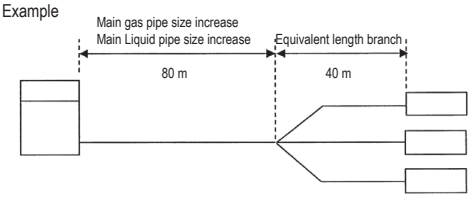
   \+

   Equivalent length of branch pipes

   Choose a correction factor from the following table. When cooling capacity is calculated: gas pipe size When heating capacity is calculated: liquid pipe size

   | | Correction factor | |
   |---|---|---|
   | | Standard size | Size increase |
   | Cooling (gas pipe) | 1.0 | 0.5 |
   | Heating (liquid pipe) | 1.0 | 0.5 |

   Example

   In the above case (Cooling) Overall equivalent length = 80 m x 1.0 + 40 m = 80 m
   (Heating) Overall equivalent length = 80 m x 0.5 + 40 m = 80 m
   The rate of change in cooling capacity when height difference = 0 is thus approximately 0.88
   heating capacity when height difference = 0 is thus approximately 0.99

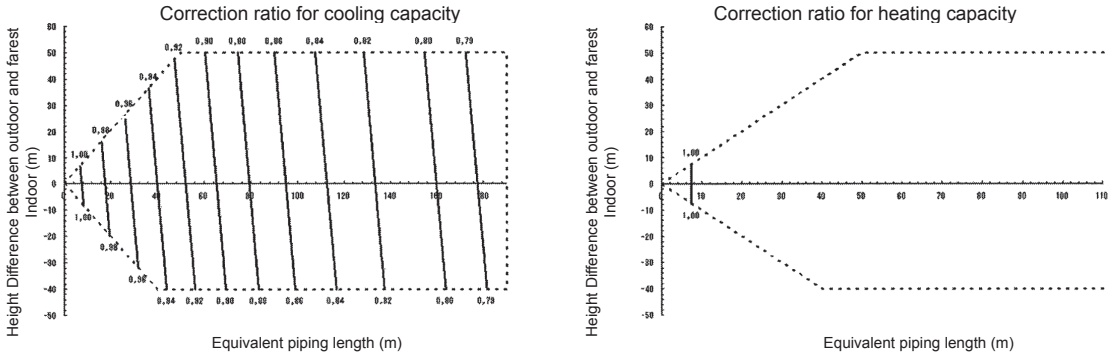
**3D079897A**

# 5 Capacity tables

## 5 - 2 Capacity Correction Factor



### RXYQ18,26,28,30,38,40,42,44UD




**NOTES**

1. These figures illustrate the correction ratio for piping length in capacity 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, shown it the above figures.
2. With this outdoor unit, constant evaporating pressure control when cooling and constant condensing pressure control when heating is carried out.
3. 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 smaller.

   Condition: Indoor connection ratio does not exceed 100%.

   Maximum capacity of outdoor units = Capacity of outdoor units from capacity table at the 100% connection ratio
   x Correction ratio of piping to furthest indoor

   Condition: Indoor connection ratio exceeds 100%.

   Maximum capacity of outdoor units = Capacity of outdoor units from capacity table at installed connection ratio
   x Correction ratio of piping to furthest indoor
4. When level difference is 50 m or more (see installation manual and 3D079540 / 3D079543) and equivalent pipe length is 90 m or more, the diameter of the main gas and liquid pipes (outdoor unit - branch sections) must be increased.
   For new diameters, see below.

| Model | Gas | Liquid |
|---|---|---|
| 18 HP | 31.8* | 19.1 |
| 26~30 HP | 38.1* | 22.2 |
| 38~44 HP | 41.3 | 22.2 |

   *If not available on site, do not increase. If not increased correction factor should be applied to the equivalent length (see note 6).
5. When the pipe length after the first refrigerant branch kit is more than 40 m, pipe size between first and final branch kit must be increased (only for VRV DX indoor units; details see installation manual).
   *Refer to the installation manual for allowed system setups and rules for dedicated indoor connection types.
   Diameter of main pipes (standard size)

| Model | Gas | Liquid |
|---|---|---|
| 18 HP | 28.6 | 15.9 |
| 26~30 HP | 34.9 | 19.1 |
| 38~44 HP | 41.3 | 19.1 |

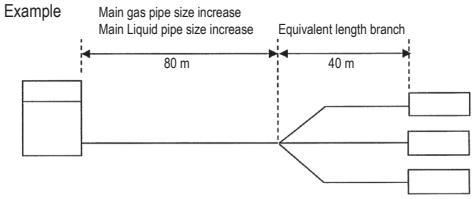
6. Equivalent length used in the above figures is based upon the following equivalent length

   Equivalent piping length =
   Equivalent length of main pipe x Correction factor
   +
   Equivalent length of branch pipes

   Choose the correction factor from the following table. When cooling capacity is calculated: gas pipe size When heating capacity is calculated: liquid pipe size

| | Correction factor | |
|---|---|---|
| | Standard size | Size increase |
| Cooling (gas pipe) | 1.0 | 0.5 |
| Heating (liquid pipe) | 1.0 | 0.5 |

   Example




   In the above case (for RXYQ38-44) (Cooling) Overall equivalent length = 80 m x 1.0 + 40 m = 120 m
   (Heating) Overall equivalent length = 80 m x 0.5 + 40 m = 80 m
   The rate of change in cooling capacity when height difference = 0 is thus approximately 0.83
   heating capacity when height difference = 0 is thus approximately 1.0

**3D079897A**

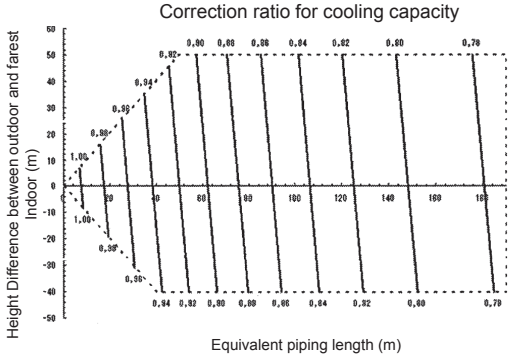
# 5 Capacity tables

## 5 - 2 Capacity Correction Factor

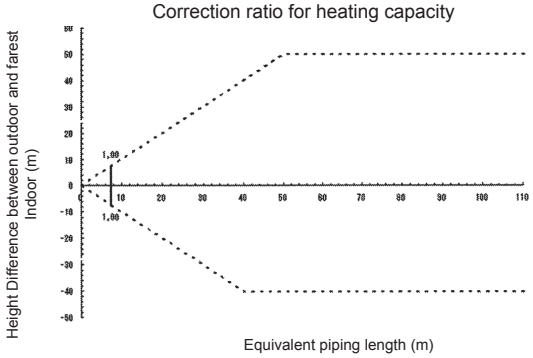


### RXYQ20,32,34UD

Correction ratio for cooling capacity




Correction ratio for heating capacity




**NOTES**

1. These figures illustrate the correction ratio for piping length in capacity 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, shown it the above figures.
2. With this outdoor unit, constant evaporating pressure control when cooling and constant condensing pressure control when heating is carried out.
3. 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 smaller.

   Condition: Indoor connection ratio does not exceed 100%.

   | Maximum capacity of outdoor units | = | Capacity of outdoor units from capacity table at the 100% connection ratio |
   |---|---|---|
   | | x | Correction ratio of piping to furthest indoor |

   Condition: Indoor connection ratio exceeds 100%.

   | Maximum capacity of outdoor units | = | Capacity of outdoor units from capacity table at installed connection ratio |
   |---|---|---|
   | | x | Correction ratio of piping to furthest indoor |

4. When level difference is 50 m or more (see installation manual and 3D079540 / 3D079543) and equivalent pipe length is 90 m or more, the diameter of the main gas and liquid pipes (outdoor unit - branch sections) must be increased.
   For new diameters, see below.

   | Model | Gas | Liquid |
   |---|---|---|
   | 20 HP | 31.8* | 19.1 |
   | 32/34 HP | 38.1* | 22.2 |

   *If not available on site, do not increase. If not increased correction factor should be applied to the equivalent length (see note 6).
5. When the pipe length after the first refrigerant branch kit is more than 40 m, pipe size between first and final branch kit must be increased (only for VRV DX indoor units; details see installation manual).
   *Refer to the installation manual for allowed system setups and rules for dedicated indoor connection types.
   Diameter of main pipes (standard size)

   | Model | Gas | Liquid |
   |---|---|---|
   | 20 HP | 28.6 | 15.9 |
   | 32/34 HP | 34.9 | 19.1 |

6. Equivalent length used in the above figures is based upon the following equivalent length

   Equivalent piping length =

   Equivalent length of main pipe x Correction factor

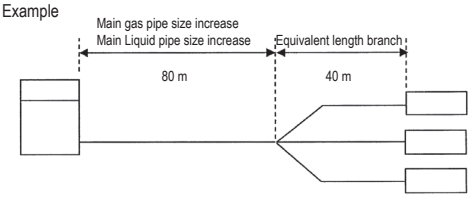
   \+

   Equivalent length of branch pipes

   Choose a correction factor from the following table. When cooling capacity is calculated: gas pipe size When heating capacity is calculated: liquid pipe size

   | | Correction factor | |
   |---|---|---|
   | | Standard size | Size increase |
   | Cooling (gas pipe) | 1.0 | 0.5 |
   | Heating (liquid pipe) | 1.0 | 0.5 |

   Example

   In the above case (Cooling) Overall equivalent length = 80 m x 0.5 + 40 m = 80 m
   (Heating) Overall equivalent length = 80 m x 0.5 + 40 m = 80 m
   The rate of change in cooling capacity when height difference = 0 is thus approximately 0.88
   heating capacity when height difference = 0 is thus approximately 1.0

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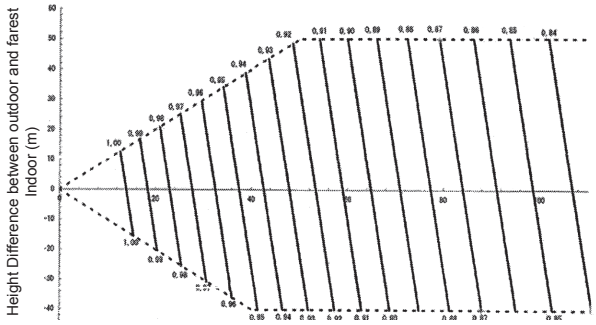
# 5 Capacity tables

## 5 - 2 Capacity Correction Factor

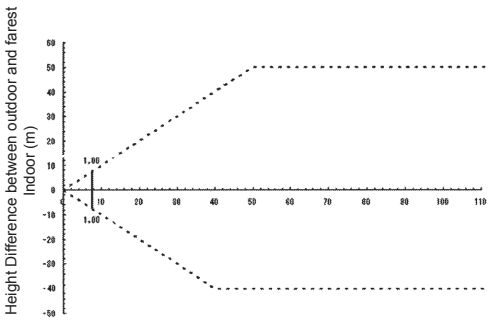


### RXYQ22UD

Correction ratio for cooling capacity




Correction ratio for heating capacity




**NOTES**

1. These figures illustrate the correction ratio for piping length in capacity 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, shown it the above figures.
2. With this outdoor unit, constant evaporating pressure control when cooling and constant condensing pressure control when heating is carried out.
3. 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 smaller.

   Condition: Indoor connection ratio does not exceed 100%.

   | Maximum capacity of outdoor units | = | Capacity of outdoor units from capacity table at the 100% connection ratio |
   |---|---|---|
   | | x | Correction ratio of piping to furthest indoor |

   Condition: Indoor connection ratio exceeds 100%.

   | Maximum capacity of outdoor units | = | Capacity of outdoor units from capacity table at installed connection ratio |
   |---|---|---|
   | | x | Correction ratio of piping to furthest indoor |

4. When level difference is 50 m or more (see installation manual and 3D079540 / 3D079543) and equivalent pipe length is 90 m or more, the diameter of the main gas and liquid pipes (outdoor unit - branch sections) must be increased.
   For new diameters, see below.

   | Model | Gas | Liquid |
   |---|---|---|
   | 22 HP | 31.8* | 19.1 |

   * If not available on site, do not increase, if not increased, no correction factor should be applied to the equivalent length (see note 6).

5. When the pipe length after the first refrigerant branch kit is more than 40 m, pipe size between first and final branch kit must be increased (only for VRV DX indoor units; details see installation manual).
   *Refer to the installation manual for allowed system setups and rules for dedicated indoor connection types.
   Diameter of main pipes (standard size)

   | Model | Gas | Liquid |
   |---|---|---|
   | 22 HP | 28.6 | 15.9 |

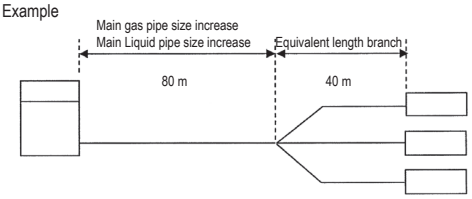
6. Equivalent length used in the above figures is based upon the following equivalent length

   | Overal equivalent length | = | |
   |---|---|---|
   | Equivalent length of main pipe | x | Correction factor |
   | + | | |
   | Equivalent length of branch pipes | | |

   Choose a correction factor from the following table. When cooling capacity is calculated: gas pipe size When heating capacity is calculated: liquid pipe size

   | | Correction factor | |
   |---|---|---|
   | | Standard size | Size increase |
   | Cooling (gas pipe) | 1.0 | 0.5 |
   | Heating (liquid pipe) | 1.0 | 0.5 |

   Example

   In the above case (Cooling) Overall equivalent length = 80 m x 0.5 + 40 m = 80 m
   (Heating) Overall equivalent length = 80 m x 0.5 + 40 m = 80 m
   The rate of change in cooling capacity when height difference = 0 is thus approximately 0.88
   heating capacity when height difference = 0 is thus approximately 1.0

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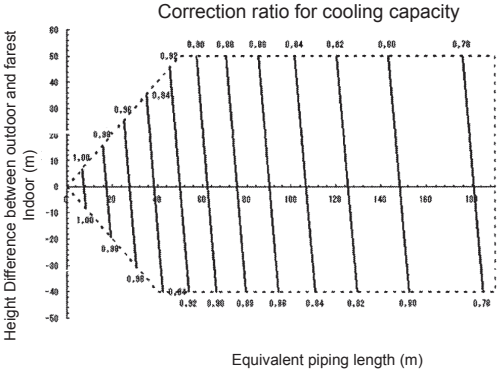
# 5 Capacity tables

## 5 - 2 Capacity Correction Factor

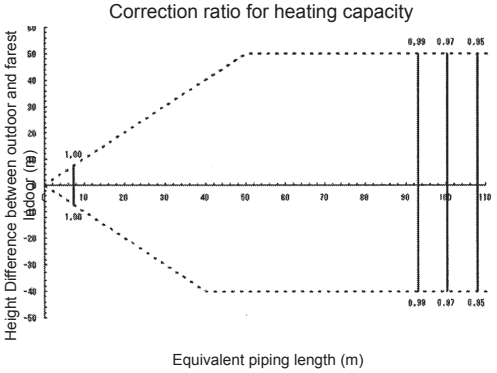


### RXYQ46UD

Correction ratio for cooling capacity




Correction ratio for heating capacity




**NOTES**

1. These figures illustrate the correction ratio for piping length in capacity 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, shown it the above figures.
2. With this outdoor unit, constant evaporating pressure control when cooling and constant condensing pressure control when heating is carried out.
3. 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 smaller.

   Condition: Indoor connection ratio does not exceed 100%.

   Maximum capacity of outdoor units = Capacity of outdoor units from capacity table at the 100% connection ratio
   x Correction ratio of piping to furthest indoor

   Condition: Indoor connection ratio exceeds 100%.

   Maximum capacity of outdoor units = Capacity of outdoor units from capacity table at installed connection ratio
   x Correction ratio of piping to furthest indoor
4. When level difference is 50 m or more (see installation manual and 3D079540 / 3D079543) and equivalent pipe length is 90 m or more, the diameter of the main gas and liquid pipes (outdoor unit - branch sections) must be increased.
   For new diameters, see below.

| Model | Gas | Liquid |
|---|---|---|
| 46 HP | 41.3 | 22.2 |

5. When the pipe length after the first refrigerant branch kit is more than 40 m, pipe size between first and final branch kit must be increased (only for VRV DX indoor units; details see installation manual).
   *Refer to the installation manual for allowed system setups and rules for dedicated indoor connection types.
   Diameter of main pipes (standard size)

| Model | Gas | Liquid |
|---|---|---|
| 46 HP | 41.3 | 19.1 |

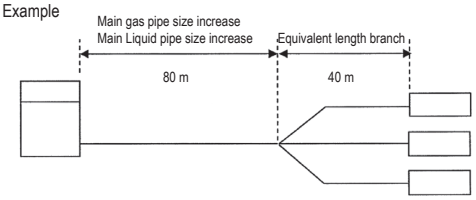
6. Equivalent length used in the above figures is based upon the following equivalent length

   Equivalent piping length =
   Equivalent length of main pipe x Correction factor
   +
   Equivalent length of branch pipes

   Choose a correction factor from the following table. When cooling capacity is calculated: gas pipe size When heating capacity is calculated: liquid pipe size

| | Correction factor | |
|---|---|---|
| | Standard size | Size increase |
| Cooling (gas pipe) | 1.0 | |
| Heating (liquid pipe) | 1.0 | 0.5 |

   Example




   In the above case (Cooling) Overall equivalent length = 80 m x 1.0 + 40 m = 120 m
   (Heating) Overall equivalent length = 80 m x 0.5 + 40 m = 80 m
   The rate of change in cooling capacity when height difference = 0 is thus approximately 0.83
   heating capacity when height difference = 0 is thus approximately 1.0

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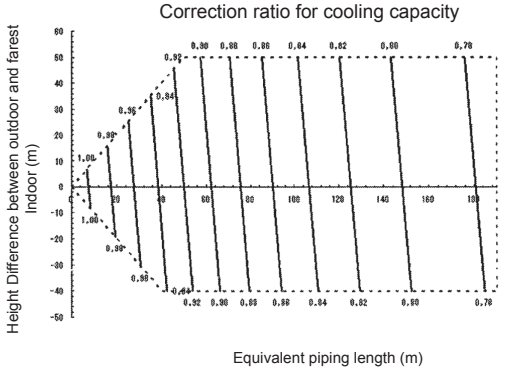
# 5 Capacity tables

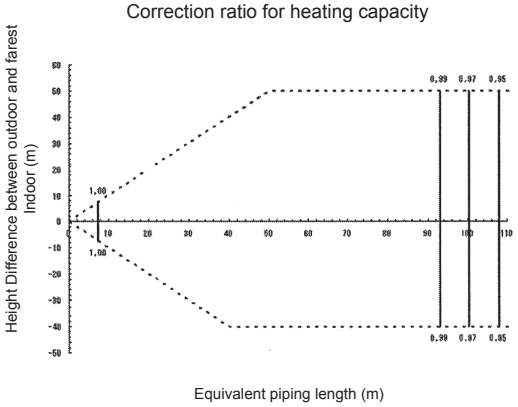
## 5 - 2 Capacity Correction Factor

### RXYQ48UD

Correction ratio for cooling capacity




Correction ratio for heating capacity




**NOTES**

1. These figures illustrate the correction ratio for piping length in capacity 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, shown it the above figures.
2. With this outdoor unit, constant evaporating pressure control when cooling and constant condensing pressure control when heating is carried out.
3. 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 smaller.

   Condition: Indoor connection ratio does not exceed 100%.

   | Maximum capacity of outdoor units | = | Capacity of outdoor units from capacity table at the 100% connection ratio |
   |---|---|---|
   | | x | Correction ratio of piping to furthest indoor |

   Condition: Indoor connection ratio exceeds 100%.

   | Maximum capacity of outdoor units | = | Capacity of outdoor units from capacity table at installed connection ratio |
   |---|---|---|
   | | x | Correction ratio of piping to furthest indoor |

4. When level difference is 50 m or more (see installation manual and 3D079540 / 3D079543) and equivalent pipe length is 90 m or more, the diameter of the main gas and liquid pipes (outdoor unit - branch sections) must be increased.
   For new diameters, see below.

| Model | Gas | Liquid |
|---|---|---|
| 48 HP | 41.3 | 22.2 |

5. When the pipe length after the first refrigerant branch kit is more than 40 m, pipe size between first and final branch kit must be increased (only for VRV DX indoor units; details see installation manual).
   *Refer to the installation manual for allowed system setups and rules for dedicated indoor connection types.
   Diameter of main pipes (standard size)

| Model | Gas | Liquid |
|---|---|---|
| 48 HP | 41.3 | 19.1 |

6. Equivalent length used in the above figures is based upon the following equivalent length

   Equivalent piping length =

   Equivalent length of main pipe x Correction factor

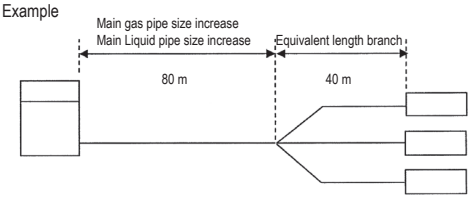
   \+

   Equivalent length of branch pipes

   Choose a correction factor from the following table. When cooling capacity is calculated: gas pipe size When heating capacity is calculated: liquid pipe size

| | Correction factor | |
|---|---|---|
| | Standard size | Size increase |
| Cooling (gas pipe) | 1.0 | |
| Heating (liquid pipe) | 1.0 | 0.5 |

Example




In the above case (Cooling) Overall equivalent length = 80 m x 1.0 + 40 m = 120 m
(Heating) Overall equivalent length = 80 m x 0.5 + 40 m = 80 m

The rate of change in cooling capacity when height difference = 0 is thus approximately 0.83
heating capacity when height difference = 0 is thus approximately 0.97

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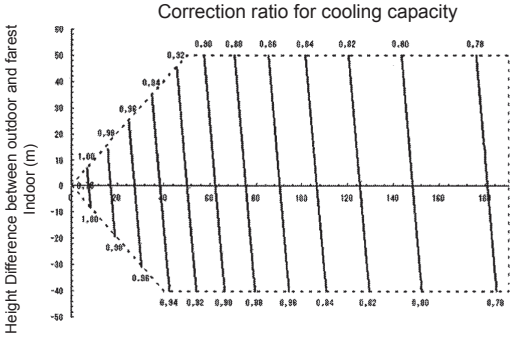
# 5 Capacity tables

## 5 - 2 Capacity Correction Factor

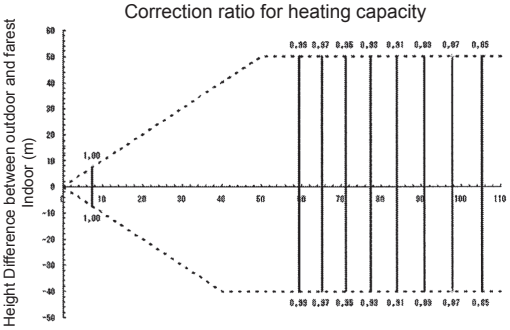
### RXYQ50UD



Correction ratio for cooling capacity




Correction ratio for heating capacity




**NOTES**

1. These figures illustrate the correction ratio for piping length in capacity 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, shown it the above figures.
2. With this outdoor unit, constant evaporating pressure control when cooling and constant condensing pressure control when heating is carried out.
3. 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 smaller.

   Condition: Indoor connection ratio does not exceed 100%.

   Maximum capacity of outdoor units = Capacity of outdoor units from capacity table at the 100% connection ratio
   x Correction ratio of piping to furthest indoor

   Condition: Indoor connection ratio exceeds 100%.

   Maximum capacity of outdoor units = Capacity of outdoor units from capacity table at installed connection ratio
   x Correction ratio of piping to furthest indoor
4. When level difference is 50 m or more (see installation manual and 3D079540 / 3D079543) and equivalent pipe length is 90 m or more, the diameter of the main gas and liquid pipes (outdoor unit - branch sections) must be increased.
   For new diameters, see below.

| Model | Gas | Liquid |
|---|---|---|
| 50 HP | 41.3 | 22.2 |

5. When the pipe length after the first refrigerant branch kit is more than 40 m, pipe size between first and final branch kit must be increased (only for VRV DX indoor units; details see installation manual).
   *Refer to the installation manual for allowed system setups and rules for dedicated indoor connection types.
   Diameter of main pipes (standard size)

| Model | Gas | Liquid |
|---|---|---|
| 50 HP | 41.3 | 19.1 |

6. Equivalent length used in the above figures is based upon the following equivalent length

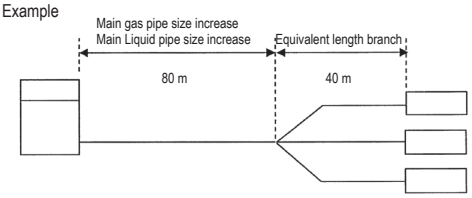
   Equivalent piping length =

   Equivalent length of main pipe x Correction factor
   +
   Equivalent length of branch pipes

   Choose a correction factor from the following table. When cooling capacity is calculated: gas pipe size When heating capacity is calculated: liquid pipe size

| | Correction factor | |
|---|---|---|
| | Standard size | Size increase |
| Cooling (gas pipe) | 1.0 | |
| Heating (liquid pipe) | 1.0 | 0.5 |

Example




In the above case (Cooling) Overall equivalent length = 80 m x 1.0 + 40 m = 120 m
(Heating) Overall equivalent length = 80 m x 0.5 + 40 m = 80 m

The rate of change in cooling capacity when height difference = 0 is thus approximately 0.83
heating capacity when height difference = 0 is thus approximately 0.92

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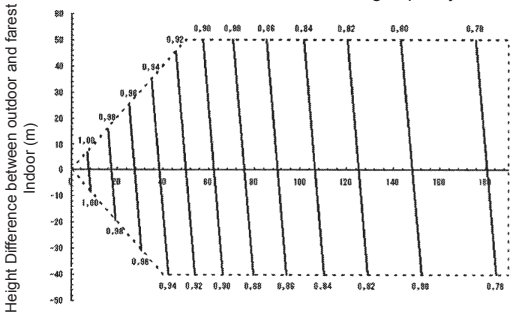
# 5 Capacity tables

## 5 - 2 Capacity Correction Factor

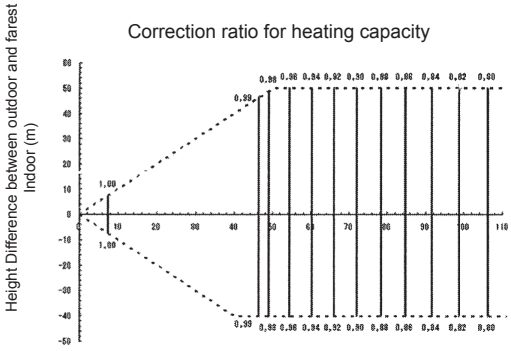


### RXYQ52UD

Correction ratio for cooling capacity




Correction ratio for heating capacity




**NOTES**

1. These figures illustrate the correction ratio for piping length in capacity 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, shown it the above figures.
2. With this outdoor unit, constant evaporating pressure control when cooling and constant condensing pressure control when heating is carried out.
3. 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 smaller.

   Condition: Indoor connection ratio does not exceed 100%.

   | Maximum capacity of outdoor units | = | Capacity of outdoor units from capacity table at the 100% connection ratio |
   |---|---|---|
   | | x | Correction ratio of piping to furthest indoor |

   Condition: Indoor connection ratio exceeds 100%.

   | Maximum capacity of outdoor units | = | Capacity of outdoor units from capacity table at installed connection ratio |
   |---|---|---|
   | | x | Correction ratio of piping to furthest indoor |

4. When level difference is 50 m or more (see installation manual and 3D079540 / 3D079543) and equivalent pipe length is 90 m or more, the diameter of the main gas and liquid pipes (outdoor unit - branch sections) must be increased.
   For new diameters, see below.

   | Model | Gas | Liquid |
   |---|---|---|
   | 52 HP | 41.3 | 22.2 |

5. When the pipe length after the first refrigerant branch kit is more than 40 m, pipe size between first and final branch kit must be increased (only for VRV DX indoor units; details see installation manual).
   *Refer to the installation manual for allowed system setups and rules for dedicated indoor connection types.
   Diameter of main pipes (standard size)

   | Model | Gas | Liquid |
   |---|---|---|
   | 52 HP | 41.3 | 19.1 |

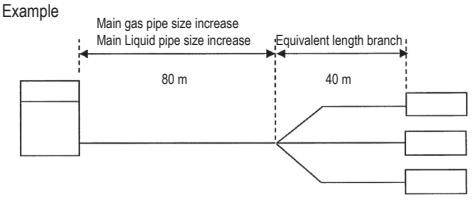
6. Equivalent length used in the above figures is based upon the following equivalent length

   | Equivalent piping length | = | | |
   |---|---|---|---|
   | Equivalent length of main pipe | x | Correction factor | |
   | + | | | |
   | Equivalent length of branch pipes | | | |

   Choose a correction factor from the following table. When cooling capacity is calculated: gas pipe size When heating capacity is calculated: liquid pipe size

   | | Correction factor | |
   |---|---|---|
   | | Standard size | Size increase |
   | Cooling (gas pipe) | 1.0 | |
   | Heating (liquid pipe) | 1.0 | 0.5 |

   Example

   In the above case (Cooling) Overall equivalent length = 80 m x 1.0 + 40 m = 120 m
   (Heating) Overall equivalent length = 80 m x 0.5 + 40 m = 80 m
   The rate of change in cooling capacity when height difference = 0 is thus approximately 0.83
   heating capacity when height difference = 0 is thus approximately 0.88

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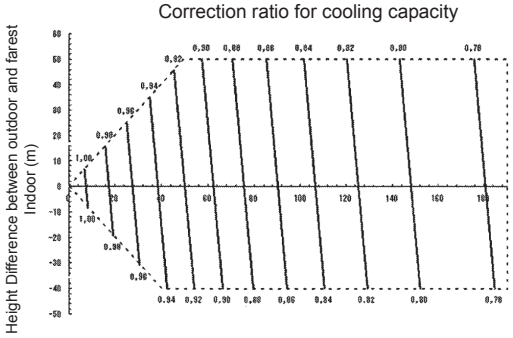
# 5 Capacity tables

## 5 - 2 Capacity Correction Factor

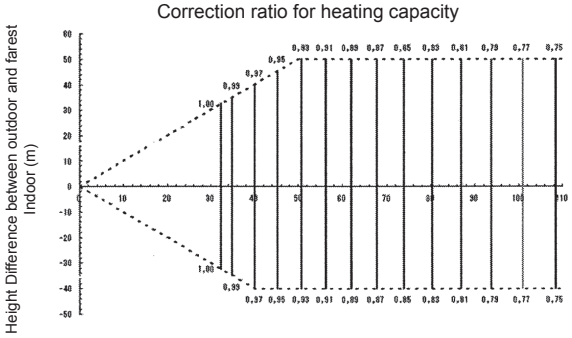
### RXYQ54UD



Correction ratio for cooling capacity




Correction ratio for heating capacity




**NOTES**

1. These figures illustrate the correction ratio for piping length in capacity 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, shown it the above figures.
2. With this outdoor unit, constant evaporating pressure control when cooling and constant condensing pressure control when heating is carried out.
3. 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 smaller.

   Condition: Indoor connection ratio does not exceed 100%.

   | Maximum capacity of outdoor units | = | Capacity of outdoor units from capacity table at the 100% connection ratio |
   |---|---|---|
   | | x | Correction ratio of piping to furthest indoor |

   Condition: Indoor connection ratio exceeds 100%.

   | Maximum capacity of outdoor units | = | Capacity of outdoor units from capacity table at installed connection ratio |
   |---|---|---|
   | | x | Correction ratio of piping to furthest indoor |

4. When level difference is 50 m or more (see installation manual and 3D079540 / 3D079543) and equivalent pipe length is 90 m or more, the diameter of the main gas and liquid pipes (outdoor unit - branch sections) must be increased.
   For new diameters, see below.

| Model | Gas | Liquid |
|---|---|---|
| 54 HP | 41.3 | 22.2 |

5. When the pipe length after the first refrigerant branch kit is more than 40 m, pipe size between first and final branch kit must be increased (only for VRV DX indoor units; details see installation manual).
   *Refer to the installation manual for allowed system setups and rules for dedicated indoor connection types.

   Diameter of main pipes (standard size)

| Model | Gas | Liquid |
|---|---|---|
| 54 HP | 41.3 | 19.1 |

6. Equivalent length used in the above figures is based upon the following equivalent length

   Equivalent piping length =

   Equivalent length of main pipe x Correction factor

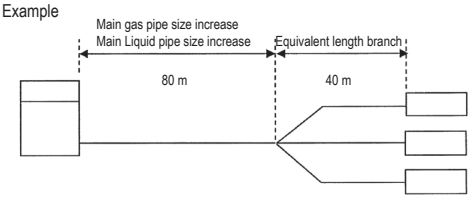
   +

   Equivalent length of branch pipes

   Choose a correction factor from the following table. When cooling capacity is calculated: gas pipe size When heating capacity is calculated: liquid pipe size

| | Correction factor | |
|---|---|---|
| | Standard size | Size increase |
| Cooling (gas pipe) | 1.0 | |
| Heating (liquid pipe) | 1.0 | 0.5 |

   Example




   In the above case (Cooling) Overall equivalent length = 80 m x 1.0 + 40 m = 120 m
   (Heating) Overall equivalent length = 80 m x 0.5 + 40 m = 80 m

   The rate of change in cooling capacity when height difference = 0 is thus approximately 0.83
   heating capacity when height difference = 0 is thus approximately 0.83

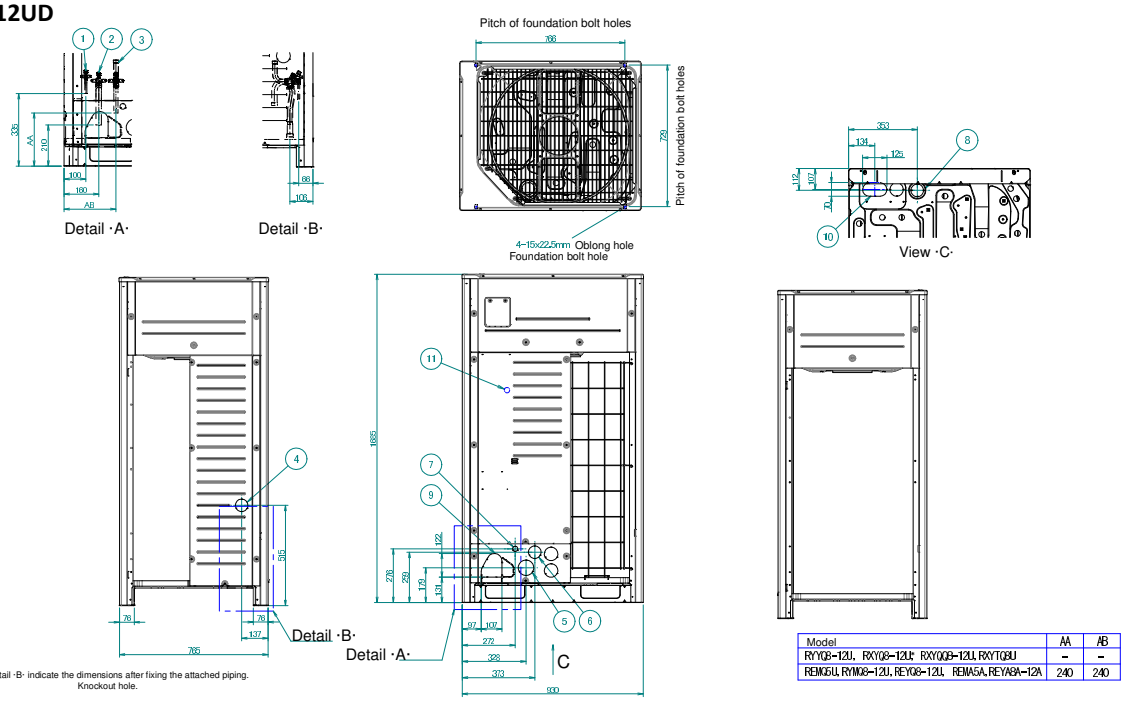
**3D079897A**

# 6 Dimensional drawings

## 6 - 1 Dimensional Drawings



### RXYQ8-12UD




Notes

1. Detail ·A· and detail ·B· indicate the dimensions after fixing the attached piping.
2. Items ·4 - 10·: Knockout hole.
3. **Gas pipe**

| | |
|---|---|
| RYYQ8U, RYMQ8U,RXYQ8U*, RXYQQ8U, RXYTQ8U | : Ø ·19.1· brazing connection |
| RYYQ10U, RYMQ10U, RXYQ10U*,RXYQQ10U | : Ø ·22.2· brazing connection |
| REMQ5U, REMA5A, REYQ8-12U, REYA8-12A | : Ø ·25.4· brazing connection |
| RYYQ12U, RYMQ12U, RXYQ12U*, RXYQQ12U | : Ø ·28.6· brazing connection |
| **Liquid pipe** | |
| RYYQ8-10U, RYMQ8-10U, RXYQ8-10U*,RXYQQ8-10U, REMQ5U, REMA5A, REYQ8-12U, REYA8-12A, RXYTQ8U | : Ø ·9.5· brazing connection |
| RYYQ12U, RYMQ12U, RXYQ12U*,RXYQQ12U | : Ø ·12.7· brazing connection |
| **Equalising pipe** | |
| RYMQ8-10U | : Ø ·19.1· brazing connection |
| RYMQ12U | : Ø ·22.2· brazing connection |
| **High pressure/low pressure gas pipe** | |
| REMQ5U, REMA5A, REYQ8-12U, REYA8-12A | : Ø ·19.1· brazing connection |

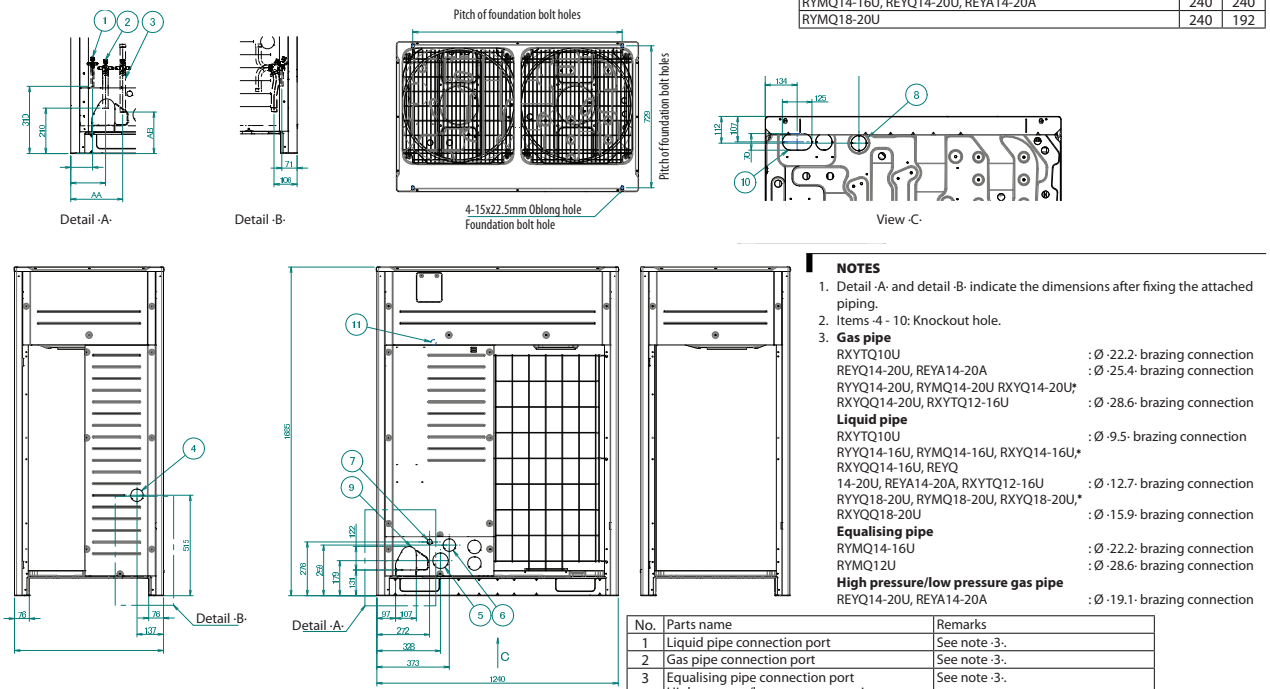
| Model | AA | AB |
|---|---|---|
| RYYQ8-12U, RXYQ8-12U*, RXYQQ8-12U, RXYTQ8U | – | – |
| REMQ5U, RYMQ8-12U, REYQ8-12U, REMA5A, REYA8A-12A | 240 | 240 |

| No. | Part name | Remark |
|---|---|---|
| 1 | Liquid pipe connection port | See note ·3·. |
| 2 | Gas pipe connection port | See note ·3·. |
| 3 | Equalising pipe connection port<br>High pressure/low pressure gas pipe | See note ·3·. |
| 4 | Power cord routing hole (side) | ∅65 |
| 5 | Power cord routing hole (front) | ∅80 |
| 6 | Power cord routing hole (front) | ∅65 |
| 7 | Power cord routing hole (front) | ∅27 |
| 8 | Power cord routing hole (bottom) | ∅65 |
| 9 | Pipe routing hole (front) | |
| 10 | Pipe routing hole (bottom) | |
| 11 | Grounding terminal | Inside of the switch box (·M8·) |

**2D119001A**

### RXYQ14-20UD

| Model | AA | AB |
|---|---|---|
| RXYQ14-20U*,RYYQ14-20U, RXYQQ14-20U, RXYTQ10-16U | - | - |
| RYMQ14-16U, REYQ14-20U, REYA14-20A | 240 | 240 |
| RYMQ18-20U | 240 | 192 |




**NOTES**

1. Detail ·A· and detail ·B· indicate the dimensions after fixing the attached piping.
2. Items ·4 - 10: Knockout hole.
3. **Gas pipe**

| | |
|---|---|
| RXYTQ10U | : Ø ·22.2· brazing connection |
| REYQ14-20U, REYA14-20A | : Ø ·25.4· brazing connection |
| RYYQ14-20U, RYMQ14-20U RXYQ14-20U*, RXYQQ14-20U, RXYTQ12-16U | : Ø ·28.6· brazing connection |
| **Liquid pipe** | |
| RXYTQ10U | : Ø ·9.5· brazing connection |
| RYYQ14-16U, RYMQ14-16U, RXYQ14-16U,* RXYQQ14-16U, REYQ 14-20U, REYA14-20A, RXYTQ12-16U | : Ø ·12.7· brazing connection |
| RYYQ18-20U, RYMQ18-20U, RXYQ18-20U,* RXYQQ18-20U | : Ø ·15.9· brazing connection |
| **Equalising pipe** | |
| RYMQ14-16U | : Ø ·22.2· brazing connection |
| RYMQ12U | : Ø ·28.6· brazing connection |
| **High pressure/low pressure gas pipe** | |
| REYQ14-20U, REYA14-20A | : Ø ·19.1· brazing connection |

| No. | Parts name | Remarks |
|---|---|---|
| 1 | Liquid pipe connection port | See note ·3·. |
| 2 | Gas pipe connection port | See note ·3·. |
| 3 | Equalising pipe connection port<br>High pressure/low pressure gas pipe | See note ·3·. |
| 4 | Power cord routing hole (side) | Ø65 |
| 5 | Power cord routing hole (front) | Ø80 |
| 6 | Power cord routing hole (front) | Ø65 |
| 7 | Power cord routing hole (front) | Ø27 |
| 8 | Power cord routing hole (bottom) | Ø65 |
| 9 | Pipe routing hole (front) | |
| 10 | Pipe routing hole (bottom) | |
| 11 | Grounding terminal | Inside of the switch box (·M8·) |

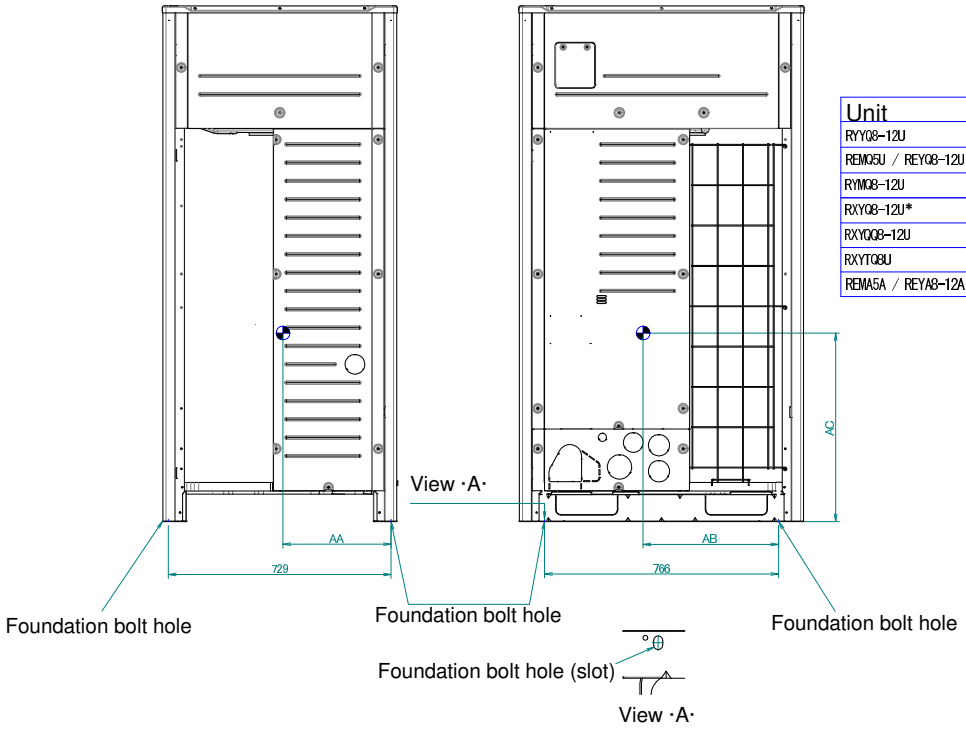
**2D119091A**

# 7 Centre of gravity

## 7 - 1 Centre of Gravity

**RXYQ8-12UD**






| Unit | AA | AB | AC |
|---|---|---|---|
| RYYQ8~12U | 328 | 366 | 565 |
| REMQ5U / REYQ8~12U | | | |
| RYMQ8~12U | 354 | 443 | 565 |
| RXYQ8~12U* | 339 | 448 | 565 |
| RXYQQ8~12U | | | |
| RXYTQ8U | | | |
| REMA5A / REYA8~12A | 353 | 426 | 690 |

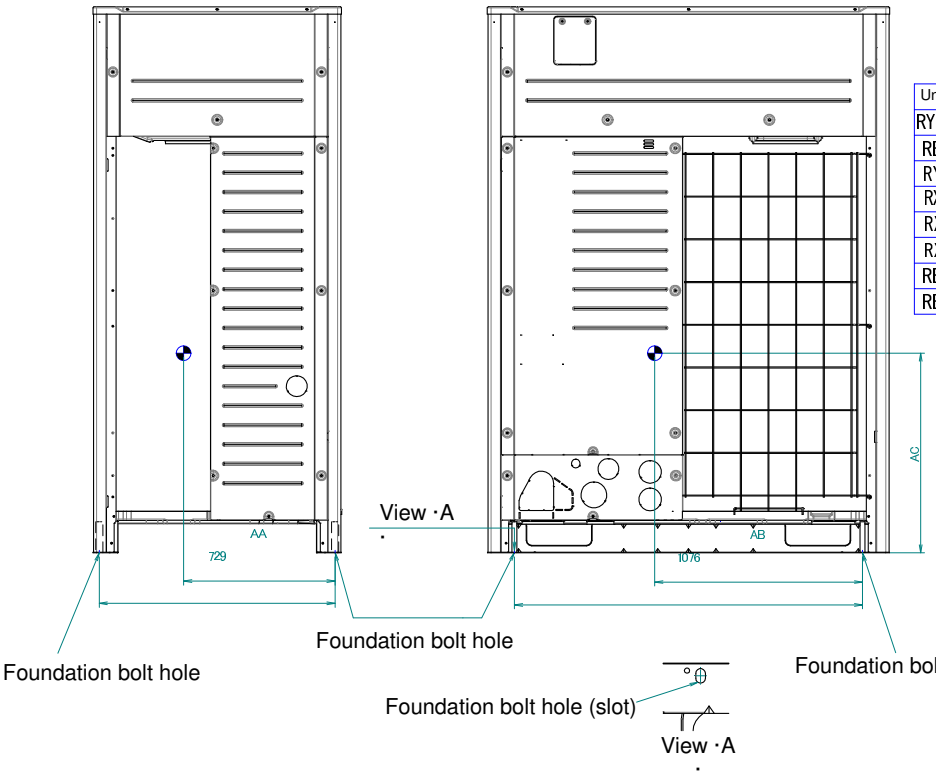
**3D119703A**

# 7 Centre of gravity

## 7 - 1 Centre of Gravity

**RXYQ14-20UD**






| Unit | AA | AB | AC |
|---|---|---|---|
| RYYQ14-20U | 334 | 470 | 610 |
| REYQ14-20U | 334 | 470 | 610 |
| RYMQ14-20U | 360 | 569 | 610 |
| RXYQ(Q)14-20U* | 345 | 575 | 610 |
| RXYTQ10-12U | 350 | 610 | 810 |
| RXYTQ14-16U | 351 | 565 | 610 |
| REYA14-16A | 339 | 596 | 758 |
| REYA18-20A | 350 | 587 | 752 |

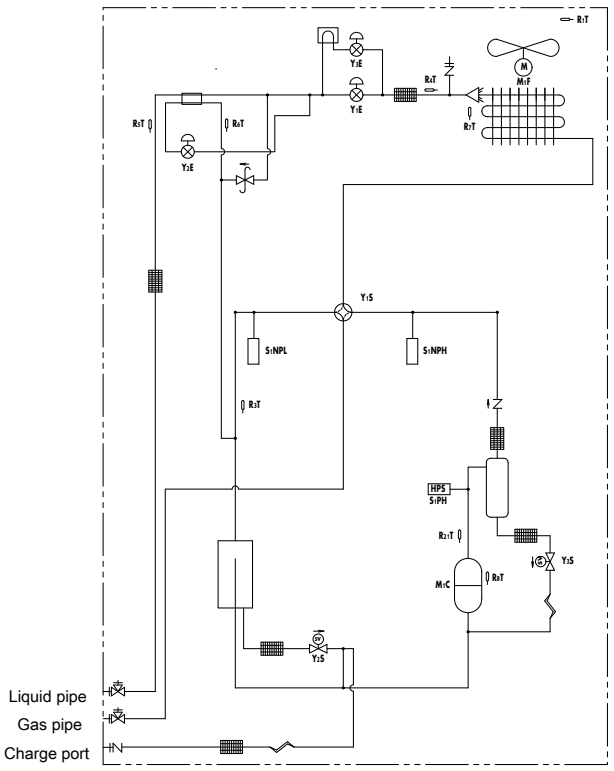
**3D119704A**

# 8 Piping diagrams

## 8 - 1 Piping Diagrams

8

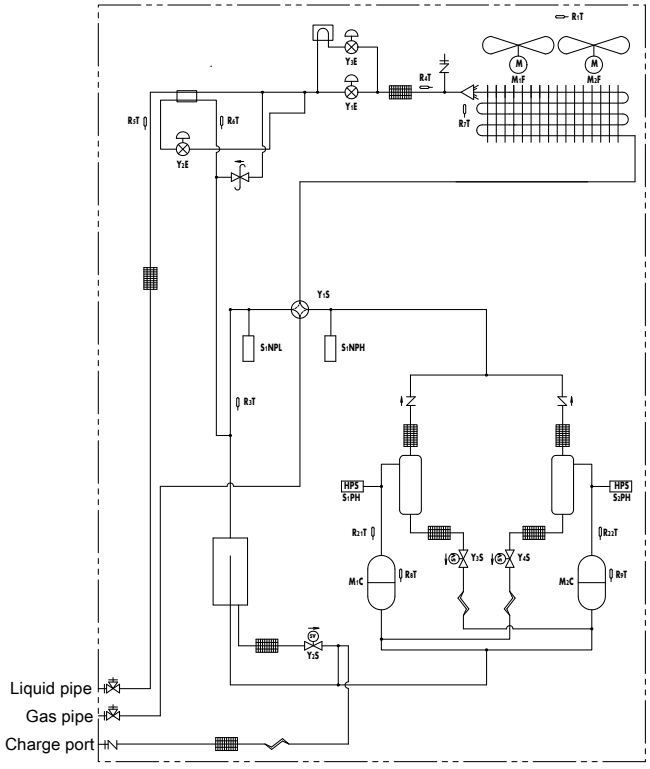
### RXYQ8-12UD




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

**3D118179**

### RXYQ14-20UD



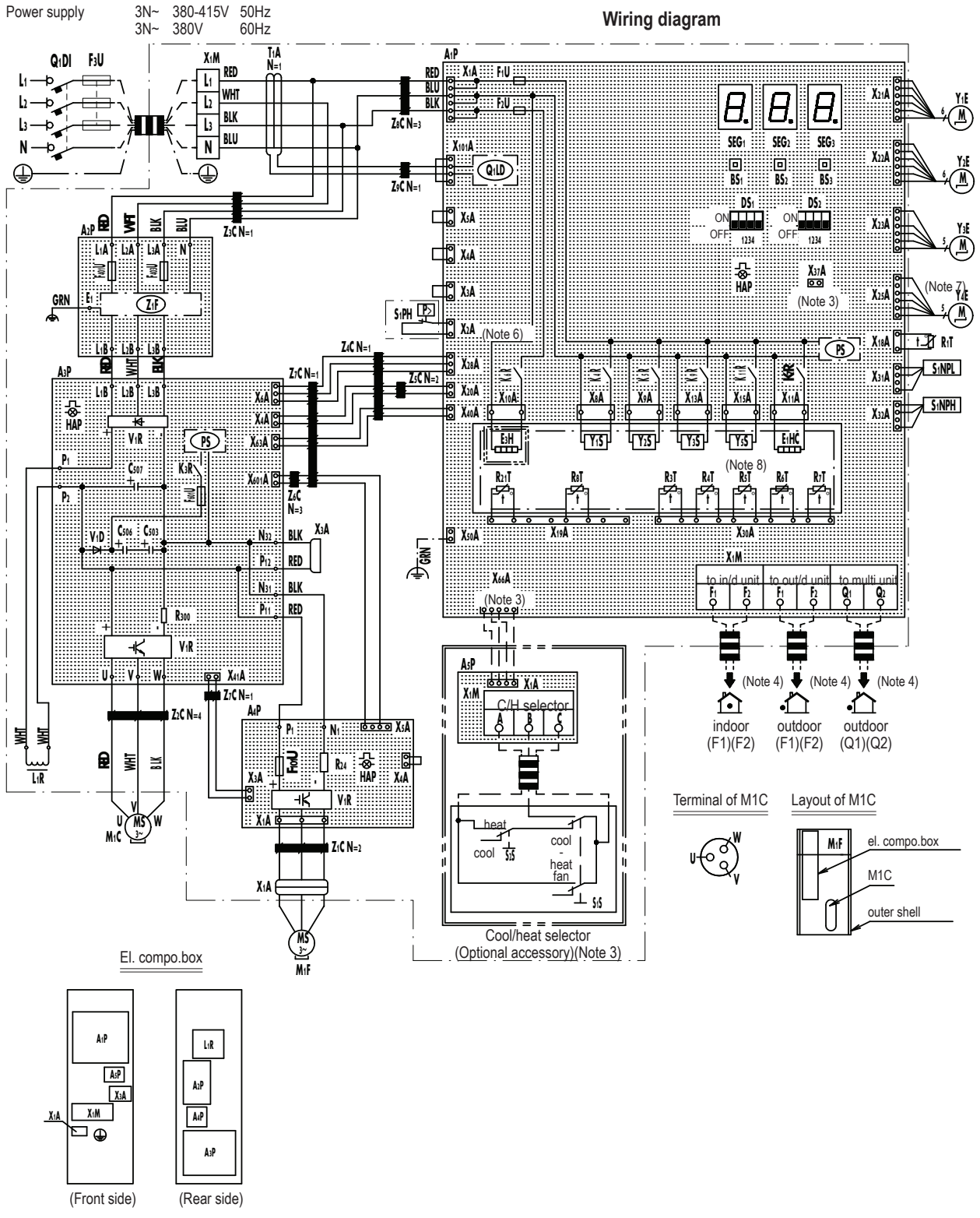

- Charge port / Service port
- Stop valve
- Filter
- Check valve
- Pressure relief valve
- Thermistor
- Heat sink (PCB)
- Capillary tube
- Expansion valve
- 4-way valve
- Propeller fan
- High pressure switch
- Low pressure sensor
- High pressure sensor
- Accumulator
- Heat exchanger
- Compressor
- Oil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

**3D118180**

# 9 Wiring diagrams

## 9 - 1 Wiring Diagrams - Three Phase

**RXYQ8-12UD**




**2D117534**

# 9 Wiring diagrams

## 9 - 1 Wiring Diagrams - Three Phase

**RXYQ8-12UD**



| | | | |
|---|---|---|---|
| A1P | Printed Circuit Board (Main) | R3T | Thermistor (Accumulator) |
| A2P | Printed Circuit Board (Noise Filter) | R4T | Thermistor (Heat Exc,Liq,Pipe) |
| A3P | Printed Circuit Board (Inv) | R5T | Thermistor (Subcool,Liq,Pipe) |
| A4P | Printed Circuit Board (Fan) | R6T | Thermistor (Heat Exc,Gas Pipe) |
| A5P | Printed Circuit Board (ABC I/P)(Option) | R7T | Thermistor (Heat Exc,Deicer) |
| BS1~3 (A1P) | Push Button Switch (Mode,Set,Return) | R8T | Thermistor (M1C body) |
| C503,C506,C507 (A3P) | Capacitor | R21T | Thermistor (M1C discharge) |
| DS1,DS2 (A1P) | DIP Switch | S1NPH | Pressure Sensor (High) |
| E1HC | Crankcase Heater | S1NPL | Pressure Sensor (Low) |
| E3H | Drainpan Heater (Option) | S1PH | Pressure Switch (Disch) |
| F1U,F2U (A1P) | Fuse (T,3,15A,250V) | SEG1~SEG3 (A1P) | 7-Segment Display |
| F3U | Field Fuse | T1A | Current Sensor |
| F101U (A4P) | Fuse | V1D (A3P) | Diode |
| F401U,F403U (A2P) | Fuse | V1R (A3P,A4P) | Power Module |
| F601U (A3P) | Fuse | X*A | Connector |
| HAP (A1P,A3P, A4P) | Pilotlamp (Service Monitor-Green) | X1M (A1P) | Terminal Block (Control) |
| K3R (A3P) | Magnetic Relay | X1M (A5P) | Terminal Block (Power Supply)(Option) |
| K4R (A1P) | Magnetic Relay (Y1S) | Y1E | Electronic Expansion Valve(Main) |
| K5R (A1P) | Magnetic Relay (Y2S) | Y2E | Electronic Expansion Valve (Injection) |
| K6R (A1P) | Magnetic Relay (E3H) | Y3E | Electronic Expansion Valve (Refrigerant Jacket) |
| K7R (A1P) | Magnetic Relay (E1HC) | Y4E | Electronic Expansion Valve (Storage Vessel) |
| K9R (A1P) | Magnetic Relay (Y3S) | Y1S | Solenoid Valve (Main) |
| K11R (A1P) | Magnetic Relay (Y5S) | Y2S | Solenoid Valve (Accumulator Oil Return) |
| L1R | Reactor | Y3S | Solenoid Valve (Oil1) |
| M1C | Motor (Compressor) | Y5S | Solenoid Valve (Sub) |
| M1F | Motor (Fan) | Z*C | Noise Filter (Ferrite Core) |
| PS (A1P,A3P) | Switching Power Supply | Z*F (A2P) | Noise Filter (With Surge Absorber) |
| Q1DI | Field Earth Leakage Breaker | Connector For Optional Accessories | |
| Q1LD (A1P) | Field Earth Current Detector | X10A | Connector (Drainpan Heater) |
| R24 (A4P) | Resistor (Current Sensor) | X37A | Connector (Power Adapter) |
| R300 (A3P) | Resistor (Current Sensor) | X66A | Connector (Remote Switching Cool/Heat Selector) |
| R1T | Thermistor (Air) | | |

**NOTES**

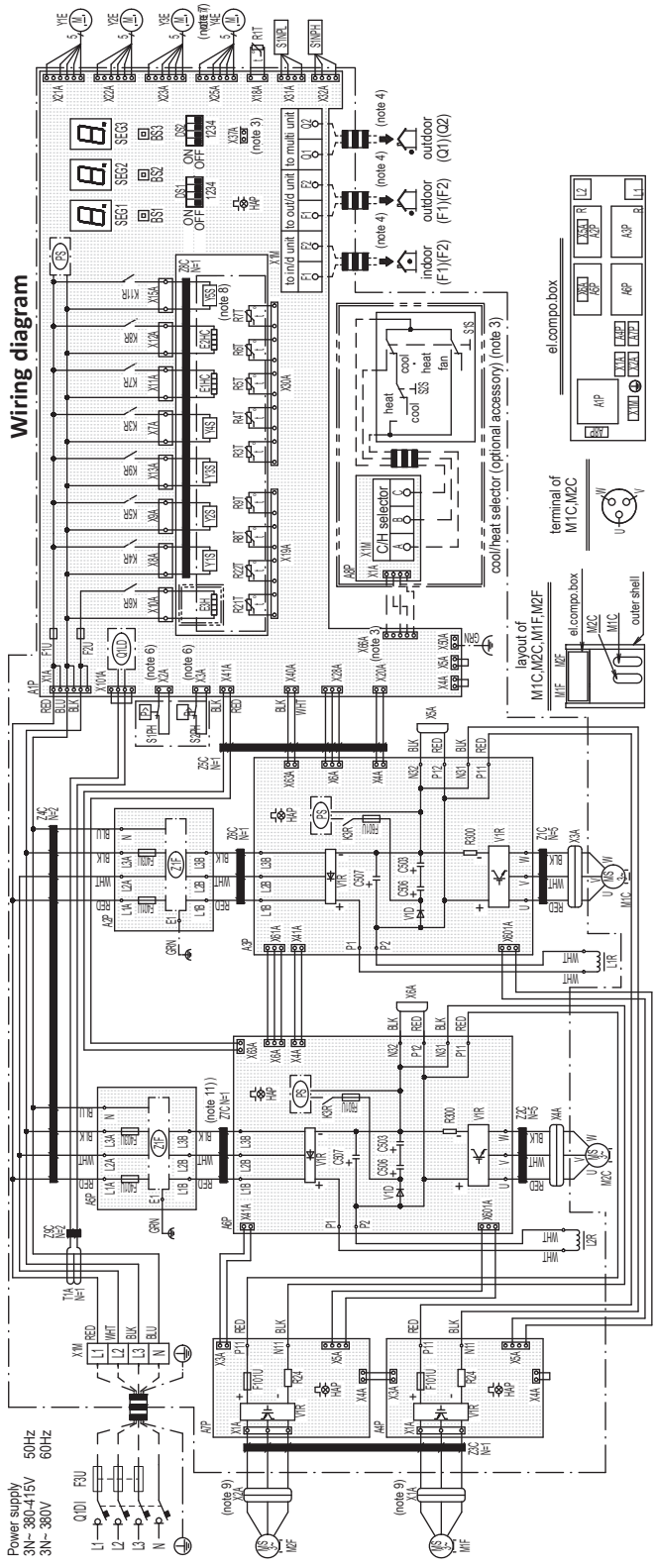
1. This wiring diagram applies only to the outdoor unit.
2. ⊏▮▮⊐ :field wiring, ⊏⊐⊏⊐: terminal block, ⊏oo⊐: connector, -○-: terminal, ⏚: protective earth (screw), ⏚: functional earth, ——: earth wiring, — — —: field supply, ⊏ ⊐: PCB, ⊏ ⊐: switch box, ⊏ ⊐: option
3. When using the optional adapter, refer to the installation manual of the optional adapter.
4. For connection wiring to indoor-outdoor transmission F1-F2, outdoor-outdoor transmission F1-F2, outdoor-multi transmission Q1-Q2, refer to the installation manual.
5. How to use BS1~3 switch. Refer to “service precaution” label on el. compo. box cover.
6. When operating, don’t shortcircuit the protection devices (S1PH).
7. Only for RYYQ model.
8. Only for RYYQ/RYMQ model.
9. Colors: BLK: Black, RED: Red, BLU: Blue, WHT: White, GRN: Green.

**2D117534**

# 9 Wiring diagrams

## 9 - 1 Wiring Diagrams - Three Phase

**RXYQ14-20UD**




| | |
|---|---|
| A1P | Printed circuit board (main) |
| A2P, A5P | Printed circuit board (noise filter) |
| A3P, A6P | Printed circuit board (inv) |
| A4P, A7P | Printed circuit board (fan) |
| A8P | Printed circuit board (ABC I/P) |
| BS1~3 (A1P) | Push button switch (mode, set, return) |
| C503, C506, C507 (A3P, A6P) | Capacitor |
| DS1, DS2 (A1P) | Dip switch S1PH, |
| E1HC, E2HC | Crankcase heater |
| E3H | Drainpan heater (option) |
| F1U, F2U (A1P) | Fuse (T, 3, 15A, 250V) |
| F3U | Field fuse |
| F101U (A4P, A7P) | Fuse |
| F401U, F403U (A2P, A5P) | Fuse |
| F601U (A3P, A6P) | Fuse |
| HAP (A1P, A3P, A4P, A6P, A7P) | Pilotlamp (service monitor-green) |
| K3R (A3P, A6P) | Magnetic relay |
| K3R (A1P) | Magnetic relay (Y4S) |
| K4R (A1P) | Magnetic relay (Y1S) |
| K5R (A1P) | Magnetic relay (Y2S) |
| K6R (A1P) | Magnetic relay (E3H) |
| K7R (A1P) | Magnetic relay (E1HC) |
| K8R (A1P) | Magnetic relay (E2HC) |
| K9R (A1P) | Magnetic relay (Y3S) |
| K11R (A1P) | Magnetic relay (Y5S) |
| L1R, L2R | Reactor |
| M1C, M2C | Motor (compressor) |
| M1F, M2F | Motor (fan) |
| PS (A1P, A3P, A6P) | Switching power supply |
| Q1DI | Field earth leakage breaker |
| Q1LD (A1P) | Field earth current detector |
| R24 (A4P, A7P) | Resistor (current sensor) |
| R300 (A3P, A6P) | Resistor (current sensor) |
| R1T | Thermistor (air) |
| R3T | Thermistor (accumulator) |
| R4T | Thermistor (heat exc, liq, pipe) |
| R5T | Thermistor (subcool, liq, pipe) |
| R6T | Thermistor (heat exc, gas pipe) |
| R7T | Thermistor (heat exc, deicer) |
| R8T, R9T | Thermistor (M1C, M2C body) |
| R21T, R22T | Thermistor (M1C, M2C discharge) |
| S1NPH | Pressure sensor (high) |
| S1NPL | Pressure sensor (low) |
| S1PH, S2PH | Pressure switch (disch) |
| SEG1~SEG3 (A1P) | 7-segment display |
| T1A | Current sensor |
| V1D (A3P, A6P) | Diode |
| V1R (A3P, A4P, A6P, A7P) | Power module |
| X*A | Connector |
| X1M (A1P) | Terminal block (control) |
| X1M (A8P) | Terminal block (power supply) |
| Y1E | Electronic expansion valve (main) |
| Y2E | Electronic expansion valve (injection) |
| Y3E | Electronic expansion valve (refrigerant jacket) |
| Y4E | Electronic expansion valve (storage vessel (note 7) |
| Y1S | Solenoid valve (main) |
| Y2S | Solenoid valve (accumulator oil return) |
| Y3S | Solenoid valve (oil1) |
| Y4S | Solenoid valve (oil2) |
| Y5S | Solenoid valve (sub) (note 8) |
| Z*C | Noise filter (ferrite core) |
| Z*F (A2P, A5P) | Noise filter (with surge absorber) |
| | |
| Connector for optional accessories | |
| X10A | Connector (drainpan heater) |
| X37A | Connector (power adapter) |
| X66A | Connector (remote switching) |
| | Cool/heat selector) |

**NOTES**

1. This wiring diagram applies only to the outdoor unit.
2. ::▮▮▮:: Field wiring, ▯▯▯▯: terminal block, ⊡⊡: connector, -○- :terminal, ⏚: protective earth (screw), ⏚: functional earth, ——·——: earth wiring, — — —: field supply, ▭: pcb, ▭: switch box, ▭: option
3. When using the optional adapter, refer to the installation manual of the optional adapter.
4. For connection wiring to indoor-outdoor transmission F1-F2, outdoor-outdoor transmission F1-F2, outdoor-multi transmission Q1-Q2, refer to the installation manual.
5. How to use BS1~3 switch. Refer to "service precaution" label on el. Compo. Box cover.
6. When operating, don't shortcircuit the protection devices (S1PH,S2PH)
7. Only for RYYQ model.
8. Only for RYYQ/RYMQ model.
9. Connector X1A (M1F) is red, connector X2A (M2F) is white.
10. Colors: BLK:black, RED:red, BLU:blue, WHT:white, GRN:green.
11. Only for 14,16 class

**2D117536C**

# 10 External connection diagrams

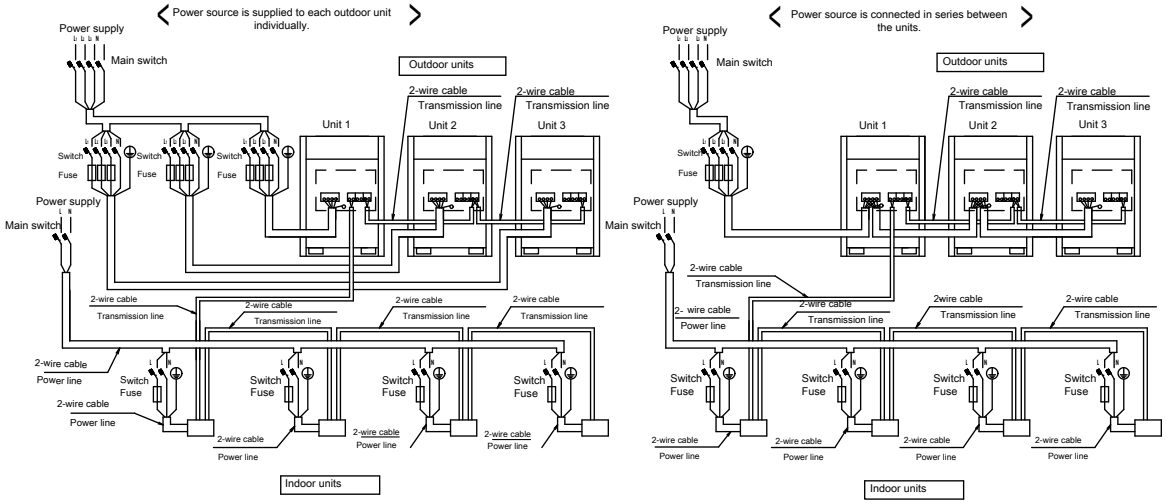
## 10 - 1 External Connection Diagrams



**RXYQ8-20UD**

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 details, refer to the wiring diagram attached to the outdoor 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 equipement.
9. Install a main switch to control the multiple power sources that the various components of the system make use of.
10. The capacity of UNIT1 must be larger than that of UNIT2 when the power source is connected in series between the units.
    The capacity of UNIT 2 must be larger than that of UNIT3 when the power source is connected in series between the units.
11. 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.
    Running the product in reversed phase may break the compressor and other parts.
12. Install an earth leakage circuit breaker.

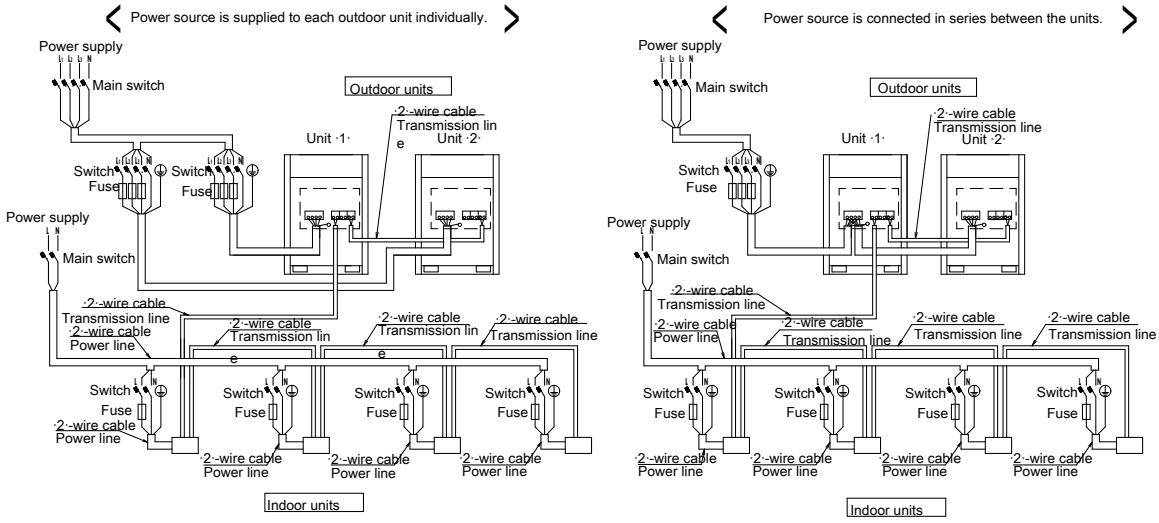



**3D119200**

**RXYQ8-20UD**

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 details, refer to the wiring diagram attached to the outdoor 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 equipement.
9. Install a main switch to control the multiple power sources that the various components of the system make use of.
10. The capacity of UNIT1 must be larger than that of UNIT2 when the power source is connected in series between the units.
11. 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.
    Running the product in reversed phase may break the compressor and other parts.
12. Install an earth leakage circuit breaker.

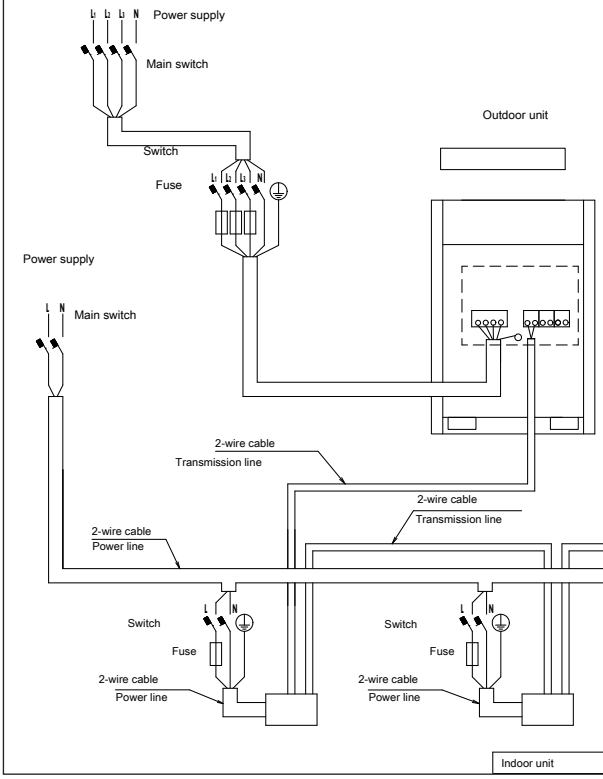



**3D119316**

# 10 External connection diagrams

## 10 - 1 External Connection Diagrams

**RXYQ8-20UD**




Notes

1. All wiring, components and materials to be procured on-site must comply with the applicable le gislation.
2. Use copper conductors only
3. For details, refer to the wiring diagram attached to the outdoor 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 equipement.
9. Install a main switch to control the multiple power sources that the various components of t he system make use of.
10. If there exists the possibility of reversed phase, loose phase or momentary blackout, or if the power g oes on and off while the product is operating, attach a reversed phase protection circuit locally.

    Running the product in reversed phase may break the compressor and other parts.
11. Install an earth leakage circuit breaker.

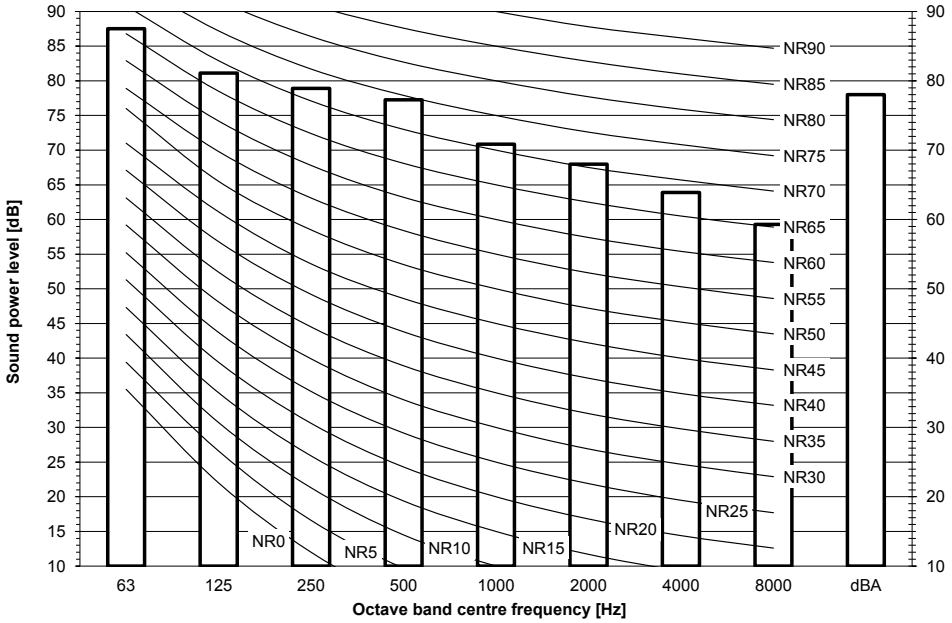
**3D119317**

# 11 Sound data

## 11 - 1 Sound Power Spectrum



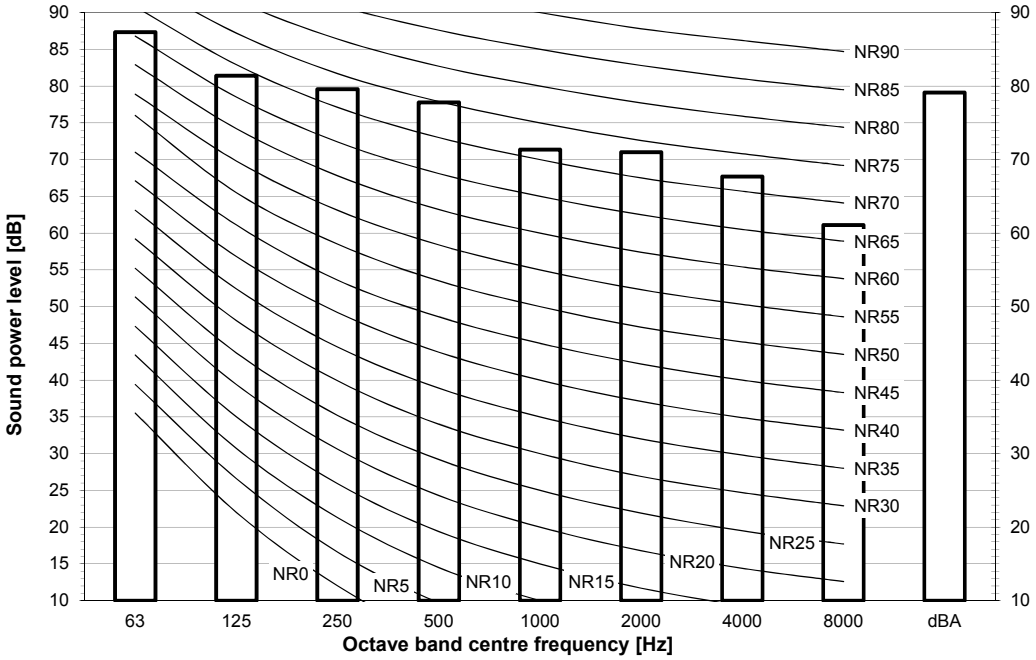
**RXYQ8UD**




Notes
dBA = A-weighted sound power level (A scale according to IEC).
Reference acoustic intensity 0dB = 10E-6µW/m²
Measured according to ISO 3744

**3D119528**

**RXYQ10UD**



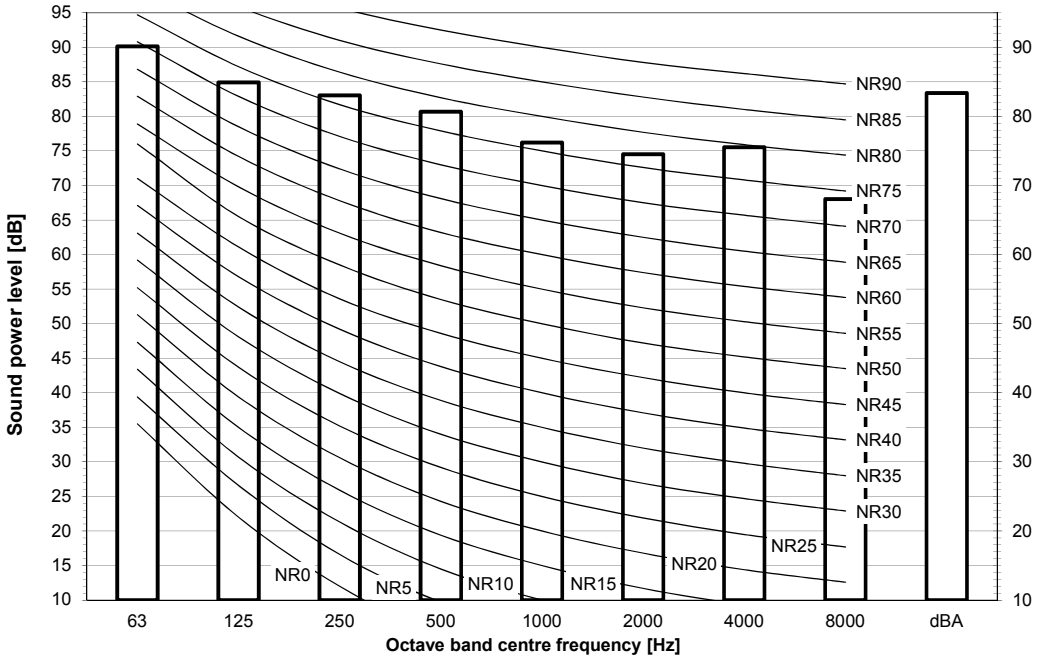

Notes
dBA = A-weighted sound power level (A scale according to IEC).
Reference acoustic intensity 0dB = 10E-6µW/m²
Measured according to ISO 3744

**3D119529**

# 11 Sound data

## 11 - 1 Sound Power Spectrum

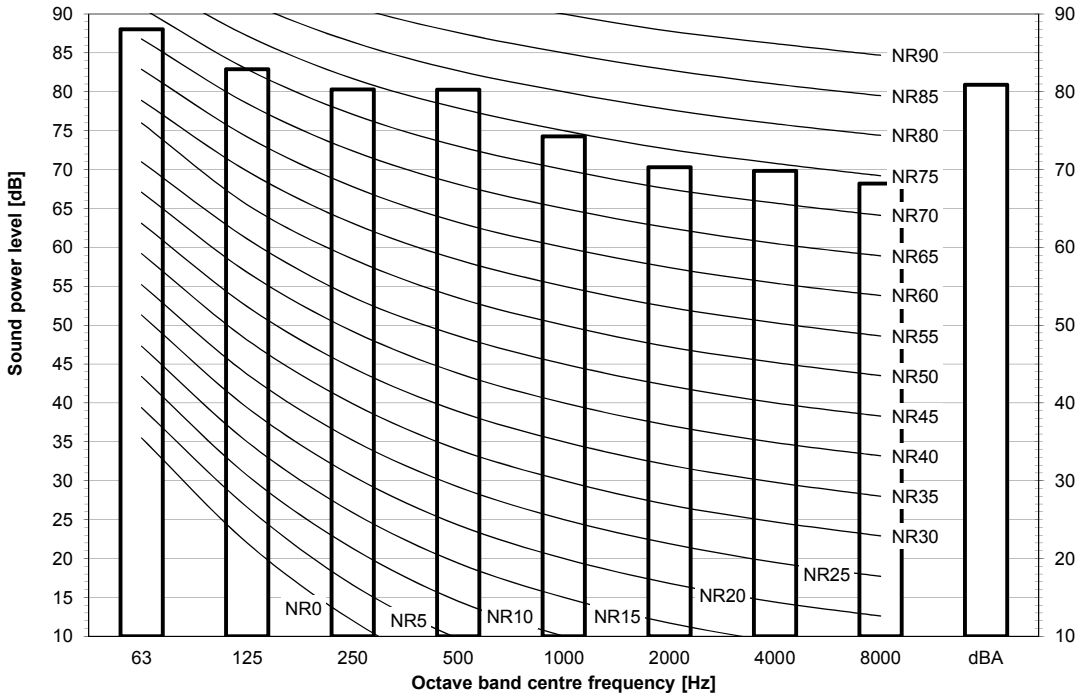
**RXYQ12UD**




Notes
dBA = A-weighted sound power level (A scale according to IEC).
Reference acoustic intensity 0dB = 10E-6µW/m²
Measured according to ISO 3744

**3D119530**

**RXYQ14UD**




Notes
dBA = A-weighted sound power level (A scale according to IEC).
Reference acoustic intensity 0dB = 10E-6µW/m²
Measured according to ISO 3744

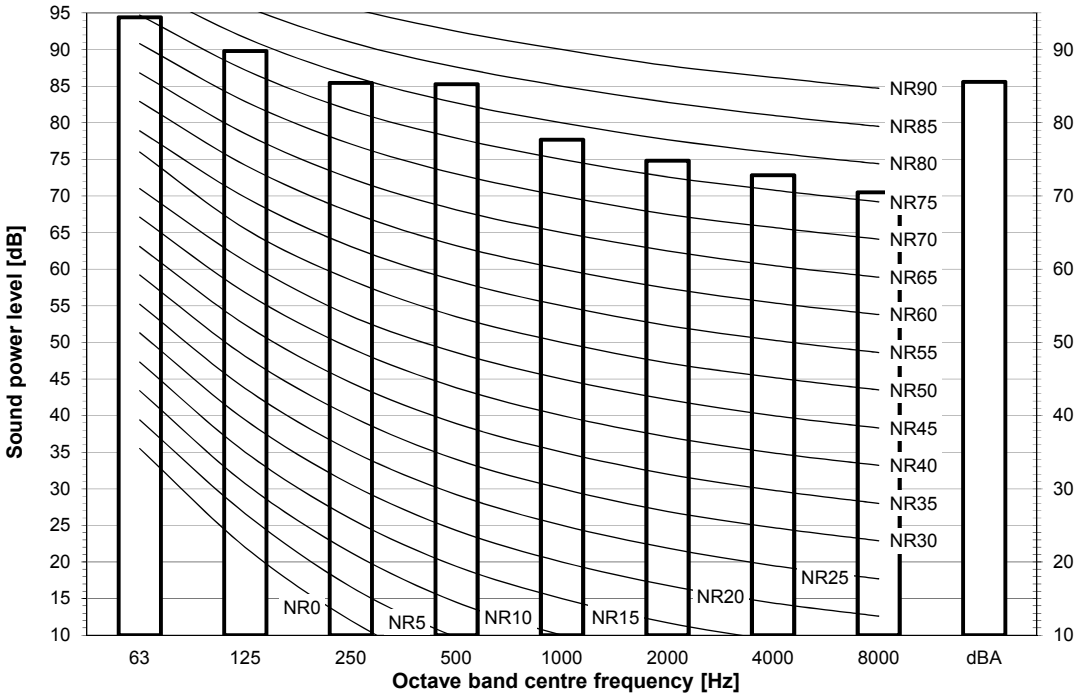
**3D119531**

# 11 Sound data

## 11 - 1 Sound Power Spectrum



**RXYQ16UD**




Notes

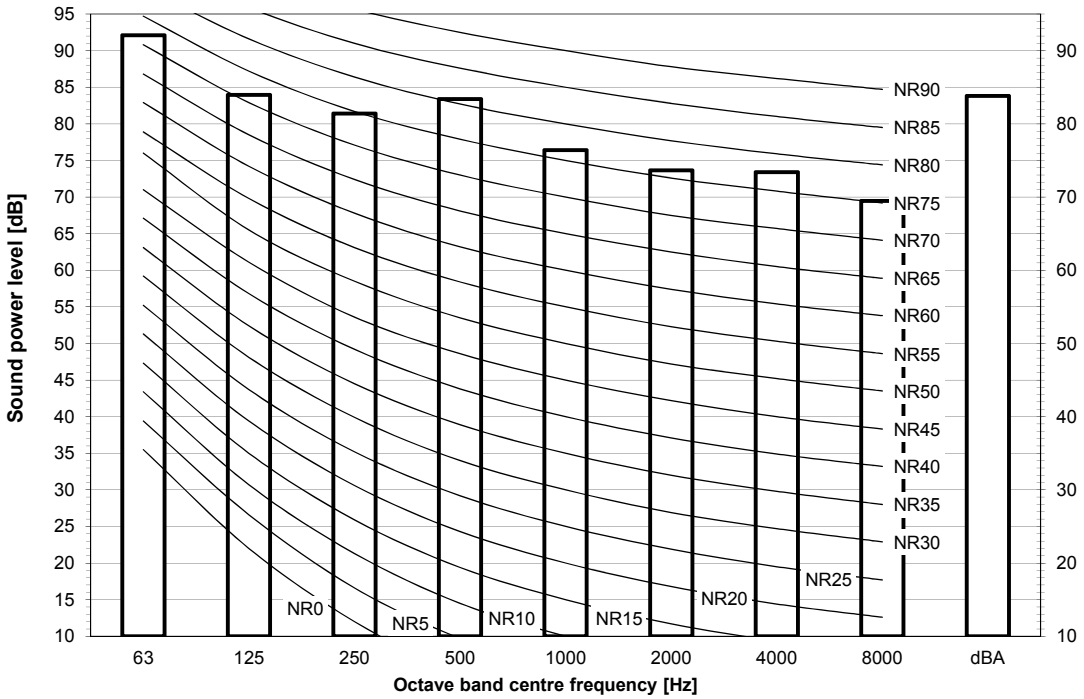
dBA = A-weighted sound power level (A scale according to IEC).

Reference acoustic intensity 0dB = 10E-6µW/m²

Measured according to ISO 3744

**3D119532**

**RXYQ18UD**




Notes

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

Reference acoustic intensity 0dB = 10E-6µW/m²

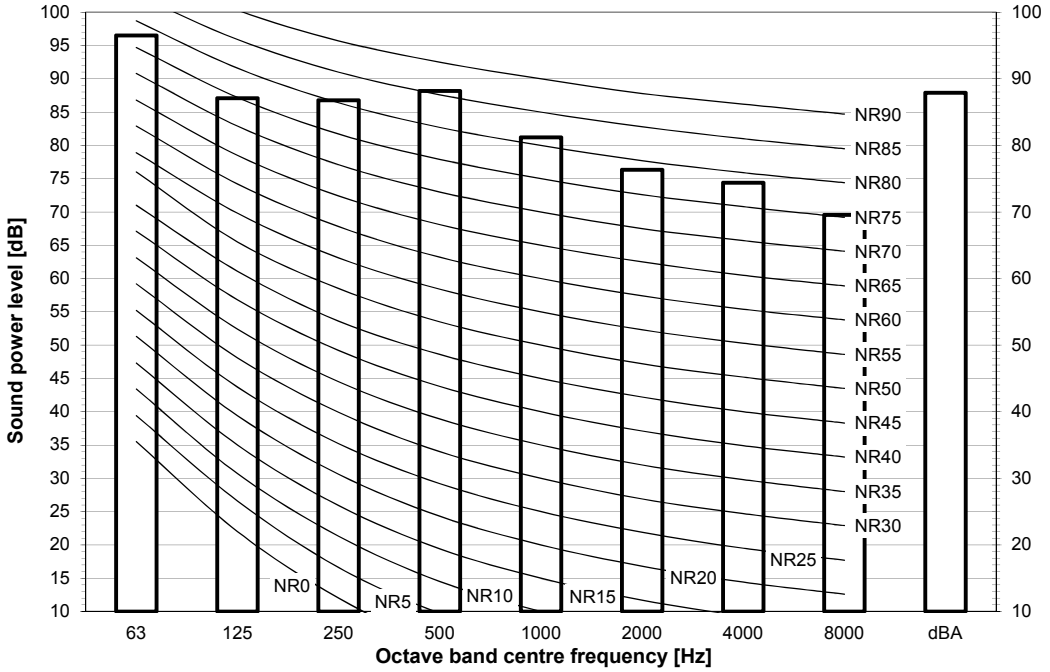
Measured according to ISO 3744

**3D119533**

# 11 Sound data

## 11 - 1 Sound Power Spectrum

**RXYQ20UD**




Notes

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

Reference acoustic intensity 0dB = 10E-6µW/m²

Measured according to ISO 3744

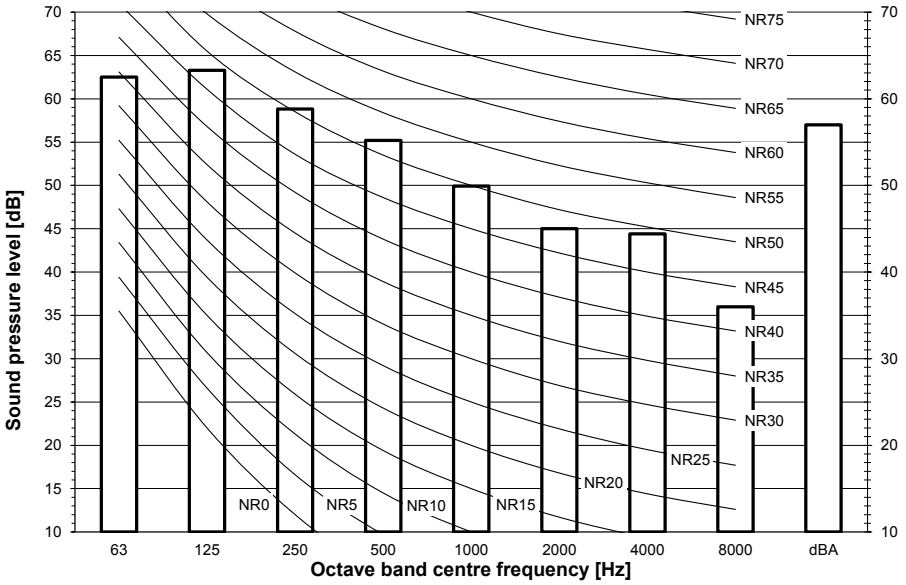
**3D119534**

# 11 Sound data

## 11 - 2 Sound Pressure Spectrum



**RXYQ8UD**



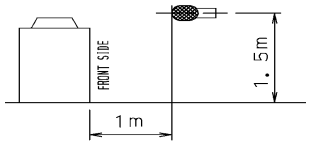

Notes

Data is valid at free field condition.

Data is valid at nominal operation condition.

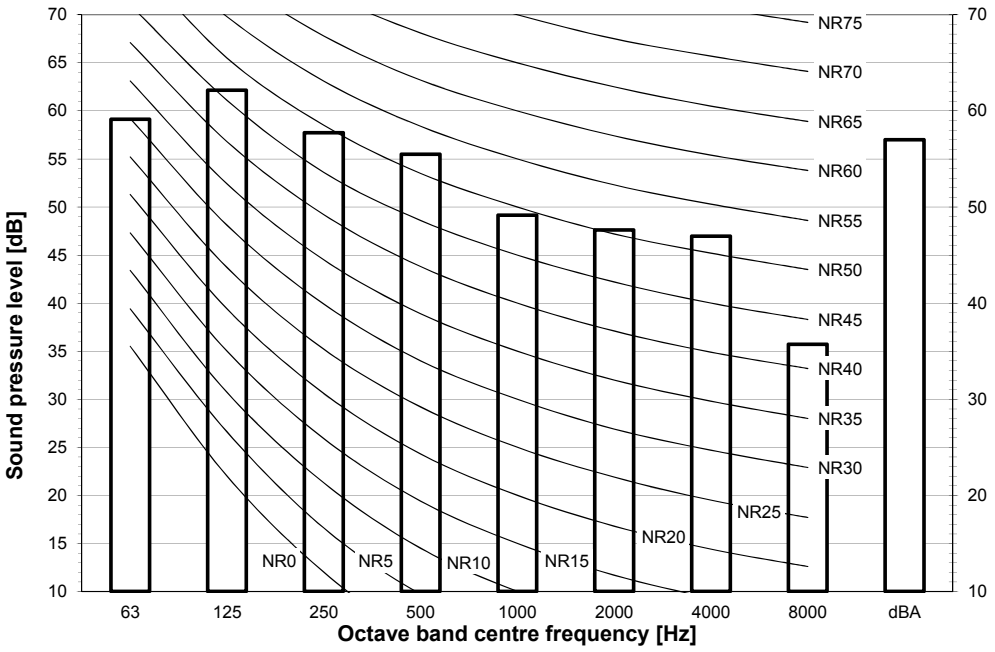
dBA = A-weighted sound pressure level (A scale according to IEC).

Reference acoustic pressure 0 dB = 20 µPa




**3D119521**

**RXYQ10UD**



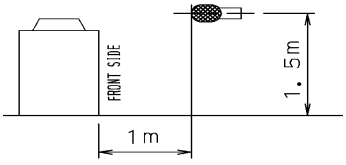

Notes

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 µPa



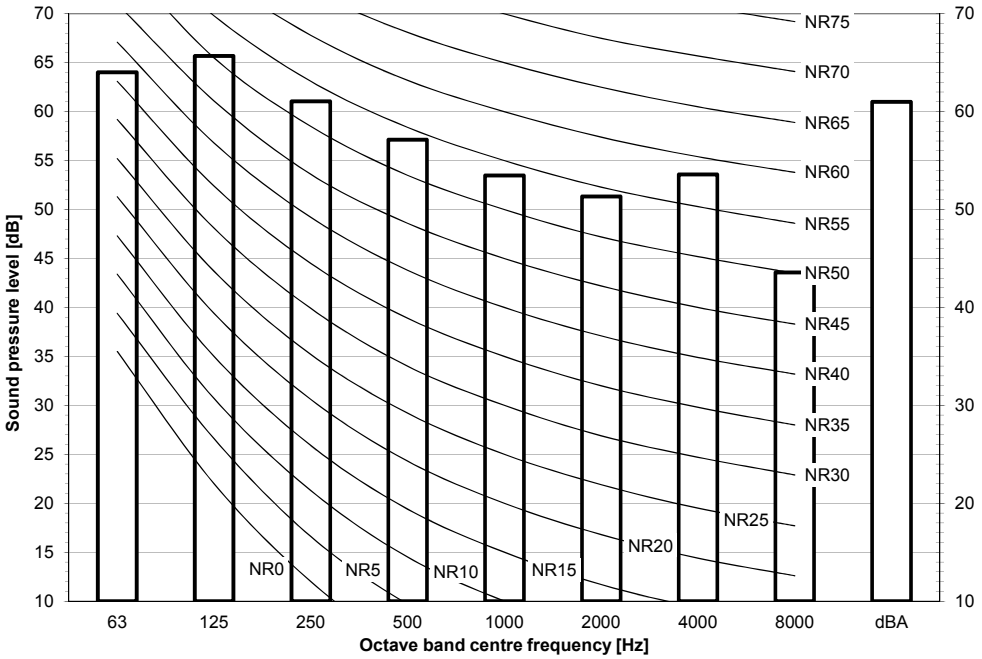

**3D119522**

# 11 Sound data

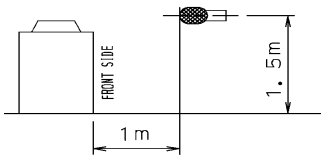
## 11 - 2 Sound Pressure Spectrum



**RXYQ12UD**

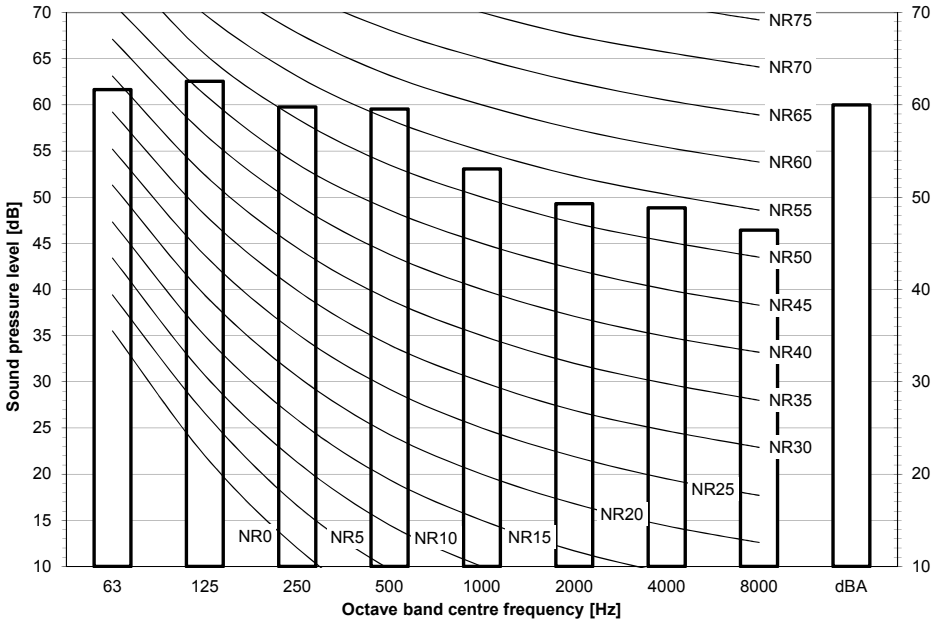



Notes
Data is valid at free field condition.
Data is valid at nominal operation condition.
dBA = A-weighted sound pressure level (A scale according to IEC).
Reference acoustic pressure 0 dB = 20 µPa

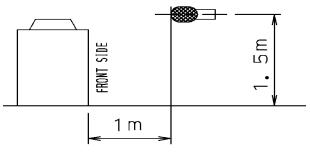



**3D119523**

**RXYQ14UD**




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 µPa



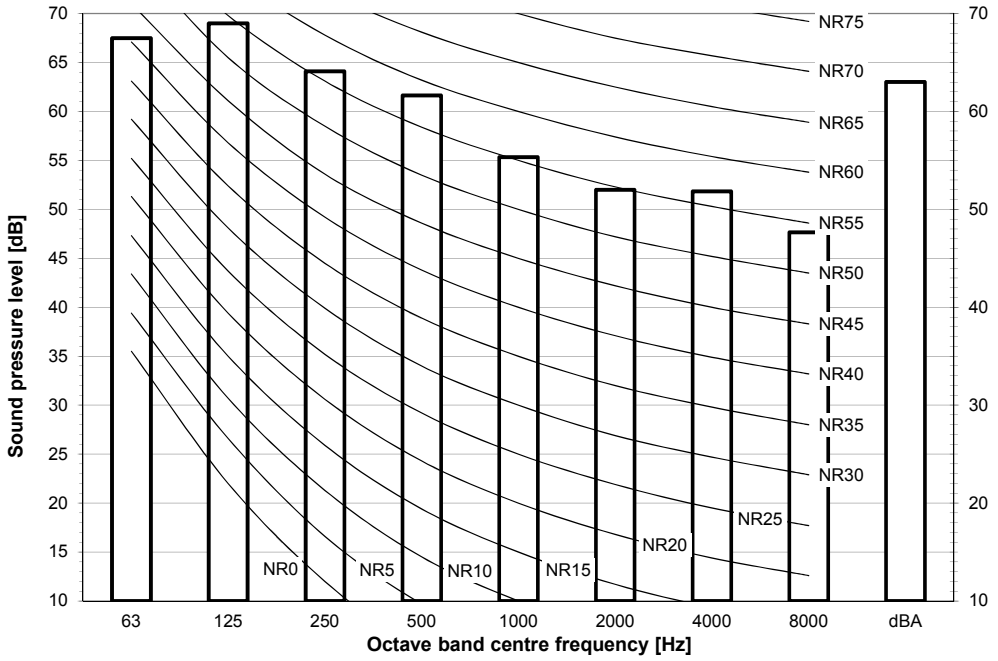

**3D119524**

# 11 Sound data

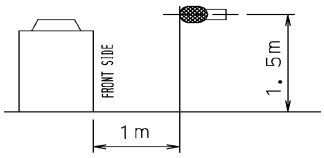
## 11 - 2 Sound Pressure Spectrum



**RXYQ16UD**

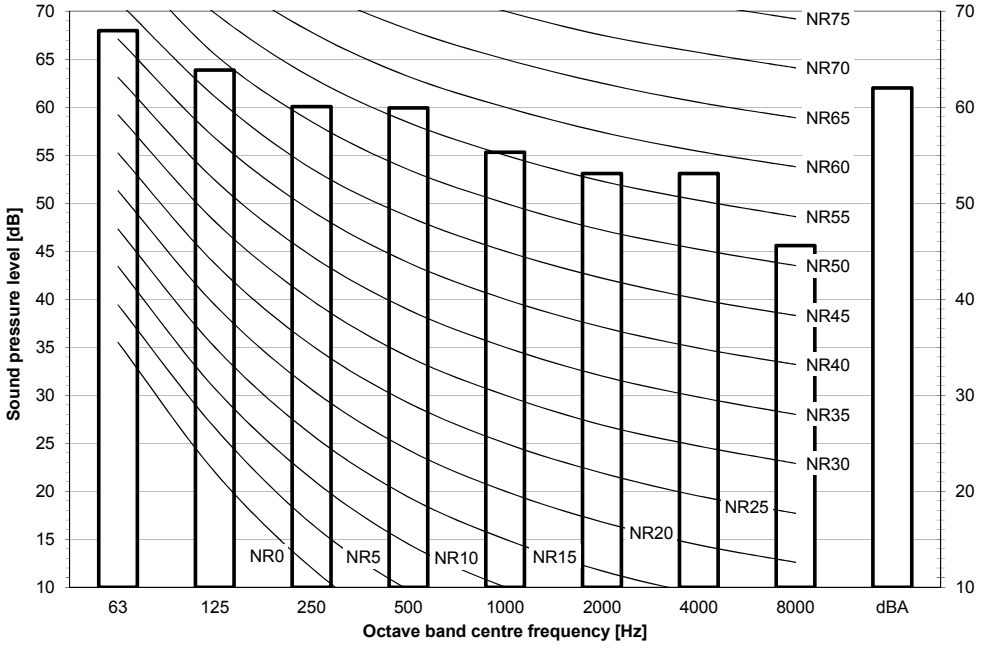



Notes
Data is valid at free field condition.
Data is valid at nominal operation condition.
dBA = A-weighted sound pressure level (A scale according to IEC).
Reference acoustic pressure 0 dB = 20 µPa

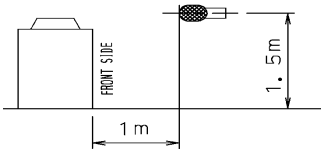



**3D119525**

**RXYQ18UD**




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 µPa

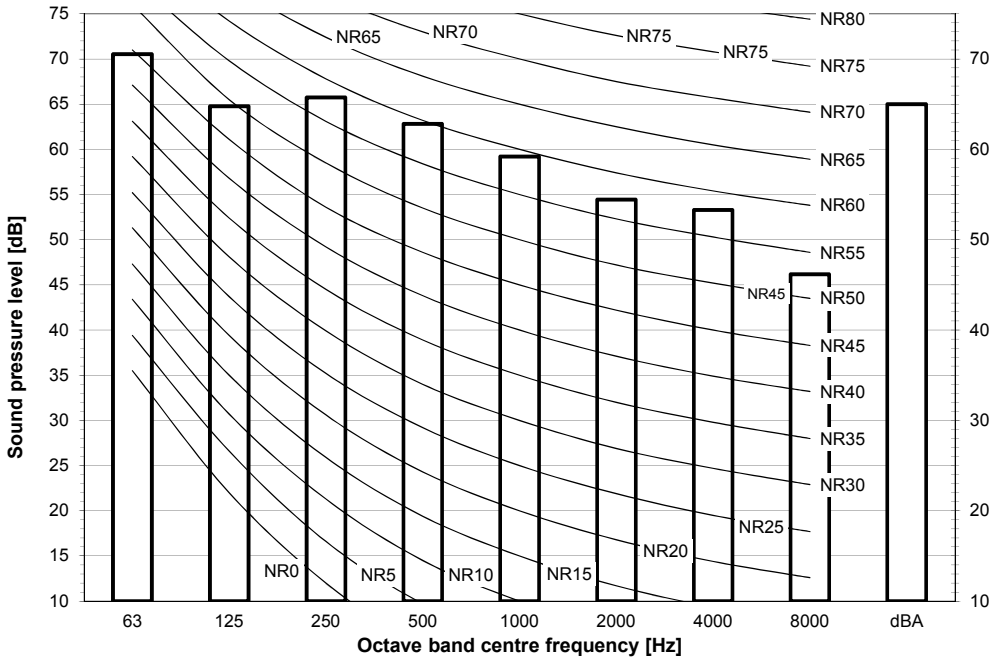



**3D119526**

# 11 Sound data

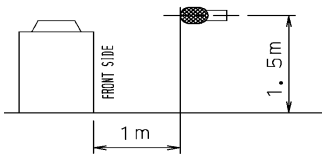
## 11 - 2 Sound Pressure Spectrum

**RXYQ20UD**




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 µPa



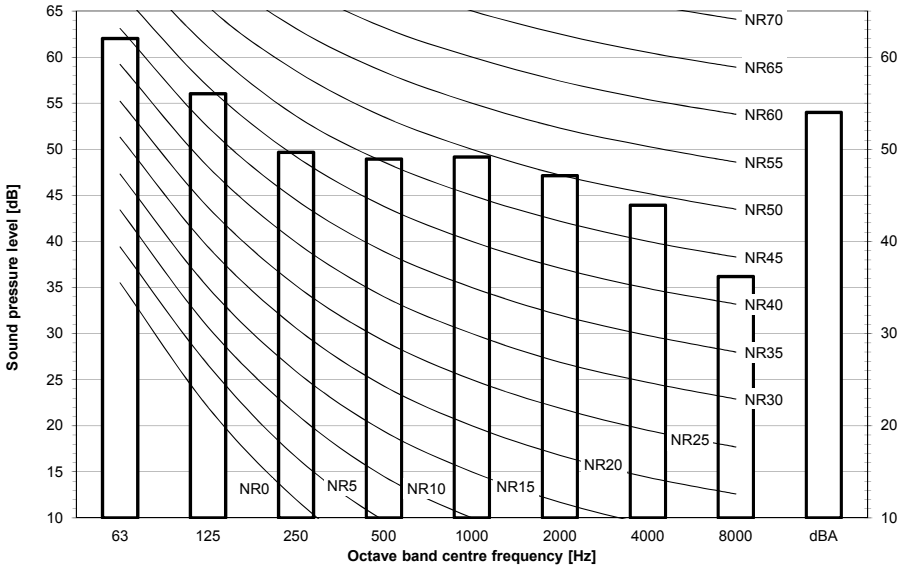

**3D119527**

# 11 Sound data

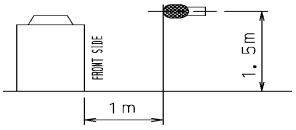
## 11 - 3 Sound Pressure Spectrum Quiet Mode Level 1



**RXYQ8-12UD**

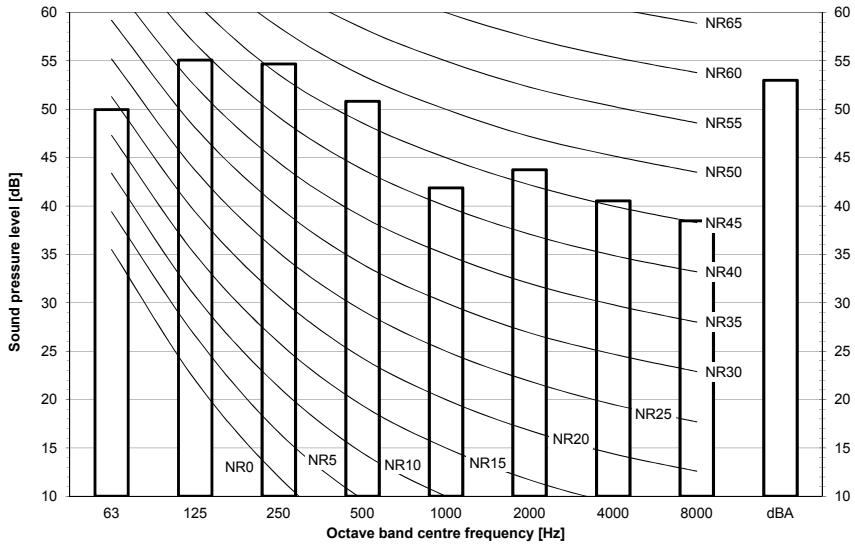



Notes
Data is valid at free field condition.
Data is valid at nominal operation condition.
dBA = A-weighted sound pressure level (A scale according to IEC).
Reference acoustic pressure 0 dB = 20 µPa
Data is valid under the following conditions
Cooling operation
Outdoor Ta: 35°C
Full load (maximum fan rps and maximum compressor rps for the dedicated low noise mode)

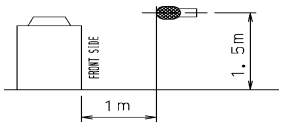



**3D119535**

**RXYQ14-16UD**




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 µPa
Data is valid under the following conditions
Cooling operation
Outdoor Ta: 35°C
Full load (maximum fan rps and maximum compressor rps for the dedicated low noise mode)

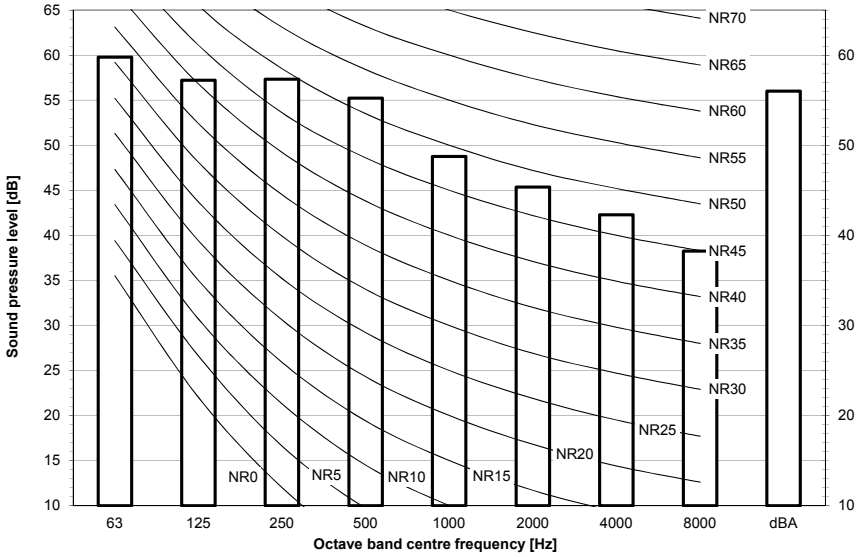



**3D119538**

# 11 Sound data

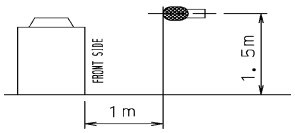
## 11 - 3 Sound Pressure Spectrum Quiet Mode Level 1

**RXYQ18-20UD**




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 µPa

Data is valid under the following conditions
Cooling operation
Outdoor Ta: 35°C
Full load (maximum fan rps and maximum compressor rps for the dedicated low noise mode)



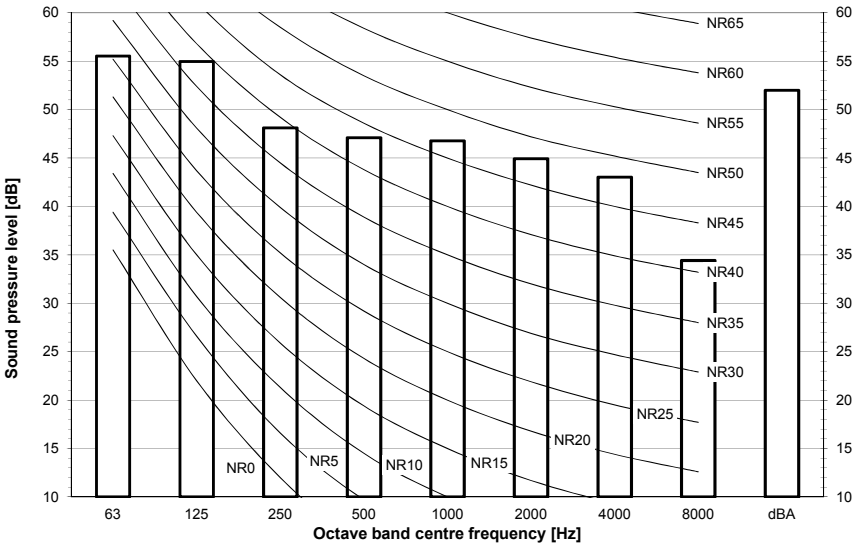

**3D119541**

# 11 Sound data

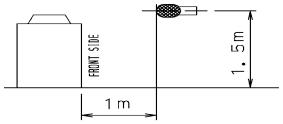
## 11 - 4 Sound Pressure Spectrum Quiet Mode Level 2



**RXYQ8-12UD**

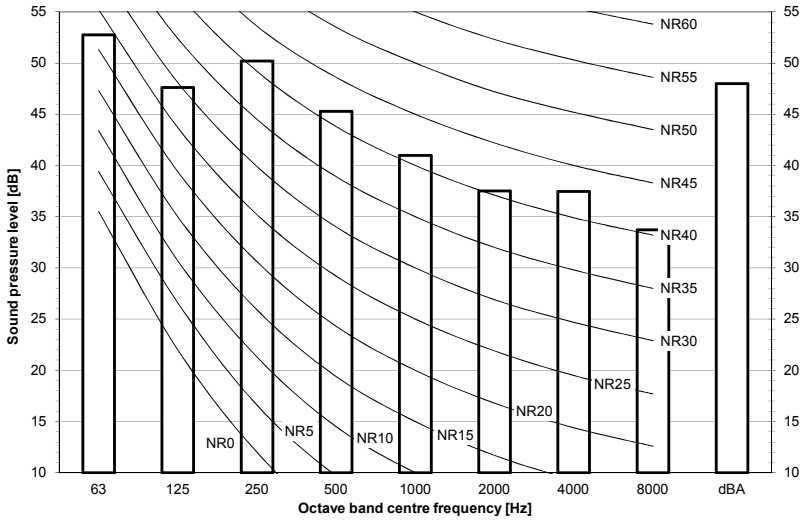



Notes
Data is valid at free field condition.
Data is valid at nominal operation condition.
dBA = A-weighted sound pressure level (A scale according to IEC).
Reference acoustic pressure 0 dB = 20 µPa
Data is valid under the following conditions
Cooling operation
Outdoor Ta: 35°C
Full load (maximum fan rps and maximum compressor rps for the dedicated low noise mode)

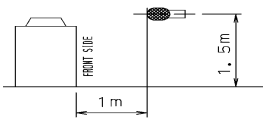



**3D119536**

**RXYQ14-16UD**




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 µPa
Data is valid under the following conditions
Cooling operation
Outdoor Ta: 35°C
Full load (maximum fan rps and maximum compressor rps for the dedicated low noise mode)

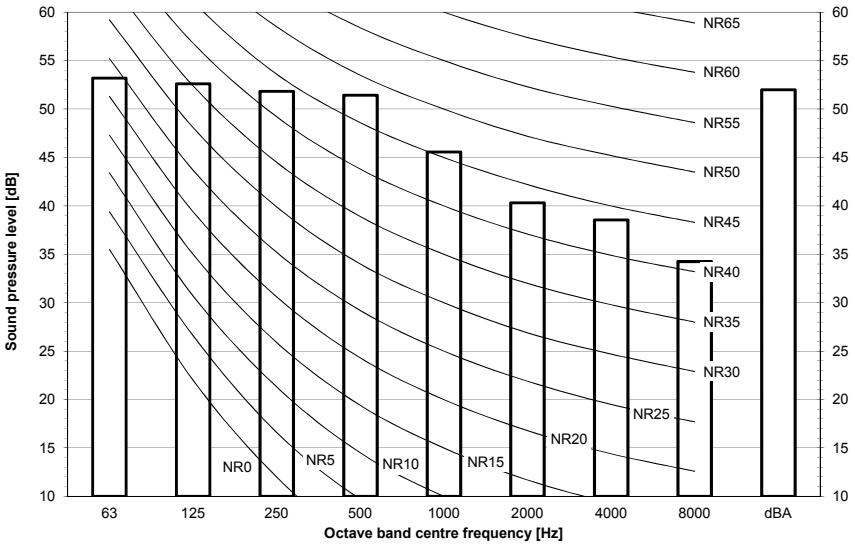



**3D119539**

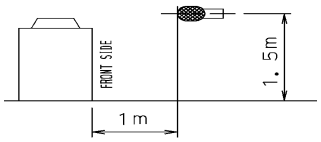
# 11 Sound data

## 11 - 4 Sound Pressure Spectrum Quiet Mode Level 2

**RXYQ18-20UD**




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 µPa
Data is valid under the following conditions
Cooling operation
Outdoor Ta: 35°C
Full load (maximum fan rps and maximum compressor rps for the dedicated low noise mode)



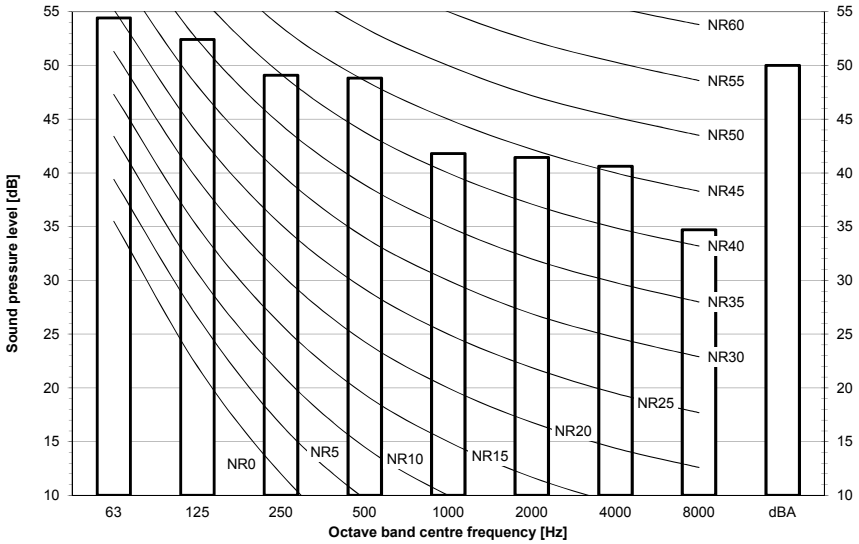

**3D119542**

# 11 Sound data

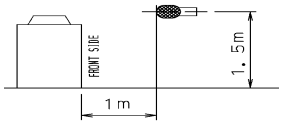
## 11 - 5 Sound Pressure Spectrum Quiet Mode Level 3



**RXYQ8-12UD**

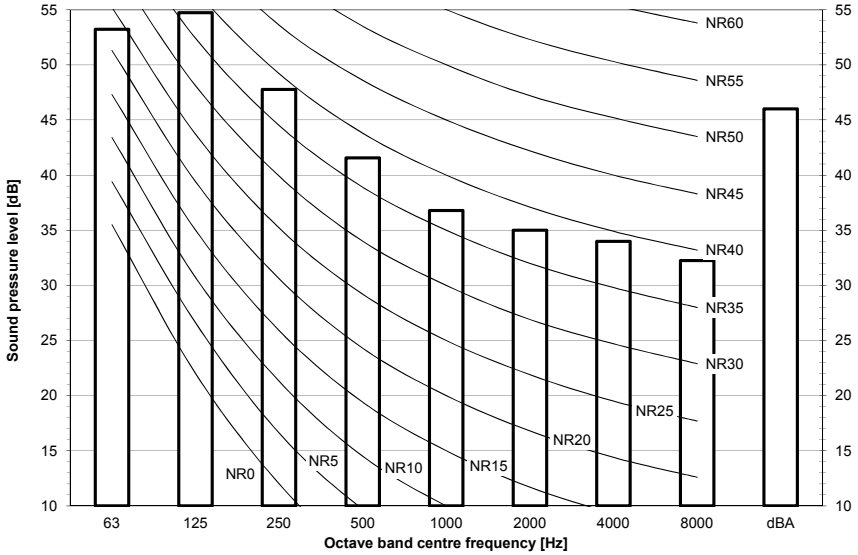



Notes
Data is valid at free field condition.
Data is valid at nominal operation condition.
dBA = A-weighted sound pressure level (A scale according to IEC).
Reference acoustic pressure 0 dB = 20 µPa
Data is valid under the following conditions
Cooling operation
Outdoor Ta: 35°C
Full load (maximum fan rps and maximum compressor rps for the dedicated low noise mode)

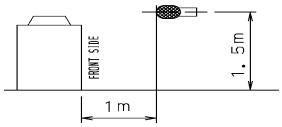



**3D119537**

**RXYQ14-16UD**




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 µPa
Data is valid under the following conditions
Cooling operation
Outdoor Ta: 35°C
Full load (maximum fan rps and maximum compressor rps for the dedicated low noise mode)

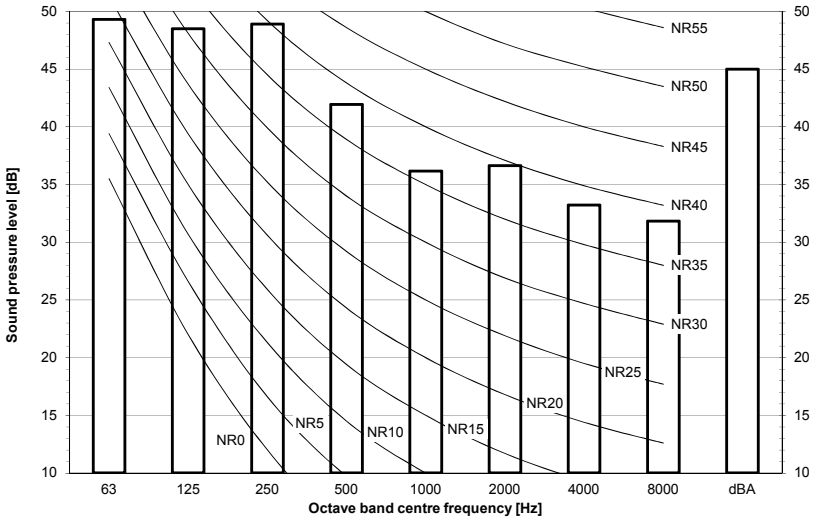



**3D119540**

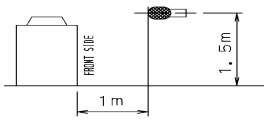
# 11 Sound data

## 11 - 5 Sound Pressure Spectrum Quiet Mode Level 3

**RXYQ18-20UD**




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 µPa
Data is valid under the following conditions
Cooling operation
Outdoor Ta: 35°C
Full load (maximum fan rps and maximum compressor rps for the dedicated low noise mode)

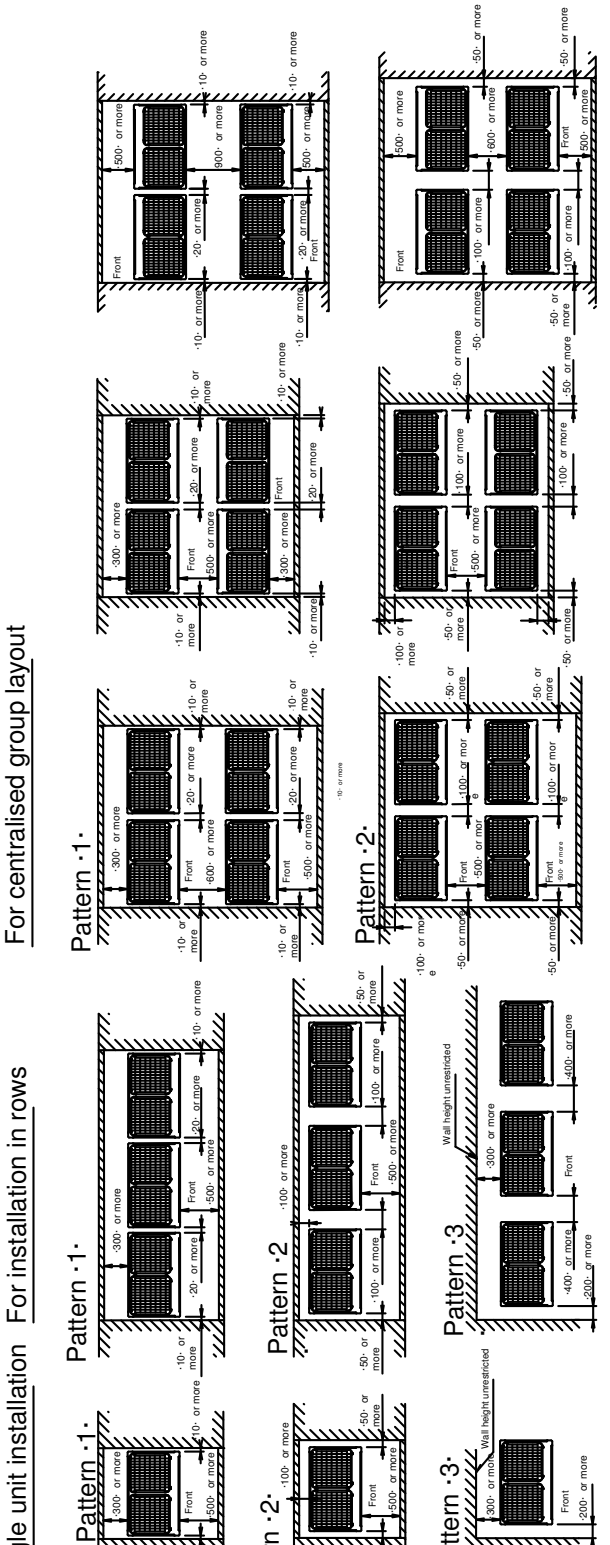



**3D119543**

# 12 Installation

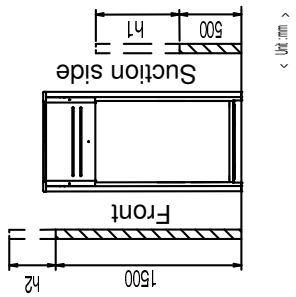
## 12 - 1 Installation Method

**RXYQ-UD**




Notes

1. Height of the walls in case of patterns ·1· and ·2·:
   Front: ·1500·mm
   Suction side: ·500·mm
   Side: height unrestricted
   The installation space shown on this drawing is based on cooling operation at ·35·°C (outdoor temperature).
   When the design outdoor ambient temperature exceeds 35°C or the load exceeds maximum ability of much generation load of heat in all outdoor unit, make sure the suction-side space is broader than the space shown on this drawing.
2. If the walls are higher than mentioned above, then additional service space is needed:
   - suction side: service space + h1/2
   - front side: service space + h2/2
3. When installing the units, select the pattern that best fits the available space.
   Always keep in mind to leave sufficient space for a person to pass between unit and wall and for the air to circulate freely.
   Provide sufficient space at the front to connect refrigerant piping (comfortably).
4. If more units are to be installed than are catered for in the above patterns, your layout should take into account of the possibilit y of short circuits.

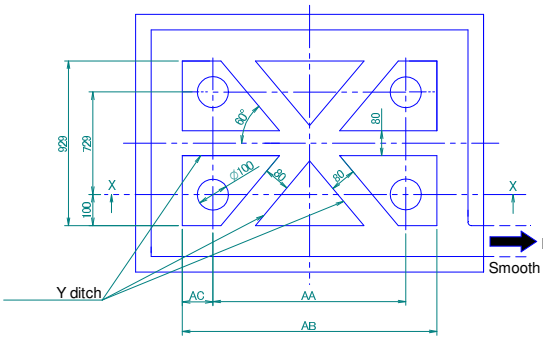


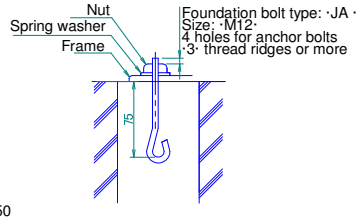

**3D118467A**

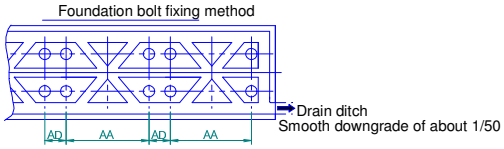
# 12 Installation

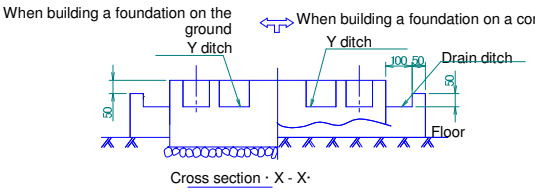
## 12 - 2 Fixation and Foundation of Units

**RXYQ-UD**




For multi-unit installation

| Model | AA | AB | AC | AD |
|---|---|---|---|---|
| RYYQ8~12U<br>RYMQ8~12U<br>RXYQ8~12U *<br>RXYQQ8~12U<br>REMQ5T/REYQ8~12U<br>RXYTQ8U<br>REMA5A/REYA8~12A | 766 | 992 | 113 | 185 |
| RYYQ14~20U<br>RYMQ14~20U<br>RXYQ14~20U*<br>RXYQQ14~20U<br>REYQ14~20U<br>RXYTQ10~16U<br>REYA14~20A | 1076 | 1076 | | |

Notes

1. Provide a drain ditch around the foundation to drain water from the installation area.
2. The surface has to be finished with mortar. The corner edges have to be chamfered.
3. Build the foundation on a concrete floor or, if not possible, make sure the foundation surface has a rough finish.
4. Use a cement/sand/gravel ratio of 1/2/4 for the concrete, and a diameter of 10 mm for the reinforcement bars (approximately, 300mm intervals).
5. When installing the equipment on a roof, make sure to check the strength of the floor and take adequate water proofing measures.

**3D118459A**

# 12 Installation

## 12 - 3 Refrigerant Pipe Selection

**RXYQ-UD**

12

VRV4
Heat pump
Piping restrictions 1/3

For the reference drawing, see page 2/3.

| | | Maximum piping length | | | Maximum height difference | | | Total piping length |
|---|---|---|---|---|---|---|---|---|
| | | Longest pipe (A+[B,G,E,J]) Actual / (Equivalent) | After first branch (B,G,E,J) Actual | After first branch (for multi-outdoor) (D) Actual / (Equivalent) | Indoor-to-outdoor [3] (H1) Outdoor above indoor / (indoor above outdoor) | Indoor-to-indoor (H2) | Outdoor-to-outdoor (H3) | |
| ***Standard*** | | 165/(190)m | 40m[1] | 10/(13)m | 50/(40)m[3] | 30m | 5m | 1000m |
| *VRV DX indoor units only* | | | | | | | | |
| *Standard multi-combination* | | | | | | | | |
| *All multi-outdoor-unit combinations except standard multi-outdoor-unit combinations* | | 135/(160)m | 40m[1] | 10/(13)m | 50/(40)m[3] | 30m | 5m | 500m |
| ***Hydrobox connection*** | | 135/(160)m | 40m | 10/(13)m | 50/(40)m | 15m | 5m | 300-500m[5] |
| ***RA connection*** | | 100/(120)m | 50m[2] | - | 50/(40)m | 15m | - | 250m |
| ***AHU connection*** | Pair | 50/(55)m[4] | - | - | 40/(40)m | - | - | - |
| | Multi [6] | 165/(190)m | 40m | 10/13m | 40/(40)m | 15m | 5m | 1000m |
| | Mix [7] | 165/(190)m | 40m | 10/13m | 40/(40)m | 15m | 5m | 1000m |

**Remark**

For standard multi-outdoor-unit combinations, see 3D079534.

(1) If all conditions below are met, the limitation can be extended up to 90 m

a. The piping length between all indoor units and the nearest branch kit is ≤ 40m.

b. It is necessary to increase the size of the gas and liquid piping if the pipe length between the first and the farthest indoor unit is >40m.

If the increased pipe size is larger than the pipe size of the main pipe, also increase the size of the main pipe.

c. When the piping size is increased, the piping length has to be counted as double.

The total piping length has to be within limitations.

d. The piping length difference between the nearest indoor unit from the first branch to the outdoor unit and the farthest indoor unit to the outdoor unit is ≤ 40m.

(2) If the piping length between the first branch and the BP box or VRV indoor unit is more than 20m, increase the length of the gas and liquid piping between the first branch and the BP box or VRV indoor unit.

(3) An extension to up to 90 m is possible without an additional option kit. Respect the following conditions:

-> If the outdoor units are positioned higher than the indoor units:

a. Size up the liquid piping

b. A dedicated setting on the outdoor unit is required.

-> If the outdoor units are positioned lower than the indoor units:

a. 40~60m Minimum connection ratio: 80%

60~65m Minimum connection ratio: 90%

65~80m Minimum connection ratio: 100%

80~90m Minimum connection ratio: 110%

b. Size up the liquid piping

A dedicated setting on the outdoor unit is required.

(4) The allowable minimum length is 5 m.

(5) In case of multi-outdoor-unit combinations.

(6) Multiple air handling units (AHU)(EKEXV + EKEQ kits).

(7) Mix of AHU units and VRV DX indoor

(8) If the equivalent piping length between is > 90m, size up the main liquid and gas piping.

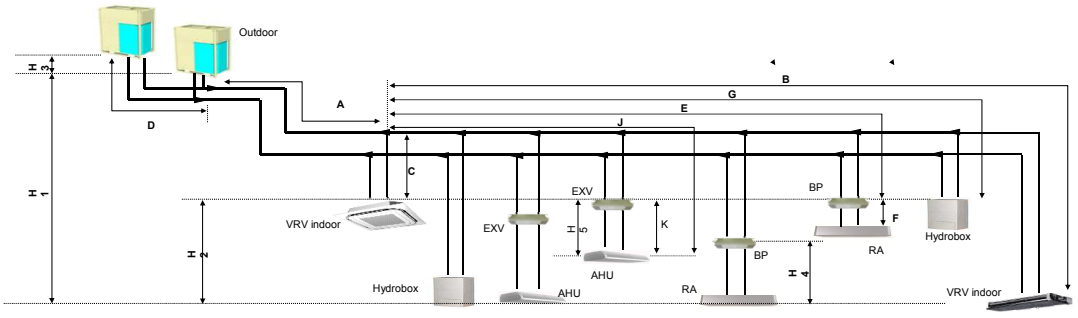
**3D079540E**

# 12 Installation

## 12 - 3 Refrigerant Pipe Selection

**RXYQ-UD**

VRV4
Heat pump
Piping restrictions 2/3




**Remark**

(1) Schematic indication
Illustrations may differ from the actual appearance of the unit.

(2) This is only to illustrate piping length limitations.
Combination of indoor unit types is not allowed.
Refer to combination table 3D079543 for details about the allowed combinations.

| | | Allowed piping length | | Maximum height difference | |
|---|---|---|---|---|---|
| | | BP to RA (F) | EXV to AHU (K) | BP to RA (H4) | EXV to AHU (H5) |
| **RA connection** | | 2~15m | - | 5m | - |
| **AHU connection** | **Pair** | - | ≦5m | - | 5m |
| | Multi (1) | - | ≦5m | - | 5m |
| | Mix (2) | - | ≦5m | - | 5m |

**Remark**

(1) Multiple air handling units (AHU)(EKEXV + EKEQ kits).

(2) Mix of AHU units and VRV DX indoor

**3D079540E**

# 12 Installation

## 12 - 3 Refrigerant Pipe Selection

**RXYQ-UD**



VRV4
Heat pump
Piping restrictions 3/3

| System pattern<br>Allowed connection ratio (CR)<br>Other combinations are not allowed. | Total | | Allowed capacity | | | |
|---|---|---|---|---|---|---|
| | Capacity | Indoor unit quantity (VRV, RA, AHU, Hydrobox) | VRV DX indoor unit | RA DX indoor unit | Hydrobox unit | Air handling unit (AHU) |
| VRV DX indoor units only | 50~130% | Max.64 | 50~130% | - | - | - |
| **VRV DX indoor unit + RA DX** | 80~130% | Max.32(1) | 0~130% | 0~130% | - | - |
| **RA DX indoor unit** | 80~130% | Max.32(1) | - | 80~130% | - | - |
| **VRV DX indoor unit + LT hydrobox** | 50~130% | Max.32 | 50~130% | - | 0~80% | - |
| VRV DX indoor unit + AHU | 50~110%(3) | Max.64(2) | 50~110% | - | - | 0~110% |
| AHU only<br>Pair + multi (4) | 90~110%(3) | Max.64(2) | - | - | - | 90~110% |

**Remark**

(1) There is no restriction on the number of connectable BP boxes.

(2) For connection with AHU
EKEXV kits are also considered indoor units.

(3) Restrictions regarding the air handling unit capacity

(4) Pair AHU = system with 1 air handling unit connected to one outdoor unit
Multi AHU = system with multiple air handling units connected to one outdoor unit

**About ventilation applications**

I. FXMQ_MF units are considered air handling units, following air handling unit limitations.
Maximum connection ratio when combined with VRV DX indoor units: <30%.
Maximum connection ratio when only air handling units are connected: <100%.
For information on the operation range, refer to the documentation of the FXMQ_MF unit.

II. Biddle air curtains are considered air handling units, following air handling unit limitations:
For information on the operation range, refer to the documentation of the Biddle unit.

III. [EKEXV + EKEQ] units combined with an air handling unit are considered air handling units, following air handling unit limitations.
For information on the operation range, refer to the documentation of the EKEXV-EKEQ unit.

IV. VKM units are considered to be regular VRV DX indoor units.
For information on the operation range, refer to the documentation of the VKM unit.

V. Because there is no refrigerant connection with the outdoor unit (only communication F1/F2), VAM units do not 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.

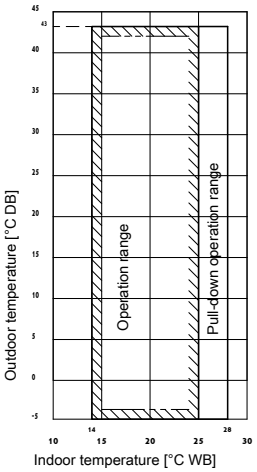
**3D079540E**

# 13 Operation range

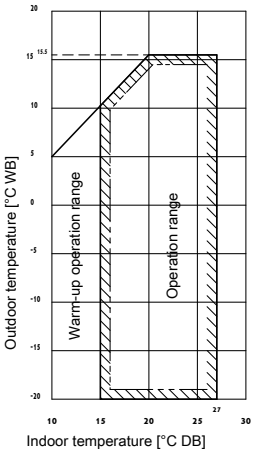
## 13 - 1 Operation Range

**RXYQ-UD**

Cooling




Heating




Notes

1. These figures assume the following operation conditions

Indoor and outdoor units
Equivalent piping length: 5m
Level difference: 0m

2. Depending on operation and installation conditions, the indoor unit can change over to freeze-up operation (indoor de-icing).

3. 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.

4. Operation range is valid in case direct expansion indoor units are used.

**3D118465**

# 14 Appropriate Indoors

## 14 - 1 Appropriate Indoors

**RXYQ-UD**



**Recommended indoor units for ·RXYQ*U* / RYYQ*U* / RYMQ*U*· outdoor units**

| ·· HP | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
|---|---|---|---|---|---|---|---|
| | 4xFXMQ50 | 4xFXMQ63 | 6xFXMQ50 | 1xFXMQ50<br>5XFXMQ63 | 4XFXMQ63<br>2xFXMQ80 | 3xFXMQ50<br>5XFXMQ63 | 2xFXMQ50<br>6xFXMQ63 |

For multi outdoor units ·>16HP·, the recommended amount of indoor units is the sum of the indoor units defined for a single outdoor unit.
For details about the allowed combinations, see the engineering databook.

**Appropriate indoor units for ·RXYQ*U* / RYYQ*U* / RYMQ*U*· outdoor units**

**Covered by ·ENER LOT21·**

FXFQ20-25-32-40-50-63-80-100-125
FXZQ15-20-25-32-40-50
FXCQ20-25-32-40-50-63-80-125
FXKQ25-32-40-63
FXDQ15-20-25-32-40-50-63
FXSQ15-20-25-32-40-50-63-80-100-125-140
FXMQ50-63-80-100-125-200-250
FXAQ15-20-25-32-40-50-63
FXHQ32-63-100
FXUQ71-100
FXNQ20-25-32-40-50-63
FXLQ20-25-32-40-50-63

**Covered by ·ENER LOT10·**

FTXJ25-35-50
FTXA20-25-35-42-50
FLXS25-35-50-60
FVXM25F-35F-50F
FVXG25-35-50
FTXM20R-25R-35R-42R-50R-60R-71R
CVXM20A
FVXM25A-35A-50A

**Outside the scope of ·ENER LOT21·**

EKEXV50-63-80-100-125-140-200-250-400-500 + EKEQM / EKEQF
HXY080-125
VKM50-80-100
CYVS100-150-200-250
CYVM100-150-200-250
CYVL100-150-200-250
EKVDX32-50-80-100 + VAMJ8

**3D118461E**

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EEDEN23 01/2023