# VRV 5 heat recovery Air Conditioning Technical Data

# REYA-A


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# REYA-A

# 1 Features

## 1 - 1 REYA-A

### The sustainability champion



- "Free" heating provided by transferring heat from areas requiring cooling to areas requiring heating
- Reduced $CO_2$ equivalent thanks to the use of lower GWP R-32 refrigerant and lower refrigerant charge
- Top sustainability over the entire lifecycle, thanks to market leading real-life seasonal efficiency
- Tackle small room applications without any additional measures, thanks to Shîrudo technology
- Specially designed indoor units for R-32, ensuring low sound and maximum efficiency
- The perfect personal comfort for guests/tenants via simultaneous cooling and heating

# 2 Specifications

## 2 - 1 REYA-A

| Technical Specifications | | | | | REYA8A | REYA10A | REYA12A | REYA14A |
|---|---|---|---|---|---|---|---|---|
| Recommended combination | | | | | 4 x FXFA50A2VEB | 4 x FXFA63A2VEB | 6 x FXFA50A2VEB | 1 x FXFA50A2VEB + 5 x FXFA63A2VEB |
| Recommended combination 2 | | | | | 4 x FXSA50A2VEB | 4 x FXSA63A2VEB | 6 x FXSA50A2VEB | 1 x FXSA50A2VEB + 5 x FXSA63A2VEB |
| Recommended combination 3 | | | | | 4 x FXMA50A5VEB | 4 x FXMA63A5VEB | 6 x FXMA50A5VEB | 1 x FXMA50A5VEB + 5 x FXMA63A5VEB |
| Cooling capacity | Prated,c | | | kW | 22.4 (1) | 28.0 (1) | 33.5 (1) | 40.0 (1) |
| Heating capacity | Nom. | 6°CWB | | kW | 22.4 (2) | 28.0 (2) | 33.5 (2) | 40.0 (2) |
| | Prated,h | | | kW | 22.4 (2) | 28.0 (2) | 33.5 (2) | 40.0 (2) |
| | Max. | 6°CWB | | kW | 25.0 (2) | 31.5 (2) | 37.5 (2) | 45.0 (2) |
| Power input - 50Hz | Heating | Nom. | 6°CWB | kW | 5.85 (2) | 8.12 (2) | 9.69 (2) | 11.20 (2) |
| COP at nom. capacity | 6°CWB | | | kW/kW | 3.83 (2) | 3.45 (2) | 3.46 (2) | 3.57 (2) |
| SCOP | | | | | 4.11 | 4.33 | 4.49 | 4.28 |
| SCOP recommended combination 2 | | | | | 4.10 | 4.34 | 4.56 | 4.33 |
| SCOP recommended combination 3 | | | | | 4.15 | 4.40 | 4.56 | 4.33 |
| SEER | | | | | 7.35 | 7.14 | 7.21 | 7.73 |
| SEER recommended combination 2 | | | | | 7.07 | 6.87 | 6.90 | 7.53 |
| SEER recommended combination 3 | | | | | 7.49 | 7.15 | 7.41 | 7.78 |
| ηs,c | | | | % | 290.8 | 282.6 | 285.3 | 306.1 |
| ηs,c recommended combination 2 | | | | | 279.6 | 271.7 | 273.2 | 298.3 |
| ηs,c recommended combination 3 | | | | | 296.5 | 283.1 | 293.4 | 308.1 |
| ηs,h | | | | % | 161.5 | 170.2 | 176.4 | 168.3 |
| ηs,h recommended combination 2 | | | | | 161.1 | 170.4 | 179.5 | 170.2 |
| ηs,h recommended combination 3 | | | | | 163.2 | 172.9 | 179.5 | 170.2 |
| Space cooling | A Condition (35°C - 27/19) | EERd | | | 3.25 | 3.26 | 3.24 | 3.26 |
| | | Pdc | | kW | 22.4 | 28.0 | 33.5 | 40.0 |
| | B Condition (30°C - 27/19) | EERd | | | 5.23 | 5.00 | 4.60 | 4.92 |
| | | Pdc | | kW | 16.5 | 20.6 | 24.7 | 29.5 |
| | C Condition (25°C - 27/19) | EERd | | | 9.11 | 8.50 | 8.45 | 8.74 |
| | | Pdc | | kW | 10.6 | 13.3 | 15.9 | 18.9 |
| | D Condition (20°C - 27/19) | EERd | | | 15.3 | 14.8 | 17.7 | 22.5 |
| | | Pdc | | kW | 8.13 | 8.19 | 8.57 | 10.9 |
| Space cooling recommended combination 2 | A Condition (35°C - 27/19) | EERd | | | 3.23 | | 3.00 | 3.23 |
| | | Pdc | | kW | 22.4 | 28.0 | 33.5 | 40.0 |
| | B Condition (30°C - 27/19) | EERd | | | 5.09 | 4.83 | 4.54 | 4.85 |
| | | Pdc | | kW | 16.5 | 20.6 | 24.7 | 29.5 |
| | C Condition (25°C - 27/19) | EERd | | | 8.55 | 8.06 | 7.94 | 8.38 |
| | | Pdc | | kW | 10.6 | 13.3 | 15.9 | 18.9 |
| | D Condition (20°C - 27/19) | EERd | | | 14.6 | 14.1 | 16.9 | 21.7 |
| Space cooling recommended combination 2 | D Condition (20°C - 27/19) | Pdc | | kW | 7.84 | 7.97 | 8.20 | 10.6 |
| Space cooling recommended combination 3 | A Condition (35°C - 27/19) | EERd | | | 3.22 | 3.27 | 3.23 | 3.30 |
| | | Pdc | | kW | 22.4 | 28.0 | 33.5 | 40.0 |
| | B Condition (30°C - 27/19) | EERd | | | 5.31 | 4.91 | 4.69 | 4.93 |
| | | Pdc | | kW | 16.5 | 20.6 | 24.7 | 29.5 |
| | C Condition (25°C - 27/19) | EERd | | | 9.41 | 8.59 | 8.82 | 8.84 |
| | | Pdc | | kW | 10.6 | 13.3 | 15.9 | 18.9 |
| | D Condition (20°C - 27/19) | EERd | | | 15.7 | 15.1 | 18.5 | 22.4 |
| | | Pdc | | kW | 8.19 | 8.13 | 8.50 | 10.9 |

# 2 Specifications

## 2 - 1 REYA-A



| Technical Specifications | | | | REYA8A | REYA10A | REYA12A | REYA14A |
|---|---|---|---|---|---|---|---|
| Space heating (Average climate) | TBivalent | COPd (declared COP) | | 2.80 | 2.28 | 2.38 | 2.57 |
| | | Pdh (declared heating cap) | kW | 13.7 | 16.0 | 18.4 | 20.6 |
| | | Tbiv (bivalent temperature) | °C | -10 | | | |
| | TOL | COPd (declared COP) | | 2.80 | 2.28 | 2.38 | 2.57 |
| | | Pdh (declared heating cap) | kW | 13.7 | 16.0 | 18.4 | 20.6 |
| | | Tol (temperature operating limit) | °C | -10 | | | |
| | A Condition (-7°C) | COPd (declared COP) | | 3.06 | 2.67 | 2.84 | 2.94 |
| | | Pdh (declared heating cap) | kW | 12.1 | 14.2 | 16.3 | 18.2 |
| | B Condition (2°C) | COPd (declared COP) | | 3.81 | 4.23 | 4.15 | 3.86 |
| | | Pdh (declared heating cap) | kW | 7.38 | 8.62 | 9.89 | 11.1 |
| | C Condition (7°C) | COPd (declared COP) | | 5.27 | 5.70 | 6.32 | 6.31 |
| | | Pdh (declared heating cap) | kW | 4.76 | 5.54 | 6.36 | 7.13 |
| | D Condition (12°C) | COPd (declared COP) | | 7.04 | 7.92 | 9.14 | 6.68 |
| | | Pdh (declared heating cap) | kW | 4.51 | 5.46 | 5.52 | 5.15 |
| Space heating (Average climate) recommended combination 2 | A Condition (-7°C) | COPd (declared COP) | | 3.00 | 2.62 | 2.83 | 2.95 |
| | | Pdh (declared heating cap) | kW | 12.1 | 14.2 | 16.3 | 18.2 |
| | B Condition (2°C) | COPd (declared COP) | | 3.80 | 4.24 | 4.26 | 3.89 |
| | | Pdh (declared heating cap) | kW | 7.45 | 8.61 | 9.89 | 11.1 |
| | C Condition (7°C) | COPd (declared COP) | | 5.35 | 5.79 | 6.39 | 6.45 |
| | | Pdh (declared heating cap) | kW | 4.76 | 5.54 | 6.36 | 7.14 |
| | D Condition (12°C) | COPd (declared COP) | | 7.04 | 7.91 | 9.39 | 6.94 |
| | | Pdh (declared heating cap) | kW | 4.71 | 5.60 | 5.80 | 5.33 |
| | TBivalent | COPd (declared COP) | | 2.73 | 2.32 | 2.38 | 2.58 |
| | | Pdh (declared heating cap) | kW | 13.7 | 16.0 | 18.4 | 20.6 |
| | | Tbiv (bivalent temperature) | °C | -10 | | | |
| | TOL | COPd (declared COP) | | 2.73 | 2.32 | 2.38 | 2.58 |
| | | Pdh (declared heating cap) | kW | 13.7 | 16.0 | 18.4 | 20.6 |
| | | Tol (temperature operating limit) | °C | -10 | | | |
| Space heating (Average climate) recommended combination 3 | A Condition (-7°C) | COPd (declared COP) | | 3.05 | 2.68 | 2.85 | 2.96 |
| | | Pdh (declared heating cap) | kW | 12.1 | 14.2 | 16.3 | 18.2 |
| | B Condition (2°C) | COPd (declared COP) | | 3.86 | 4.32 | 4.24 | 3.89 |
| | | Pdh (declared heating cap) | kW | 7.39 | 8.62 | 9.89 | 11.1 |
| | C Condition (7°C) | COPd (declared COP) | | 5.35 | 5.80 | 6.43 | |
| | | Pdh (declared heating cap) | kW | 4.75 | 5.55 | 6.36 | 7.15 |
| | D Condition (12°C) | COPd (declared COP) | | 7.14 | 8.02 | 9.37 | 6.84 |
| | | Pdh (declared heating cap) | kW | 4.65 | 5.56 | 5.67 | 5.29 |
| | TBivalent | COPd (declared COP) | | 2.78 | 2.29 | 2.41 | 2.58 |
| | | Pdh (declared heating cap) | kW | 13.7 | 16.0 | 18.4 | 20.6 |
| | | Tbiv (bivalent temperature) | °C | -10 | | | |
| | TOL | COPd (declared COP) | | 2.78 | 2.29 | 2.41 | 2.58 |
| | | Pdh (declared heating cap) | kW | 13.7 | 16.0 | 18.4 | 20.6 |
| | | Tol (temperature operating limit) | °C | -10 | | | |
| Capacity range | | | HP | 8 | 10 | 12 | 14 |
| PED | Category | | | Category III | | | |
| | Most critical part | Name | | Liquid receiver | | | |
| | | Ps*V | Bar*l | 508 | | | 612 |
| Maximum number of connectable indoor units | | | | 64 (3) | | | |
| Indoor index connection | Min. | | | 100 | 125 | 150 | 175 |
| | Max. | | | 260 | 325 | 390 | 455 |
| 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 | 213 | | | 296 |
| | Packed unit | | kg | 225 | | | 309 |
| Packing | Material | | | Carton | | | |
| | Weight | | kg | 1.5 | | | 1.8 |
| Packing 2 | Material | | | Wood | | | |
| | Weight | | kg | 10.0 | | | 11.0 |
| Packing 3 | Material | | | Plastic | | | |
| | Weight | | kg | 0.6 | | | 0.7 |

# 2 Specifications

## 2 - 1 REYA-A

| Technical Specifications | | | | | REYA8A | REYA10A | REYA12A | REYA14A |
|---|---|---|---|---|---|---|---|---|
| Casing | Colour | | | | Daikin White | | | |
| | Material | | | | Painted galvanized steel plate | | | |
| Heat exchanger | Type | | | | Cross fin coil | | | |
| | Indoor side | | | | Air | | | |
| | Outdoor side | | | | Air | | | |
| | Air flow rate | Cooling | Rated | $m^3/h$ | 9,145 | 9,709 | 10,823 | 11,576 |
| | | Heating | Rated | $m^3/h$ | 9,145 | 9,709 | 10,823 | 13,124 |
| 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 | | | |
| | Type | | | | Hermetically sealed scroll compressor | | | |
| | Crankcase heater | | | W | 33 | | | |
| Operation range | Cooling | Min. | | °CDB | -5 | | | |
| | | Max. | | °CDB | 46 | | | |
| | Heating | Min. | | °CWB | -20 | | | |
| | | Max. | | °CWB | 16 | | | |
| Sound power level | Cooling | Nom. | | dBA | 78.3 (4) | 78.8 (4) | 82.5 (4) | 78.7 (4) |
| | Heating | Nom. | | dBA | 79.4 (4) | 80.7 (4) | 83.3 (4) | 82.9 (4) |
| Sound pressure level | Cooling | Nom. | | dBA | 56.3 (5) | 58.0 (5) | 60.8 (5) | 58.1 (5) |
| | Heating | | | dBA | 58.1 (5) | 58.8 (5) | 61.9 (5) | 61.3 (5) |
| Refrigerant | Type | | | | R-32 | | | |
| | GWP | | | | 675.0 | | | |
| | Charge | | | TCO2Eq | 6.08 | | | 7.16 |
| | Charge | | | kg | 9.00 | | | 10.6 |
| Refrigerant oil | Type | | | | FW68DE | | | |
| Piping connections | Liquid | Type | | | Braze connection | | | |
| | | OD | | mm | 9.52 | | 12.70 | |
| | Gas | Type | | | Braze connection | | | |
| | | OD | | mm | 19.1 | | 22.2 | |
| | HP/LP gas | Type | | | Braze connection | | | |
| | | OD | | mm | 15.90 | | 19.10 | |
| | 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 | 0.053 | | | 0.058 |
| | Off mode | Cooling | POFF | kW | 0.050 | | | 0.058 |
| | | Heating | POFF | kW | 0.053 | | | 0.058 |
| | Standby mode | Cooling | PSB | kW | 0.050 | | | 0.058 |
| | | Heating | PSB | kW | 0.053 | | | 0.058 |
| | Thermo-stat-off mode | Cooling | PTO | kW | 0.001 | | | |
| | | Heating | PTO | kW | 0.053 | | | 0.058 |
| 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 | | | |

| Technical Specifications | | | | | REYA16A | REYA18A | REYA20A |
|---|---|---|---|---|---|---|---|
| Recommended combination | | | | | 4 x FXFA63A2VEB + 2 x FXFA80A2VEB | 3 x FXFA50A2VEB + 5 x FXFA63A2VEB | 2 x FXFA50A2VEB + 6 x FXFA63A2VEB |
| Recommended combination 2 | | | | | 4 x FXSA63A2VEB + 2 x FXSA80A2VEB | 3 x FXSA50A2VEB + 5 x FXSA63A2VEB | 2 x FXSA50A2VEB + 6 x FXSA63A2VEB |
| Recommended combination 3 | | | | | 4 x FXMA63A5VEB + 2 x FXMA80A5VEB | 3 x FXMA50A5VEB + 5 x FXMA63A5VEB | 2 x FXMA50A5VEB + 6 x FXMA63A5VEB |
| Cooling capacity | Prated,c | | | kW | 45.0 (1) | 50.4 (1) | 56.0 (1) |
| Heating capacity | Nom. | 6°CWB | | kW | 45.0 (2) | 50.4 (2) | 56.0 (2) |
| | Prated,h | | | kW | 45.0 (2) | 50.4 (2) | 56.0 (2) |
| | Max. | 6°CWB | | kW | 50.0 (2) | 56.5 (2) | 63.0 (2) |
| Power input - 50Hz | Heating | Nom. | 6°CWB | kW | 12.78 (2) | 13.79 (2) | 16.61 (2) |

# 2 Specifications

## 2 - 1 REYA-A



| Technical Specifications | | | | REYA16A | REYA18A | REYA20A |
|---|---|---|---|---|---|---|
| COP at nom. capacity | 6°CWB | | kW/kW | 3.52 (2) | 3.66 (2) | 3.37 (2) |
| SCOP | | | | 4.26 | 4.39 | 4.14 |
| SCOP recommended combination 2 | | | | 4.33 | | 4.11 |
| SCOP recommended combination 3 | | | | 4.32 | 4.39 | 4.14 |
| SEER | | | | 7.10 | 7.09 | 6.63 |
| SEER recommended combination 2 | | | | 7.01 | 6.94 | 6.57 |
| SEER recommended combination 3 | | | | 7.15 | 7.11 | 6.64 |
| ηs,c | | | % | 281.0 | 280.6 | 262.2 |
| ηs,c recommended combination 2 | | | | 277.4 | 274.8 | 259.6 |
| ηs,c recommended combination 3 | | | | 283.1 | 281.3 | 262.5 |
| ηs,h | | | % | 167.5 | 172.5 | 162.7 |
| ηs,h recommended combination 2 | | | | 170.2 | | 161.4 |
| ηs,h recommended combination 3 | | | | 169.6 | 172.7 | 162.7 |
| Space cooling | A Condition (35°C - 27/19) | EERd | | 3.23 | 2.73 | 2.57 |
| | | Pdc | kW | 45.0 | 50.4 | 56.0 |
| | B Condition (30°C - 27/19) | EERd | | 4.58 | 4.47 | 4.42 |
| | | Pdc | kW | 33.2 | 37.1 | 41.3 |
| | C Condition (25°C - 27/19) | EERd | | 8.25 | 8.15 | 7.70 |
| | | Pdc | kW | 21.3 | 23.9 | 26.5 |
| | D Condition (20°C - 27/19) | EERd | | 16.7 | 20.7 | 15.8 |
| | | Pdc | kW | 11.1 | 12.0 | 11.6 |
| Space cooling recommended combination 2 | A Condition (35°C - 27/19) | EERd | | 3.06 | 2.64 | 2.52 |
| | | Pdc | kW | 45.0 | 50.4 | 56.0 |
| | B Condition (30°C - 27/19) | EERd | | 4.64 | 4.43 | 4.41 |
| | | Pdc | kW | 33.2 | 37.1 | 41.3 |
| | C Condition (25°C - 27/19) | EERd | | 8.11 | 7.87 | 7.41 |
| | | Pdc | kW | 21.3 | 23.9 | 26.5 |
| | D Condition (20°C - 27/19) | EERd | | 16.5 | 20.0 | 16.6 |
| Space cooling recommended combination 2 | D Condition (20°C - 27/19) | Pdc | kW | 10.8 | 11.6 | 11.9 |
| Space cooling recommended combination 3 | A Condition (35°C - 27/19) | EERd | | 3.04 | 2.66 | 2.50 |
| | | Pdc | kW | 45.0 | 50.4 | 56.0 |
| | B Condition (30°C - 27/19) | EERd | | 4.64 | 4.49 | 4.41 |
| | | Pdc | kW | 33.2 | 37.1 | 41.3 |
| | C Condition (25°C - 27/19) | EERd | | 8.50 | 8.22 | 7.71 |
| | | Pdc | kW | 21.3 | 23.9 | 26.5 |
| | D Condition (20°C - 27/19) | EERd | | 16.7 | 20.9 | 16.4 |
| | | Pdc | kW | 10.7 | 11.9 | 11.8 |
| Space heating (Average climate) | TBivalent | COPd (declared COP) | | 2.53 | 2.36 | 2.23 |
| | | Pdh (declared heating cap) | kW | 23.2 | 27.9 | 31.0 |
| | | Tbiv (bivalent temperature) | °C | | -10 | |
| | TOL | COPd (declared COP) | | 2.53 | 2.36 | 2.23 |
| | | Pdh (declared heating cap) | kW | 23.2 | 27.9 | 31.0 |
| | | Tol (temperature operating limit) | °C | | -10 | |
| | A Condition (-7°C) | COPd (declared COP) | | 2.87 | 2.70 | 2.60 |
| | | Pdh (declared heating cap) | kW | 20.5 | 24.7 | 27.4 |
| | B Condition (2°C) | COPd (declared COP) | | 3.93 | 4.19 | 3.84 |
| | | Pdh (declared heating cap) | kW | 12.5 | 15.0 | 16.7 |
| | C Condition (7°C) | COPd (declared COP) | | 6.21 | 6.22 | 5.89 |
| | | Pdh (declared heating cap) | kW | 8.03 | 9.66 | 10.7 |
| | D Condition (12°C) | COPd (declared COP) | | 6.04 | 6.85 | 7.70 |
| | | Pdh (declared heating cap) | kW | 5.07 | 6.24 | 7.34 |

# 2 Specifications

## 2 - 1 REYA-A

| Technical Specifications | | | | REYA16A | REYA18A | REYA20A |
|---|---|---|---|---|---|---|
| Space heating (Average climate) recommended combination 2 | A Condition (-7°C) | COPd (declared COP) | | 2.89 | 2.62 | 2.54 |
| | | Pdh (declared heating cap) | kW | 20.5 | 24.7 | 27.5 |
| | B Condition (2°C) | COPd (declared COP) | | 3.96 | 4.07 | 3.79 |
| | | Pdh (declared heating cap) | kW | 12.5 | 15.0 | 16.7 |
| | C Condition (7°C) | COPd (declared COP) | | 6.41 | 6.19 | 5.98 |
| | | Pdh (declared heating cap) | kW | 8.04 | 9.65 | 10.7 |
| | D Condition (12°C) | COPd (declared COP) | | 6.47 | 8.15 | 7.81 |
| | | Pdh (declared heating cap) | kW | 5.36 | 7.68 | 7.69 |
| | TBivalent | COPd (declared COP) | | 2.54 | 2.28 | 2.18 |
| | | Pdh (declared heating cap) | kW | 23.2 | 27.9 | 31.0 |
| | | Tbiv (bivalent temperature) | °C | | -10 | |
| | TOL | COPd (declared COP) | | 2.54 | 2.28 | 2.18 |
| | | Pdh (declared heating cap) | kW | 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) | | 2.88 | 2.73 | 2.60 |
| | | Pdh (declared heating cap) | kW | 20.5 | 24.8 | 27.5 |
| | B Condition (2°C) | COPd (declared COP) | | 3.95 | 4.25 | 3.88 |
| | | Pdh (declared heating cap) | kW | 12.5 | 15.0 | 16.7 |
| | C Condition (7°C) | COPd (declared COP) | | 6.34 | 6.39 | 6.07 |
| | | Pdh (declared heating cap) | kW | 8.03 | 9.66 | 10.7 |
| | D Condition (12°C) | COPd (declared COP) | | 6.44 | 5.48 | 6.15 |
| | | Pdh (declared heating cap) | kW | 5.32 | 5.80 | 5.91 |
| | TBivalent | COPd (declared COP) | | 2.54 | 2.39 | 2.24 |
| | | Pdh (declared heating cap) | kW | 23.2 | 28.0 | 31.1 |
| | | Tbiv (bivalent temperature) | °C | | -10 | |
| | TOL | COPd (declared COP) | | 2.54 | 2.39 | 2.24 |
| | | Pdh (declared heating cap) | kW | 23.2 | 28.0 | 31.1 |
| | | Tol (temperature operating limit) | °C | | -10 | |
| Capacity range | | | HP | 16 | 18 | 20 |
| PED | Category | | | | Category III | |
| | Most critical part | Name | | | Liquid receiver | |
| | | Ps*V | Bar*l | 612 | 764 | |
| Maximum number of connectable indoor units | | | | | 64 (3) | |
| Indoor index connection | Min. | | | 200 | 225 | 250 |
| | Max. | | | 520 | 585 | 650 |
| Dimensions | Unit | Height | mm | | 1,685 | |
| | | Width | mm | | 1,240 | |
| | | Depth | mm | | 765 | |
| | Packed unit | Height | mm | | 1,820 | |
| | | Width | mm | | 1,305 | |
| | | Depth | mm | | 860 | |
| Weight | Unit | | kg | 296 | 319 | |
| | Packed unit | | kg | 309 | 332 | |
| Packing | Material | | | | Carton | |
| | Weight | | kg | | 1.8 | |
| Packing 2 | Material | | | | Wood | |
| | Weight | | kg | | 11.0 | |
| Packing 3 | Material | | | | Plastic | |
| | Weight | | kg | | 0.7 | |
| Casing | Colour | | | | Daikin White | |
| | Material | | | | Painted galvanized steel plate | |
| Heat exchanger | Type | | | | Cross fin coil | |
| | Indoor side | | | | Air | |
| | Outdoor side | | | | Air | |
| | Air flow rate | Cooling Rated | $m^3/h$ | 14,315 | 12,351 | 14,893 |
| | | Heating Rated | $m^3/h$ | 14,315 | 12,351 | 14,893 |
| Fan | Quantity | | | | 2 | |
| | External static pressure | Max. | Pa | | 78 | |
| Fan motor | Quantity | | | | 2 | |
| | Type | | | | DC motor | |
| | Output | | W | | 750 | |
| Compressor | Quantity | | | | 1 | |
| | Type | | | | Hermetically sealed scroll compressor | |
| | Crankcase heater | | W | | 33 | |

# 2 Specifications

## 2 - 1 REYA-A



| Technical Specifications | | | | | REYA16A | REYA18A | REYA20A |
|---|---|---|---|---|---|---|---|
| Operation range | Cooling | Min. | | °CDB | -5 | | |
| | | Max. | | °CDB | 46 | | |
| | Heating | Min. | | °CWB | -20 | | |
| | | Max. | | °CWB | 16 | | |
| Sound power level | Cooling | Nom. | | dBA | 83.7 (4) | 83.4 (4) | 87.9 (4) |
| | Heating | Nom. | | dBA | 86.3 (4) | 85.1 (4) | 89.6 (4) |
| Sound pressure level | Cooling | Nom. | | dBA | 61.4 (5) | 63.0 (5) | 67.0 (5) |
| | Heating | | | dBA | 64.5 (5) | 64.0 (5) | 68.0 (5) |
| Refrigerant | Type | | | | R-32 | | |
| | GWP | | | | 675.0 | | |
| | Charge | | | TCO2Eq | 7.16 | | |
| | Charge | | | kg | 10.6 | | |
| Refrigerant oil | Type | | | | FW68DE | | |
| Piping connections | Liquid | Type | | | Braze connection | | |
| | | OD | | mm | 12.70 | | |
| | Gas | Type | | | Braze connection | | |
| | | OD | | mm | 22.2 | | 28.6 |
| | HP/LP gas | Type | | | Braze connection | | |
| | | OD | | mm | 19.10 | | 22.20 |
| | 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 | 0.058 | | |
| | Off mode | Cooling | POFF | kW | 0.058 | | |
| | | Heating | POFF | kW | 0.058 | | |
| | Standby mode | Cooling | PSB | kW | 0.058 | | |
| | | Heating | PSB | kW | 0.058 | | |
| | Thermostat-off mode | Cooling | PTO | kW | 0.001 | | |
| | | Heating | PTO | kW | 0.058 | | |
| Cooling | Cdc (Degradation cooling) | | | | 0.25 | | |
| Heating | Cdh (Degradation heating) | | | | 0.25 | | |
| Safety devices | Item | 01 | | | High pressure switch | | |
| | | 02 | | | Fan driver overload protector | | |
| | | 03 | | | Inverter overload protector | | |

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

Standard accessories: Connection pipes;Quantity: 1;

| Electrical Specifications | | | | REYA8A | REYA10A | REYA12A | REYA14A |
|---|---|---|---|---|---|---|---|
| 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 | Nominal running current (RLA) | Cooling | A | 10.5 (7) | 13.0 (7) | 15.6 (7) | 18.5 (7) |
| Current - 50Hz | Nominal running current (RLA) | Combination A | Cooling | - | | | |
| | | Combination B | Cooling | - | | | |
| | Starting current (MSC) - remark | | | See note 8 | | | |
| | Zmax | List | | No requirements | | | |
| | Minimum Ssc value | | kVa | 2,789 (9) | 3,810 (9) | 4,157 (9) | 4,676 (9) |
| | Minimum circuit amps (MCA) | | A | 16.1 (10) | 22.0 (10) | 24.0 (10) | 27.0 (10) |
| | Maximum fuse amps (MFA) | | A | 20 (11) | 25 (11) | 32 (11) | |
| Power Performance | Power factor | Combination B | 35°C ISO - Full load | - | | | |
| | | | 46°C ISO - Full load | - | | | |

# 2 Specifications

## 2 - 1 REYA-A

| Electrical Specifications | | | | REYA8A | REYA10A | REYA12A | REYA14A |
|---|---|---|---|---|---|---|---|
| Wiring connections - 50Hz | For power supply | Quantity | | 5G | | | |
| | For connection with indoor | Quantity | | 2 | | | |
| | | Remark | | F1,F2 | | | |

| Electrical Specifications | | | | REYA16A | REYA18A | REYA20A |
|---|---|---|---|---|---|---|
| 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 | Nominal running current (RLA) | Cooling | A | 21.0 (7) | 27.8 (7) | 32.8 (7) |
| Current - 50Hz | Nominal running current (RLA) | Combination A | Cooling | - | | |
| | | Combination B | Cooling | - | | |
| | Starting current (MSC) - remark | | | See note 8 | | |
| | Zmax | List | | No requirements | | |
| | Minimum Ssc value | | kVa | 5,369 (9) | 6,062 (9) | 7,274 (9) |
| | Minimum circuit amps (MCA) | | A | 31.0 (10) | 35.0 (10) | 42.0 (10) |
| | Maximum fuse amps (MFA) | | A | 40 (11) | | 50 (11) |
| 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)The actual number of units depends on the connection ratio (CR) and the restrictions for the system. |
(4)Sound power level is an absolute value that a sound source generates. |
(5)Sound pressure level is a relative value, depending on the distance and acoustic environment. For more details, please refer to the sound level drawings. |
(6)Refer to refrigerant pipe selection or installation manual |
(7)RLA is based on following conditions: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB |
(8)MSC means the maximum current during start up of the compressor. This unit uses only inverter compressors. Starting current is always ≤ max. running current. |
(9)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 |
(10)MCA must be used to select the correct field wiring size. The MCA can be regarded as the maximum running current. |
(11)MFA is used to select the circuit breaker and the ground fault circuit interrupter (earth leakage circuit breaker). |
(12)Maximum allowable voltage range variation between phases is 2%. |
(13)Voltage range: units are suitable for use on electrical systems where voltage supplied to unit terminal is not below or above listed range limits. |
(14)Sound values are measured in a semi-anechoic room. |
(15)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 |
(16)Ssc: Short-circuit power |
(17)For detailed contents of standard accessories, see installation/operation manual |
(18)Multi combination (10~28HP) data is corresponding with the standard multi combination

| Technical specifications System | | | | REYA10A | REYA13A | REYA16A | REYA18A | REYA20A |
|---|---|---|---|---|---|---|---|---|
| System | Outdoor unit module 1 | | | REMA5A | | | REYA8A | |
| | Outdoor unit module 2 | | | REMA5A | REYA8A | | REYA10A | REYA12A |
| Recommended combination | | | | 4 x FXFA63A2VEB | 3 x FXFA50A2VEB + 3 x FXFA63A2VEB | 4 x FXFA63A2VEB + 2 x FXFA80A2VEB | 4 x FXFA50A2VEB + 4 x FXFA63A2VEB | 10 x FXFA50A2VEB |
| Recommended combination 2 | | | | 4 x FXSA63A2VEB | 3 x FXSA50A2VEB + 3 x FXSA63A2VEB | 4 x FXSA63A2VEB + 2 x FXSA80A2VEB | 4 x FXSA50A2VEB + 4 x FXSA63A2VEB | 10 x FXSA50A2VEB |
| Recommended combination 3 | | | | 4 x FXMA63A5VEB | 3 x FXMA50A5VEB + 3 x FXMA50A5VEB | 4 x FXMA63A5VEB + 2 x FXMA80A5VEB | 4 x FXMA50A5VEB + 4 x FXMA63A5VEB | 10 x FXMA50A5VEB |
| Continuous heating | | | | Yes | | | | |
| Cooling capacity | Prated,c | | kW | 28.0 (1) | 36.4 (1) | 44.8 (1) | 50.4 (1) | 55.9 (1) |
| Heating capacity | Nom. | 6°CWB | kW | 28.0 (2) | 36.4 (2) | 44.8 (2) | 50.4 (2) | 55.9 (2) |
| | Prated,h | | kW | 28.0 (2) | 36.4 (2) | 44.8 (2) | 50.4 (2) | 55.9 (2) |
| | Max. | 6°CWB | kW | 32.0 (2) | 41.0 (2) | 50.0 (2) | 56.5 (2) | 62.5 (2) |
| Power input - 50Hz | Heating | Nom. 6°CWB | kW | 7.66 (2) | 9.69 (2) | 12.05 (2) | 13.97 (2) | 15.54 (2) |
| COP at nom. capacity | 6°CWB | | kW/kW | 3.66 (2) | 3.76 (2) | 3.72 (2) | 3.61 (2) | 3.60 (2) |
| SCOP | | | | 4.09 | 4.11 | 4.35 | 4.34 | 4.38 |
| SCOP recommended combination 2 | | | | 4.14 | 4.19 | 4.38 | 4.40 | 4.48 |

# 2 Specifications

## 2 - 1 REYA-A



| Technical specifications System | | | | REYA10A | REYA13A | REYA16A | REYA18A | REYA20A |
|---|---|---|---|---|---|---|---|---|
| SCOP recommended combination 3 | | | | 4.16 | 4.22 | 4.37 | 4.46 | 4.50 |
| SEER | | | | 7.62 | 7.49 | 7.40 | 7.26 | 7.27 |
| SEER recommended combination 2 | | | | 7.30 | 7.15 | 6.93 | 6.95 | 6.94 |
| SEER recommended combination 3 | | | | 7.61 | 7.57 | 7.31 | 7.30 | 7.48 |
| ηs,c | | | % | 301.9 | 296.5 | 293.0 | 287.5 | 287.6 |
| ηs,c recommended combination 2 | | | | 289.0 | 282.9 | 274.2 | 275.2 | 274.8 |
| ηs,c recommended combination 3 | | | | 301.2 | 299.8 | 289.4 | 288.9 | 296.1 |
| ηs,h | | | % | 160.6 | 161.5 | 170.9 | 170.5 | 172.2 |
| ηs,h recommended combination 2 | | | | 162.5 | 164.8 | 172.2 | 173.2 | 176.4 |
| ηs,h recommended combination 3 | | | | 163.4 | 165.8 | 171.8 | 175.4 | 177.0 |
| Space cooling | A Condition (35°C - 27/19) | EERd | | 3.81 | 3.46 | 3.25 | 3.26 | 3.24 |
| | | Pdc | kW | 28.0 | 36.4 | 44.8 | 50.4 | 55.9 |
| | B Condition (30°C - 27/19) | EERd | | 7.73 | 6.08 | 5.41 | 5.18 | 4.89 |
| | | Pdc | kW | 20.6 | 26.8 | 33.0 | 37.1 | 41.2 |
| | C Condition (25°C - 27/19) | EERd | | 8.99 | 9.04 | 9.11 | 8.76 | 8.70 |
| | | Pdc | kW | 13.5 | 18.0 | 21.2 | 23.9 | 26.5 |
| | D Condition (20°C - 27/19) | EERd | | 11.5 | 13.9 | 15.0 | | 16.4 |
| | | Pdc | kW | 14.1 | 15.5 | 15.9 | 16.3 | 16.7 |
| Space cooling recommended combination 2 | A Condition (35°C - 27/19) | EERd | | 3.67 | 3.36 | 3.14 | 3.23 | 3.09 |
| | | Pdc | kW | 28.0 | 36.4 | 44.8 | 50.4 | 55.9 |
| | B Condition (30°C - 27/19) | EERd | | 7.32 | 5.78 | 5.00 | 4.94 | 4.75 |
| | | Pdc | kW | 20.6 | 26.8 | 33.0 | 37.1 | 41.2 |
| Space cooling recommended combination 2 | C Condition (25°C - 27/19) | EERd | | 8.54 | 8.53 | 8.36 | 8.27 | 8.17 |
| | | Pdc | kW | 13.3 | 17.8 | 21.2 | 23.9 | 26.5 |
| | D Condition (20°C - 27/19) | EERd | | 11.1 | 13.3 | 14.3 | | 15.7 |
| | | Pdc | kW | 13.7 | 15.0 | 15.5 | 15.8 | 16.0 |
| Space cooling recommended combination 3 | A Condition (35°C - 27/19) | EERd | | 3.71 | 3.41 | 3.18 | 3.25 | 3.27 |
| | | Pdc | kW | 28.0 | 36.4 | 44.8 | 50.4 | 55.9 |
| | B Condition (30°C - 27/19) | EERd | | 7.71 | 6.12 | 5.24 | 5.08 | 5.04 |
| | | Pdc | kW | 20.6 | 26.8 | 33.0 | 37.1 | 41.2 |
| | C Condition (25°C - 27/19) | EERd | | 8.99 | 9.22 | 9.04 | 8.94 | 9.03 |
| | | Pdc | kW | 13.5 | 18.1 | 21.2 | 23.9 | 26.5 |
| | D Condition (20°C - 27/19) | EERd | | 11.6 | 14.2 | 15.2 | 15.4 | 16.9 |
| | | Pdc | kW | 14.1 | 15.5 | 16.0 | 16.3 | 16.7 |
| Space heating (Average climate) | TBivalent | COPd (declared COP) | | 2.69 | 2.74 | 2.87 | 2.51 | 2.55 |
| | | Pdh (declared heating cap) | kW | 16.0 | 21.7 | 23.2 | 27.9 | 31.0 |
| | | Tbiv (bivalent temperature) | °C | | | -10 | | |
| | TOL | COPd (declared COP) | | 2.69 | 2.74 | 2.87 | 2.51 | 2.55 |
| | | Pdh (declared heating cap) | kW | 16.0 | 21.7 | 23.2 | 27.9 | 31.0 |
| | | Tol (temperature operating limit) | °C | | | -10 | | |
| | A Condition (-7°C) | COPd (declared COP) | | 3.00 | 3.03 | 3.18 | 2.87 | 2.95 |
| | | Pdh (declared heating cap) | kW | 14.2 | 19.2 | 20.5 | 24.7 | 27.4 |
| | B Condition (2°C) | COPd (declared COP) | | 4.37 | 4.02 | 4.17 | 4.20 | 4.09 |
| | | Pdh (declared heating cap) | kW | 8.60 | 11.7 | 12.5 | 15.0 | 16.7 |
| | C Condition (7°C) | COPd (declared COP) | | 4.70 | 5.11 | 5.45 | 5.60 | 5.90 |
| | | Pdh (declared heating cap) | kW | 7.17 | 8.40 | 8.05 | 9.66 | 10.7 |
| | D Condition (12°C) | COPd (declared COP) | | 5.57 | 6.47 | 6.93 | 7.49 | 8.06 |
| | | Pdh (declared heating cap) | kW | 8.74 | 8.93 | 9.04 | 9.97 | 10.0 |

# 2 Specifications

## 2 - 1 REYA-A

| Technical specifications System | | | | | REYA10A | REYA13A | REYA16A | REYA18A | REYA20A |
|---|---|---|---|---|---|---|---|---|---|
| Space heating (Average climate) recommended combination 2 | A Condition (-7°C) | COPd (declared COP) | | | 3.02 | 3.05 | 3.18 | 2.86 | 2.96 |
| | | Pdh (declared heating cap) | | kW | 14.2 | 19.2 | 20.5 | 24.7 | 27.4 |
| | B Condition (2°C) | COPd (declared COP) | | | 4.43 | 4.12 | 4.18 | 4.27 | 4.21 |
| | | Pdh (declared heating cap) | | kW | 8.64 | 11.7 | 12.5 | 15.0 | 16.7 |
| | C Condition (7°C) | COPd (declared COP) | | | 4.76 | 5.24 | 5.57 | 5.78 | 6.07 |
| | | Pdh (declared heating cap) | | kW | 7.31 | 8.54 | 8.08 | 9.65 | 10.7 |
| | D Condition (12°C) | COPd (declared COP) | | | 5.62 | 6.58 | 6.97 | 7.59 | 8.30 |
| | | Pdh (declared heating cap) | | kW | 8.87 | 9.17 | 9.24 | 10.3 | 10.5 |
| | TBivalent | COPd (declared COP) | | | 2.70 | 2.26 | 2.38 | 2.27 | 2.34 |
| | | Pdh (declared heating cap) | | kW | 16.0 | 21.7 | 23.2 | 27.9 | 31.0 |
| | | Tbiv (bivalent temperature) | | °C | | | -10 | | |
| Space heating (Average climate) recommended combination 2 | TOL | COPd (declared COP) | | | 2.70 | 2.26 | 2.38 | 2.27 | 2.34 |
| | | Pdh (declared heating cap) | | kW | 16.0 | 21.7 | 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) | | | 3.03 | 3.07 | 3.17 | 2.91 | 2.99 |
| | | Pdh (declared heating cap) | | kW | 14.2 | 19.2 | 20.5 | 24.7 | 27.5 |
| | B Condition (2°C) | COPd (declared COP) | | | 4.48 | 4.14 | 4.19 | 4.35 | 4.22 |
| | | Pdh (declared heating cap) | | kW | 8.61 | 11.7 | 12.5 | 15.0 | 16.7 |
| | C Condition (7°C) | COPd (declared COP) | | | 4.76 | 5.25 | 5.52 | 5.77 | 6.07 |
| | | Pdh (declared heating cap) | | kW | 7.28 | 8.49 | 8.04 | 9.67 | 10.7 |
| | D Condition (12°C) | COPd (declared COP) | | | 5.62 | 6.64 | 6.94 | 7.69 | 8.32 |
| | | Pdh (declared heating cap) | | kW | 8.85 | 9.13 | 9.17 | 10.2 | 10.3 |
| | TBivalent | COPd (declared COP) | | | 2.71 | 2.78 | 2.86 | 2.53 | 2.59 |
| | | Pdh (declared heating cap) | | kW | 16.0 | 21.7 | 23.2 | 27.9 | 31.0 |
| | | Tbiv (bivalent temperature) | | °C | | | -10 | | |
| | TOL | COPd (declared COP) | | | 2.71 | 2.78 | 2.86 | 2.53 | 2.59 |
| | | Pdh (declared heating cap) | | kW | 16.0 | 21.7 | 23.2 | 27.9 | 31.0 |
| | | Tol (temperature operating limit) | | °C | | | -10 | | |
| Capacity range | | | | HP | 10 | 13 | 16 | 18 | 20 |
| PED | Category | | | | | | Category III | | |
| Maximum number of connectable indoor units | | | | | | | 64 (3) | | |
| Indoor index connection | Min. | | | | 125 | 163 | 200 | 225 | 250 |
| | Max. | | | | 325 | 423 | 520 | 585 | 650 |
| Heat exchanger | Indoor side | | | | | | Air | | |
| | Outdoor side | | | | | | Air | | |
| | Air flow rate | Cooling | Rated | $m^3/h$ | | 18,290 | | 18,854 | 19,968 |
| | | Heating | Rated | $m^3/h$ | | 18,290 | | 18,854 | 19,968 |
| Sound power level | Cooling | Nom. | | dBA | | 81.3 (4) | | 81.6 (4) | 83.9 (4) |
| | Heating | Nom. | | dBA | | 82.4 (4) | | 83.1 (4) | 84.8 (4) |
| Sound pressure level | Cooling | Nom. | | dBA | | 59.3 (5) | | 60.2 (5) | 62.1 (5) |
| | Heating | | | dBA | | 61.1 (5) | | 61.5 (5) | 63.4 (5) |
| Refrigerant | Type | | | | | | R-32 | | |
| | GWP | | | | | | 675.0 | | |
| Refrigerant oil | Type | | | | | | FW68DE | | |
| Piping connections | Liquid | Type | | | | | Braze connection | | |
| | | OD | | mm | 9.52 | | 12.70 | | |
| | Gas | Type | | | | | Braze connection | | |
| | | OD | | mm | 19.1 | | 22.2 | | 28.6 |
| Piping connections | HP/LP gas | Type | | | | | Braze connection | | |
| | | OD | | mm | 15.90 | | 19.10 | | 22.20 |
| | Total piping length | System | Actual | m | | | 500 (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 | | |

# 2 Specifications

## 2 - 1 REYA-A



| Technical specifications System | | | | | REYA10A | REYA13A | REYA16A | REYA18A | REYA20A |
|---|---|---|---|---|---|---|---|---|---|
| Power consumption in other than active mode | Crankcase heater mode | Cooling | PCK | kW | 0.000 | | | | |
| | | Heating | PCK | kW | 0.106 | | | | |
| | Off mode | Cooling | POFF | kW | 0.100 | | | | |
| | | Heating | POFF | kW | 0.106 | | | | |
| | Standby mode | Cooling | PSB | kW | 0.100 | | | | |
| | | Heating | PSB | kW | 0.106 | | | | |
| | Thermostat-off mode | Cooling | PTO | kW | 0.002 | | | | |
| | | Heating | PTO | kW | 0.106 | | | | |
| Cooling | Cdc (Degradation cooling) | | | | 0.25 | | | | |
| Heating | Cdh (Degradation heating) | | | | 0.25 | | | | |

| Technical specifications System | | | | | REYA22A | REYA24A | REYA26A | REYA28A |
|---|---|---|---|---|---|---|---|---|
| System | Outdoor unit module 1 | | | | REYA10A | REYA8A | REYA12A | |
| | Outdoor unit module 2 | | | | REYA12A | REYA16A | REYA14A | REYA16A |
| Recommended combination | | | | | 6 x FXFA50A2VEB + 4 x FXFA63A2VEB | 4 x FXFA50A2VEB + 4 x FXFA63A2VEB + 2 x FXFA80A2VEB | 7 x FXFA50A2VEB + 5 x FXFA63A2VEB | 6 x FXFA50A2VEB + 4 x FXFA63A2VEB + 2 x FXFA80A2VEB |
| Recommended combination 2 | | | | | 6 x FXSA50A2VEB + 4 x FXSA63A2VEB | 4 x FXSA50A2VEB + 4 x FXSA63A2VEB + 2 x FXSA80A2VEB | 7 x FXSA50A2VEB + 5 x FXSA63A2VEB | 6 x FXSA50A2VEB + 4 x FXSA63A2VEB + 2 x FXSA80A2VEB |
| Recommended combination 3 | | | | | 6 x FXMA50A5VEB + 4 x FXMA63A5VEB | 4 x FXMA50A5VEB + 4 x FXMA63A5VEB + 2 x FXMA80A5VEB | 7 x FXMA50A5VEB + 5 x FXMA63A5VEB | 6 x FXMA50A5VEB + 4 x FXMA63A5VEB + 2 x FXMA80A5VEB |
| Continuous heating | | | | | Yes | | | |
| Cooling capacity | Prated,c | | | kW | 61.5 (1) | 67.4 (1) | 73.5 (1) | 78.5 (1) |
| Heating capacity | Nom. | 6°CWB | | kW | 61.5 (2) | 67.4 (2) | 73.5 (2) | 78.5 (2) |
| | Prated,h | | | kW | 61.5 (2) | 67.4 (2) | 73.5 (2) | 78.5 (2) |
| | Max. | 6°CWB | | kW | 69.0 (2) | 75.0 (2) | 82.5 (2) | 87.5 (2) |
| Power input - 50Hz | Heating | Nom. | 6°CWB | kW | 17.80 (2) | 18.63 (2) | 20.89 (2) | 22.46 (2) |
| COP at nom. capacity | 6°CWB | | | kW/kW | 3.46 (2) | 3.62 (2) | 3.52 (2) | 3.49 (2) |
| SCOP | | | | | 4.41 | 4.20 | 4.38 | 4.36 |
| SCOP recommended combination 2 | | | | | 4.45 | 4.24 | 4.44 | 4.43 |
| SCOP recommended combination 3 | | | | | 4.48 | 4.25 | 4.44 | 4.43 |
| SEER | | | | | 7.17 | 7.16 | 7.48 | 7.15 |
| SEER recommended combination 2 | | | | | 6.88 | 7.01 | 7.23 | 6.96 |
| SEER recommended combination 3 | | | | | 7.28 | 7.29 | 7.61 | 7.26 |
| ηs,c | | | | % | 283.6 | 283.4 | 296.2 | 282.8 |
| ηs,c recommended combination 2 | | | | | 272.1 | 277.3 | 286.4 | 275.6 |
| ηs,c recommended combination 3 | | | | | 288.2 | 288.7 | 301.3 | 287.4 |
| ηs,h | | | | % | 173.3 | 165.2 | 172.0 | 171.5 |
| ηs,h recommended combination 2 | | | | | 175.1 | 166.6 | 174.4 | 174.3 |
| ηs,h recommended combination 3 | | | | | 176.3 | 167.1 | 174.5 | 174.0 |
| Space cooling | A Condition (35°C - 27/19) | EERd | | | 3.25 | 3.24 | 3.25 | 3.23 |
| | | Pdc | | kW | 61.5 | 67.4 | 73.5 | 78.5 |
| | B Condition (30°C - 27/19) | EERd | | | 4.78 | | 4.77 | 4.59 |
| | | Pdc | | kW | 45.3 | 49.7 | 54.2 | 57.8 |
| | C Condition (25°C - 27/19) | EERd | | | 8.47 | 8.52 | 8.61 | 8.33 |
| | | Pdc | | kW | 29.1 | 31.9 | 34.8 | 37.2 |
| | D Condition (20°C - 27/19) | EERd | | | 16.2 | 16.0 | 20.1 | 17.1 |
| | | Pdc | | kW | 16.8 | 19.2 | 19.5 | 19.7 |
| Space cooling recommended combination 2 | A Condition (35°C - 27/19) | EERd | | | 3.10 | 3.11 | 3.12 | 3.03 |
| | | Pdc | | kW | 61.5 | 67.4 | 73.5 | 78.5 |
| | B Condition (30°C - 27/19) | EERd | | | 4.67 | 4.78 | 4.71 | 4.60 |
| | | Pdc | | kW | 45.3 | 49.7 | 54.2 | 57.8 |
| Space cooling recommended combination 2 | C Condition (25°C - 27/19) | EERd | | | 8.00 | 8.25 | 8.17 | 8.04 |
| | | Pdc | | kW | 29.1 | 31.9 | 34.8 | 37.2 |
| | D Condition (20°C - 27/19) | EERd | | | 15.4 | 15.6 | 19.3 | 16.7 |
| | | Pdc | | kW | 16.2 | 18.6 | 18.8 | 19.0 |

# 2 Specifications

## 2 - 1 REYA-A

| Technical specifications System | | | | | REYA22A | REYA24A | REYA26A | REYA28A |
|---|---|---|---|---|---|---|---|---|
| Space cooling recommended combination 3 | A Condition (35°C - 27/19) | EERd | | | 3.25 | 3.13 | 3.27 | 3.12 |
| | | Pdc | | kW | 61.5 | 67.4 | 73.5 | 78.5 |
| | B Condition (30°C - 27/19) | EERd | | | 4.79 | 4.94 | 4.82 | 4.66 |
| | | Pdc | | kW | 45.3 | 49.7 | 54.1 | 57.8 |
| | C Condition (25°C - 27/19) | EERd | | | 8.71 | 8.77 | 8.83 | 8.64 |
| | | Pdc | | kW | 29.1 | 31.9 | 34.8 | 37.2 |
| | D Condition (20°C - 27/19) | EERd | | | 16.6 | 16.2 | 20.5 | 17.5 |
| | | Pdc | | kW | 16.6 | 18.9 | 19.4 | 19.3 |
| Space heating (Average climate) | TBivalent | COPd (declared COP) | | | 2.33 | 2.62 | 2.48 | 2.46 |
| | | Pdh (declared heating cap) | | kW | 34.4 | 36.9 | 39.0 | 41.6 |
| | | Tbiv (bivalent temperature) | | °C | -10 | | | |
| | TOL | COPd (declared COP) | | | 2.33 | 2.62 | 2.48 | 2.46 |
| | | Pdh (declared heating cap) | | kW | 34.4 | 36.9 | 39.0 | 41.6 |
| | | Tol (temperature operating limit) | | °C | -10 | | | |
| | A Condition (-7°C) | COPd (declared COP) | | | 2.76 | 2.94 | 2.89 | 2.85 |
| | | Pdh (declared heating cap) | | kW | 30.4 | 32.6 | 34.5 | 36.8 |
| | B Condition (2°C) | COPd (declared COP) | | | 4.19 | 3.89 | 3.99 | 4.03 |
| | | Pdh (declared heating cap) | | kW | 18.5 | 19.9 | 21.0 | 22.4 |
| | C Condition (7°C) | COPd (declared COP) | | | 6.02 | 5.82 | 6.32 | 6.26 |
| | | Pdh (declared heating cap) | | kW | 11.9 | 12.8 | 13.5 | 14.4 |
| | D Condition (12°C) | COPd (declared COP) | | | 8.49 | 6.47 | 7.76 | 7.33 |
| | | Pdh (declared heating cap) | | kW | 11.0 | 9.58 | 10.7 | 10.6 |
| Space heating (Average climate) recommended combination 2 | A Condition (-7°C) | COPd (declared COP) | | | 2.73 | 2.93 | 2.89 | 2.86 |
| | | Pdh (declared heating cap) | | kW | 30.4 | 32.6 | 34.5 | 36.8 |
| | B Condition (2°C) | COPd (declared COP) | | | 4.25 | 3.90 | 4.06 | 4.09 |
| | | Pdh (declared heating cap) | | kW | 18.5 | 19.9 | 21.0 | 22.4 |
| | C Condition (7°C) | COPd (declared COP) | | | 6.10 | 5.97 | 6.42 | 6.40 |
| | | Pdh (declared heating cap) | | kW | 11.9 | 12.8 | 13.5 | 14.4 |
| | D Condition (12°C) | COPd (declared COP) | | | 8.60 | 6.72 | 8.03 | 7.72 |
| | | Pdh (declared heating cap) | | kW | 11.4 | 10.1 | 11.1 | 11.2 |
| | TBivalent | COPd (declared COP) | | | 2.26 | 2.17 | 2.24 | 2.20 |
| | | Pdh (declared heating cap) | | kW | 34.4 | 36.9 | 39.0 | 41.6 |
| | | Tbiv (bivalent temperature) | | °C | -10 | | | |
| Space heating (Average climate) recommended combination 2 | TOL | COPd (declared COP) | | | 2.26 | 2.17 | 2.24 | 2.20 |
| | | Pdh (declared heating cap) | | kW | 34.4 | 36.9 | 39.0 | 41.6 |
| | | Tol (temperature operating limit) | | °C | -10 | | | |
| Space heating (Average climate) recommended combination 3 | A Condition (-7°C) | COPd (declared COP) | | | 2.77 | 2.95 | 2.91 | 2.87 |
| | | Pdh (declared heating cap) | | kW | 30.5 | 32.7 | 34.6 | 36.9 |
| | B Condition (2°C) | COPd (declared COP) | | | 4.28 | 3.92 | 4.05 | 4.08 |
| | | Pdh (declared heating cap) | | kW | 18.5 | 19.9 | 21.0 | 22.4 |
| | C Condition (7°C) | COPd (declared COP) | | | 6.12 | 5.93 | 6.43 | 6.38 |
| | | Pdh (declared heating cap) | | kW | 11.9 | 12.8 | 13.5 | 14.4 |
| | D Condition (12°C) | COPd (declared COP) | | | 8.65 | 6.75 | 7.95 | 7.68 |
| | | Pdh (declared heating cap) | | kW | 11.2 | 9.97 | 11.0 | |
| | TBivalent | COPd (declared COP) | | | 2.35 | 2.62 | 2.50 | 2.48 |
| | | Pdh (declared heating cap) | | kW | 34.4 | 36.9 | 39.0 | 41.6 |
| | | Tbiv (bivalent temperature) | | °C | -10 | | | |
| | TOL | COPd (declared COP) | | | 2.35 | 2.62 | 2.50 | 2.48 |
| | | Pdh (declared heating cap) | | kW | 34.4 | 36.9 | 39.0 | 41.6 |
| | | Tol (temperature operating limit) | | °C | -10 | | | |
| Capacity range | | | | HP | 22 | 24 | 26 | 28 |
| PED | Category | | | | Category III | | | |
| Maximum number of connectable indoor units | | | | | 64 (3) | | | |
| Indoor index connection | Min. | | | | 275 | 300 | 325 | 350 |
| | Max. | | | | 715 | 780 | 845 | 910 |
| Heat exchanger | Indoor side | | | | Air | | | |
| | Outdoor side | | | | Air | | | |
| | Air flow rate | Cooling | Rated | $m^3/h$ | 20,532 | 23,460 | 22,399 | 25,138 |
| | | Heating | Rated | $m^3/h$ | 20,532 | 23,460 | 23,947 | 25,138 |

# 2 Specifications

## 2 - 1 REYA-A



| Technical specifications System | | | | | REYA22A | REYA24A | REYA26A | REYA28A |
|---|---|---|---|---|---|---|---|---|
| Sound power level | Cooling | Nom. | | dBA | 84.0 (4) | 84.8 (4) | 84.0 (4) | 86.2 (4) |
| | Heating | Nom. | | dBA | 85.2 (4) | 87.1 (4) | 86.1 (4) | 88.1 (4) |
| Sound pressure level | Cooling | Nom. | | dBA | 62.6 (5) | | 62.7 (5) | 64.1 (5) |
| | Heating | | | dBA | 63.6 (5) | 65.4 (5) | 64.6 (5) | 66.4 (5) |
| Refrigerant | Type | | | | R-32 | | | |
| | GWP | | | | 675.0 | | | |
| Refrigerant oil | Type | | | | FW68DE | | | |
| Piping connections | Liquid | Type | | | Braze connection | | | |
| | | OD | | mm | 12.70 | | 15.90 | |
| | Gas | Type | | | Braze connection | | | |
| | | OD | | mm | 28.6 | | | |
| Piping connections | HP/LP gas | Type | | | Braze connection | | | |
| | | OD | | mm | 22.20 | | | |
| | 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 | 0.106 | 0.111 | | |
| | Off mode | Cooling | POFF | kW | 0.100 | 0.108 | | |
| | | Heating | POFF | kW | 0.106 | 0.111 | | |
| | Standby mode | Cooling | PSB | kW | 0.100 | 0.108 | | |
| | | Heating | PSB | kW | 0.106 | 0.111 | | |
| | Thermostat-off mode | Cooling | PTO | kW | 0.002 | | | |
| | | Heating | PTO | kW | 0.106 | 0.121 | 0.111 | 0.121 |
| Cooling | Cdc (Degradation cooling) | | | | 0.25 | | | |
| Heating | Cdh (Degradation heating) | | | | 0.25 | | | |

| Electrical specifications System | | | | REYA10A | REYA13A | REYA16A | REYA18A | REYA20A |
|---|---|---|---|---|---|---|---|---|
| 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 | Nominal running current (RLA) | Cooling | A | 11.2 (7) | 16.0 (7) | 20.9 (7) | 23.4 (7) | 26.1 (7) |
| Current - 50Hz | Nominal running current (RLA) | Combination A | Cooling | - | | | | |
| | | Combination B | Cooling | - | | | | |
| | Starting current (MSC) - remark | | | See note 8 | | | | |
| | Zmax | List | | No requirements | | | | |
| | Minimum Ssc value | | kVa | 5,196 (9) | 5,387 (9) | 5,577 (9) | 6,599 (9) | 6,945 (9) |
| | Minimum circuit amps (MCA) | | A | 30.0 (10) | 31.1 (10) | 32.2 (10) | 38.1 (10) | 40.1 (10) |
| | Maximum fuse amps (MFA) | | A | 40 (11) | | | 50 (11) | |
| 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 | | | | REYA22A | REYA24A | REYA26A | REYA28A |
|---|---|---|---|---|---|---|---|
| Power supply | Name | | | Y1 | | | |
| | Phase | | | 3N~ | | | |
| | Frequency | | Hz | 50 | | | |
| | Voltage | | V | 380-415 | | | |
| Power supply intake | | | | Both indoor and outdoor unit | | | |

# 2 Specifications

## 2 - 1 REYA-A

| Electrical specifications System | | | | | REYA22A | REYA24A | REYA26A | REYA28A |
|---|---|---|---|---|---|---|---|---|
| Voltage range | Min. | | | % | -10 | | | |
| | Max. | | | % | 10 | | | |
| Current | Nominal running current (RLA) | Cooling | | A | 28.6 (7) | 31.5 (7) | 34.1 (7) | 36.7 (7) |
| Current - 50Hz | Nominal running current (RLA) | Combination A | Cooling | | - | | | |
| | | Combination B | Cooling | | - | | | |
| | Starting current (MSC) - remark | | | | See note 8 | | | |
| | Zmax | List | | | No requirements | | | |
| | Minimum Ssc value | | | kVa | 7,967 (9) | 8,158 (9) | 8,833 (9) | 9,526 (9) |
| | Minimum circuit amps (MCA) | | | A | 46.0 (10) | 47.1 (10) | 51.0 (10) | 55.0 (10) |
| | Maximum fuse amps (MFA) | | | A | 63 (11) | | | |
| 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 | | | |

| Technical specifications Module | | | | | REMA5A |
|---|---|---|---|---|---|
| Cooling capacity | Prated,c | | | kW | 14.0 (1) |
| Heating capacity | Max. | 6°CWB | | kW | 16.0 (2) |
| Capacity range | | | | HP | 5 |
| PED | Category | | | | Category III |
| | Most critical part | Name | | | Liquid receiver |
| | | Ps*V | | Bar*l | 508 |
| Maximum number of connectable indoor units | | | | | 64 (3) |
| Indoor index connection | Min. | | | | 63 |
| | Max. | | | | 163 |
| Dimensions | Unit | Height | | mm | 1,685 |
| | | Width | | mm | 930 |
| | | Depth | | mm | 765 |
| | Packed unit | Height | | mm | 1,820 |
| | | Width | | mm | 995 |
| | | Depth | | mm | 860 |
| Weight | Unit | | | kg | 213 |
| | Packed unit | | | kg | 225 |
| Packing | Material | | | | Carton |
| | Weight | | | kg | 1.5 |
| Packing 2 | Material | | | | Wood |
| | Weight | | | kg | 10.0 |
| Packing 3 | Material | | | | Plastic |
| | Weight | | | kg | 0.6 |
| Casing | Colour | | | | Daikin White |
| | Material | | | | Painted galvanized steel plate |
| Heat exchanger | Type | | | | Cross fin coil |
| | Indoor side | | | | Air |
| | Outdoor side | | | | Air |
| | Air flow rate | Cooling | Rated | $m^3/h$ | 9,145 |
| | | Heating | Rated | $m^3/h$ | 9,145 |
| Fan | Quantity | | | | 1 |
| | External static pressure | Max. | | Pa | 78 |
| Fan motor | Quantity | | | | 1 |
| | Type | | | | DC motor |
| | Output | | | W | 550 |
| Compressor | Quantity | | | | 1 |
| Compressor | Type | | | | Hermetically sealed scroll compressor |
| | Crankcase heater | | | W | 33 |
| Operation range | Cooling | Min. | | °CDB | -5 |
| | | Max. | | °CDB | 46 |
| | Heating | Min. | | °CWB | -20 |
| | | Max. | | °CWB | 16 |
| Sound power level | Cooling | Nom. | | dBA | 78.3 (4) |
| | Heating | Nom. | | dBA | 79.4 (4) |

# 2 Specifications

## 2 - 1 REYA-A



| Technical specifications Module | | | | REMA5A |
|---|---|---|---|---|
| Sound pressure level | Cooling | Nom. | dBA | 56.3 (5) |
| | Heating | | dBA | 58.1 (5) |
| Refrigerant | Type | | | R-32 |
| | GWP | | | 675.0 |
| | Charge | | TCO2Eq | 6.08 |
| | Charge | | kg | 9.00 |
| Refrigerant oil | Type | | | FW68DE |
| Piping connections | Liquid | Type | | Braze connection |
| | | OD | mm | 9.52 |
| | Gas | Type | | Braze connection |
| | | OD | mm | 19.1 |
| | HP/LP gas | Type | | Braze connection |
| | | OD | mm | 15.90 |
| Defrost method | | | | Reversed cycle |
| Capacity control | Method | | | Inverter controlled |
| Safety devices | Item | 01 | | High pressure switch |
| | | 02 | | Fan driver overload protector |
| | | 03 | | Inverter overload protector |

| Electrical specifications Module | | | | REMA5A |
|---|---|---|---|---|
| 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 | Nominal running current (RLA) | Cooling | A | 5.6 (6) |
| Current - 50Hz | Nominal running current (RLA) | Combination A | Cooling | - |
| | | Combination B | Cooling | - |
| | Starting current (MSC) - remark | | | See note 8 |
| | Zmax | List | | No requirements |
| | Minimum Ssc value | | kVa | 2,598 (9) |
| | Minimum circuit amps (MCA) | | A | 15.0 (10) |
| | Maximum fuse amps (MFA) | | A | 20 (11) |
| 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)The actual number of units depends on the connection ratio (CR) and the restrictions for the system. |
(4)Sound power level is an absolute value that a sound source generates. |
(5)Sound pressure level is a relative value, depending on the distance and acoustic environment. For more details, please refer to the sound level drawings. |
(6)Refer to refrigerant pipe selection or installation manual |
(7)RLA is based on following conditions: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB |
(8)MSC means the maximum current during start up of the compressor. This unit uses only inverter compressors. Starting current is always ≤ max. running current. |
(9)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 |
(10)MCA must be used to select the correct field wiring size. The MCA can be regarded as the maximum running current. |
(11)MFA is used to select the circuit breaker and the ground fault circuit interrupter (earth leakage circuit breaker). |
(12)Maximum allowable voltage range variation between phases is 2%. |
(13)Voltage range: units are suitable for use on electrical systems where voltage supplied to unit terminal is not below or above listed range limits. |
(14)Sound values are measured in a semi-anechoic room. |
(15)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 |
(16)Ssc: Short-circuit power |
(17)For detailed contents of standard accessories, see installation/operation manual |
(18)Multi combination (10~28HP) data is corresponding with the standard multi combination

# 3 Options

## 3 - 1 Options

**REYA-A**
**REMA5A**

**VRV V** **R32 models**
**Heat recovery**
**Option list**

| | | REYA*A* | | | | | | | REMA*A* | |
|---|---|---|---|---|---|---|---|---|---|---|
| Description | Option | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 5 | Multi ·2· unit |
| Low ambient option | EKBPH012T | O | O | O | - | - | - | - | O | O (*1) |
| Bottom plate heater | EKBPH020T | - | - | - | O | O | O | O | - | O (*1) |
| Demand adaptor kit (*3) | DTA104A* | O | O | O | O (*2) | O (*2) | O (*2) | O (*2) | O | O |
| External control adapter (*3) | DTA109A51* | O | O | O | O (*2) | O (*2) | O (*2) | O (*2) | O | O |
| Refnet header | KHRQ23M29H | O | O | O | O | O | O | O | O | O |
| | KHRQ23M64H | - | - | O | O | O | O | O | - | O |
| | KHRQ23M75H | - | - | - | - | - | - | - | - | O |
| Refnet joint | KHRQ23M20T | O | O | O | O | O | O | O | O | O |
| | KHRQ23M29T | O | O | O | O | O | O | O | O | O |
| | KHRQ23M64T | - | - | O | O | O | O | O | - | O |
| | KHRQ23M75T | - | - | - | - | - | - | - | - | O |
| Refrigerant branch kit | BHFQ23P907A | - | - | - | - | - | - | - | - | O |

*1 ·1· option kits are required per unit.

*2 These options require mounting plate ·EKSB26B1·.

*3 Because both adaptor PCBs have the same installation location, it is only possible to install either ·DTA104A· or ·DTA109A51·.

**3D141187A**

# 4 Combination table

## 4 - 1 Combination Table

**REYA-A**
**REMA5A**

4

### VRV5
### Heat recovery
### Multi-unit standard combinations table

| | | 5HP | 8HP | 10HP | 12HP | 14HP | 16HP | 18HP | 20HP |
|---|---|---|---|---|---|---|---|---|---|
| | REMA5* (*1) | 1 | | | | | | | |
| Non-continuous heating | REYA8* | | 1 | | | | | | |
| | REYA10* | | | 1 | | | | | |
| | REYA12* | | | | 1 | | | | |
| | REYA14* | | | | | 1 | | | |
| | REYA16* | | | | | | 1 | | |
| | REYA18* | | | | | | | 1 | |
| | REYA20* | | | | | | | | 1 |
| Continuous heating ·2· outdoor units | REYA10* | 2 | | | | | | | |
| | REYA13* | 1 | 1 | | | | | | |
| | REYA16* | | 2 | | | | | | |
| | REYA18* | | 1 | 1 | | | | | |
| | REYA20* | | 1 | | 1 | | | | |
| | REYA22* | | | 1 | 1 | | | | |
| | REYA24* | | 1 | | | | 1 | | |
| | REYA26* | | | | 1 | 1 | | | |
| | REYA28* | | | | 1 | | 1 | | |

Notes

1. The ·REMA5*· unit cannot be used as a standalone unit and may only be used in standard combinations.
2. Standard and free combinations have different piping restrictions.
3. Never combine more than ·2· units to create a multi-combination.

**4D138289**

**REYA-A**
**REMA5A**

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

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

1. In case the system contains the indoor unit situation as shown in the table above, and the total connection ratio (·CR·)≤ ·85·%: no special restrictions.
   Follow the restrictions that apply to regular ·VRV DX· indoor units.

2. In case the system contains the indoor unit situation as shown in the table above, and the total connection ratio (·CR·) > ·85·%: special restrictions apply.
   A. When the connection ratio (·CR1·) of the sum of all ·FXDA10A· units in the system ≤ ·65·%, and ALL other ·VRV DX·indoor units have an individual capacity class > ·50·: no special restrictions.

   B. When the connection ratio (·CR1·) of the sum of all ·FXDA10A· units in the system ≤ ·65·%, and NOT ALL other ·VRV DX·indoor units have an individual capacity class > ·50·: the restrictions below apply.
   - ° 85% < CR ≤ 95% -> ·CR1· of the sum of all ·FXDA10A· indoor units in the system must be ≤ ·65·%.
   - ° 95% < CR ≤ 100% -> ·CR1· of the sum of all ·FXDA10A· indoor units in the system must be ≤ ·55·%.
   - ° 100% < CR ≤ 105% -> ·CR1· of the sum of all ·FXDA10A· indoor units in the system must be ≤ ·40·%.
   - ° 105% < CR ≤ 130% -> ·FXDA10A· cannot be used

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

**4D141206**

# 4 Combination table

## 4 - 1 Combination Table

**REYA-A**

**REMA5A**

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

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

1. In case the system contains the indoor unit situation as shown in the table above, and the total connection ratio (·CR·) ≤ ·85·%: no special restrictions.
   Follow the restrictions that apply to regular ·VRV DX· indoor units.

2. In case the system contains the indoor unit situation as shown in the table above, and the total connection ratio (·CR·) > ·85·%: special restrictions apply.
   A. When the connection ratio (·CR1·) of the sum of all ·FXDA10A· units in the system ≤ ·65·%, and ALL other ·VRV DX·indoor units have an individual capacity class > ·50·: no special restrictions.

   B. When the connection ratio (·CR1·) of the sum of all ·FXDA10A· units in the system ≤ ·65·%, and NOT ALL other ·VRV DX·indoor units have an individual capacity class > ·50·: the restrictions below apply.
   - ° 85% < CR ≤ 95% -> ·CR1· of the sum of all ·FXDA10A· indoor units in the system must be ≤ ·65·%.
   - ° 95% < CR ≤ 100% -> ·CR1· of the sum of all ·FXDA10A· indoor units in the system must be ≤ ·55·%.
   - ° 100% < CR ≤ 105% -> ·CR1· of the sum of all ·FXDA10A· indoor units in the system must be ≤ ·40·%.
   - ° 105% < CR ≤ 110% -> ·CR1· of the sum of all ·FXDA10A· indoor units in the system must be ≤ ·30·%.
   - ° 110% < CR ≤ 115% -> ·CR1· of the sum of all ·FXDA10A· indoor units in the system must be ≤ ·20·%.
   - ° 115% < CR ≤ 120% -> ·CR1· of the sum of all ·FXDA10A· indoor units in the system must be ≤ ·10·%.
   - ° 120% < CR ≤ 125% -> ·CR1· of the sum of all ·FXDA10A· indoor units in the system must be ≤ ·5·%.
   - ° 125% < CR ≤ 130% -> ·FXDA10A· cannot be used

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

**4D141206**

**REYA-A**

**REMA5A**

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

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

1. In case the system contains the indoor units situation which as shown in the table above, and the total connection ratio (·CR·) ≤ ·100·%: no special restrictions.
   Follow the restrictions that apply to regular ·VRV DX· indoor units.

2. In case the system contains the indoor units situation which as shown in the table above, and the total connection ratio (·CR·) > ·100·%: special restrictions apply.
   A. When the connection ratio (·CR1·) of the sum of all ·FXZA15A· and/or ·FXAA15A· units in the system ≤ ·70·%, and ALL other ·VRV DX· indoor units have an individual capacity class > ·50·: no special restrictions.

   B. When the connection ratio (·CR1·) of the sum of all ·FXZA15A· and/or ·FXAA15A· units in the system ≤ ·70·%, and NOT ALL other ·VRV DX· indoor units have an individual capacity class > ·50·: the restrictions below apply.
   - ° 100% < CR ≤ 105% -> ·CR1· of the sum of all ·FXZA15A· and/or ·FXAA15A· indoor units in the system must be ≤ ·70·%.
   - ° 105% < CR ≤ 110% -> ·CR1· of the sum of all ·FXZA15A· and/or ·FXAA15A· indoor units in the system must be ≤ ·60·%.
   - ° 110% < CR ≤ 115% -> ·CR1· of the sum of all ·FXZA15A· and/or ·FXAA15A· indoor units in the system must be ≤ ·40·%.
   - ° 115% < CR ≤ 120% -> ·CR1· of the sum of all ·FXZA15A· and/or ·FXAA15A· indoor units in the system must be ≤ ·25·%.
   - ° 120% < CR ≤ 125% -> ·CR1· of the sum of all ·FXZA15A· and/or ·FXAA15A· indoor units in the system must be ≤ ·10·%.
   - ° 125% < CR ≤ 130% -> ·FXZA15A· and ·FXAA15A· cannot be used.

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

**4D141206**

# 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 Integrated Heating Capacity Correction Factor

**REYA-A**
**REMA5A**

**VRV5**
**Heat recovery**
**Integrated heating capacity coefficient**

*Inlet air temperature of heat exchanger*

| | [°CDB/°CWB] | -7/-7.6 | -5/-5.6 | -3/-3.7 | 0/-0.7 | 3/2.2 | 5/4.1 | 7/6 |
|---|---|---|---|---|---|---|---|---|
| | *Integrated correction factor for frost accumulation ·(C)·* | | | | | | | |
| For single unit installation | **8HP** | 0,90 | 0,88 | 0,83 | 0,80 | 0,81 | 0,85 | 1,00 |
| | **10HP** | 0,90 | 0,88 | 0,82 | 0,75 | 0,76 | 0,83 | 1,00 |
| | **12HP** | 0,90 | 0,87 | 0,82 | 0,71 | 0,72 | 0,81 | 1,00 |
| | **14HP** | 0,90 | 0,87 | 0,81 | 0,68 | 0,69 | 0,80 | 1,00 |
| | **16HP** | 0,90 | 0,87 | 0,81 | 0,68 | 0,68 | 0,79 | 1,00 |
| | **18HP** | 0,90 | 0,88 | 0,83 | 0,80 | 0,81 | 0,85 | 1,00 |
| | **20HP** | 0,90 | 0,88 | 0,83 | 0,80 | 0,81 | 0,85 | 1,00 |
| For multi-unit installation | **10HP** | 0,90 | 0,88 | 0,83 | 0,80 | 0,81 | 0,85 | 1,00 |
| | **13HP** | 0,90 | 0,88 | 0,83 | 0,80 | 0,81 | 0,85 | 1,00 |
| | **16HP** | 0,90 | 0,88 | 0,83 | 0,80 | 0,81 | 0,85 | 1,00 |
| | **18HP** | 0,90 | 0,88 | 0,83 | 0,77 | 0,78 | 0,84 | 1,00 |
| | **20HP** | 0,90 | 0,88 | 0,83 | 0,75 | 0,76 | 0,83 | 1,00 |
| | **22HP** | 0,90 | 0,88 | 0,82 | 0,73 | 0,74 | 0,82 | 1,00 |
| | **24HP** | 0,90 | 0,88 | 0,82 | 0,74 | 0,74 | 0,82 | 1,00 |
| | **26HP** | 0,90 | 0,87 | 0,82 | 0,70 | 0,71 | 0,80 | 1,00 |
| | **28HP** | 0,90 | 0,87 | 0,82 | 0,70 | 0,70 | 0,80 | 1,00 |

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

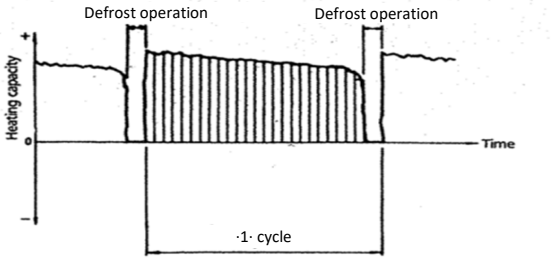
The capacity values that take these factors into account, or in other words, the integrated heating capacity values, can be calculated as follows:

Formula **A = B * C**

A= Integrated heating capacity

B= Capacity characteristics value

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




Notes

1. The figure shows the integrated heating capacity for a single cycle (from one defrost operation to the next).
2. When there is an accumulation of snow against the outdoor unit heat exchanger, there will always be a temporary reduction in capacity depending on the outdoor temperature (°C DB), relative humidity (RH) and the amount of frosting which occurs.
3. The multi-combination data ·VRV4· corresponds with the standard multi-combination of drawing ·4D138289·.

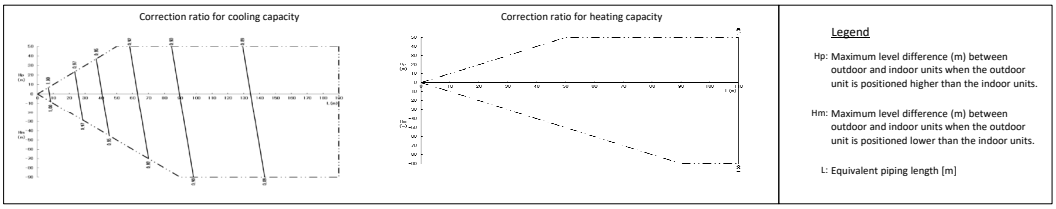
**4D141185**

# 5 Capacity tables

## 5 - 3 Capacity Correction Factor



**REYA8A**




Notes

1. These figures illustrate the capacity correction factor due to the piping length for a standard indoor unit system at maximum load (with the thermostat set to maximum), under standard conditions.

   Moreover, under partial load conditions, there is only a minor deviation for the capacity correction ratio, as shown it the above figures.

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

**Indoor connection ratio ≤ 100%.**

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

**Indoor connection ratio > 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 unit |
|---|---|---|---|---|

3. Main liquid pipe size increase

| Model | Standard liquid side Ø | Increased liquid side Ø |
|---|---|---|
| 8HP | 9,5 | 12,7 |

For the allowed system setups and the rules for when to increase the main liquid piping diameter, refer to the installation manual.

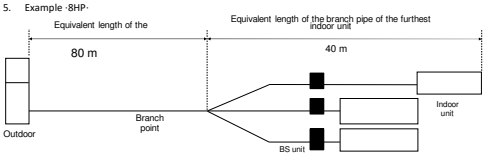
4. Overall equivalent length

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

Choose the correction factor from the following table.

| Model | Correction ratio for cooling capacity | | Correction ratio for heating capacity | |
|---|---|---|---|---|
| | Standard size | Size increase | Standard size | Size increase |
| 8HP | 1 | 0,5 | 1 | 0,2 |

5. Example ·8HP·




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

Capacity correction ratio (height difference = 0)
- Cooling mode = 0,91
- Heating mode = 1,00

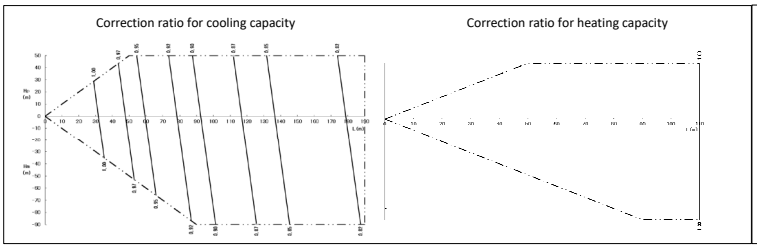
**4D141191**

# 5 Capacity tables

## 5 - 3 Capacity Correction Factor



### REYA10A




Legend

Hp: Maximum level difference (m) between outdoor and indoor units when the outdoor unit is positioned higher than the indoor units.

Hm: Maximum level difference (m) between outdoor and indoor units when the outdoor unit is positioned lower than the indoor units.

L: Equivalent piping length [m]

Notes

1. These figures illustrate the capacity correction factor due to the piping length for a standard indoor unit system at maximum load (with the thermostat set to maximum), under standard conditions.
   Moreover, under partial load conditions, there is only a minor deviation for the capacity correction ratio, as shown it the above figures.
2. Method of calculating the capacity of the outdoor units.
   The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity of the outdoor units as mentioned below, whichever is less.

**Indoor connection ratio ≤ 100%.**

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

**Indoor connection ratio > 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 unit |
|---|---|---|---|---|

3. Main liquid pipe size increase

| Model | Standard liquid side Ø | Increased liquid side Ø |
|---|---|---|
| 10HP | 9,5 | 12,7 |

For the allowed system setups and the rules for when to increase the main liquid piping diameter, refer to the installation manual.

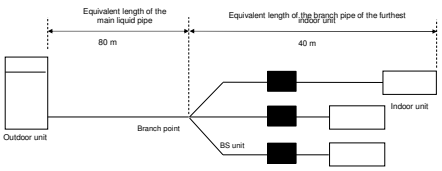
4.

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

Choose the correction factor from the following table.

| Model | Correction ratio for cooling capacity | | Correction ratio for heating capacity | |
|---|---|---|---|---|
| | Standard size | Size increase | Standard size | Size increase |
| | 1 | 0,5 | 1 | 0,2 |

5. Example ·10HP·

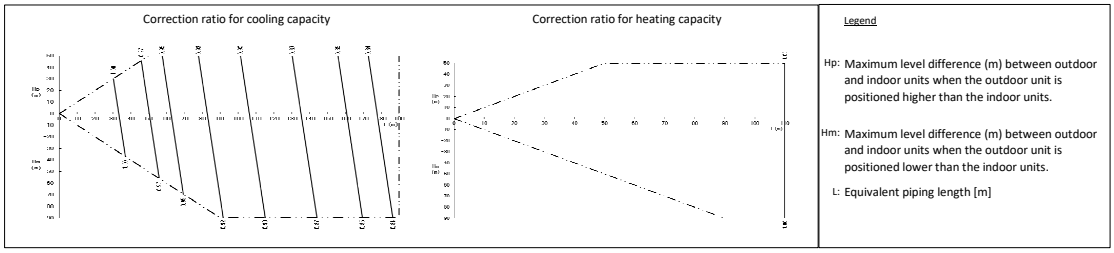



Overall equivalent length
- Cooling mode = 80 m x 0,5 + 40 m = 80 m
- Heating mode = 80 m x 0,2 + 40 m = 56 m

Capacity correction ratio (height difference = 0)
- Cooling mode = 0,92
- Heating mode = 1,00

**4D141191**

### REYA12A




Legend

Hp: Maximum level difference (m) between outdoor and indoor units when the outdoor unit is positioned higher than the indoor units.

Hm: Maximum level difference (m) between outdoor and indoor units when the outdoor unit is positioned lower than the indoor units.

L: Equivalent piping length [m]

Notes

1. These figures illustrate the capacity correction factor due to the piping length for a standard indoor unit system at maximum load (with the thermostat set to maximum), under standard conditions.
   Moreover, under partial load conditions, there is only a minor deviation for the capacity correction ratio, as shown it the above figures.
2. Method of calculating the capacity of the outdoor units.
   The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity of the outdoor units as mentioned below, whichever is less.

**Indoor connection ratio ≤ 100%.**

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

**Indoor connection ratio > 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 unit |
|---|---|---|---|---|

3. Main liquid pipe size increase

| Model | Standard liquid side Ø | Increased liquid side Ø |
|---|---|---|
| 12HP | 12,7 | 15,9 |

For the allowed system setups and the rules for when to increase the main liquid piping diameter, refer to the installation manual.

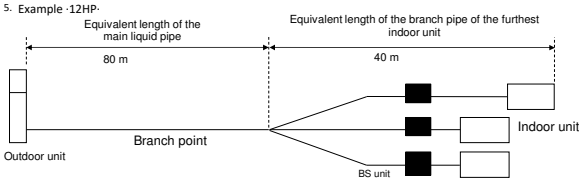
4. Overall equivalent length

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

Choose the correction factor from the following table.

| Model | Correction ratio for cooling capacity | | Correction ratio for heating capacity | |
|---|---|---|---|---|
| | Standard size | Size increase | Standard size | Size increase |
| 12HP | 1 | 0,5 | 1 | 0,3 |

5. Example ·12HP·




Overall equivalent length
- Cooling mode = 80 m x 0,5 + 40 m = 80 m
- Heating mode = 80 m x 0,3 + 40 m = 64 m

Capacity correction ratio (height difference = 0)
- Cooling mode = 0,92
- Heating mode = 1,00

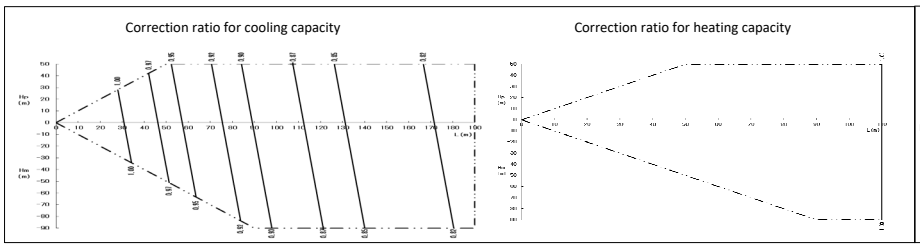
**4D141191**

# 5 Capacity tables

## 5 - 3 Capacity Correction Factor



### REYA13A
### REYA14A




Notes

1. These figures illustrate the capacity correction factor due to the piping length for a standard indoor unit system at maximum load (with the thermostat set to maximum), under standard conditions.
   Moreover, under partial load conditions, there is only a minor deviation for the capacity correction ratio, as shown it the above figures.
2. Method of calculating the capacity of the outdoor units.
   The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity of the outdoor units as mentioned below, whichever is less.

**Indoor connection ratio ≤ 100%.**

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

**Indoor connection ratio > 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 unit |
|---|---|---|---|---|

3. Main liquid pipe size increase

| Model | Standard liquid side Ø | Increased liquid side Ø |
|---|---|---|
| 13+14HP | 12,7 | 15,9 |

For the allowed system setups and the rules for when to increase the main liquid piping diameter, refer to the installation manual.

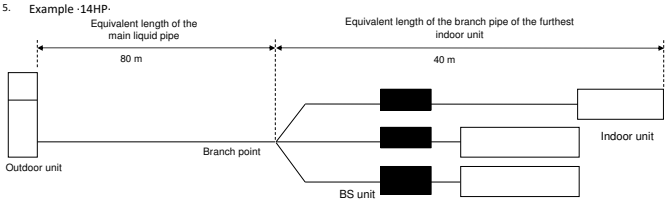
4. Overall equivalent length

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

Choose the correction factor from the following table.

| Model | Correction ratio for cooling capacity | | Correction ratio for heating capacity | |
|---|---|---|---|---|
| | Standard size | Size increase | Standard size | Size increase |
| 13+14HP | 1 | 0,5 | 1 | 0,3 |

5. Example ·14HP·

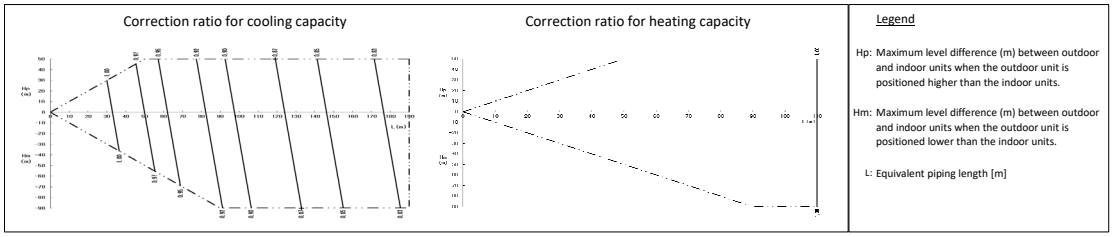



Overall equivalent length
- Cooling mode = 80 m x 0,5 + 40 m = 80 m
- Heating mode = 80 m x 0,3 + 40 m = 64 m

Capacity correction ratio (height difference = 0)
- Cooling mode = 0,91
- Heating mode = 1,00

**4D141191**

### REYA16A




Notes

1. These figures illustrate the capacity correction factor due to the piping length for a standard indoor unit system at maximum load (with the thermostat set to maximum), under standard conditions.
   Moreover, under partial load conditions, there is only a minor deviation for the capacity correction ratio, as shown it the above figures.
2. Method of calculating the capacity of the outdoor units.
   The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity of the outdoor units as mentioned below, whichever is less.

**Indoor connection ratio ≤ 100%.**

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

**Indoor connection ratio > 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 unit |
|---|---|---|---|---|

3. Main liquid pipe size increase

| Model | Standard liquid side Ø | Increased liquid side Ø |
|---|---|---|
| 16HP | 12,7 | 15,9 |

For the allowed system setups and the rules for when to increase the main liquid piping diameter, refer to the installation manual.

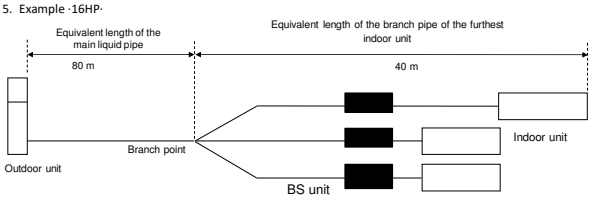
4. Overall equivalent length

| Overall equivalent length | = | Equivalent length of the main pipe | X | Correction factor | + | Equivalent length of the branch pipes |
|---|---|---|---|---|---|---|

Choose the correction factor from the following table.

| Model | Correction ratio for cooling capacity | | Correction ratio for heating capacity | |
|---|---|---|---|---|
| | Standard size | Size increase | Standard size | Size increase |
| 16HP | 1 | 0,5 | 1 | 0,3 |

5. Example ·16HP·




Overall equivalent length
- Cooling mode = 80 m x 0,5 + 40 m = 80 m
- Heating mode = 80 m x 0,3 + 40 m = 64 m

Capacity correction ratio (height difference = 0)
- Cooling mode = 0,92
- Heating mode = 1,00

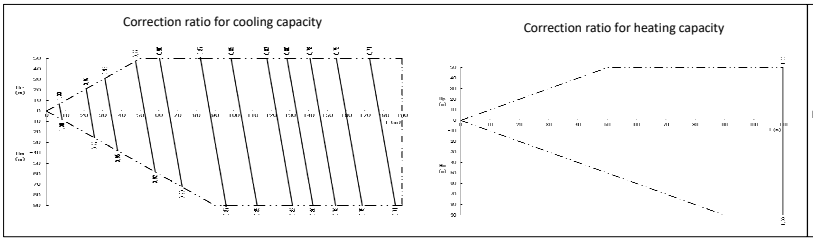
**4D141191**

# 5 Capacity tables

## 5 - 3 Capacity Correction Factor



### REYA18A




Notes

1. These figures illustrate the capacity correction factor due to the piping length for a standard indoor unit system at maximum load (with the thermostat set to maximum), under standard conditions.
   Moreover, under partial load conditions, there is only a minor deviation for the capacity correction ratio, as shown it the above figures.
2. Method of calculating the capacity of the outdoor units.
   The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity of the outdoor units as mentioned below, whichever is less.

**Indoor connection ratio ≤ 100%.**

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

**Indoor connection ratio > 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 unit |
|---|---|---|---|---|

3. Main liquid pipe size increase

| Model | Standard liquid side Ø | Increased liquid side Ø |
|---|---|---|
| 18HP | 12,7 | 15,9 |

For the allowed system setups and the rules for when to increase the main liquid piping diameter, refer to the installation manual.

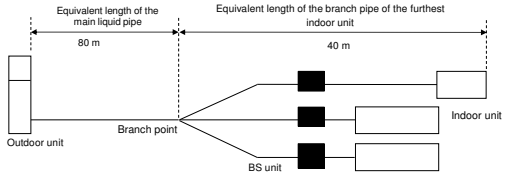
4. Overall equivalent length

| Overall equivalent length | = | Equivalent length of the main pipe | X | Correction factor | + | Equivalent length of the branch pipes |
|---|---|---|---|---|---|---|

Choose the correction factor from the following table.

| Model | Correction ratio for cooling capacity | | Correction ratio for heating capacity | |
|---|---|---|---|---|
| | Standard size | Size increase | Standard size | Size increase |
| 18HP | 1 | 0,5 | 1 | 0,3 |

5. Example ·18HP·

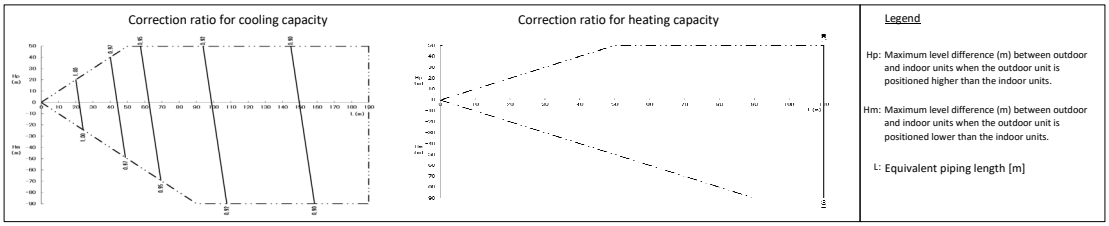



Overall equivalent length
- Cooling mode = 80 m x 0,5 + 40 m = 80 m
- Heating mode = 80 m x 0,3 + 40 m = 64 m

Capacity correction ratio (height difference = 0)
- Cooling mode = 0,88
- Heating mode = 1,00

**4D141191**

### REYA20A




Notes

1. These figures illustrate the capacity correction factor due to the piping length for a standard indoor unit system at maximum load (with the thermostat set to maximum), under standard conditions.
   Moreover, under partial load conditions, there is only a minor deviation for the capacity correction ratio, as shown it the above figures.
2. Method of calculating the capacity of the outdoor units.
   The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity of the outdoor units as mentioned below, whichever is less.

**Indoor connection ratio ≤ 100%.**

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

**Indoor connection ratio > 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 unit |
|---|---|---|---|---|

3. Main liquid pipe size increase

| Model | Standard liquid side Ø | Increased liquid side Ø |
|---|---|---|
| 20HP | 12,7 | 15,9 |

For the allowed system setups and the rules for when to increase the main liquid piping diameter, refer to the installation manual.

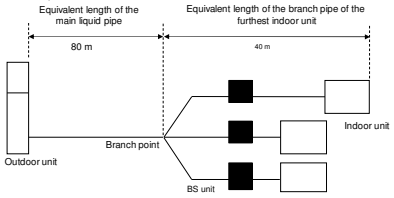
4. Overall equivalent length

| Overall equivalent length | = | Equivalent length of the main pipe | X | Correction factor | + | Equivalent length of the branch pipes |
|---|---|---|---|---|---|---|

Choose the correction factor from the following table.

| Model | Correction ratio for cooling capacity | | Correction ratio for heating capacity | |
|---|---|---|---|---|
| | Standard size | Size increase | Standard size | Size increase |
| 20HP | 1 | 0,5 | 1 | 0,3 |

5. Example ·20HP·




Overall equivalent length
- Cooling mode = 80 m x 0,5 + 40 m = 80 m
- Heating mode = 80 m x 0,3 + 40 m = 64 m

Capacity correction ratio (height difference = 0)
- Cooling mode = 0,93
- Heating mode = 1,00

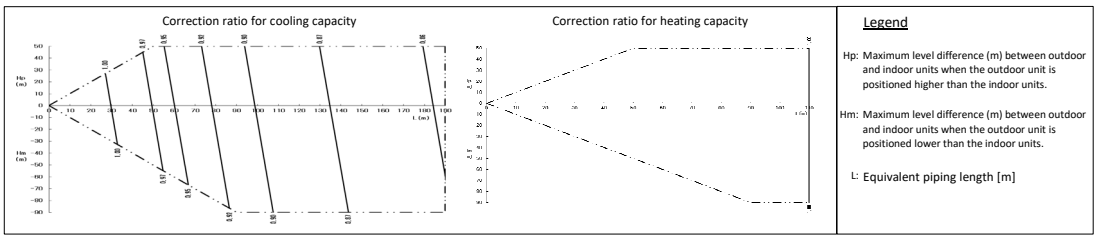
**4D141191**

# 5 Capacity tables

## 5 - 3 Capacity Correction Factor



### REYA22A




Notes

1. These figures illustrate the capacity correction factor due to the piping length for a standard indoor unit system at maximum load (with the thermostat set to maximum), under standard conditions. Moreover, under partial load conditions, there is only a minor deviation for the capacity correction ratio, as shown it the above figures.
2. Method of calculating the capacity of the outdoor units.
   The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity of the outdoor units as mentioned below, whichever is less.

**Indoor connection ratio ≤ 100%.**

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

**Indoor connection ratio > 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 unit |
|---|---|---|---|---|

3. Main liquid pipe size increase

| Model | Standard liquid side Ø | Increased liquid side Ø |
|---|---|---|
| 22HP | 12,7 | 15,9 |

For the allowed system setups and the rules for when to increase the main liquid piping diameter, refer to the installation manual.

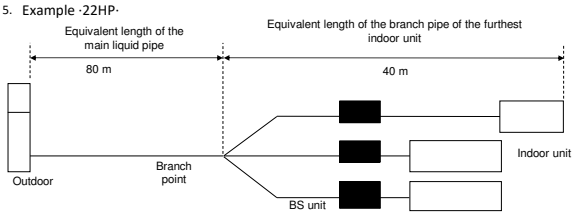
4. Overall equivalent length

| Overall equivalent length | = | Equivalent length of the main pipe | X | Correction factor | + | Equivalent length of the branch pipes |
|---|---|---|---|---|---|---|

Choose the correction factor from the following table.

| Model | Correction ratio for cooling capacity | | Correction ratio for heating capacity | |
|---|---|---|---|---|
| | Standard size | Size increase | Standard size | Size increase |
| 22HP | 1 | 0,5 | 1 | 0,3 |

5. Example ·22HP·

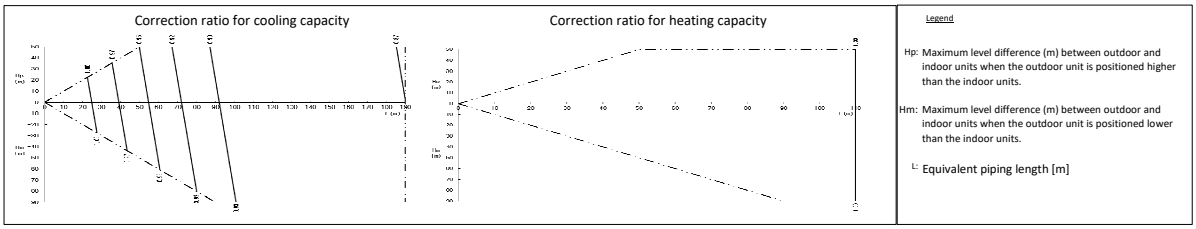



Overall equivalent length
- Cooling mode = 80 m x 0,5 + 40 m = 80 m
- Heating mode = 80 m x 0,3 + 40 m = 64 m

Capacity correction ratio (height difference = 0)
- Cooling mode = 0,92
- Heating mode = 1,00

**4D141191**

### REYA24A




Notes

1. These figures illustrate the capacity correction factor due to the piping length for a standard indoor unit system at maximum load (with the thermostat set to maximum), under standard conditions. Moreover, under partial load conditions, there is only a minor deviation for the capacity correction ratio, as shown it the above figures.
2. Method of calculating the capacity of the outdoor units.
   The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity of the outdoor units as mentioned below, whichever is less.

**Indoor connection ratio ≤ 100%.**

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

**Indoor connection ratio > 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 unit |
|---|---|---|---|---|

3. Main liquid pipe size increase

| Model | Standard liquid side Ø | Increased liquid side Ø |
|---|---|---|
| 24HP | 12,7 | 15,9 |

For the allowed system setups and the rules for when to increase the main liquid piping diameter, refer to the installation manual.

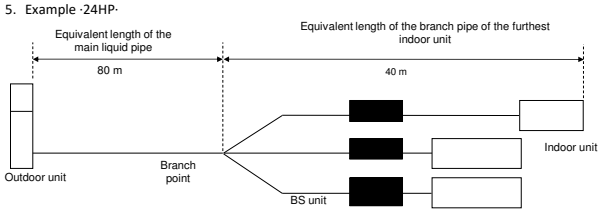
4. Overall equivalent length

| Overall equivalent length | = | Equivalent length of the main pipe | X | Correction factor | + | Equivalent length of the branch pipes |
|---|---|---|---|---|---|---|

Choose the correction factor from the following table.

| Model | Correction ratio for cooling capacity | | Correction ratio for heating capacity | |
|---|---|---|---|---|
| | Standard size | Size increase | Standard size | Size increase |
| 24HP | 1 | 0,5 | 1 | 0,3 |

5. Example ·24HP·




Overall equivalent length
- Cooling mode = 80 m x 0,5 + 40 m = 80 m
- Heating mode = 80 m x 0,3 + 40 m = 64 m

Capacity correction ratio (height difference = 0)
- Cooling mode = 0,91
- Heating mode = 1,00

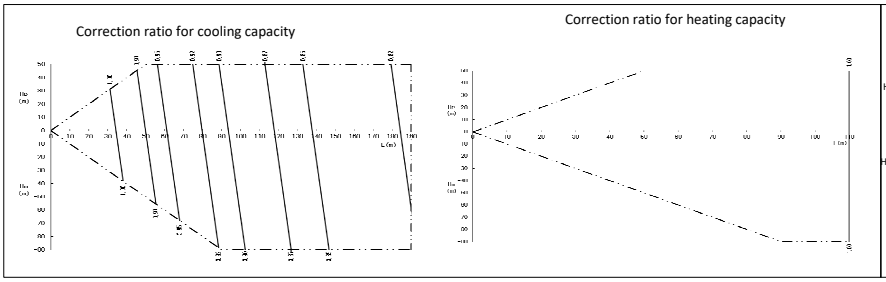
**4D141191**

# 5 Capacity tables

## 5 - 3 Capacity Correction Factor



### REYA26A




Legend

Hp: Maximum level difference (m) between outdoor and indoor units when the outdoor unit is positioned higher than the indoor units.

Hm: Maximum level difference (m) between outdoor and indoor units when the outdoor unit is positioned lower than the indoor units.

L: Equivalent piping length [m]

Notes

1. These figures illustrate the capacity correction factor due to the piping length for a standard indoor unit system at maximum load (with the thermostat set to maximum), under standard conditions.

   Moreover, under partial load conditions, there is only a minor deviation for the capacity correction ratio, as shown it the above figures.

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

   **Indoor connection ratio ≤ 100%.**

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

   **Indoor connection ratio > 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 unit |
   |---|---|---|---|---|

3. Main liquid pipe size increase

| Model | Standard liquid side Ø | Increased liquid side Ø |
|---|---|---|
| 26HP | 15,9 | 19,1 |

   For the allowed system setups and the rules for when to increase the main liquid piping diameter, refer to the installation manual.

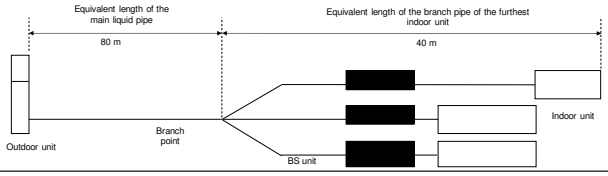
4. Overall equivalent length

   | Overall equivalent length | = | Equivalent length of the main pipe | X | Correction factor | + | Equivalent length of the branch pipes |
   |---|---|---|---|---|---|---|

   Choose the correction factor from the following table.

| Model | Correction ratio for cooling capacity | | Correction ratio for heating capacity | |
|---|---|---|---|---|
| | Standard size | Size increase | Standard size | Size increase |
| 26HP | 1 | 0,5 | 1 | 0,4 |

5. Example ·26HP·

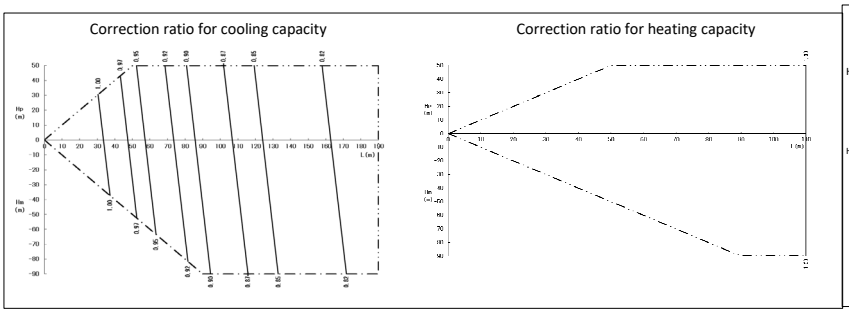



Overall equivalent length
- Cooling mode = 80 m x 0,5 + 40 m = 80 m
- Heating mode = 80 m x 0,4 + 40 m = 72 m

Capacity correction ratio (height difference = 0)
- Cooling mode = 0,92
- Heating mode = 1,00

**4D141191**

### REYA28A




Legend

Hp: Maximum level difference (m) between outdoor and indoor units when the outdoor unit is positioned higher than the indoor units.

Hm: Maximum level difference (m) between outdoor and indoor units when the outdoor unit is positioned lower than the indoor units.

L: Equivalent piping length [m]

Notes

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

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

   **Indoor connection ratio ≤ 100%.**

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

   **Indoor connection ratio > 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 unit |
   |---|---|---|---|---|

3. Main liquid pipe size increase

| Model | Standard liquid side Ø | Increased liquid side Ø |
|---|---|---|
| 28HP | 15,9 | 19,1 |

   For the allowed system setups and the rules for when to increase the main liquid piping diameter, refer to the installation manual.

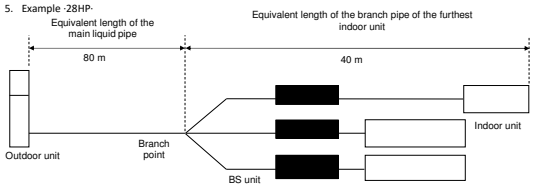
4. Overall equivalent length

   | Overall equivalent length | = | Equivalent length of the main pipe | X | Correction factor | + | Equivalent length of the branch pipes |
   |---|---|---|---|---|---|---|

   Choose the correction factor from the following table.

| Model | Correction ratio for cooling capacity | | Correction ratio for heating capacity | |
|---|---|---|---|---|
| | Standard size | Size increase | Standard size | Size increase |
| 28HP | 1 | 0,5 | 1 | 0,4 |

5. Example ·28HP·




Overall equivalent length
- Cooling mode = 80 m x 0,5 + 40 m = 80 m
- Heating mode = 80 m x 0,4 + 40 m = 72 m

Capacity correction ratio (height difference = 0)
- Cooling mode = 0,91
- Heating mode = 1,00

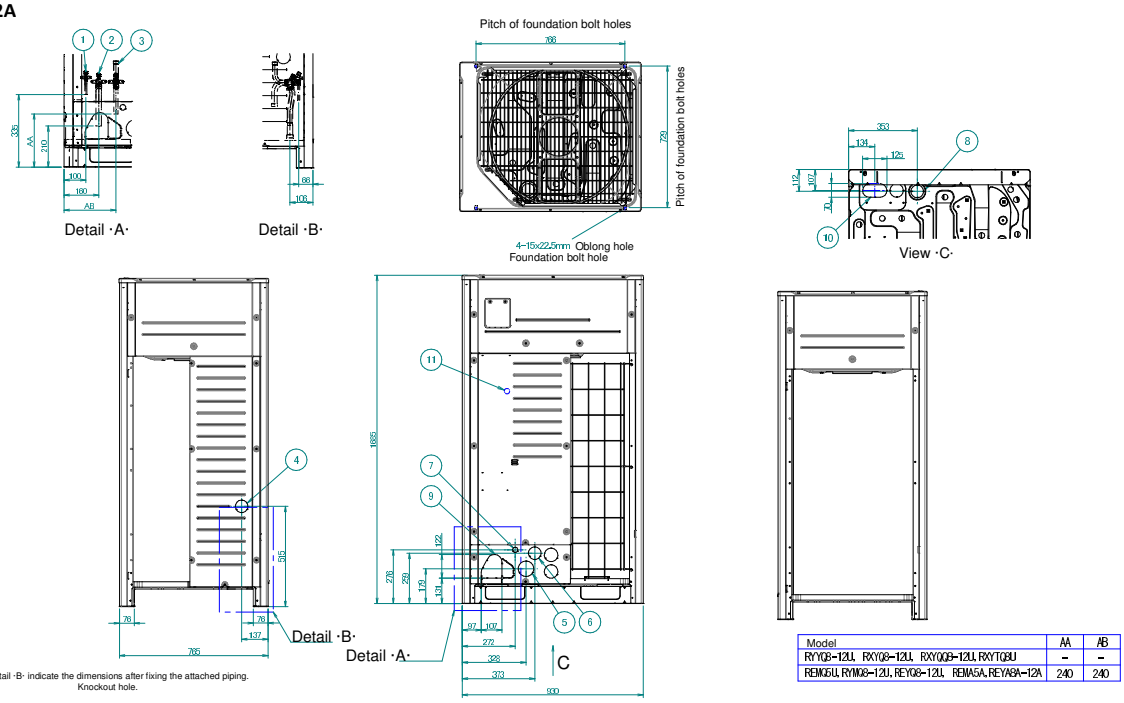
**4D141191**

# 6 Dimensional drawings

## 6 - 1 Dimensional Drawings



**REYA8-12A**
**REMA5A**




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·) |

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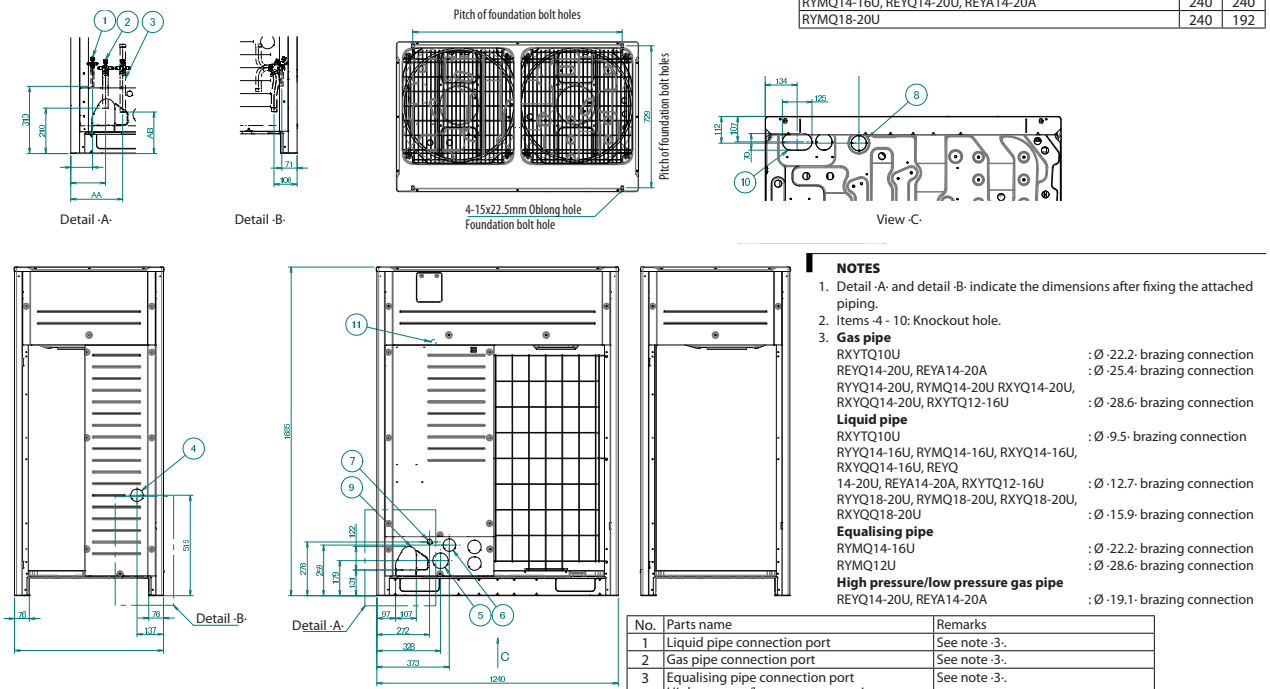
**REYA14-20A**

| 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·) |

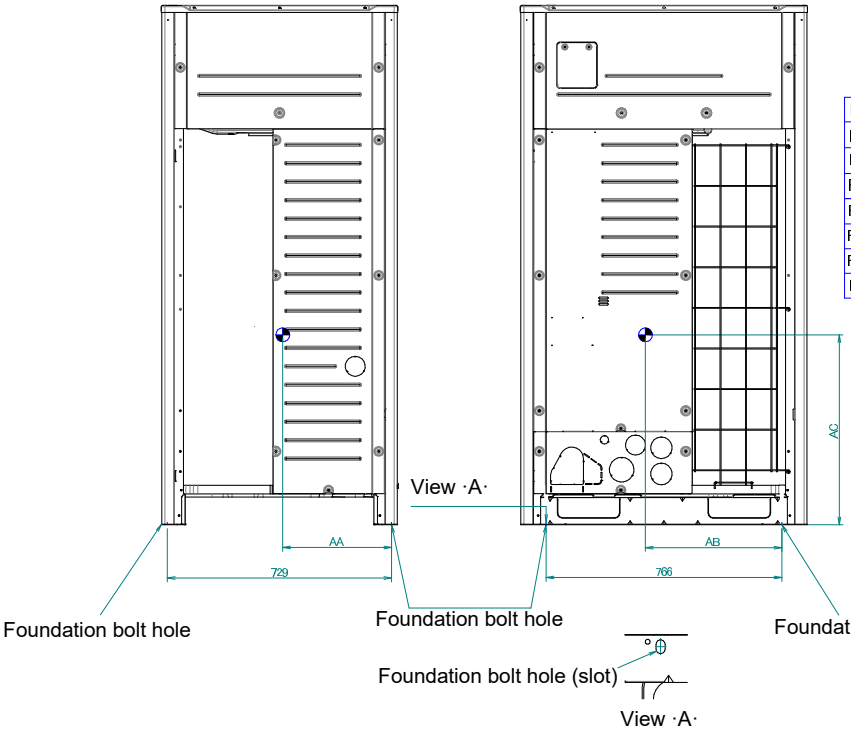
**2D119091A**

# 7 Centre of gravity

## 7 - 1 Centre of Gravity



**REYA8-12A**
**REMA5A**




| 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 |

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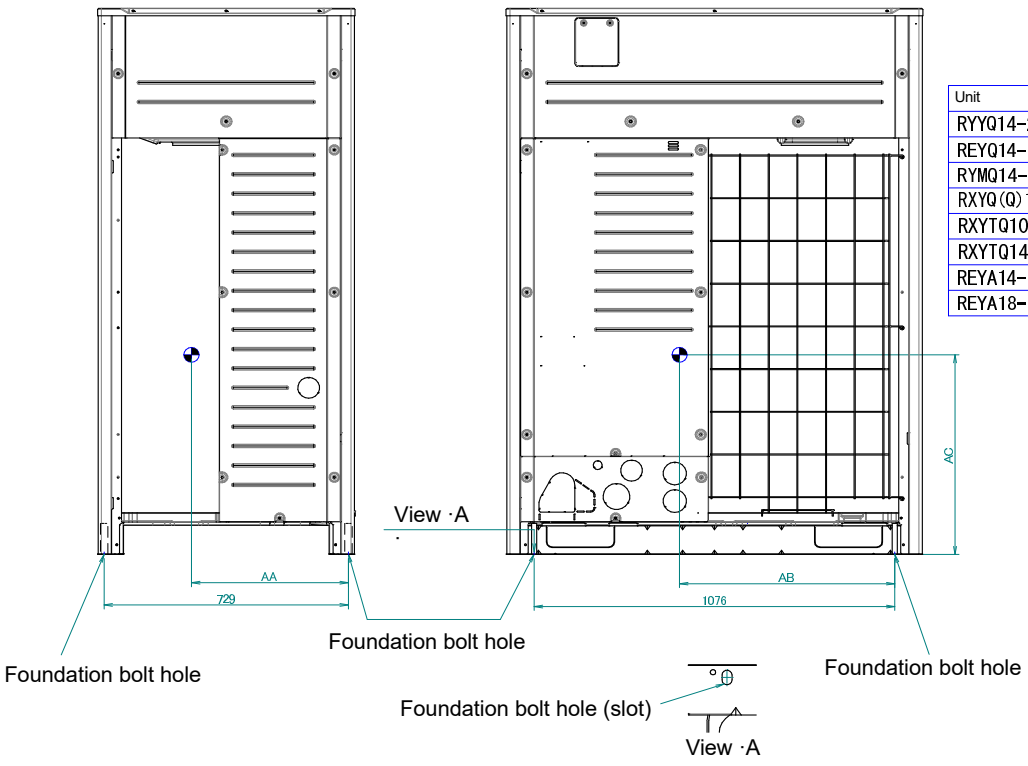
**REYA14-20A**




| 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 |

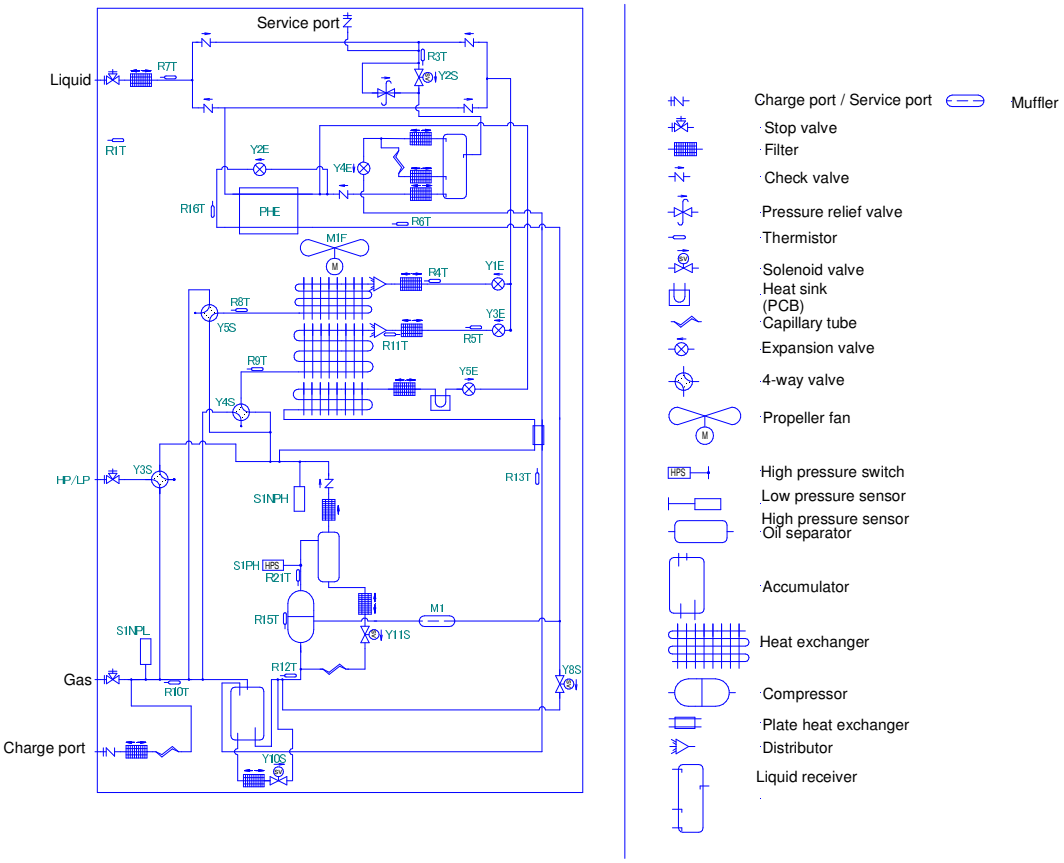
3D119704A

# 8 Piping diagrams

## 8 - 1 Piping Diagrams

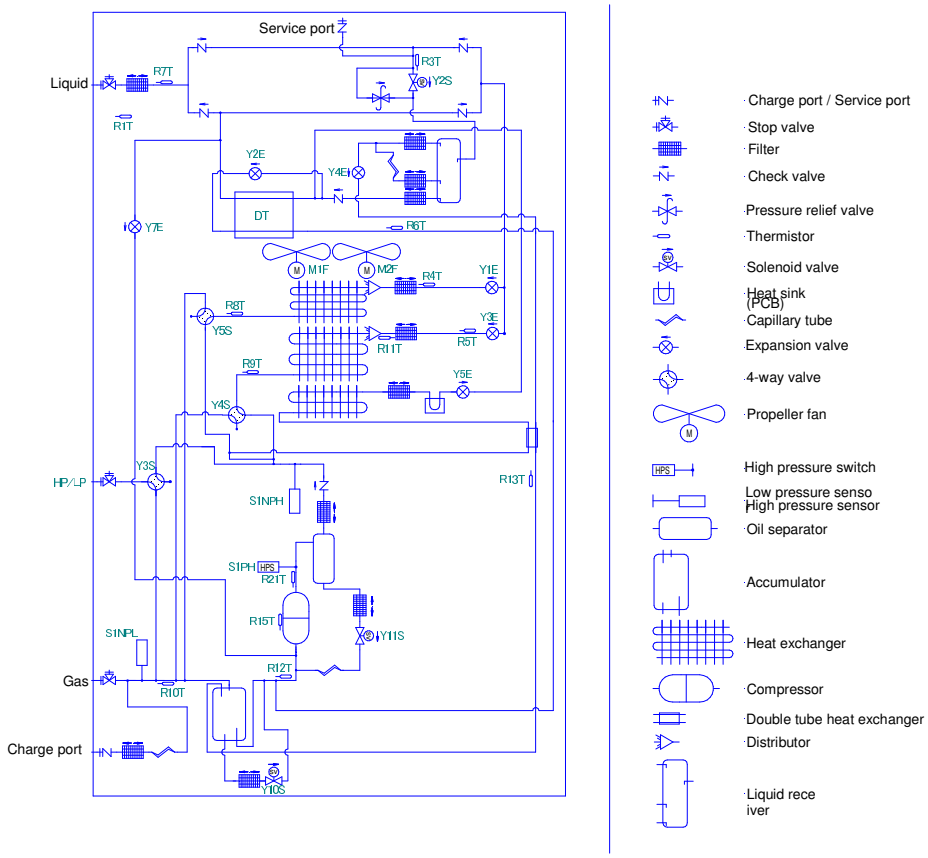


**REYA8-12A**
**REMA5A**




**3D138283**

**REYA14-20A**




**3D138284**

# 9 Wiring diagrams

## 9 - 1 Wiring Diagrams - Three Phase

### REYA8-12A / REMA5A

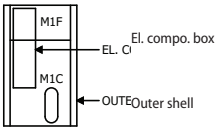
**NOTES to go through before starting the unit**

1. Symbols:

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

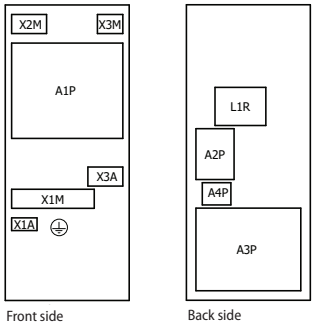
2. Refer to the installation or service manual on how to use BS1 ~ BS3 push buttons and DS1 ~ DS2 DIP switches.
3. Do not operate the unit by short-circuiting protection device S1PH.
4. Refer to the installation manual for indoor-outdoor transmission F1-F2 and outdoor-multi transmission Q1-Q2 wiring.
5. When using the central control system, connect outdoor-outdoor transmission F1-F2.
6. The capacity of the contact is 220~240V AC - 0,5A (Rush current needs 3A or less).
7. Use dry contact for micro-current (10mA or less, 15V DC).
8. When using the optional adapter, refer to the installation manual of the optional adapter.

**LAYOUT OF M1C, M1F, M2F**




**TERMINAL OF M1C**


**POSITION IN SWITCH BOX**




**LEGEND**

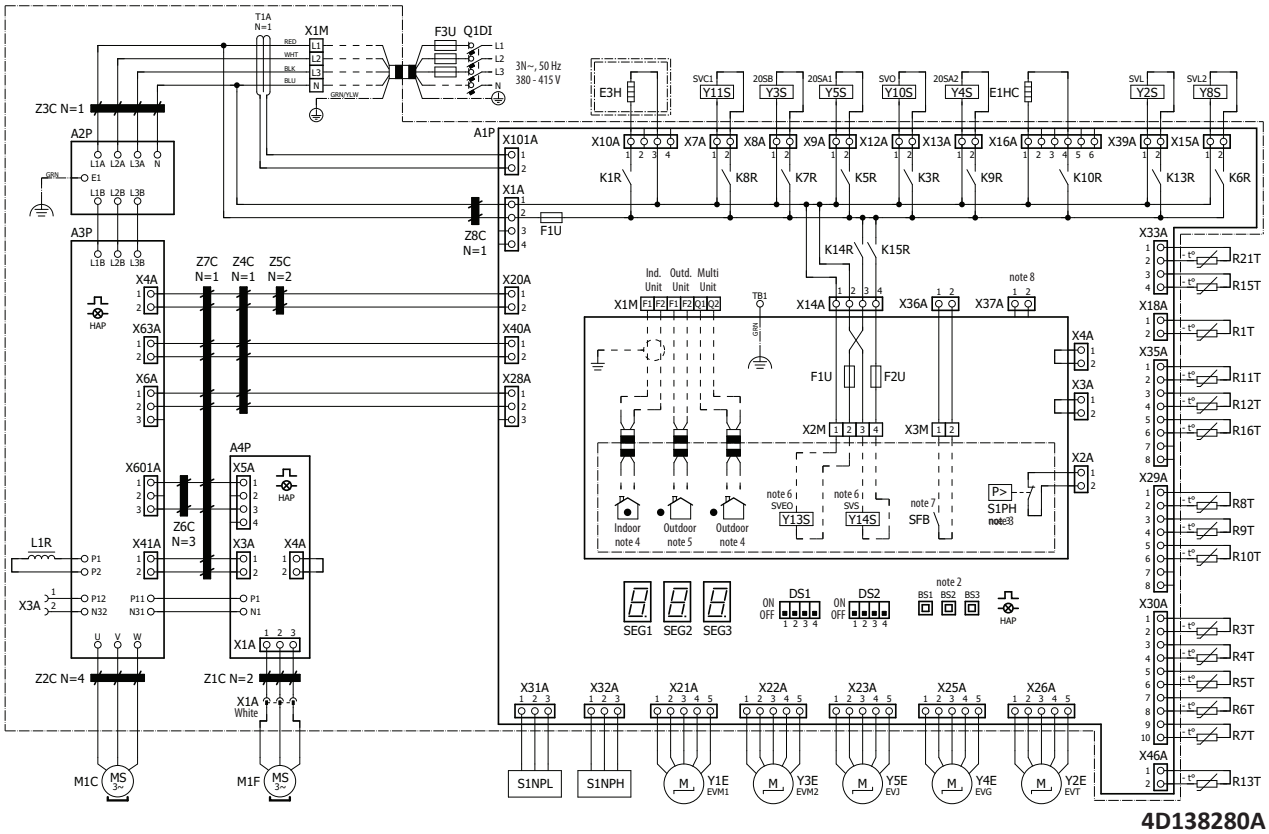
| Part n° | | Description |
|---|---|---|
| A1P | | Printed circuit board (main) |
| A2P | | Printed circuit board (noise filter) |
| A3P | | Printed circuit board (inverter) |
| A4P | | Printed circuit board (fan) |
| BS* (A1P) | | Push button switch |
| DS* (A1P) | | Dipswitch |
| E1HC | | Crank case heater |
| E3H | * | Bottom plate heater |
| F1U (A1P) | | Fuse T 10 A 250 V |
| F1U, F2U | | Fuse T 1 A 250 V |
| F3U | # | Field fuse |
| HAP (A1P) | | Running LED (service monitor-green) |
| K*R (A*P) | | Relay on PCB |
| L1R | | Reactor |
| M1C | | Motor (compressor) |
| M1F | | Motor (fan) |
| Q1DI | # | Earth leakage circuit breaker |
| R1T | | Thermistor (Air) |
| R3T | | Thermistor (Liquid main) |
| R4T | | Thermistor (Heat exch. liquid upper) |
| R5T | | Thermistor (Heat exch. liquid lower) |
| R6T | | Thermistor (Subcool heat exch. gas) |
| R7T | | Thermistor (Subcool heat exch. liquid) |
| R8T | | Thermistor (Heat exch. gas upper) |
| R9T | | Thermistor (Heat exch. gas lower) |
| R10T | | Thermistor (Suction) |
| R11T | | Thermistor (Heat exch. de-icer) |
| R12T | | Thermistor (Suction compressor) |

| Part n° | | Description |
|---|---|---|
| R13T | | Thermistor (Receiver gas) |
| R15T | | Thermistor (M1C body) |
| R16T | | Thermistor (Gas injection) |
| R21T | | Thermistor (M1C discharge pipe) |
| S1NPH | | High pressure sensor |
| S1NPL | | Low pressure sensor |
| S1PH | | High pressure switch |
| SEG* (A1P) | | 7-segment display |
| SFB | # | Mechanical ventilation error input |
| T1A | | Current sensor |
| X*A | | Connector |
| X*M | | Terminal strip |
| Y1E | | Electronic exp. valve (Heat exch. upper) |
| Y2E | | Electronic exp. valve (Subc. heat exch.) |
| Y3E | | Electronic exp. valve (Heat exch. lower) |
| Y4E | | Electronic exp. valve (Receiver gas) |
| Y5E | | Electronic exp. valve (Inverter cooling) |
| Y2S | | Solenoïd valve (Liquid pipe) |
| Y3S | | Solenoïd valve (HP/LP gas pipe) |
| Y4S | | Solenoïd valve (Heat exchanger lower) |
| Y5S | | Solenoïd valve (Heat exchanger upper) |
| Y8S | | Solenoïd valve (Gas injection) |
| Y10S | | Solenoïd valve (Accu oil return) |
| Y11S | | Solenoïd valve (M1C oil return) |
| Y13S | # | Error operation output (SVEO) |
| Y14S | # | Leak sensor output (SVS) |
| Z*C | | Noise filter (ferrite core) |

* : optional #: field supply

**4D138280A**

### REYA8-12A
### REMA5A




**4D138280A**

# 9 Wiring diagrams

## 9 - 1 Wiring Diagrams - Three Phase



### REYA14-20A

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

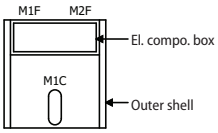
1. Symbols:

X1M : Main terminal
: Earth wiring
: Field wire
: Field cable
: Screened conductor
(1) : Several wiring possibilities

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

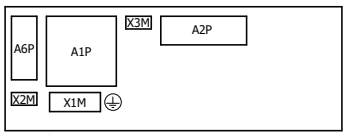
2. Refer to the installation or service manual on how to use BS1 ~ BS3 push buttons and DS1 ~ DS2 DIP switches.
3. Do not operate the unit by short-circuiting protection device S1PH.
4. Refer to the installation manual for indoor-outdoor transmission F1-F2 and outdoor-multi transmission Q1-Q2 wiring.
5. When using the central control system, connect outdoor-outdoor transmission F1-F2.
6. The capacity of the contact is 220~240V AC - 0,5A (Rush current needs 3A or less).
7. Use dry contact for micro-current (10mA or less, 15V DC).
8. When using the optional adapter, refer to the installation manual of the optional adapter.

**LAYOUT OF M1C, M1F, M2F**

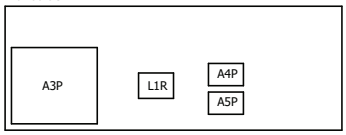



**TERMINAL OF M1C**


**POSITION IN SWITCH BOX**




Front side




Back side

**LEGEND**

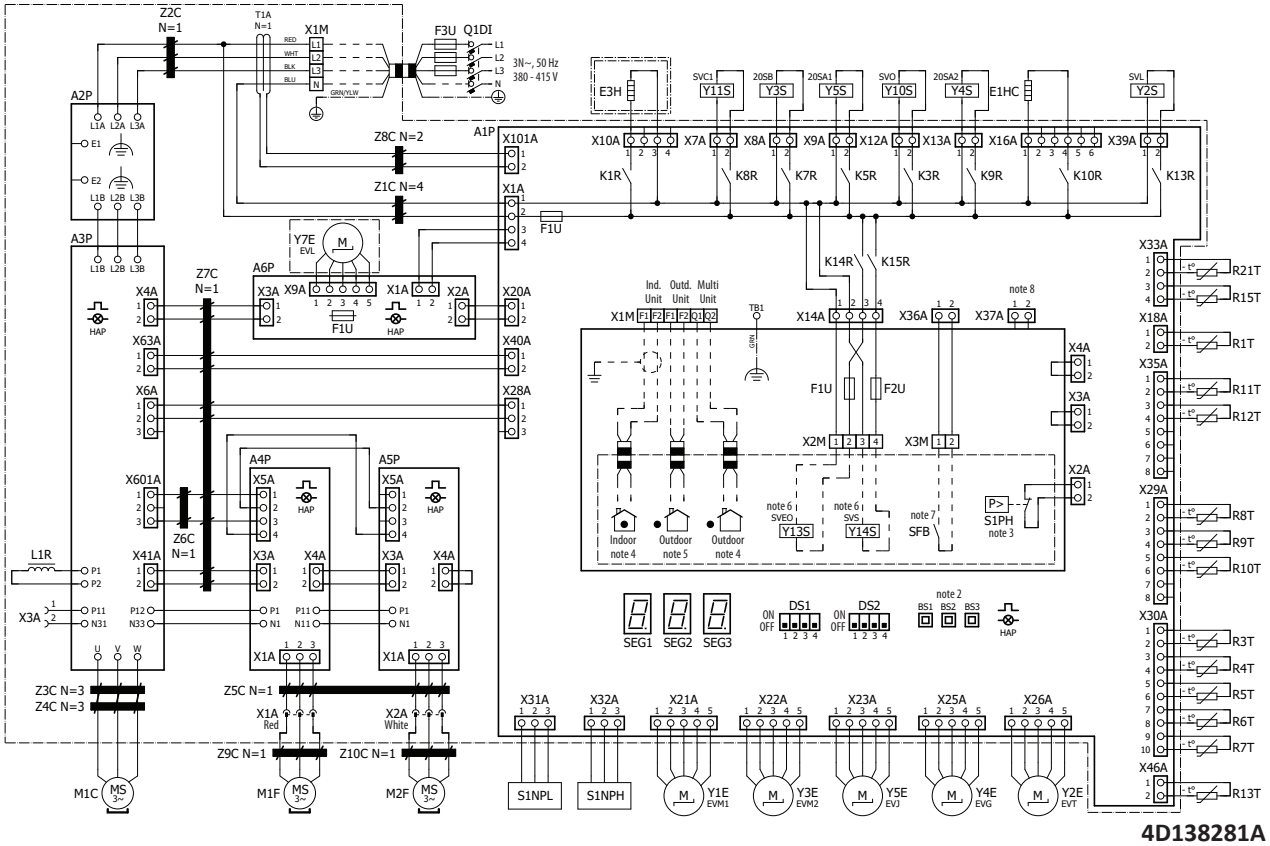
| Part n° | | Description |
|---|---|---|
| A1P | | Printed circuit board (main) |
| A2P | | Printed circuit board (noise filter) |
| A3P | | Printed circuit board (inverter) |
| A4P, A5P | | Printed circuit board (fan) |
| A6P | | Printed circuit board (sub) |
| BS* (A1P) | | Push button switch |
| DS* (A1P) | | Dipswitch |
| E1HC | | Crank case heater |
| E3H | * | Bottom plate heater |
| F1U (A1P) | | Fuse T 10 A 250 V |
| F1U (A6P) | | Fuse 3.15 A 250 V |
| F3U | # | Field fuse |
| HAP (A1P) | | Running LED (service monitor-green) |
| K*R (A*P) | | Relay on PCB |
| L1R | | Reactor |
| M1C | | Motor (compressor) |
| M1F, M2F | | Motor (fan) |
| Q1DI | # | Earth leakage circuit breaker |
| R1T | | Thermistor (Air) |
| R3T | | Thermistor (Liquid main) |
| R4T | | Thermistor (Heat exch. liquid upper) |
| R5T | | Thermistor (Heat exch. liquid lower) |
| R6T | | Thermistor (Subcool heat exch. gas) |
| R7T | | Thermistor (Subcool heat exch. liquid) |
| R8T | | Thermistor (Heat exch. gas upper) |
| R9T | | Thermistor (Heat exch. gas lower) |
| R10T | | Thermistor (Suction) |
| R11T | | Thermistor (Heat exch. de-icer) |
| R12T | | Thermistor (Suction compressor) |

| Part n° | | Description |
|---|---|---|
| R13T | | Thermistor (Receiver gas) |
| R15T | | Thermistor (M1C body) |
| R21T | | Thermistor (M1C discharge pipe) |
| S1NPH | | High pressure sensor |
| S1NPL | | Low pressure sensor |
| S1PH | | High pressure switch |
| SEG* (A1P) | | 7-segment display |
| SFB | # | Mechanical ventilation error input |
| T1A | | Current sensor |
| X*A | | Connector |
| X*M | | Terminal strip |
| Y1E | | Electronic exp. valve (Heat exch. upper) |
| Y2E | | Electronic exp. valve (Subc. heat exch.) |
| Y3E | | Electronic exp. valve (Heat exch. lower) |
| Y4E | | Electronic exp. valve (Receiver gas) |
| Y5E | | Electronic exp. valve (Inverter cooling) |
| Y7E | | Electronic exp. valve (Liquid injection) |
| Y2S | | Solenoïd valve (Liquid pipe) |
| Y3S | | Solenoïd valve (HP/LP gas pipe) |
| Y4S | | Solenoïd valve (Heat exchanger lower) |
| Y5S | | Solenoïd valve (Heat exchanger upper) |
| Y10S | | Solenoïd valve (Accu oil return) |
| Y11S | | Solenoïd valve (M1C oil return) |
| Y13S | # | Error operation output (SVEO) |
| Y14S | # | Leak sensor output (SVS) |
| Z*C | | Noise filter (ferrite core) |

* : optional #: field supply

**4D138281A**

### REYA14-20A




**4D138281A**

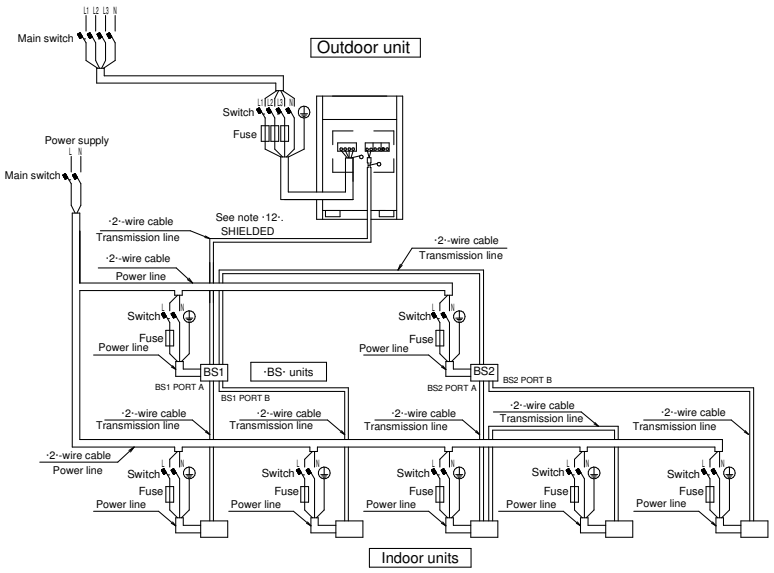
# 10 External connection diagrams

## 10 - 1 External Connection Diagrams

**REYA-A**
**REMA5A**

VRV5
Heat recovery

External connection diagram



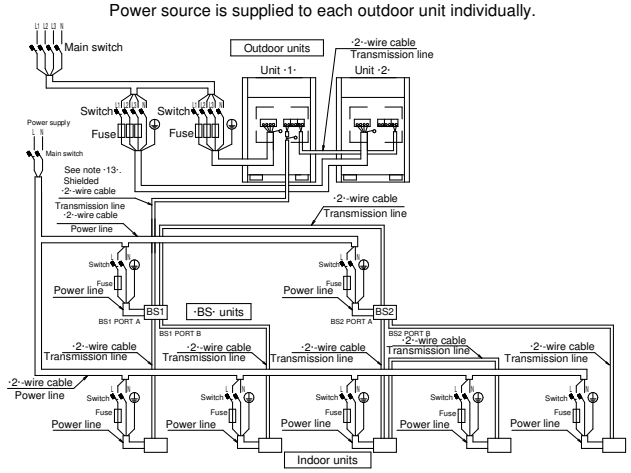

1. All wiring, components and materials to be procured on-site must comply with the applicable legislation.
2. Use copper conductors only
3. For more details, refer to the wiring diagram of the unit.
4. Install a circuit breaker for safety.
5. All field wiring and components must be provided by an authorised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

**3D138298**

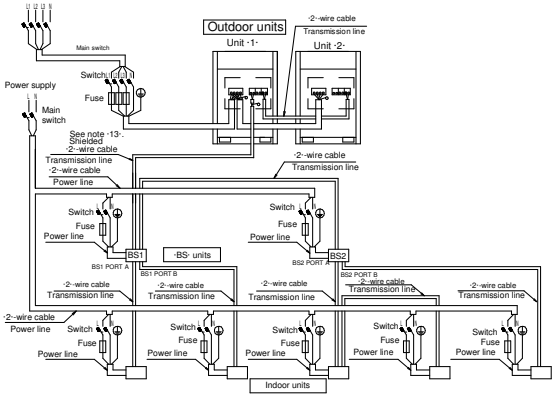
**REYA-A**
**REMA5A**

VRV5 Heat recovery
External connection diagram

Power source is supplied to each outdoor unit individually.




Power source is connected in series between the units.




1. All wiring, components and materials to be procured on-site must comply with the applicable legislation.
2. Use copper conductors only
3. For more details, refer to the wiring diagram of the unit.
4. Install a circuit breaker for safety.
5. All field wiring and components must be provided by an authorised electrician.
6. Unit has to be grounded in compliance with the applicable legislation.
7. The wiring shown is a general points-of-connection guide and is not intended to include all details for a specific installation.
8. Make sure to install the switch and the fuse to the power line of each equipement.
9. Install a main to switch to (if necessary) immediately interrupt all the system's power sources.
10. If there exists the possibility of reversed phase, loose phase or momentary blackout, or if the power goes on and off while the product is operating, attach a reversed phase protection circuit locally.
    Running the product in reversed phase may break the compressor and other parts.
11. Install an earth leakage circuit breaker.
12. The capacity of UNIT1 must be larger than that of UNIT2 when the power source is connected in series between the units.
13. See outdoor unit manual for shielding the ·F1F2· wire

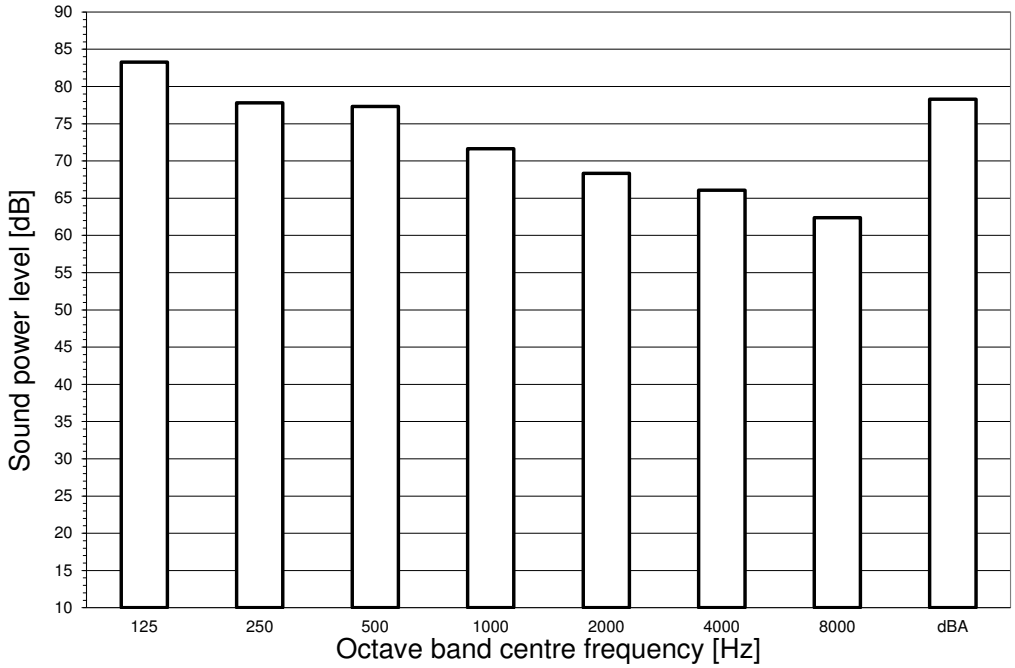
**3D141220**

# 11 Sound data

## 11 - 1 Sound Power Spectrum - Cooling



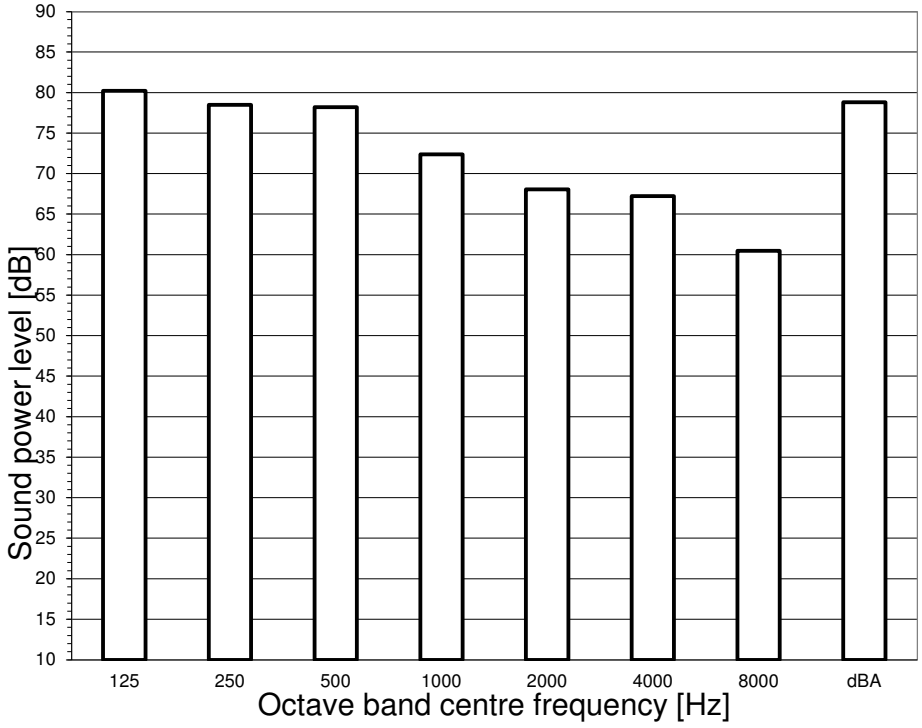
**REYA8A**
**REMA5A**




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

**3D138299**

**REYA10A**



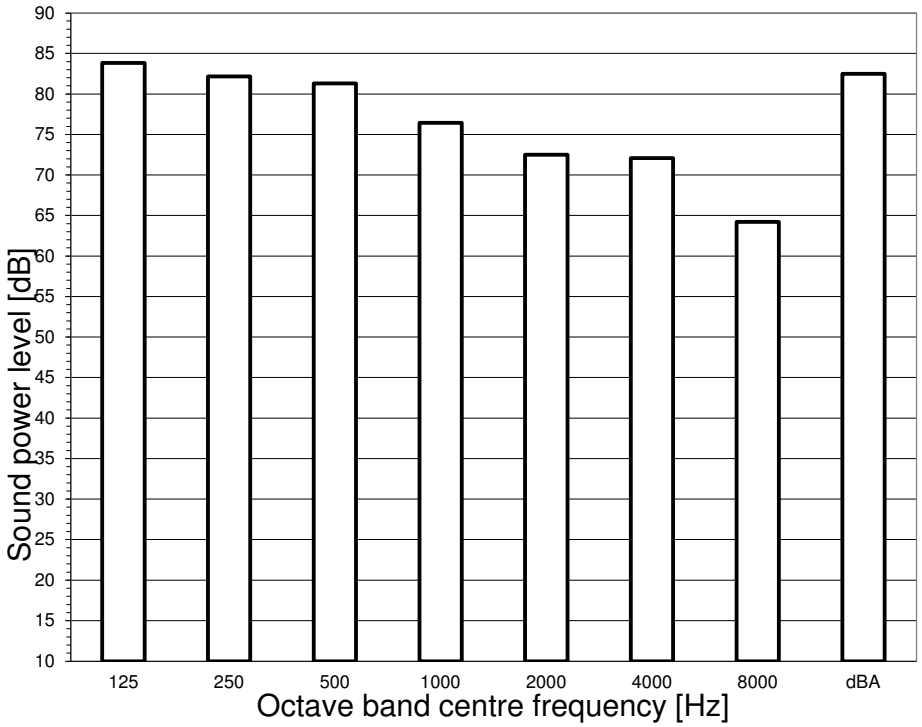

Notes
- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity 0dB = ·10^ -12 W·
- Measured according to ISO 3744

**3D141170**

# 11 Sound data

## 11 - 1 Sound Power Spectrum - Cooling

**REYA12A**

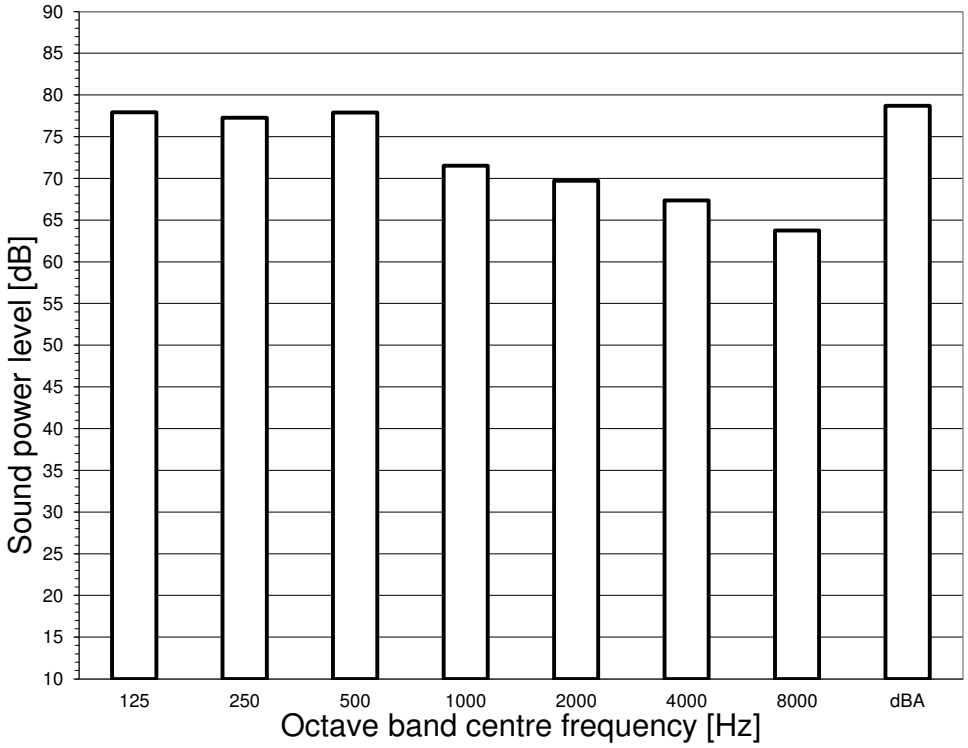



Notes

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

**3D141171**

**REYA14A**




Notes

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

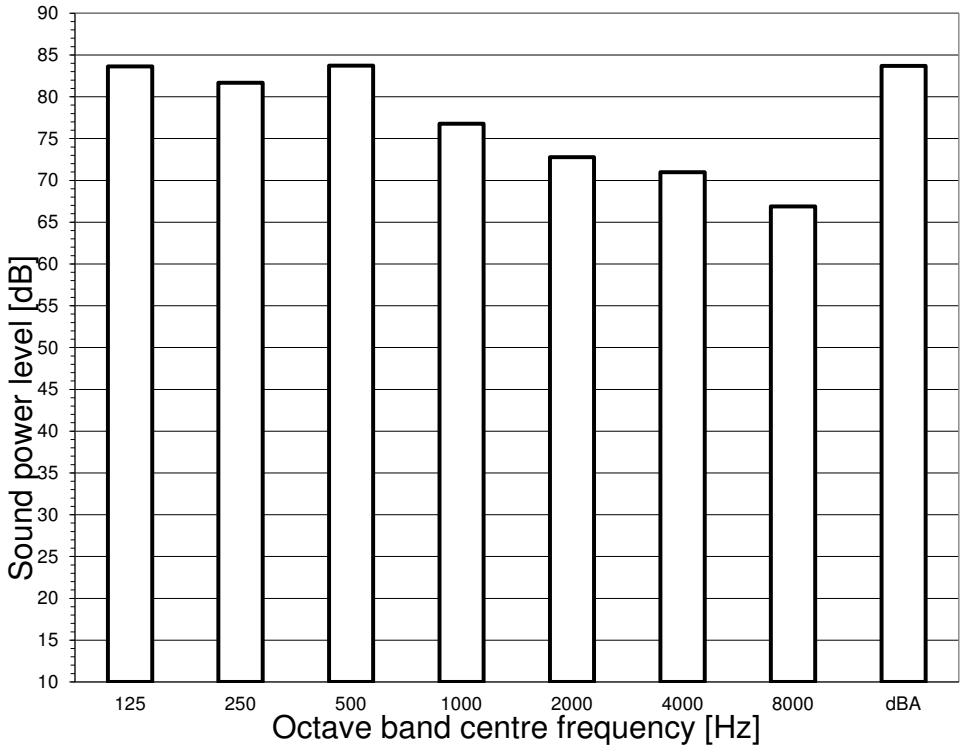
**3D141172**

# 11 Sound data

## 11 - 1 Sound Power Spectrum - Cooling



**REYA16A**

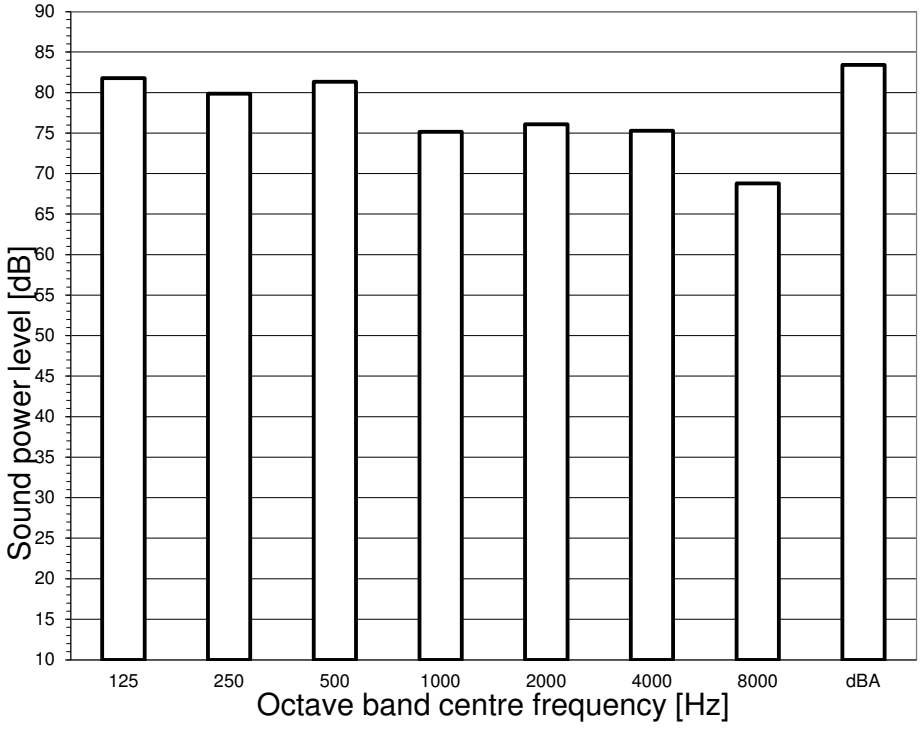



Notes

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

**3D141173**

**REYA18A**




Notes

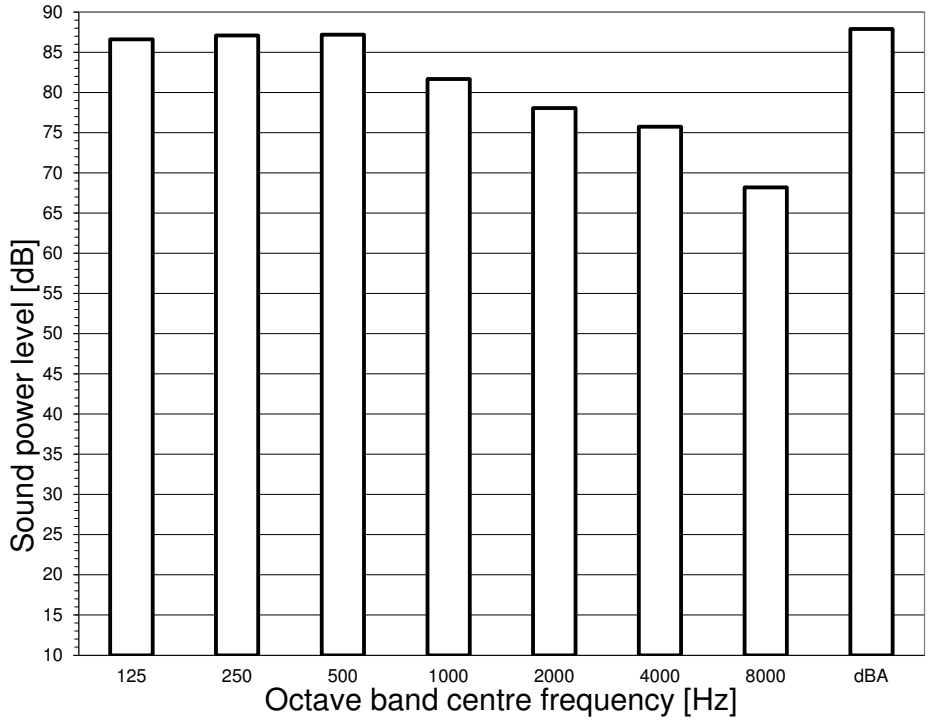
- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity 0dB = ·10^ -12 W·
- Measured according to ISO 3744

**3D141174**

# 11 Sound data

## 11 - 1 Sound Power Spectrum - Cooling

**REYA20A**




Notes

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

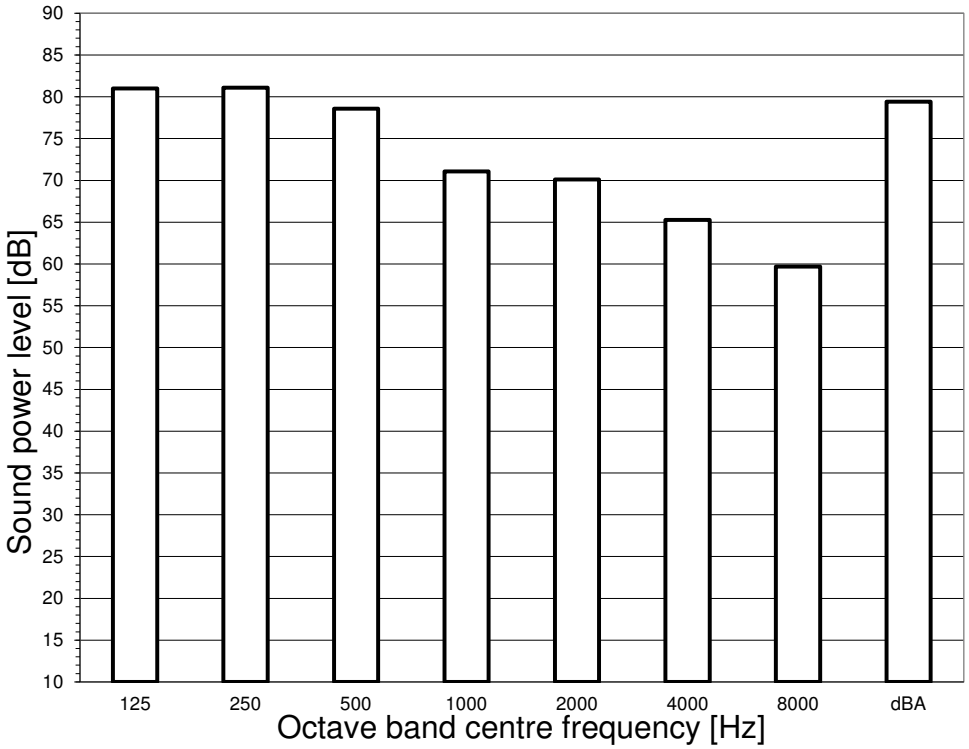
**3D141175**

# 11 Sound data

## 11 - 2 Sound Power Spectrum - Heating



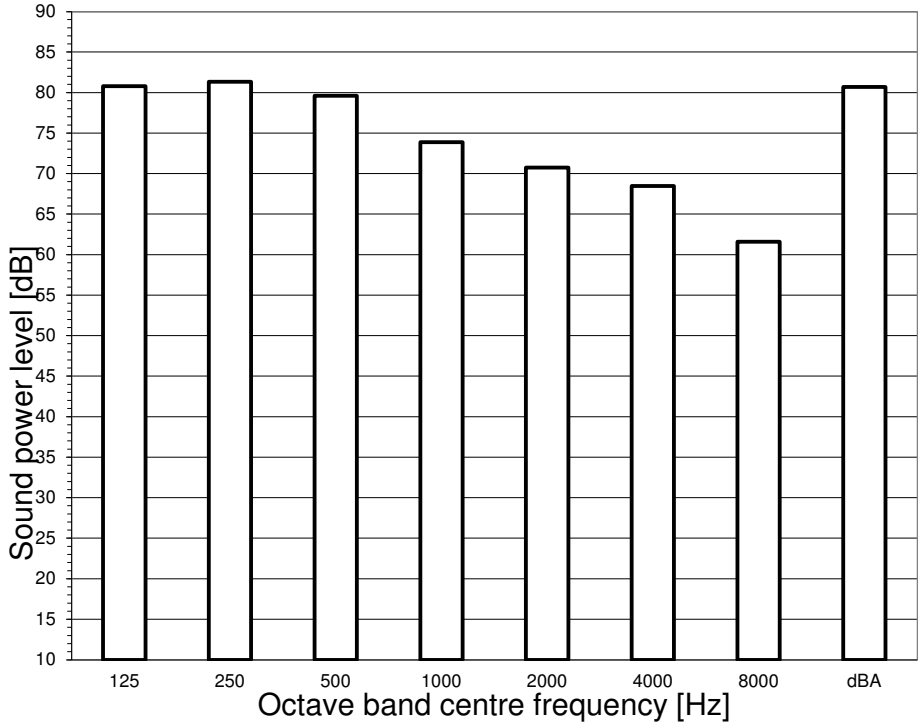
**REYA8A**
**REMA5A**




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

**3D138299**

**REYA10A**



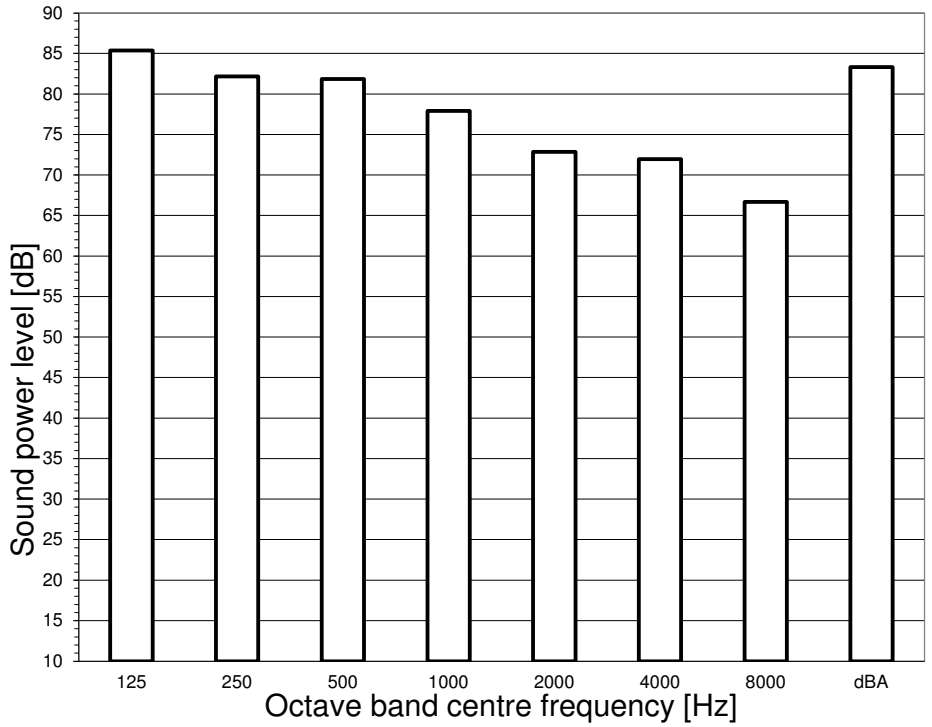

Notes
- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity 0dB = ·10^ -12 W·
- Measured according to ISO 3744

**3D141170**

# 11 Sound data

## 11 - 2 Sound Power Spectrum - Heating

**REYA12A**

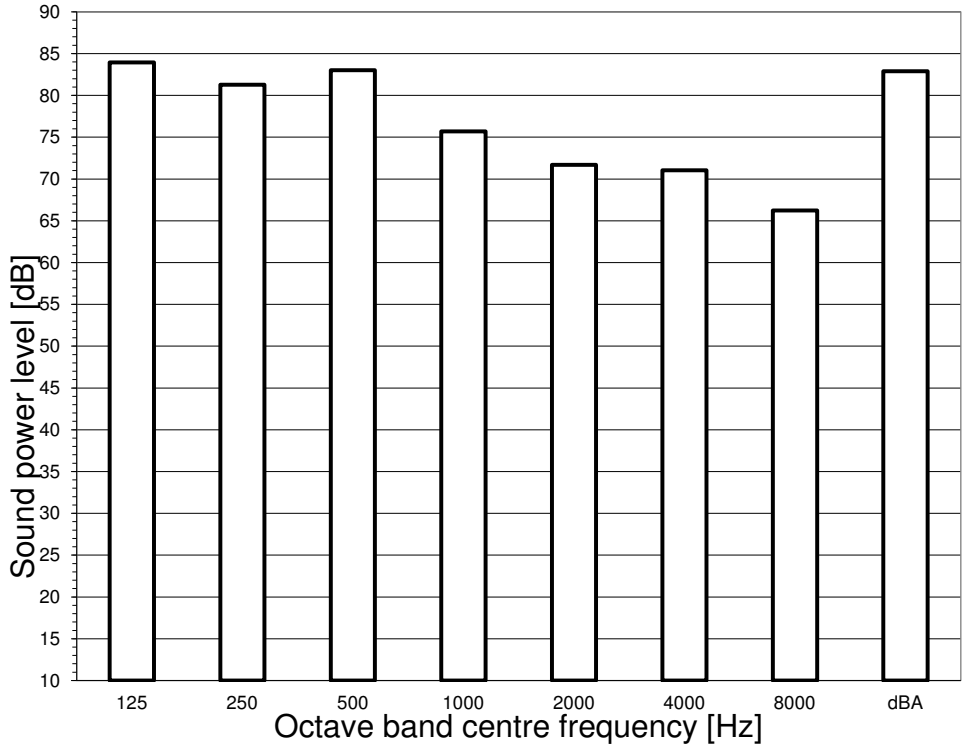



Notes

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

**3D141171**

**REYA14A**




Notes

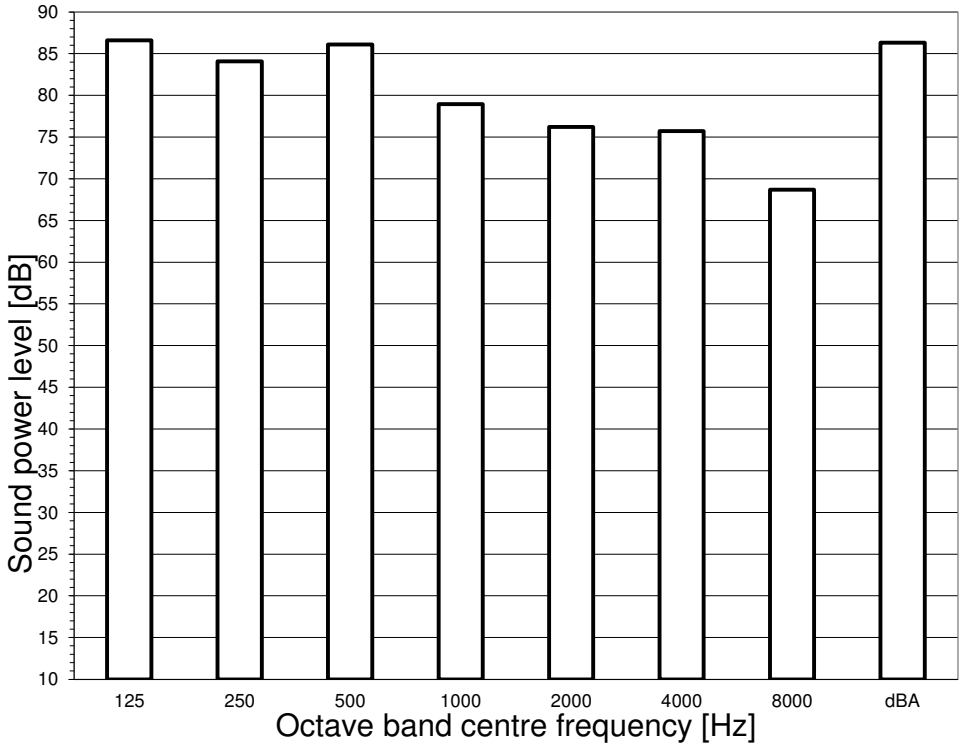
- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity 0dB = ·10^ -12 W·
- Measured according to ISO 3744

**3D141172**

# 11 Sound data

## 11 - 2 Sound Power Spectrum - Heating

**REYA16A**

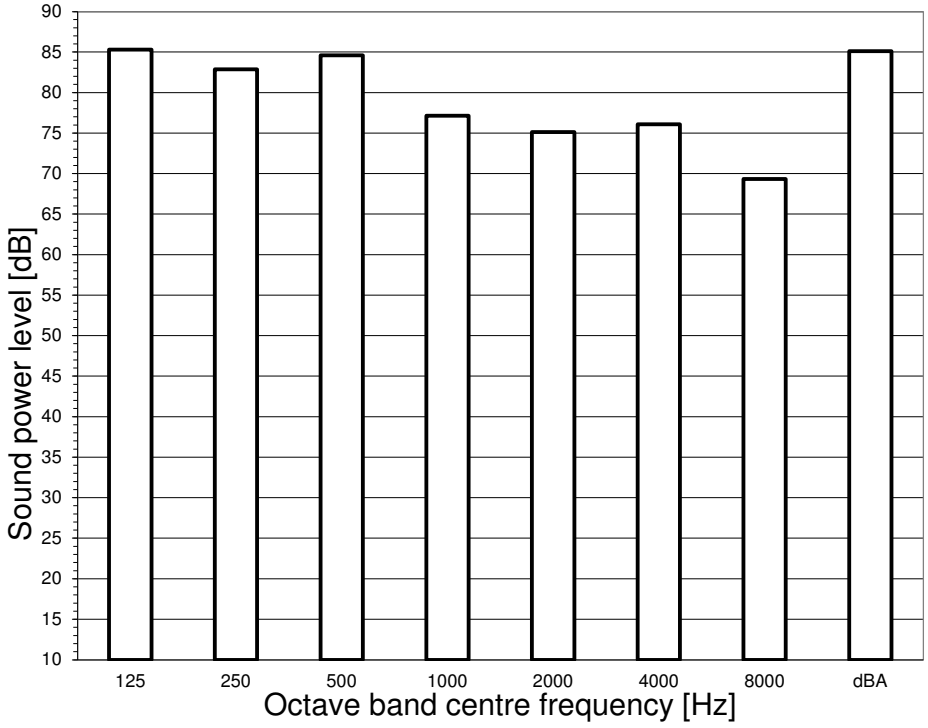



Notes

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

**3D141173**

**REYA18A**




Notes

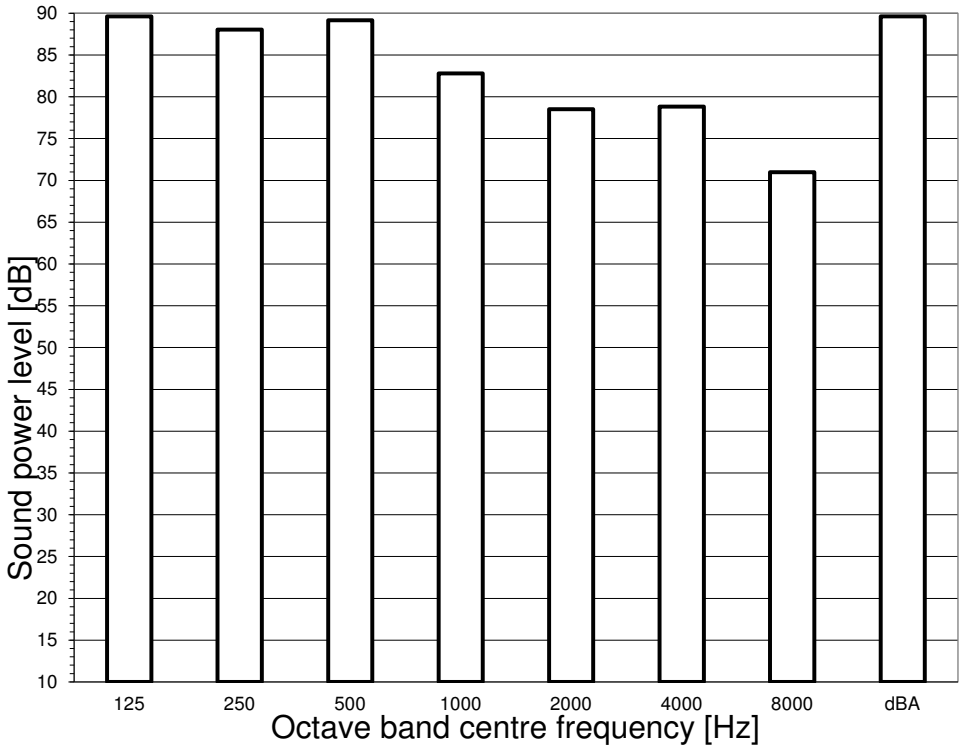
- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity 0dB = ·10^ -12 W·
- Measured according to ISO 3744

**3D141174**

# 11 Sound data

## 11 - 2 Sound Power Spectrum - Heating

**REYA20A**




Notes

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

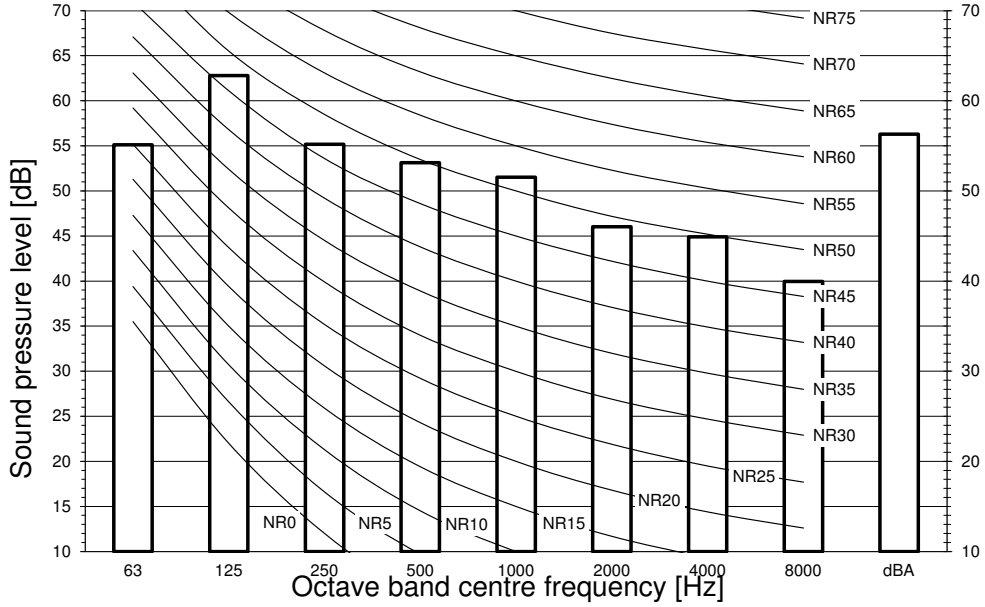
**3D141175**

# 11 Sound data

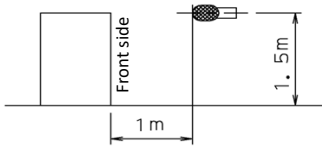
## 11 - 3 Sound Pressure Spectrum - Cooling

**REYA8A**
**REMA5A**



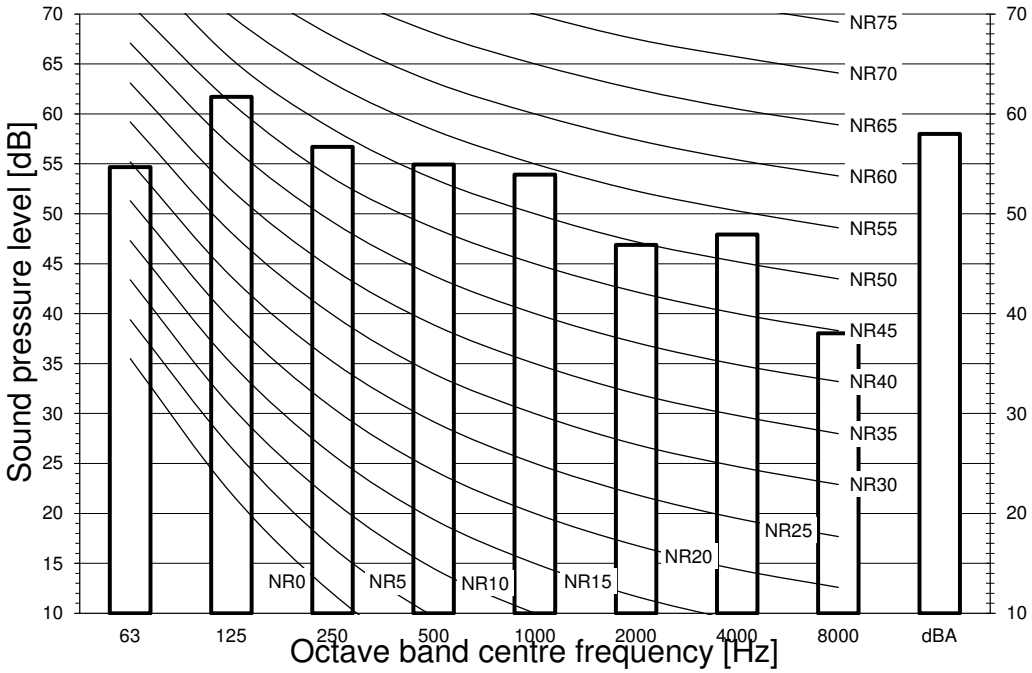



Notes
- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 µPa

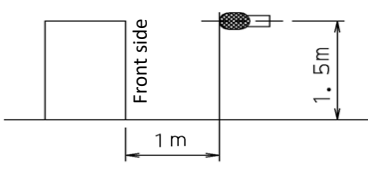



**3D138299**

**REYA10A**




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

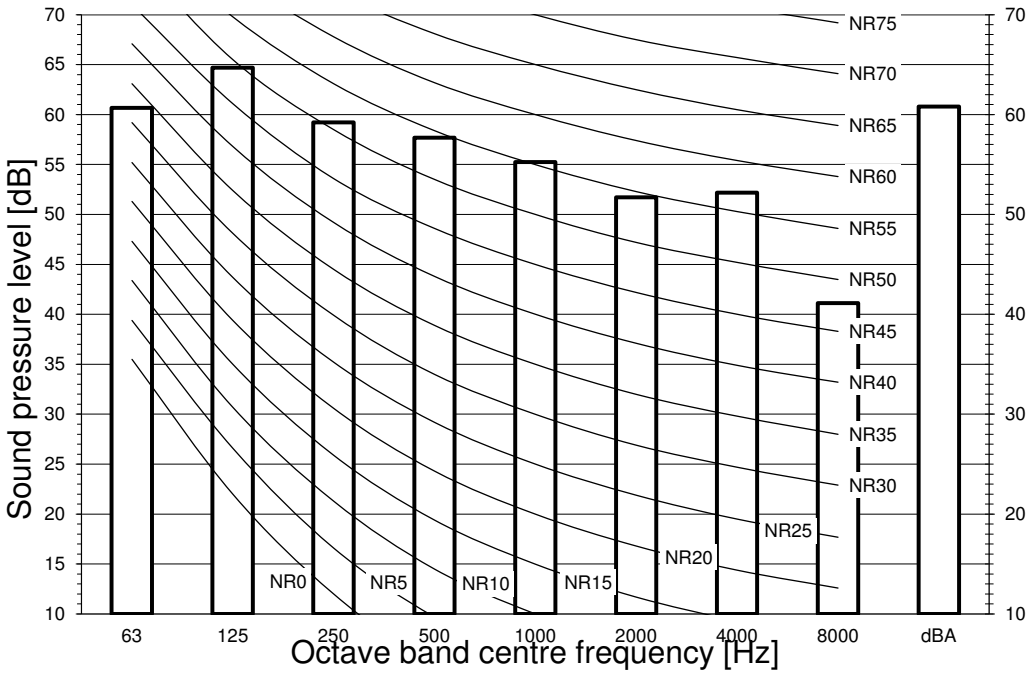



**3D141170**

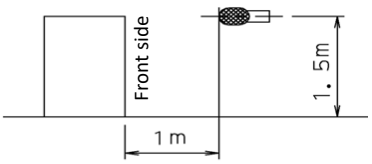
# 11 Sound data

## 11 - 3 Sound Pressure Spectrum - Cooling

**REYA12A**

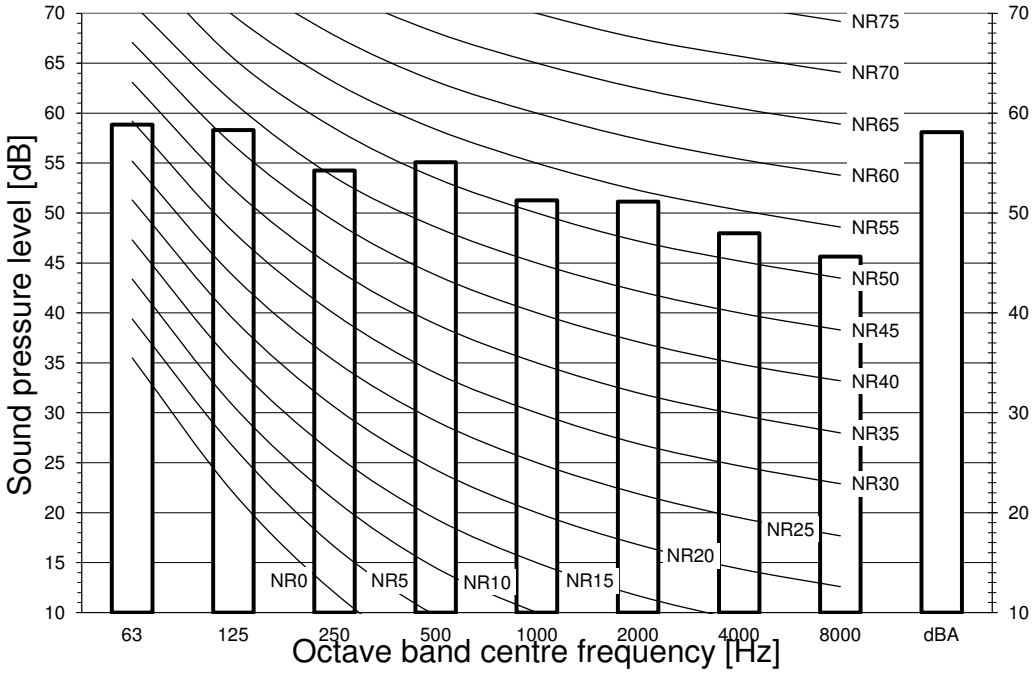



Notes
- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 µPa

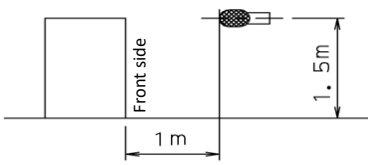



**3D141171**

**REYA14A**




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



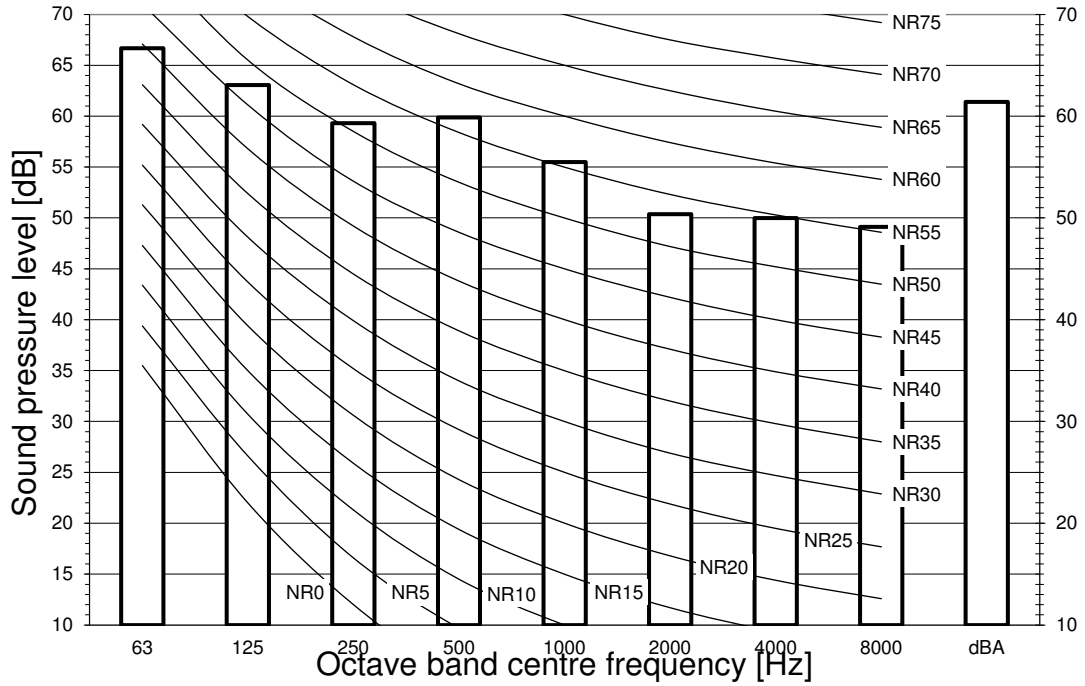

**3D141172**

# 11 Sound data

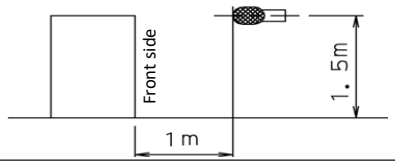
## 11 - 3 Sound Pressure Spectrum - Cooling



**REYA16A**

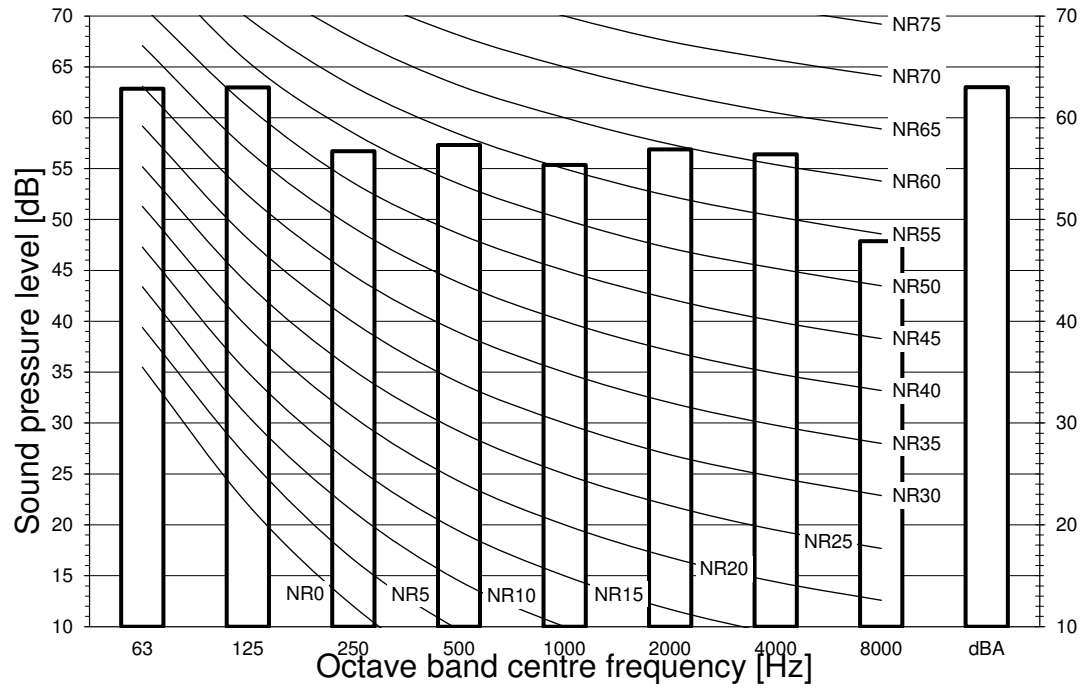



Notes
- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 µPa

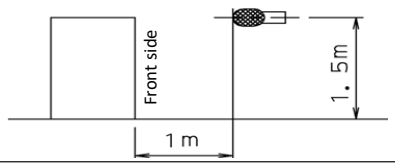



**3D141173**

**REYA18A**




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

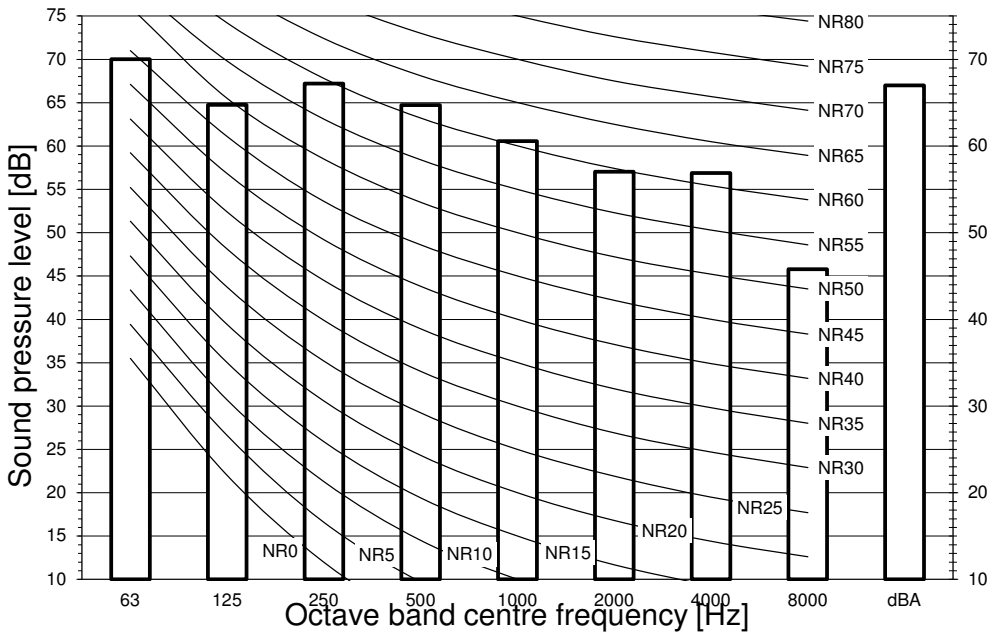



**3D141174**

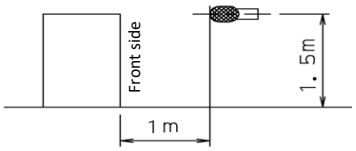
# 11 Sound data

## 11 - 3 Sound Pressure Spectrum - Cooling

**REYA20A**




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



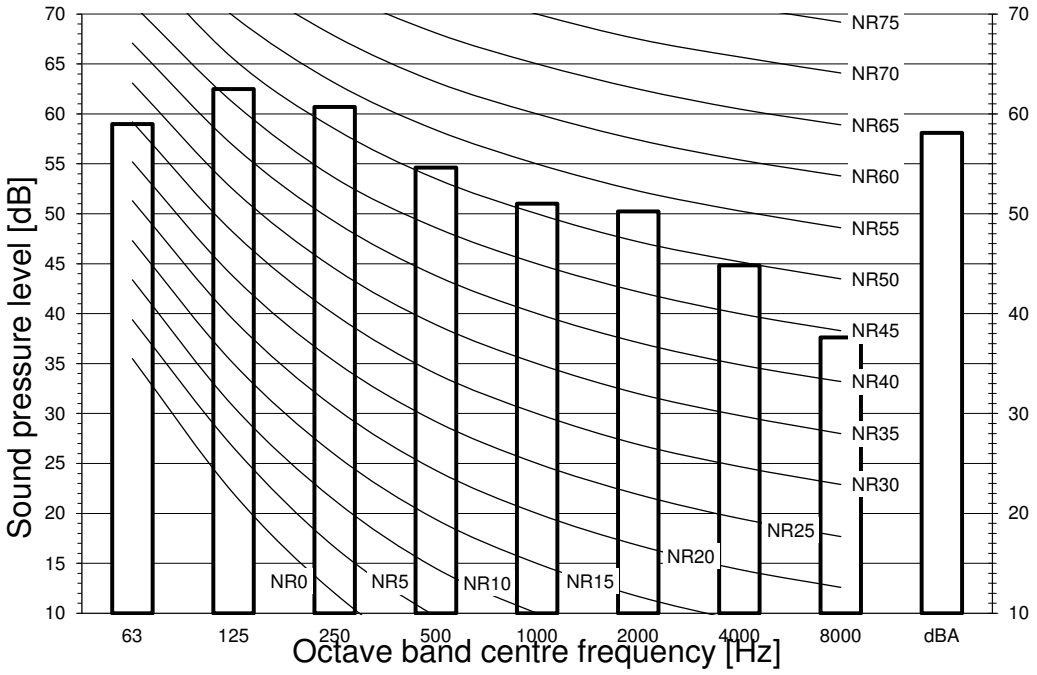

**3D141175**

# 11 Sound data

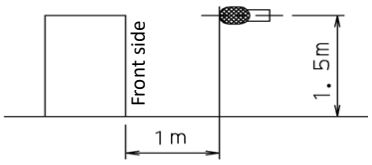
## 11 - 4 Sound Pressure Spectrum - Heating



**REMA5A**
**REYA8A**

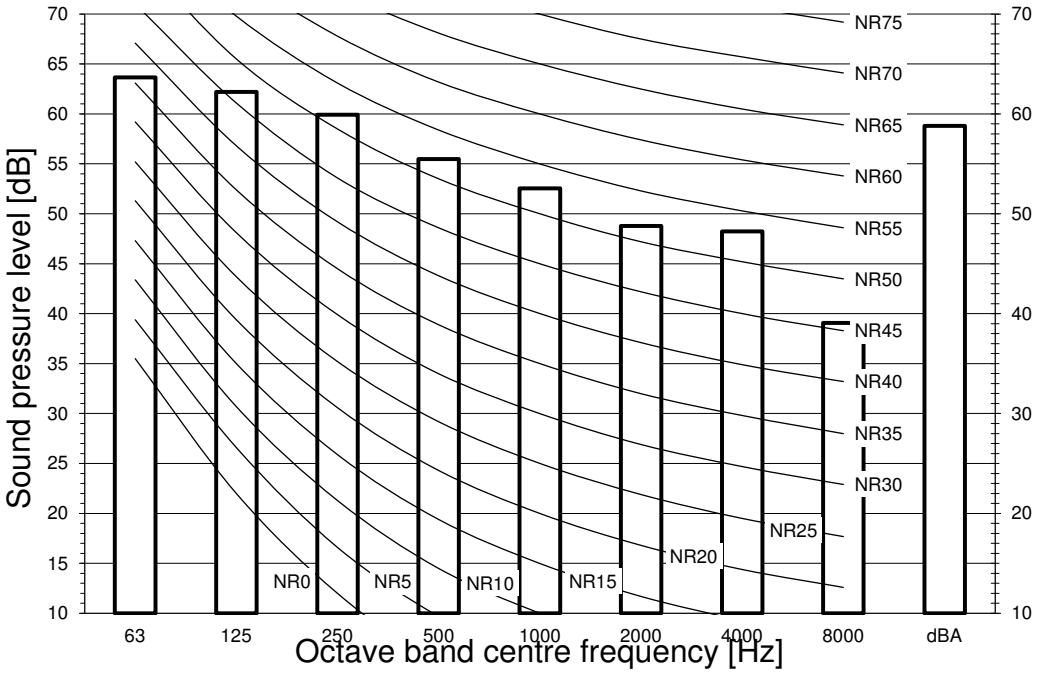



Notes
- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 µPa

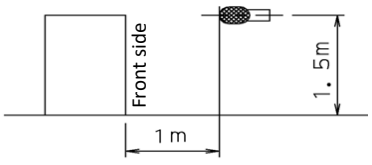



**3D138299**

**REYA10A**




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

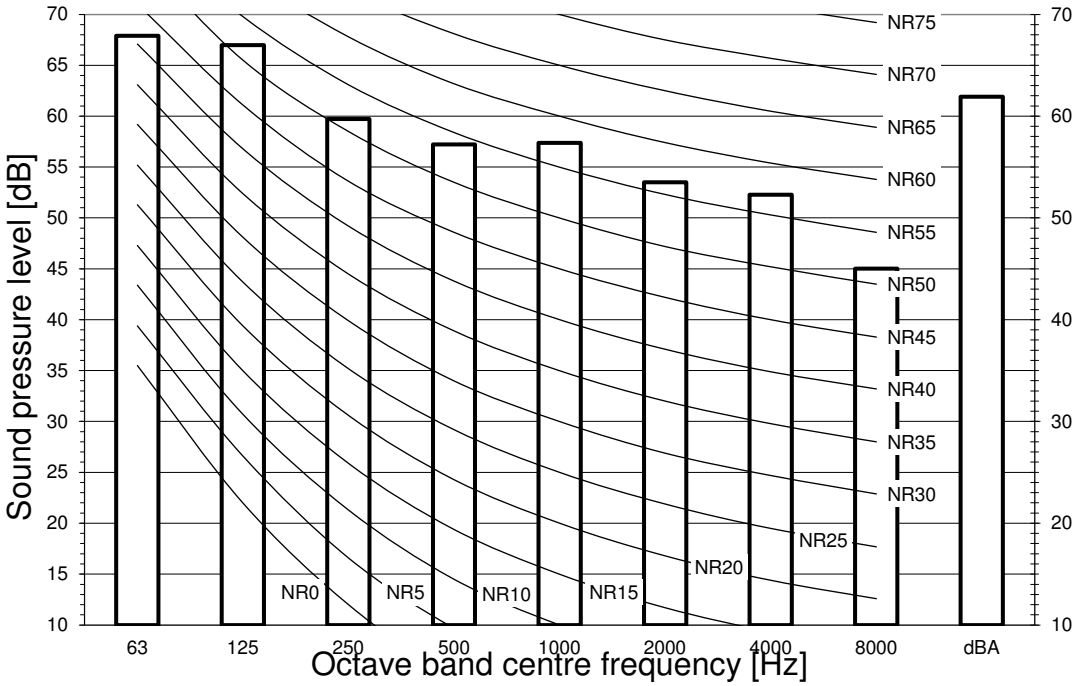



**3D141170**

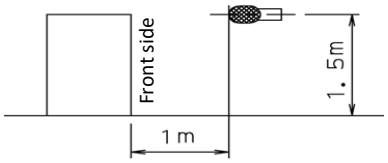
# 11 Sound data

## 11 - 4 Sound Pressure Spectrum - Heating

**REYA12A**

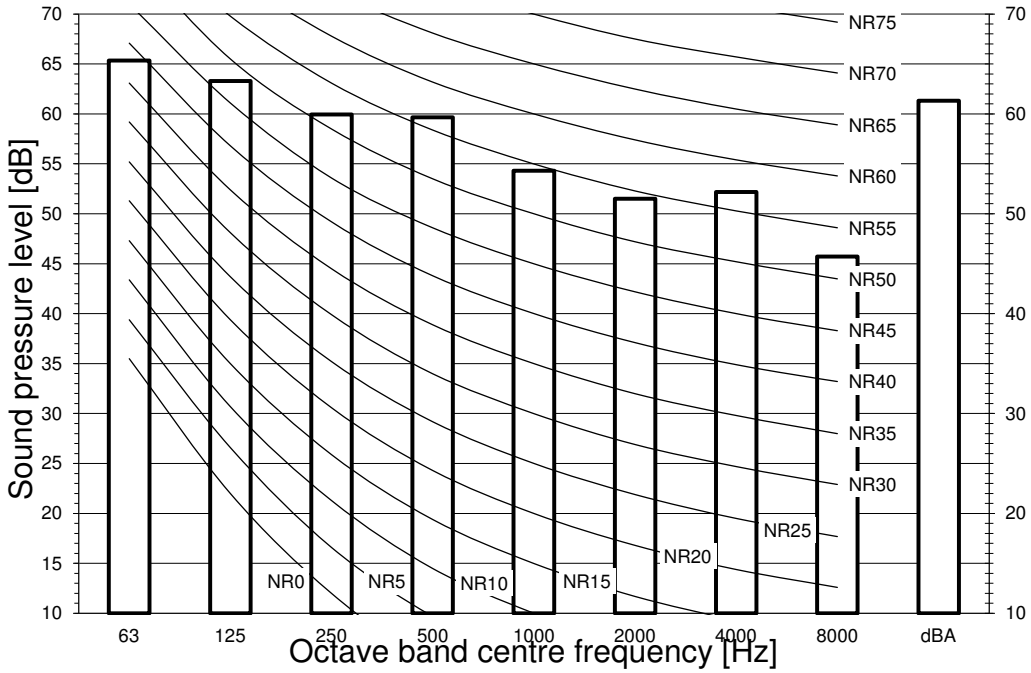



Notes
- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 µPa

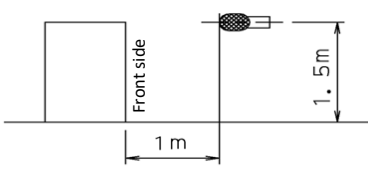



3D141171

**REYA14A**




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

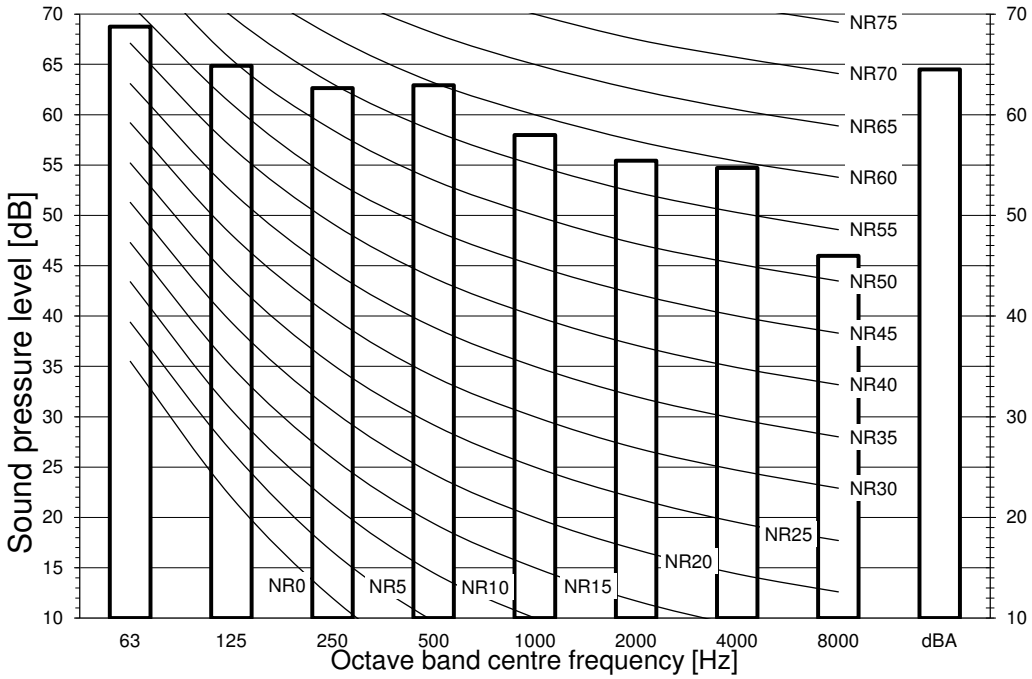



3D141172

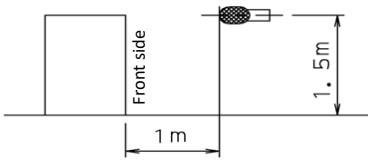
# 11 Sound data

## 11 - 4 Sound Pressure Spectrum - Heating

**REYA16A**

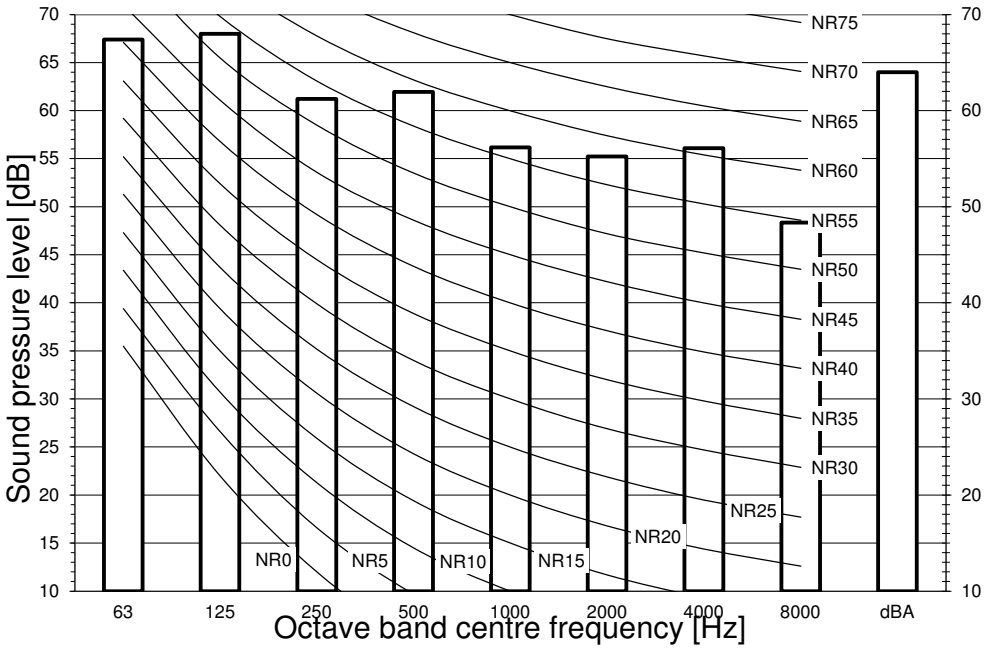



Notes
- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 µPa

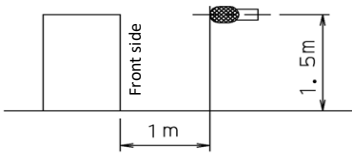



**3D141173**

**REYA18A**




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

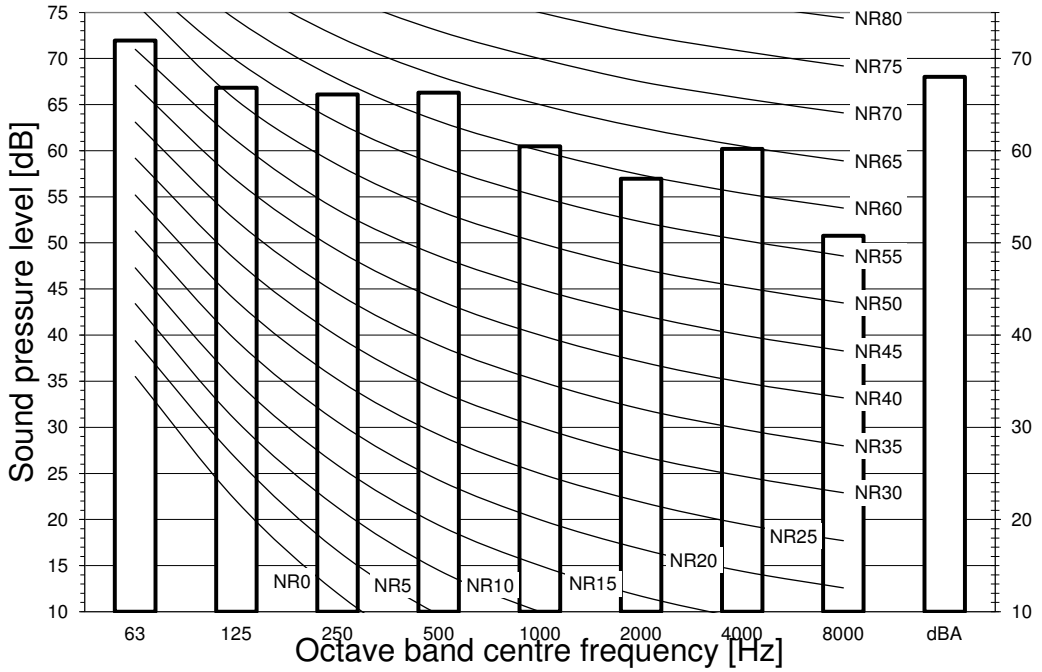



**3D141174**

# 11 Sound data

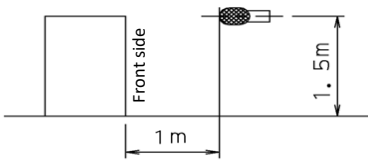
## 11 - 4 Sound Pressure Spectrum - Heating

**REYA20A**




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




**3D141175**

# 11 Sound data

## 11 - 5 Sound level data Quiet mode

**REYA-A**
**REMA5A**



**VRV-5 Heat recovery**
**Low noise data (level ·1-5·)**

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

| 5HP/ 8HP | Cooling | | Heating | |
|---|---|---|---|---|
| | Sound power [dBA] | Sound pressure [dBA] | Sound power [dBA] | Sound pressure [dBA] |
| LN1 | 75 | 53 | 76 | 55 |
| LN2 | 72 | 50 | 73 | 52 |
| LN3 | 69 | 47 | 70 | 49 |
| LN4 | 66 | 44 | 67 | 46 |
| LN5 | 63 | 41 | 64 | 43 |

| 10HP | Cooling | | Heating | |
|---|---|---|---|---|
| | Sound power [dBA] | Sound pressure [dBA] | Sound power [dBA] | Sound pressure [dBA] |
| LN1 | 76 | 55 | 78 | 56 |
| LN2 | 73 | 52 | 75 | 53 |
| LN3 | 70 | 49 | 72 | 50 |
| LN4 | 67 | 46 | 69 | 47 |
| LN5 | 64 | 43 | 66 | 44 |

| 12HP | Cooling | | Heating | |
|---|---|---|---|---|
| | Sound power [dBA] | Sound pressure [dBA] | Sound power [dBA] | Sound pressure [dBA] |
| LN1 | 79 | 58 | 80 | 58 |
| LN2 | 76 | 55 | 77 | 55 |
| LN3 | 73 | 52 | 74 | 52 |
| LN4 | 70 | 49 | 71 | 49 |
| LN5 | 67 | 46 | 68 | 46 |

| 14HP | Cooling | | Heating | |
|---|---|---|---|---|
| | Sound power [dBA] | Sound pressure [dBA] | Sound power [dBA] | Sound pressure [dBA] |
| LN1 | 76 | 53 | 81 | 58 |
| LN2 | 73 | 50 | 78 | 55 |
| LN3 | 70 | 47 | 75 | 52 |
| LN4 | 67 | 44 | 72 | 49 |
| LN5 | 64 | 41 | 69 | 46 |

| 16HP | Cooling | | Heating | |
|---|---|---|---|---|
| | Sound power [dBA] | Sound pressure [dBA] | Sound power [dBA] | Sound pressure [dBA] |
| LN1 | 81 | 58 | 84 | 62 |
| LN2 | 78 | 55 | 82 | 59 |
| LN3 | 75 | 52 | 80 | 56 |
| LN4 | 72 | 49 | 77 | 53 |
| LN5 | 69 | 46 | 74 | 50 |

**4D141207**

# 11 Sound data

## 11 - 5 Sound level data Quiet mode

**REYA-A**
**REMA5A**



| 18HP | Cooling | | Heating | |
|---|---|---|---|---|
| | Sound power [dBA] | Sound pressure [dBA] | Sound power [dBA] | Sound pressure [dBA] |
| **LN1** | 81 | 60 | 83 | 61 |
| **LN2** | 78 | 57 | 81 | 58 |
| **LN3** | 76 | 54 | 78 | 55 |
| **LN4** | 74 | 51 | 75 | 52 |
| **LN5** | 71 | 48 | 72 | 49 |

| 20HP | Cooling | | Heating | |
|---|---|---|---|---|
| | Sound power [dBA] | Sound pressure [dBA] | Sound power [dBA] | Sound pressure [dBA] |
| **LN1** | 85 | 64 | 87 | 65 |
| **LN2** | 82 | 61 | 84 | 62 |
| **LN3** | 80 | 58 | 81 | 59 |
| **LN4** | 77 | 55 | 79 | 56 |
| **LN5** | 74 | 52 | 77 | 53 |

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

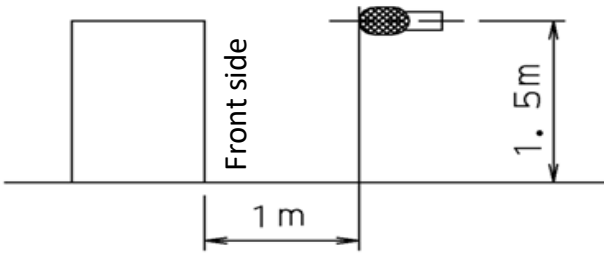
Notes

Sound power

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

sound pressure

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




**4D141207**

# 11 Sound data

## 11 - 6 Sound power level at high ESP

**REYA-A**
**REMA5A**



**VRV-5 Heat recovery**
**High ESP**

| | Cooling | Heating |
|---|---|---|
| | Sound power [dBA] | Sound power [dBA] |
| **5HP** | 81 | 84 |
| **8HP** | 81 | 84 |
| **10HP** | 81 | 84 |
| **12HP** | 81 | 84 |
| **14HP** | 83 | 85 |
| **16HP** | 87 | 89 |
| **18HP** | 87 | 89 |
| **20HP** | 88 | 90 |

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

**3D141183**

# 12 Installation

## 12 - 1 Installation Method

**REYA-A**
**REMA5A**



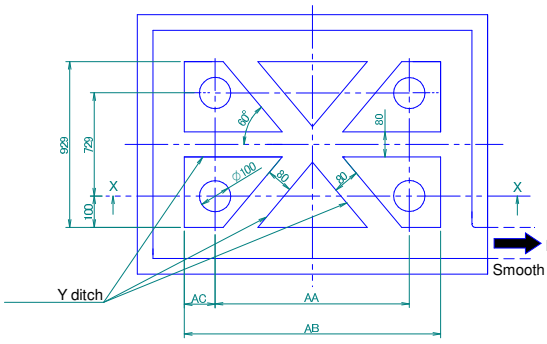

**3D118467A**

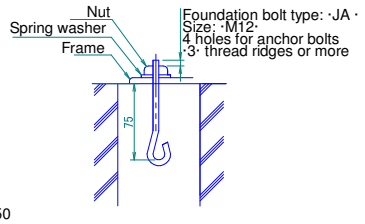
# 12 Installation

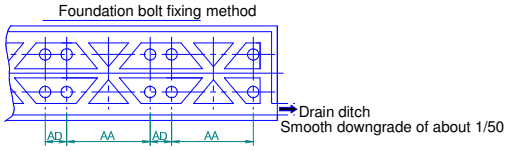
## 12 - 2 Fixation and Foundation of Units

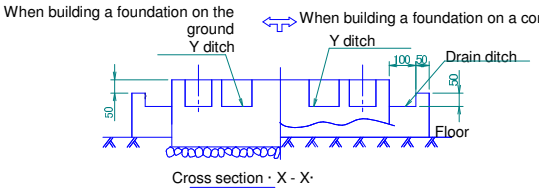


**REYA-A**
**REMA5A**




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.

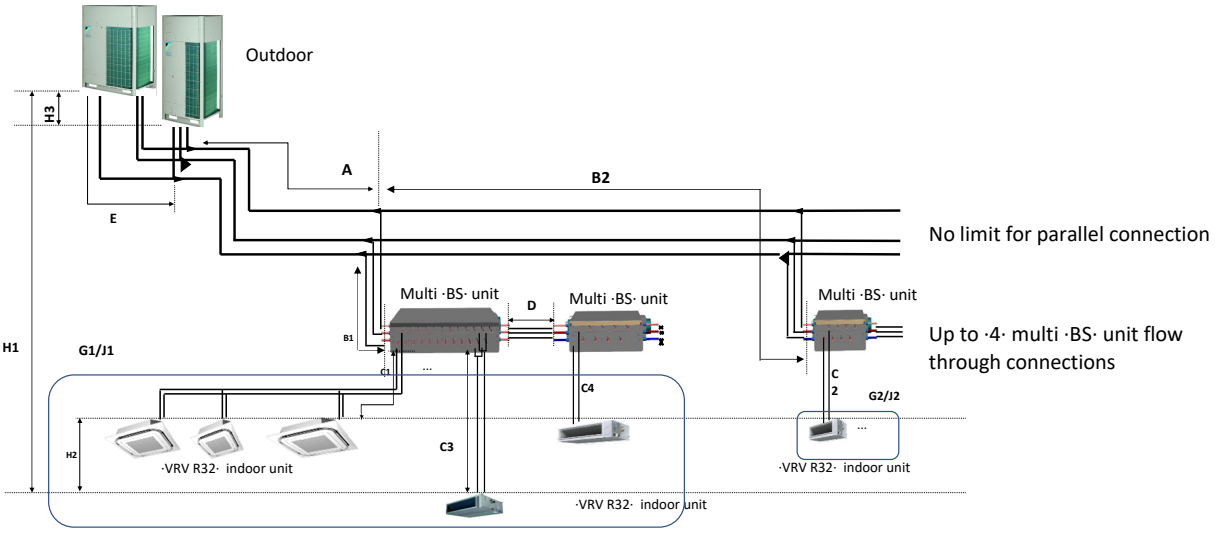
**3D118459A**

# 12 Installation

## 12 - 3 Refrigerant Pipe Selection

**REYA-A**
**REMA5A**






**4D141190**

**REYA-A**
**REMA5A**

**VRV5**
**Heat recovery**
**Piping restrictions**

| | Total | | | |
|---|---|---|---|---|
| | **Capacity** | **Maximum indoor unit quantity** (*1) | **Maximum total downstream capacity — flow through connection ·BS· unit** [G1]; [G2] | **Maximum downstream number of ports – flow through connection ·BS· unit** [J1]; [J2] |
| ·VRV R32· indoor unit | 50 ~ 130% | 64 | 750 | 16 |

**VRV5**
**Heat recovery**
**Unit combination restrictions**

| **Combination table** | REYA5-28* |
|---|---|
| ·VRV R32 DX· indoor unit | o |
| EKVDX (Option of VAM - J8) | o |
| ·Cooling only· indoor unit | X |
| Hydrobox unit | X |
| Air handling unit (AHU) | X |

o: Allowed
X: Not allowed

Notes
1. Excluding ·BS· units
2. Other combinations than mentioned in this combination table are prohibited. All units are to be connected to ·BS· units

Amount of units connectable to a ·BS· unit

| | **BS4A** (*3) | **BS6A** (*3) | **BS8A** (*3) | **BS10A** (*3) | **BS12A** (*3) | **Multi ·BS· per branch** (*3) | **Multi ·BS· when 2 branches are** (*3) |
|---|---|---|---|---|---|---|---|
| ·VRV R32· indoor unit | Maximum ·20· units | Maximum ·30· units | Maximum ·40· units | Maximum ·50· units | Maximum ·60· units | Maximum ·5· units | Maximum ·5· units |
| | Maximum ·400· class | Maximum ·600· class | Maximum ·750· class | Maximum ·750· class | Maximum ·750· class | Maximum ·140· class | Maximum ·250· class |

Notes
3. When combining ·2· branches, the maximum piping length between the ·BS· unit and the indoor unit is ≤ 20m. If the length of this piping is > 20m, increase the size of the liquid pipe.

**4D141190**

# 12 Installation

## 12 - 3 Refrigerant Pipe Selection

**REYA-A** **VRV5**
**REMA5A** **Heat recovery**
**Piping restrictions**



| | | Maximum piping length | | | Maximum height difference | | | Total piping length |
|---|---|---|---|---|---|---|---|---|
| | | Longest pipe from the outdoor unit or the last multi-outdoor piping branch<br>Actual / Equivalent<br>Maximum: ·(A+B1+C1, A+B2+C2, A+B1+C3, A+B1+D+C4)· | Longest pipe after first branch or multi ·BS· unit<br>Actual<br>Maximum: ·(B1+C1,B2+C2,B1+C3,B1+D+C4)· | Longest pipe from the outdoor unit to the last multi-outdoor piping branch<br>Actual / Equivalent<br>Maximum: ·(E)· | Indoor-to-outdoor<br>Outdoor unit higher than indoor unit / Indoor unit higher than outdoor unit<br>Maximum: ·(H1)· | Indoor-to-indoor<br>Maximum: ·(H2)· | Outdoor-to-outdoor<br>Maximum: ·(H3)· | Piping length |
| Single outdoor units and standard multi-outdoor-unit combinations > ·20hp· | ·VRV R32· indoor units | 165/190 m (*3) | 40 m (*1)(*4) | 10/13 m | 50/40 m (*2) | 15 m | 5 m | 1000 m |
| | | 120/165 m (*3) | 40 m (*1)(*4) | | 50/40 m (*2) | 30 m | | 1000 m |
| Standard multi-outdoor-unit combinations ·≤ 20hp· and free multi-outdoor-unit combinations | ·VRV R32· indoor units | 135/160 m (*3) | 40 m (*1)(*4) | 10/13 m | 50/40 m (*2) | 15 m | 5 m | 500 m |

Notes

1. If all conditions below are met, the limitation can be extended up to 90 m
   - 1,1 The piping length between all indoor units and the multi ·BS· unit is ≤ ·40· m.
   - 1,2 It is required to size up the liquid piping between the first branch kit or multi ·BS· unit and the last branch kit or last multi ·BS· unit.
     It is not required to size up the liquid piping between the multi ·BS· unit and indoor units.
     It is required to size up the liquid piping which is downstream of the multi ·BS· unit, if the last branch kit is located downstream of the multi ·BS· unit.
     If the increased pipe size is larger than the pipe size of the main pipe, also increase the size of the main pipe.
   - 1,3 When the piping size is increased, the piping length has to be counted as double.
     The total piping length has to be within limitations.
   - 1,4 The piping length difference between the nearest indoor unit to the outdoor unit and the farthest indoor unit to the outdoor unit is ≤ ·40·m.
2. If all conditions below are met, the limitation can be extended up to 90 m
   - 2.1 If the outdoor units are positioned higher than the indoor units:
     - 2.1.1 Minimum connection ratio: ·80%·
     - 2.1.2 Size up the liquid piping
     - 2.1.3 Outdoor unit setting
       For more information, refer to the service manual.
   - 2.2 If the outdoor units are positioned lower than the indoor units:
     - 2.2.1 Size up the liquid piping
     - 2.2.2 Outdoor unit setting
       For more information, refer to the service manual.
3. If the equivalent piping is > ·90·m, size up the main liquid piping.
4. Limit of ·40· m piping length between multi ·BS· unit and indoor unit is depending upon room size (cfr. Safety system)

**4D141190**

# 12 Installation

## 12 - 4 Refrigerant Charge Information

**REYA-A**
**REMA5A**

### Requirements for R32 units



To comply with the requirements of enhanced tightness refrigerating systems of the IEC 60335-2-40:2018, this system is equipped with shut-off valves in the ·BS· unit and an alarm in the remote controller.

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

### Outdoor unit installation

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

### Indoor unit installation

The total amount of refrigerant in the system shall be less than or equal to the maximum allowed total refrigerant amount.
The maximum allowed total refrigerant amount depends on the area of the rooms being served by the system and the rooms in the lowest underground floor.
Note: The total refrigerant charge amount in the system MUST always be lower than ·15.96· [kg] × the number of indoor units connected downstream of ·BS· units, with a maximum of ·63.8· kg..

When the R32 sensor in the indoor unit detects a refrigerant leak, the corresponding shut-off valves in the ·BS· unit close and the alarm in the remote controller connected to the indoor unit is triggered.

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

Note: The total refrigerant charge amount in the system MUST always be lower than ·15.96· [kg] × the number of indoor units connected downstream of ·BS· units, with a maximum of ·63.8· kg..

**4D141154A**

# 12 Installation

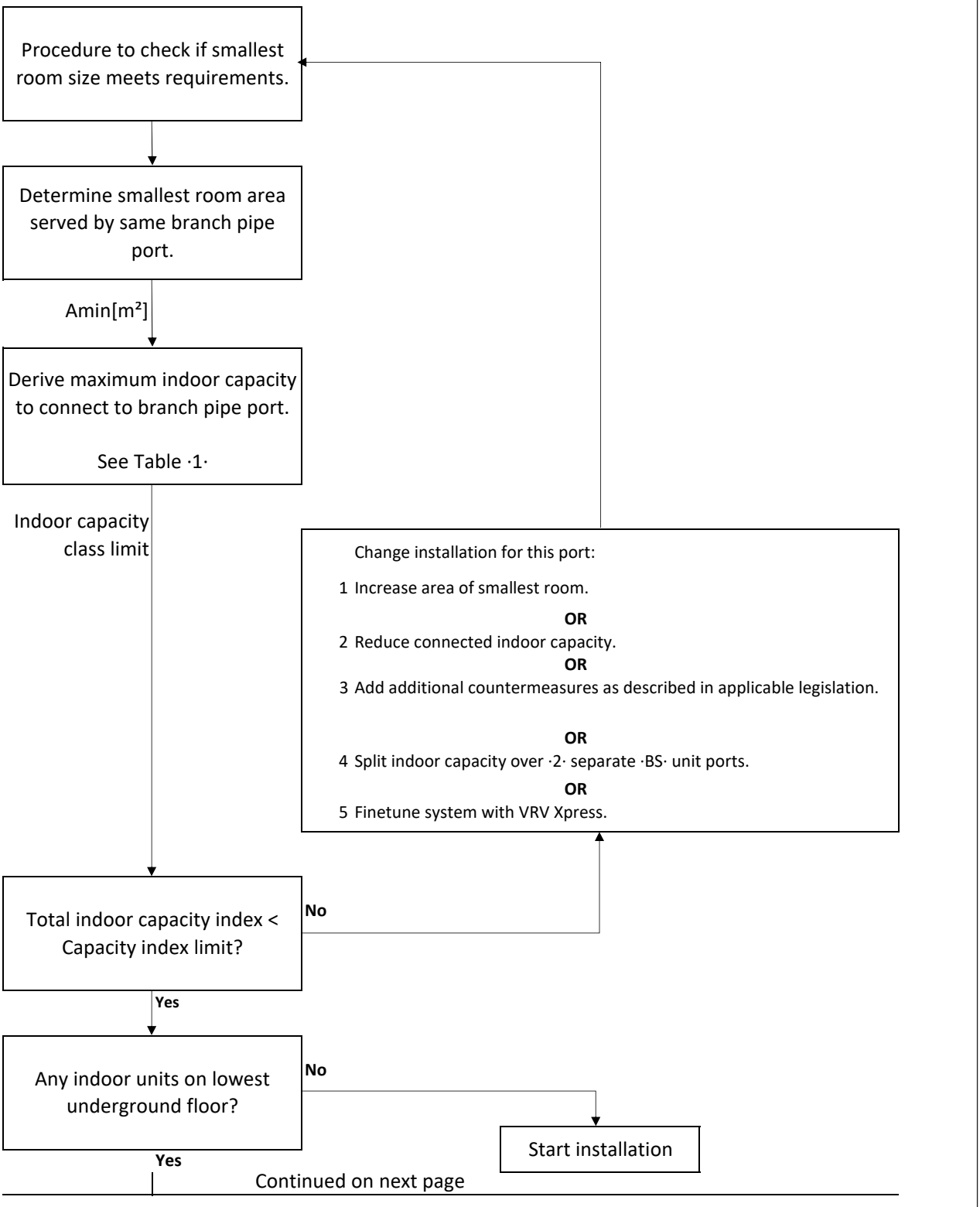
## 12 - 4 Refrigerant Charge Information

**REYA-A**
**REMA5A**

12

### Indoor unit installation

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



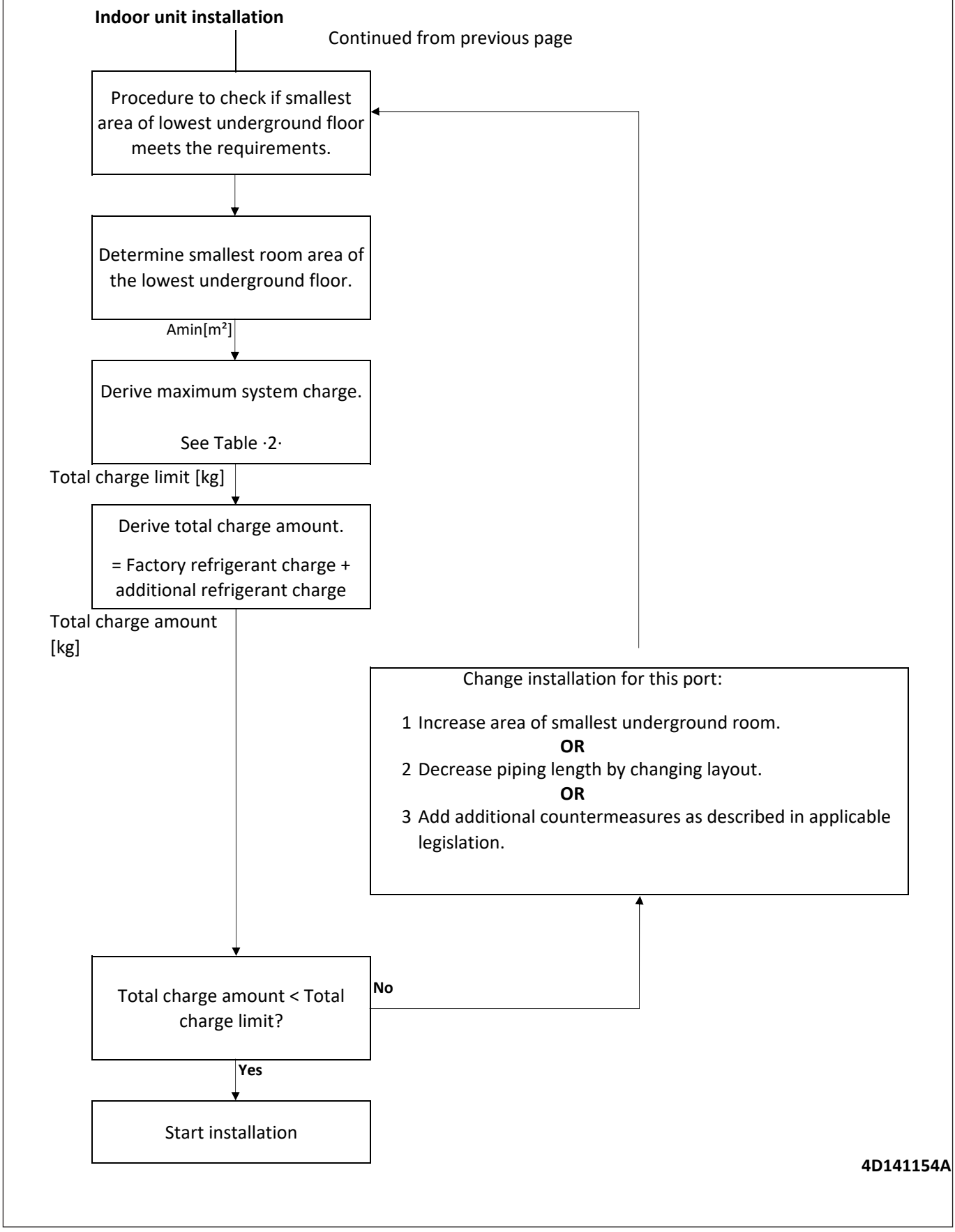

**4D141154A**

# 12 Installation

## 12 - 4 Refrigerant Charge Information



**REYA-A**
**REMA5A**



# 12 Installation

## 12 - 4 Refrigerant Charge Information



**REYA-A**
**REMA5A**

**Indoor unit installation**

**Table ·1·**

| Room area [m²] | Maximum total indoor unit capacity class | | |
|---|---|---|---|
| | 1 indoor unit per branch pipe port (·a, d·) | ·2-5· units per branch pipe port | |
| | | ·40· m after first branch (·b·) | ·90· m after first branch (·c·) |
| ≤6 | - | - | - |
| 7 | 10 | - | - |
| 8 | 15 | - | - |
| 9 | 32 | - | - |
| 10 | 32 | - | - |
| 11 | 40 | - | - |
| 12 | 40 | - | - |
| 13 | 71 | - | - |
| 14 | 80 | - | - |
| 15 | 80 | - | - |
| 20 | 80 | 32 | - |
| 25 | 140 | 40 | 25 |
| 30 | 200 | 63 | 50 |
| 35 | 200 | 71 | 71 |
| 40 | 250 | 100 | 100 |
| ≥45 | 250 | 140 | 140 |

(a) 1 indoor unit connected to a single branch pipe port.

(b) ·2· to ·5· indoor units connected to a single branch pipe port, ·40· m after first refrigerant branch.

(c) ·2· to ·5· indoor units connected to a single branch pipe port, ·90· m after first refrigerant branch.

(d) In case the indoor unit capacity class exceeds ·140·, two branch ports need to be combined. Refer to the installation manual for more details.

Note: The values in Table ·1· are under the assumption of worst case indoor unit volume and ·40· m piping between indoor and ·BS· unit.

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

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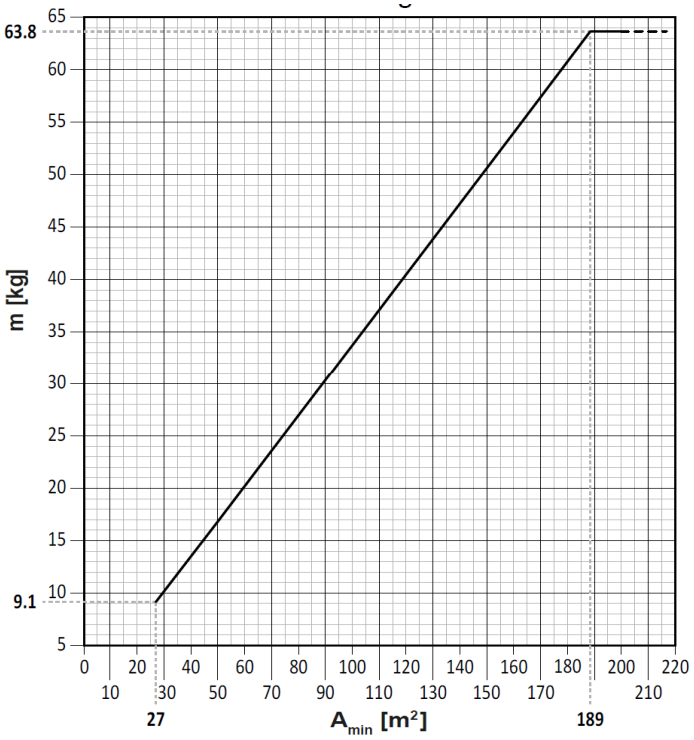
**REYA-A**
**REMA5A**

**Indoor unit installation**

**Table ·2·**

Lowest underground floor (·a·)




| $A_{min}$ (m²) | m (kg) |
|---|---|
| 27 | 9.1 |
| 30 | 10.1 |
| 40 | 13.5 |
| 50 | 16.8 |
| 60 | 20.2 |
| 70 | 23.6 |
| 80 | 27.0 |
| 90 | 30.3 |
| 100 | 33.7 |
| 110 | 37.1 |
| 120 | 40.5 |
| 130 | 43.9 |
| 140 | 47.2 |
| 150 | 50.6 |
| 160 | 54.0 |
| 170 | 57.4 |
| 180 | 60.7 |
| 189 | 63.8 |
| 190 | 63.8 |
| 200 | 63.8 |

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# 12 Installation

## 12 - 4 Refrigerant Charge Information

**REYA-A**
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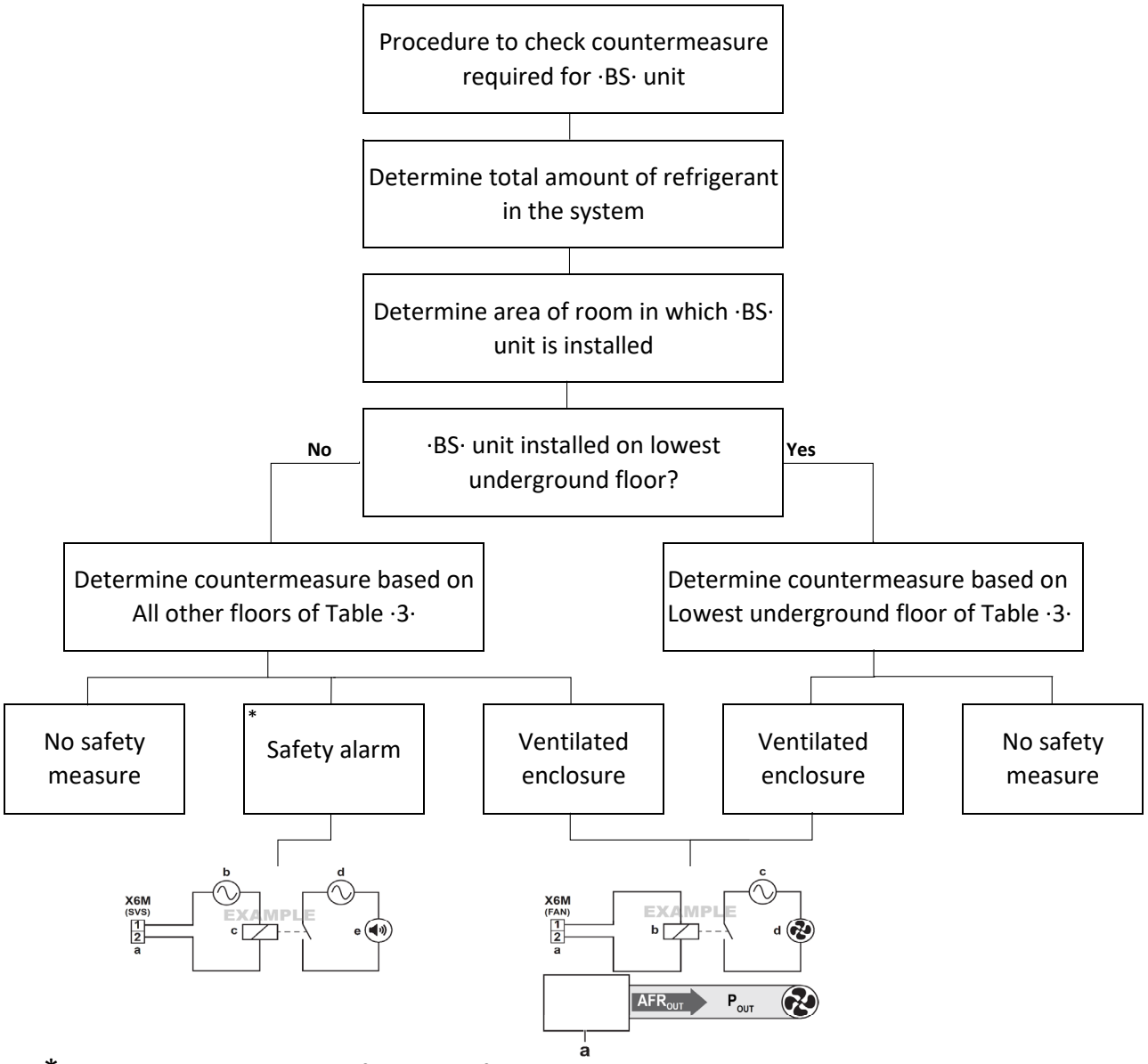
### ·BS· unit installation

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

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

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

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




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

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# 12 Installation

## 12 - 4 Refrigerant Charge Information



**REYA-A**
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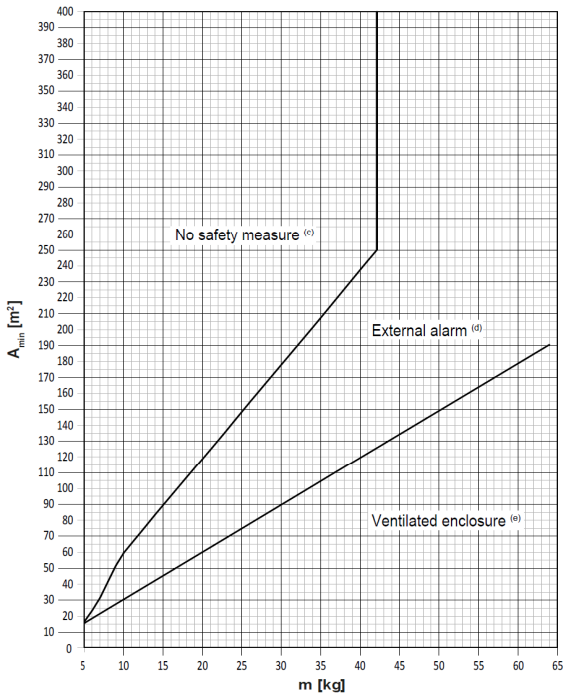
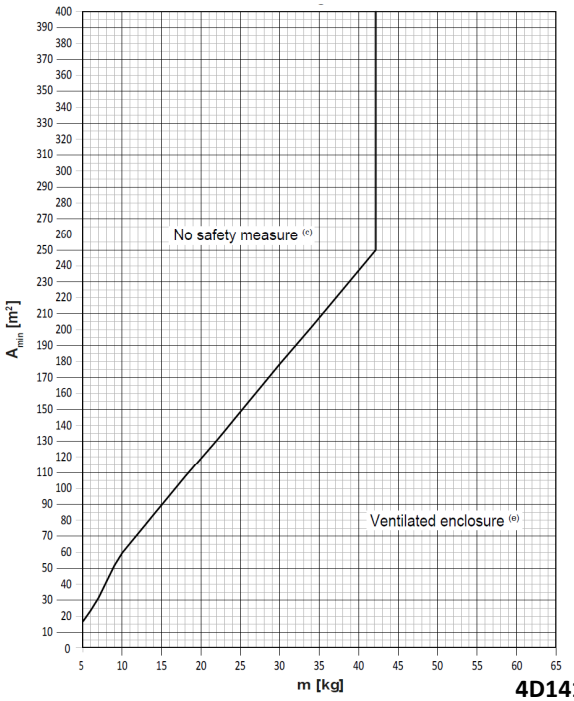
**·BS· unit installation**

**Table ·3·**

All other floors (·a·)




Lowest underground floor (·b·)

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**REYA-A**
**REMA5A**

**·BS· unit installation**

| m [kg] | Amin [m²] | | | m [kg] | Amin [m²] | | |
|---|---|---|---|---|---|---|---|
| | All other floors (·a·) | | Lowest underground floor (·b·) | | All other floors (·a·) | | Lowest underground floor (·b·) |
| | No safety measure (·c·) | External alarm (·d·) | No safety measure (·c·) | | No safety measure (·c·) | External alarm (·d·) | No safety measure (·c·) |
| 5 | 16 | 15 | 16 | 35 | 207 | 104 | 207 |
| 6 | 23 | 18 | 23 | 36 | 213 | 107 | 213 |
| 7 | 31 | 21 | 31 | 37 | 219 | 110 | 219 |
| 8 | 41 | 24 | 41 | 38 | 225 | 113 | 225 |
| 9 | 51 | 27 | 51 | 39 | 231 | 115 | 231 |
| 10 | 59 | 30 | 59 | 40 | 237 | 118 | 237 |
| 11 | 65 | 33 | 65 | 41 | 243 | 121 | 243 |
| 12 | 71 | 36 | 71 | 42 | 249 | 124 | 249 |
| 13 | 77 | 38 | 77 | 43 | - | 127 | - |
| 14 | 83 | 41 | 83 | 44 | - | 130 | - |
| 15 | 89 | 44 | 89 | 45 | - | 133 | - |
| 16 | 95 | 47 | 95 | 46 | - | 136 | - |
| 17 | 101 | 50 | 101 | 47 | - | 139 | - |
| 18 | 107 | 53 | 107 | 48 | - | 142 | - |
| 19 | 113 | 56 | 113 | 49 | - | 145 | - |
| 20 | 118 | 59 | 118 | 50 | - | 148 | - |
| 21 | 124 | 62 | 124 | 51 | - | 151 | - |
| 22 | 130 | 65 | 130 | 52 | - | 154 | - |
| 23 | 136 | 68 | 136 | 53 | - | 157 | - |
| 24 | 142 | 71 | 142 | 54 | - | 160 | - |
| 25 | 148 | 74 | 148 | 55 | - | 163 | - |
| 26 | 154 | 77 | 154 | 56 | - | 166 | - |
| 27 | 160 | 80 | 160 | 57 | - | 169 | - |
| 28 | 166 | 83 | 166 | 58 | - | 172 | - |
| 29 | 172 | 86 | 172 | 59 | - | 175 | - |
| 30 | 178 | 89 | 178 | 60 | - | 178 | - |
| 31 | 184 | 92 | 184 | 61 | - | 181 | - |
| 32 | 190 | 95 | 190 | 62 | - | 184 | - |
| 33 | 195 | 98 | 195 | 63 | - | 187 | - |
| 34 | 201 | 101 | 201 | 64 | - | 190 | - |

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# 12 Installation

## 12 - 4 Refrigerant Charge Information

**REYA-A**
**REMA5A**

**·BS· unit installation**

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

**Safety alarm**

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

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

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

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

**Ventilated enclosure**

For the ventilated enclosure safety measure, ductwork and an extraction fan are installed.
When the R32 sensor in the ·BS· unit detects a refrigerant leak, it will activate the safety measures.
This includes:

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

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**REYA-A**
**REMA5A**

**·BS· unit installation**

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

| | |
|---|---|
| Ductwork | The evacuation ductwork MUST vent outside the building.<br>Avoid that dirt and small animals can enter the ductwork and lead to an obstruction. Example: install a non-return valve, grille, filter or other component in the evacuation duct. |
| Extraction fan | The extraction fan must have a CE marking and cannot act as an ignition source during normal operation. Example: Brushed DC motors can cause sparks and are not allowed.<br><br>Fan power must be lower than ·2.5· kVA. |
| Replacement air | Make sure that sufficient air is available for the extraction of a refrigerant leak. The extraction airflow rate must be maintained for at least ·6.5· hours.<br><br>This is achieved by providing a sufficiently large air volume around the ·BS· unit, or by providing sufficient replacement air around the ·BS· unit (e.g. natural openings or a dedicated opening in the false ceiling). |
| Maintenance | A periodic inspection of the unit is required, where the test run is repeated.<br><br>Maintain the evacuation channel to avoid dust and dirt from building up and obstructing the flow path. |

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# 12 Installation

## 12 - 4 Refrigerant Charge Information

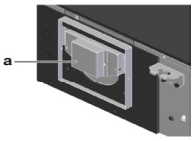


**REYA-A**
**REMA5A**

**·BS· unit installation**

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

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




a Damper

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

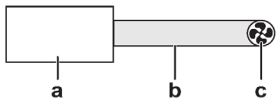
- Pressure inside the ·BS· unit has to be more than ·20· Pa below the ambient pressure.
- Minimum airflow rate

| Model | Minimum airflow rate [m³/h] |
|---|---|
| BS4A | 90 |
| BS6-8A | 87 |
| BS10-12A | 77 |

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

**Possible configurations**

One ·BS· unit – one extraction fan




**a** BS unit
**b** Ductwork
**c** Extraction fan

**Calculation method for selection of external fan**

- Manual calculation: see ·BS· unit manual for details
- VRV Xpress: see https://vrvxpress.daikin.eu/

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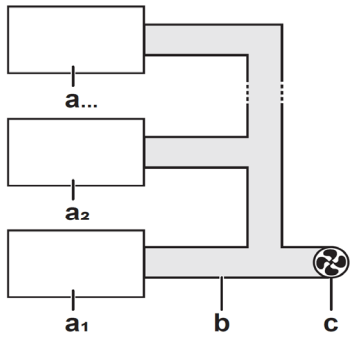
**·BS· unit installation**

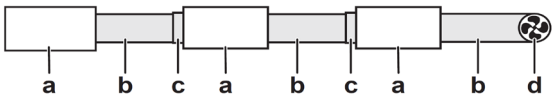
Multiple ·BS· units in parallel – one extraction fan




**a#** BS unit #
**b** Ductwork
**c** Extraction fan

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

Multiple ·BS· units in series – one extraction fan




**a** BS unit
**b** Ductwork
**c** EKBSDCK
**d** Extraction fan

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

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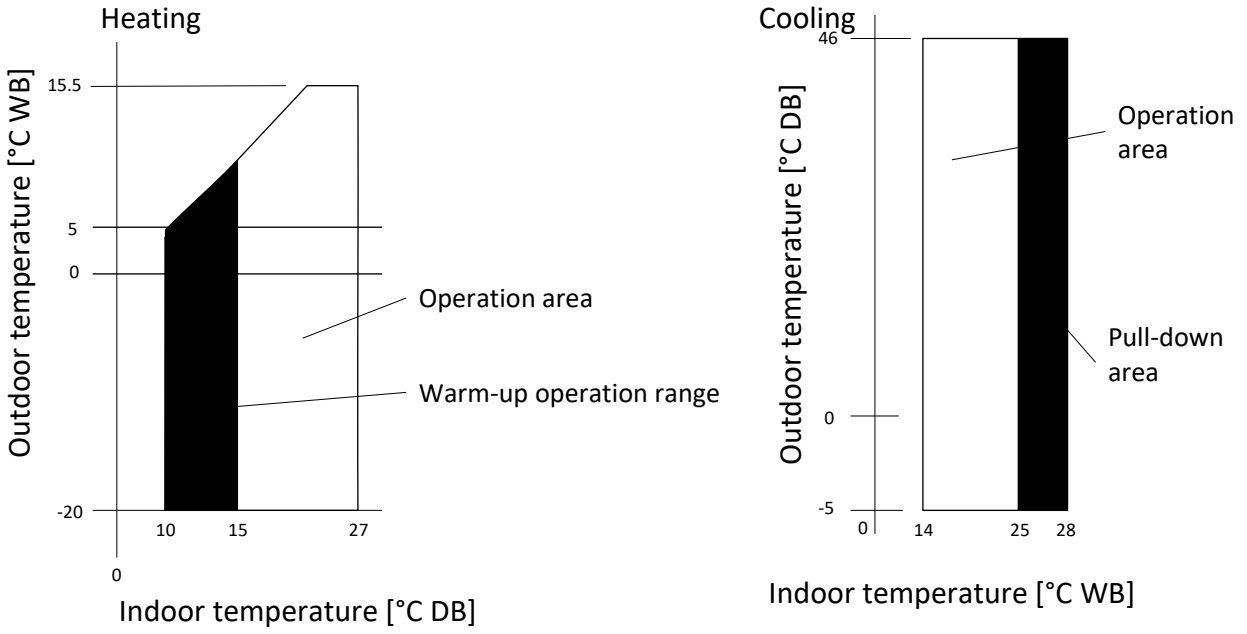
# 13 Operation range

## 13 - 1 Operation Range

**REYA-A**
**REMA5A**




**3D141186**

# 14 Appropriate Indoors

## 14 - 1 Appropriate Indoors

**REYA-A**
**REMA5A**



**Recommended indoor units for ·REYA*A* + REMA5A*· outdoor units**

| .. HP | 8 | 10 | 12 | 13 | 14 | 16 | 18 | 20 |
|---|---|---|---|---|---|---|---|---|
| | 4xFXSA50 | 4xFXSA63 | 6xFXSA50 | 3xFXSA50<br>3XFXSA63 | 1xFXSA50<br>5XFXSA63 | 4XFXSA63<br>2xFXSA80 | 3xFXSA50<br>5XFXSA63 | 2xFXSA50<br>6xFXSA63 |

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 ·REYA*A* + REMA5A*· outdoor units**

**Covered by ·ENER LOT21·**

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

**Outside the scope of ·ENER LOT21·**

EKVDX32-50-80-100

**4D138288**

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EEDEN22A 08/2022