

Air Conditioners

Technical Data







Air Conditioners

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RZQG-L

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1 Features

- Seasonal efficiency gives an indication on how efficient an air conditioner operates over an entire heating or cooling season.
- The Sky Air[®] inverter is developed for use in light commercial applications, provides a more comfortable environment and offers great savings in energy consumption to shop, restaurant and office owners
- Daikin outdoor units are neat, sturdy and can easily be mounted on a roof or terrace or simply placed against an outside wall
- A special acryl precoated fin for anti-corrosion treatment on the heat exchanger ensures greater resistance against severe weather conditions
- Outdoor units for pair application









2 Specifications

| 2-1 Nominal C | Capacity And N | lominal Input | | FHQG71CVEB / RZQG71LV1B | FHQG100CVEB / RZQG100LV1B | FHQG140CVEB / RZQG140LV1B | | |
|--------------------|---------------------------|---------------|--------|-----------------------------|---------------------------|---------------------------|--|--|
| Cooling capacity | Nom. | | kW | 7.1 (3) | 10.0 (3) | 14.0 (3) | | |
| | | | Btu/h | 24,200 (3) | 34,100 (3) | 47,800 (3) | | |
| | | | kcal/h | 6,100 (3) | 8,600 (3) | 12,000 (3) | | |
| Heating capacity | Nom. | | kW | 8.0 (4) | 11.2 (4) | 16.0 (4) | | |
| | | | Btu/h | Btu/h 27,300 (4) 38,200 (4) | | 54,600 (4) | | |
| | kc | | | 6,900 (4) | 9,600 (4) | 13,800 (4) | | |
| Power input | Cooling | Nom. | kW | 1.95 | 2.61 | 4.65 | | |
| | Heating | Heating Nom. | | 2.05 | 2.05 2.67 | | | |
| EER | | | | 3.64 | 3.83 | 3.01 | | |
| СОР | | | | 3.90 | 4.19 | 3.62 | | |
| SEER | | | | 4.41 (5) | 4.53 (5) | 3.66 (5) | | |
| Annual energy cons | Annual energy consumption | | | 975 | 2,325 | | | |
| Energy label | Cooling | | • | A | | | | |
| | Heating | | | | А | | | |

| 2-1 Nominal C | Capacity And N | ominal Input | | FCQG71EVEB / RZQG71LV1B | FCQG100EVEB / RZQG100LV1B | FCQG140EVEB / RZQG140LV1B | | |
|--------------------|----------------|--------------|--------|-------------------------|---------------------------|---------------------------|--|--|
| Cooling capacity | Nom. | | kW | 7.1 (3) | 10.0 (3) | 14.0 (3) | | |
| | | | Btu/h | 24,200 (3) | 34,100 (3) | 47,800 (3) | | |
| | | | kcal/h | 6,100 (3) | 8,600 (3) | 12,000 (3) | | |
| Heating capacity | Nom. | | kW | 8.0 (4) | 11.2 (4) | 16 (4) | | |
| | | | Btu/h | 27,300 (4) | 38,200 (4) | 54,600 (4) | | |
| | | | | 6,900 (4) | 9,600 (4) | 13,800 (4) | | |
| Power input | Cooling | Nom. | kW | 1.85 | 2.47 | 4.36 | | |
| | Heating | ig Nom. | | 1.70 | 2.38 | 3.99 | | |
| EER | • | | • | 3.84 | 4.05 | 3.21 | | |
| COP | | | | 4. | 71 | 4.01 | | |
| SEER | | | | 4.67 (5) | 4.62 (5) | 4.17 (5) | | |
| Annual energy cons | umption | | kWh | 925 | 2,180 | | | |
| Energy label | Cooling | | • | A | | | | |
| | Heating | | | | А | | | |

| 2-2 Technical S | pecifications | | | RZQG71LV1B | RZQG100LV1B | RZQG125LV1B | RZQG140LV1B | | | | |
|-----------------------|---------------|--------------|--------|--------------------------------------|---------------------------------------|------------------------|-------------|--|--|--|--|
| Capacity control step | | | % | | 10 | 0-0 | | | | | |
| Casing | Colour | | | | lvory | white | | | | | |
| Dimensions | Unit | Height | mm | 990 | 990 1,430 | | | | | | |
| | | Width | mm | 940 | | | | | | | |
| | | Depth | mm | | 3. | 20 | | | | | |
| Weight | Unit | | kg | 77 | | 99 | | | | | |
| Heat exchanger | Rows | Quantity | | | | 2 | | | | | |
| | Fin pitch mm | | | | 1 | .4 | | | | | |
| | Face area | | m² | 0.884 | | 1.286 | | | | | |
| | Stages | Quantity | | 44 | | 64 | | | | | |
| | Tube type | | | | Cross fin coil (waffle f | fins and Hi-XSL tubes) | | | | | |
| Fan | Туре | | | | Prope | ller fan | | | | | |
| | Air flow rate | Cooling High | m³/min | 59 | | | | | | | |
| Fan motor | Quantity | | | 1 2 | | | | | | | |
| | Model | | | P51J11F | | | | | | | |
| | Output | | W | | Ç | 94 | | | | | |
| Fan motor 2 | Output | | W | - | | 94 | | | | | |
| Sound power level | Nom. | | dBA | 64 | 66 | 67 | 68 | | | | |
| Sound pressure level | Cooling | Nom. | dBA | 48 | 50 | Ę | 51 | | | | |
| | Heating | Nom. | dBA | 50 | 52 | 52 53 | | | | | |
| Compressor | Model | | | 2YC63FXD#D | 5VD420XAA21 | | | | | | |
| · _ | Туре | | | Hermetically sealed swing compressor | Hermetically sealed rotary compressor | | | | | | |
| | Output | | W | 1.62 | 2.14 | 2.90 | 3.60 | | | | |

2 Specifications

| 2-2 Technical S | Specifications | | | | RZQG71LV1B | RZQG100LV1B | RZQG125LV1B | RZQG140LV1B | | | |
|--------------------|------------------|----------------|------------|------|----------------------|---------------|---------------|-------------|--|--|--|
| Operation range | Cooling | Ambient | Min. | °CDB | | -1 | 5 | | | | |
| | | | Max. | | 50 | | | | | | |
| | Heating | Ambient | Min. | °CWB | | -2 | 20 | | | | |
| | | | Max. | °CWB | | 15 | 5.5 | | | | |
| Refrigerant | Туре | | | | | R-4 | 10A | | | | |
| | Charge | | | kg | 3.5 | | 4.0 | | | | |
| | Control | | | | | Electronic ex | pansion valve | | | | |
| Refrigerant oil | Туре | | | | FVC50K FV50S | | | | | | |
| | Charged volume | | | I | 0.9 | | | | | | |
| Piping connections | Liquid | OD | | mm | 9.52 | | | | | | |
| | Gas | Gas Type | | | | | | | | | |
| | | OD | OD mm | | 15.9 | | | | | | |
| | Drain | Туре | | | Hole | | | | | | |
| | | OD | | mm | | 26 | 5.0 | | | | |
| | Piping length | Max. | OU - IU | m | 50 | | 75 | | | | |
| | | System | Equivalent | m | 70 | | 90 | | | | |
| | Level difference | IU - OU Max. m | | | 30 | | | | | | |
| Safety devices | Item | 01 | | | High pressure switch | | | | | | |
| | | 02 | | | Fuse | | | | | | |

| 2-3 Electrical S | pecifications | | RZQG71LV1B RZQG100LV1B RZQG125LV1B RZQG140LV1B | | | | | | |
|------------------|---------------|----|--|--|--|--|--|--|--|
| Power supply | Phase | | 1 | | | | | | |
| | Frequency | Hz | 50 | | | | | | |
| | Voltage | V | 220-240 | | | | | | |

Notes

- 1 Energy label: scale from A (most efficient) to G (less efficient)
- 2 Annual energy consumption: based on average use of 500 running hours per year at full load (nominal conditions)
- 3 Cooling: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB; 24°CWB; equivalent piping lengt: 5m (horizontal)
- 4 Heating: indoor temp. 20°CDB, 15°CWB; outdoor temp. 7°CDB, 6°CWB; equivalent refrigerant piping: 5m (horizonta)
- 5 SEER: Pr-EN14825 inquiry version 2010
- 6 All data mentioned is preliminary information

3 Electrical data

3 - 1 Electrical Data

RZQG-LV1B

| Unit con | nbination | | Power sup | oply | | | Co | mp | OF | М | IF | M |
|-------------|-------------|----------------------|---------------|-------|------|-----|-----|-------|-----------------------|-------------------|--------|------|
| Indoor | Outdoor | Hz - Volts | Voltage range | MCA | TOCA | MFA | MSC | RLA | KW | FLA | KW | FLA |
| FCQG71EVEB | RZQG71LV1B | | | 18. 1 | - | 20 | - | 15. 6 | 0.094 | 0.4 | 0.048 | 0.4 |
| FHQG71CVEB | RZQG71LV1B | | | 18. 6 | - | 20 | - | 15. 6 | 0. 094 | 0.4 | 0. 091 | 0.8 |
| FCQG100EVEB | RZQG100LV1B | | | 28. 8 | - | 32 | - | 24. 2 | 0. 094 + 0. 094 | 0. 4 + 0. 4 | 0. 106 | 1.0 |
| FHQG100CVEB | RZQG100LV1B | 50 - 220 50 - 230 | Max. 50Hz264V | 29. 0 | - | 32 | - | 24. 2 | 0. 094 + 0. 094 | 0. 4 + 0. 4 | 0. 150 | 1. 2 |
| FCQG125EVEB | RZQG125LV1B | 50 - 240 | Min. 50Hz198V | 28. 9 | - | 32 | - | 24. 2 | 0. 094 + 0. 094 | 0.4 + 0.4 | 0. 106 | 1.1 |
| FHQG125CVEB | RZQG125LV1B | | | 29. 5 | - | 32 | - | 24. 2 | 0. 094 + 0. 094 | 0.4 + 0.4 | 0. 150 | 1.6 |
| FCQG140EVEB | RZQG140LV1B | | | 28. 9 | - | 32 | - | 24. 2 | 0. 094 + 0. 094 | 0.4 + 0.4 | 0. 106 | 1.1 |
| FHQG140CVEB | RZQG140LV1B | | | 29.8 | - | 32 | - | 24. 2 | 0. 094 + 0. 094 | 0.4 + 0.4 | 0. 150 | 1.8 |

SYMBOLS

MCA : Min. Circuit Amps. (A)
TOCA : Total Over-current Amps. (A)
MFA : Max. Fuse Amps (See note 7).

MFA : Max. Fuse Amps (See note 7). (A)
MSC : Max. current during the Starting Compressor. (A)

FLA : Rated Load Amps. (A)
OFM : Outdoor Fan Motor. (A)
IFM : Indoor Fan Motor.
FLA : Full Load Amps.

KW : Fan Motor Rated Output. (kW)

NOTES

1. RLA is based on the following conditions.

Power supply: 50Hz 230V

Cooling

Indoor temp. 27.0 °C DB / 19.0 °C WB

Outdoor temp. 35.0 °C DB

Heating

Indoor temp. 20.0 °C DB

Outdoor temp. 7.0 °C DB / 6.0 °C WB

- 2. TOCA means the total value of each OC set.
- 3. Voltage range
 - Units are suitable for use on electrical systems where voltage supplied to unit terminal is not below or above listed range limits.
- 4. Maximum allowable voltage variation between phases is 2%
- 5. MCA represents maximum input current.
 - MFA represents capacity which may accept MCA.
- 6. Select wire size based on the larger value of MCA or TOCA.
- MFA is used to select the circuit breaker and the ground fault circuit interrupter (earth leakage circuit breaker).

4 Options

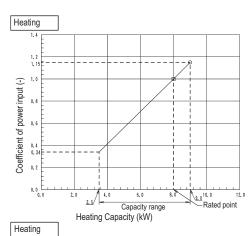
4 - 1 Options

| QG-LV1B | | | |
|---------------------------------------|-----------------------|------|-----|
| TIONS | | | |
| NAME OF OPTION | KIT NAME |] | |
| Central drain plug Demand adapter kit | KKPJ5G280 KRP58M51 | - | |
| Demand adapter kit | KRP58M51 |] | |
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5 Capacity tables

5 - 1 Cooling/Heating Capacity Tables

Cooling Capacity (kW)



Indoor Outdoor temperature (°C DB)

| EDB | CD | TC | SHC | CP| TC | SHC |

Symbols

Cooling

AFR: Air flow rate (m³/min.)

BF: Bypass factor EWB: Entering wet bulb temp. (°C WB)

EDB: Entering dry bulb temp. (°C DB)
TC: Total cooling (heating)

capacity (kW)
SHC: Sensible heat capacity (kW)
PI: Power input (kW)

(Comp. + indoor + outdoor fan motor).
CPI: Coefficient of power input. (-)

Caution:

TC and SHC are shown by kW.

NOTES

- 1. Ratings shown are net capacities which include a deduction for indoor fan motor heat
- 2. On the figure the mark with \bigcirc shows the max. Onces at standard conditions.

On the figure the mark with ____ shows rated capacity and rated coefficient of power input. However the max. capacity is not guaranteed except at standard condition.

SHC* is based on each EWB and EDB.

SHC =SHC correction for other dry bulb.

=0.02xAFR (m³/min.) x (1-BF) x (DB* - EDB)

Add SHC to SHC*.

Capacities are based on the following conditions.

Outdoor air: 85% RH. However, the condition rated capacity is 7°C DB/6°C WB. (heating)

Corresponding refrigerant piping length: 5.0m

Level difference: 0m

- 5. Coefficient of power input is the percentage when the rated value is defined as 1.00.
- 6. The value contains less than 5% error according to indoor unit type.
- 7. Heating performance include the drop of frost formation.
- Air flow rate and (BF) are tabulated below.

| (Pair) | | | | | | | | | | | |
|-------------|----------------|----------------|--|--|--|--|--|--|--|--|--|
| | FCQG71E | FCQG71C | | | | | | | | | |
| AFR (BF) | 21.5 (0.14) | 20.5 (0.13) | | | | | | | | | |

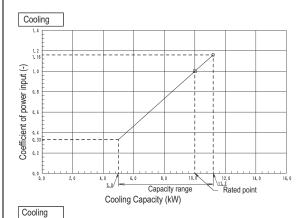
9. Rated power input of each model is tabulated below.

| Pair) | | |
|---------|---------|---------|
| | FCQG71E | FCQG71C |
| Cooling | 1.85 | 1.95 |
| Heating | 1 70 | 2.05 |

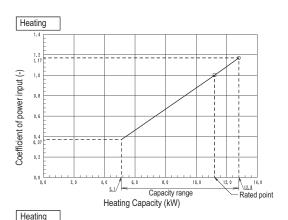
Capacity tables 5

5 - 1 Cooling/Heating Capacity Tables

RZQG100LV1B



| Ind | oor | | | | Outd | oor te | mpera | rature (°C DB) | | | | | | |
|-------|-------|-------|-------|------|-------|--------|-------|----------------|-------|-------|-------|------|-------|--|
| EWB | EDB | | 25 | | | 30 | | | 35 | | | 40 | | |
| (%) | (°C) | TC | SHC | CPI | TC | SHC | CPI | TC | SHC | CPI | TC | SHC | CPI | |
| , | , - , | (kW) | (kW) | (-) | (kW) | (kW) | (-) | (kW) | (kW) | (-) | (kW) | (kW) | (-) | |
| 16.0 | 22 | 10, 2 | 6, 93 | 0,88 | 10, 2 | 7,00 | 1,03 | 10.5 | 7, 29 | 1, 15 | 10, 1 | 7,08 | 1, 26 | |
| 18.0 | 25 | 11.8 | 7, 59 | 0.96 | 11.3 | 7.45 | 1.06 | 11.0 | 7, 27 | 1, 16 | 10.5 | 7.06 | 1.28 | |
| 19,0 | 27 | 12.0 | 7.57 | 0.97 | 11,6 | 7.43 | 1,06 | 11.2 | 7. 26 | 1, 16 | 10.8 | 7.04 | 1.28 | |
| 19, 5 | 27 | 12.1 | 7.56 | 0.97 | 11.8 | 7.41 | 1,06 | 11.3 | 7, 25 | 1, 16 | 10.9 | 7.03 | 1, 28 | |
| 22.0 | 30 | 12.7 | 7.46 | 0.99 | 12.3 | 7.32 | 1.07 | 11.9 | 7.16 | 1.17 | 11.4 | 6.96 | 1.29 | |
| 24 0 | 32 | 13 2 | 7 36 | 0 99 | 12 8 | 7 22 | 1 08 | 12 4 | 7 06 | 1 18 | 11 9 | 6 87 | 1 30 | |



| 1100 | Treating | | | | | | | | | | | | |
|--------|------------|-----------------------------|------------|------------|------------|------------|---------|------------|------------|------------|------------|------------|--|
| Indoor | | Outdoor temperature (°C WB) | | | | | | | | | | | |
| EDB | - | 15 | - | 10 | _ | 5 | 0 | | 6 | | 1 | 0 | |
| (%) | TC (kW) | CPI (-) | TC (kW) | CPI (-) | TC (kW) | CP1 (-) | TC (kW) | CPI (-) | TC (kW) | CPI (-) | TC (kW) | CP1 (-) | |
| 16.0 | 7, 16 | 0,88 | 7.91 | 0.94 | 8, 66 | 0, 98 | 9, 41 | 1, 02 | 12, 8 | 1, 08 | 13, 8 | 1, 13 | |
| 18.0 | 7, 15 | 0.92 | 7.90 | 0.97 | 8, 65 | 1.02 | 9.39 | 1.07 | 12.8 | 1, 12 | 13.8 | 1, 18 | |
| 20.0 | 7.15 | 0.95 | 7.89 | 1.01 | 8.64 | 1.06 | 9.38 | 1, 11 | 12.8 | 1.17 | 13.8 | 1.23 | |
| 21.0 | 7, 14 | 0,98 | 7.89 | 1.02 | 8, 63 | 1.08 | 9.38 | 1, 13 | 12.8 | 1, 19 | 13, 8 | 1, 25 | |
| 22.0 | 7, 14 | 1,00 | 7.88 | 1.05 | 8, 63 | 1, 10 | 9.37 | 1, 16 | 12.8 | 1, 22 | 13.7 | 1, 28 | |
| 24.0 | 7.13 | 1.03 | 7.87 | 1.09 | 8.62 | 1.14 | 9.36 | 1.19 | 12.8 | 1.26 | 13.7 | 1.32 | |

Symbols

(m³/min.) AFR: Air flow rate Bypass factor Entering wet bulb temp. (°C WB) FWR: (°C DB) FDB: Total cooling (heating) capacity (kW) SHC: Sensible heat capacity (kW) Power input PI: (kW) (Comp. + indoor + outdoor fan motor).

Coefficient of power input. (-)

Caution:

TC and SHC are shown by kW.

NOTES

- Ratings shown are net capacities which include a deduction for indoor fan motor heat.
- On the figure the mark with O shows the max. Onces at standard conditions.

On the figure the mark with ____ shows rated capacity and rated coefficient of power input.

However the max. capacity is not guaranteed except at standard condition.

SHC* is based on each EWB and EDB.

SHC =SHC correction for other dry bulb.

=0.02xAFR (m³/min.) x (1-BF) x (DB* - EDB)

Add SHC to SHC*.

- Capacities are based on the following conditions.
 - Outdoor air: 85% RH. However, the condition rated capacity is 7°C DB/6°C WB. (heating)

Corresponding refrigerant piping length: 5.0m

Level difference: 0m

- Coefficient of power input is the percentage when the rated value is defined as 1.00.
- The value contains less than 5% error according to indoor unit type.
- Heating performance include the drop of frost formation. Air flow rate and (BF) are tabulated below.

| (Pair) | | |
|-------------|--------------|--------------|
| | FCQG100E | FCQG100C |
| AFR (BF) | 32 (0.17) | 28 (0.09) |

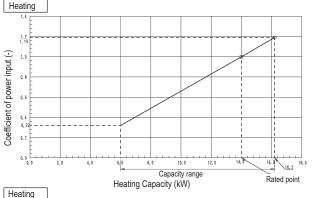
Rated power input of each model is tabulated below.

| | (Pair) |
|-----|---------------|
| - 1 | $\overline{}$ |

| i uii / | | | | |
|---------|----------|----------|--|--|
| | FCQG100E | FCQG100C | | |
| Cooling | 2.47 | 2.61 | | |
| Heating | 2.38 | 2.67 | | |

5 Capacity tables

5 - 1 Cooling/Heating Capacity Tables



| Indo | or | | Outdoor temperature (°C DB) | | | | | | | | | | |
|------|-----|------------|-----------------------------|------------|------------|-------------|------------|------------|-------------|------------|------------|-------------|-------|
| EWB | EDB | | 25 | | | 30 | | | 35 | | | 40 | |
| (°°) | (%) | TC (kW) | SHC (kW) | CPI (-) | TC (kW) | SHC (kW) | CPI (-) | TC (kW) | SHC (kW) | CPI (-) | TC (kW) | SHC (kW) | (-) |
| 16.0 | 22 | 12.8 | 8.66 | 0.88 | 12.8 | 8.75 | 1.03 | 13, 1 | 9.12 | 1.15 | 12.7 | 8.85 | 1.26 |
| 18,0 | 25 | 14.7 | 9.50 | 0.96 | 14.2 | 9.32 | 1.06 | 13, 7 | 9.09 | 1, 16 | 13, 2 | 8.83 | 1, 28 |
| 19,0 | 27 | 14.9 | 9,46 | 0.97 | 14, 4 | 9, 28 | 1,06 | 14, 0 | 9,06 | 1, 16 | 13, 4 | 8, 80 | 1, 28 |
| 19,5 | 27 | 15, 1 | 9, 45 | 0.97 | 14, 7 | 9, 27 | 1,06 | 14, 1 | 9, 05 | 1, 16 | 13, 6 | 8.79 | 1, 28 |
| 22.0 | 30 | 15.9 | 9, 33 | 0,99 | 15.5 | 9, 16 | 1.07 | 14.9 | 8, 95 | 1.17 | 14.3 | 8.69 | 1, 29 |
| 24.0 | 32 | 16, 5 | 9, 20 | 0.99 | 16,0 | 9,03 | 1,08 | 15, 5 | 8, 83 | 1, 18 | 14, 9 | 8, 59 | 1,30 |

| | - Totaling | | | | | | | | | | | |
|--|--|--------------------------------------|--|--|--------------------------------------|--|--------------------------------------|--|--|--|--|--|
| Indoor | | Outdoor temperature (°C WB) | | | | | | | | | | |
| EDB | - | -15 -10 -5 0 6 10 | | | | | | | | | | |
| (%) | TC (kW) | CPI (-) | TC (kW) | (-) | TC (kW) | (-) | TC (kW) | CPI (-) | TC (kW) | CPI (-) | TC (kW) | CPI (-) |
| 16. 0 18. 0 20. 0 21. 0 22. 0 24. 0 | 8. 83 8. 82 8. 81 8. 81 8. 80 8. 79 | 0.90 0.94 0.98 0.99 1.01 | 9. 76 9. 74 9. 73 9. 73 9. 72 9. 71 | 0. 95 0. 98 1. 03 1. 04 1. 06 1. 10 | 10.7 10.7 10.7 10.6 10.6 | 0. 99 1. 04 1. 08 1. 10 1. 12 1. 16 | 11.6 11.6 11.6 11.6 11.6 | 1. 04 1. 09 1. 13 1. 15 1. 17 1. 22 | 16. 2 16. 2 16. 2 16. 2 16. 2 16. 2 | 1. 09 1. 14 1. 19 1. 21 1. 24 1. 29 | 17. 5 17. 5 17. 5 17. 5 17. 5 17. 5 | 1. 15 1. 20 1. 25 1. 27 1. 30 1. 34 |

Symbols

AFR: Air flow rate (m³/min.)

BF: Bypass factor
EWB: Entering wet bulb temp. (°C WB)
EDB: Entering dry bulb temp. (°C DB)

EDB: Entering dry bulb temp.
TC: Total cooling (heating)

capacity (kW)
SHC: Sensible heat capacity (kW)
PI: Power input (kW)
(Comp. + indoor + outdoor fan motor).

CPI: Coefficient of power input. (-)

Caution:

TC and SHC are shown by kW.

NOTES

- 1. Ratings shown are net capacities which include a deduction for indoor fan motor heat.
- 2. On the figure the mark with \bigcirc shows the max. Onces at standard conditions.

On the figure the mark with ____ shows rated capacity and rated coefficient of power input.

However the max. capacity is not guaranteed except at standard condition.

SHC* is based on each EWB and EDB.

SHC =SHC correction for other dry bulb.

=0.02xAFR (m³/min.) x (1-BF) x (DB* - EDB)

Add SHC to SHC*.

. Capacities are based on the following conditions.

Outdoor air: 85% RH. However, the condition rated capacity is 7°C DB/6°C WB. (heating)

Corresponding refrigerant piping length: 5.0m

Level difference: 0m

- 5. Coefficient of power input is the percentage when the rated value is defined as 1.00.
- 6. The value contains less than 5% error according to indoor unit type.
- 7. Heating performance include the drop of frost formation.
- Air flow rate and (BF) are tabulated below.

| (Pair) | | |
|-------------|--------------|--------------|
| | FCQG125E | FCQG125C |
| AFR (BF) | 33 (0.21) | 31 (0.14) |

9. Rated power input of each model is tabulated below.

| (Pair) | roi input oi o | |
|---------|----------------|----------|
| | FCQG125E | FCQG125C |
| Cooling | 3.61 | 3.87 |
| | | |

Rated point

5 **Capacity tables**

5 - 1 Cooling/Heating Capacity Tables

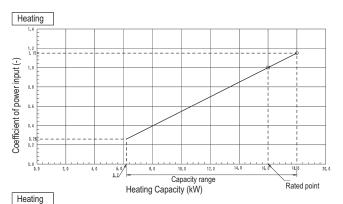
RZQG140LV1B Cooling Coefficient of power input (-)

Cooling Capacity (kW)

Capacity range



| | Indo | or | | Outdoor temperature (°C DB) | | | | | | | | | | |
|-----|------|-----|------------|-----------------------------|------------|------------|-------------|------------|------------|-------------|------------|------------|-------------|-------|
| Ì | EWB | EDB | | 25 | | | 30 | | | 35 | | 40 | | |
| | (%) | (%) | TC (kW) | SHC (kW) | CPI (-) | TC (kW) | SHC (kW) | CPI (-) | TC (kW) | SHC (kW) | CPI (-) | TC (kW) | SHC (kW) | (-) |
| | 16.0 | 22 | 14.1 | 9.53 | 0.87 | 14.0 | 9.61 | 1.01 | 14.4 | 10.0 | 1.13 | 13.9 | 9.72 | 1.24 |
| | 18.0 | 25 | 16.1 | 10.5 | 0, 95 | 15, 6 | 10.2 | 1.04 | 15, 1 | 10,0 | 1, 14 | 14, 5 | 9, 70 | 1, 25 |
| | 19.0 | 27 | 16.5 | 10.4 | 0.96 | 16.0 | 10.2 | 1.04 | 15.4 | 9.98 | 1.14 | 14.7 | 9.68 | 1. 25 |
| | 19.5 | 27 | 16.6 | 10.4 | 0,96 | 16, 2 | 10.2 | 1,04 | 15, 5 | 9, 96 | 1, 14 | 15,0 | 9,67 | 1, 25 |
| | 22.0 | 30 | 17.5 | 10.3 | 0.97 | 16.9 | 10.1 | 1.05 | 16.4 | 9.85 | 1.15 | 15.7 | 9.56 | 1.27 |
| - [| 24.0 | 32 | 18, 2 | 10, 1 | 0,97 | 17, 6 | 9, 93 | 1,06 | 17, 1 | 9, 71 | 1, 16 | 16, 4 | 9, 45 | 1, 28 |



| Indoor | | Outdoor temperature (°C WB) | | | | | | | | | | |
|--------|----------------|-----------------------------|------------|------------|------------|-------|---------|-------|------------|-------|------------|-------|
| EDB | -15 -10 -5 0 6 | | | | | | 1 | 0 | | | | |
| (%) | TC (kW) | CPI | TC (kW) | CPI (-) | TC (kW) | CPI | TC (EW) | CPI | TC (FW) | CPI | TC (kW) | CPI |
| 16.0 | 9, 82 | 0, 87 | 10.8 | 0, 92 | 11. 9 | 0, 96 | 12, 9 | 1, 01 | 18, 0 | 1, 06 | 19, 5 | 1, 12 |
| 18.0 | 9, 80 | 0.91 | 10,8 | 0.95 | 11.8 | 1.00 | 12, 9 | 1.05 | 18,0 | 1, 10 | 19, 4 | 1.16 |
| 20.0 | 9.79 | 0.94 | 10.8 | 0.99 | 11.8 | 1.04 | 12.9 | 1.09 | 18.0 | 1.15 | 19.4 | 1. 21 |
| 21.0 | 9, 79 | 0.98 | 10.8 | 1.01 | 11.8 | 1.06 | 12.8 | 1. 13 | 18,0 | 1. 20 | 19, 4 | 1. 23 |
| 24.0 | 9.77 | 1.01 | 10.8 | 1.07 | 11.8 | 1.12 | 12.8 | 1.18 | 18.0 | 1.24 | 19.4 | 1.30 |

Symbols

(m³/min.) AFR: Air flow rate Bypass factor Entering wet bulb temp. EWB: (°C WB) (°C DB) FDB: Total cooling (heating) capacity (kW) SHC: Sensible heat capacity (kW) Power input (kW) (Comp. + indoor + outdoor fan motor).

Coefficient of power input. (-)

Caution:

TC and SHC are shown by kW.

NOTES

- Ratings shown are net capacities which include a deduction for indoor fan motor heat.
- On the figure the mark with O shows the max. Onces at standard conditions.

On the figure the mark with ____ shows rated capacity and rated coefficient of power input.

However the max. capacity is not guaranteed except at standard condition.

SHC* is based on each EWB and EDB.

SHC =SHC correction for other dry bulb.

=0.02xAFR (m³/min.) x (1-BF) x (DB* - EDB)

Add SHC to SHC*.

- Capacities are based on the following conditions.
 - Outdoor air: 85% RH. However, the condition rated capacity is 7°C DB/6°C WB. (heating)

Corresponding refrigerant piping length: 5.0m

Level difference: 0m

- Coefficient of power input is the percentage when the rated value is defined as 1.00.
- The value contains less than 5% error according to indoor unit type. Heating performance include the drop of frost formation.
- Air flow rate and (BF) are tabulated below.

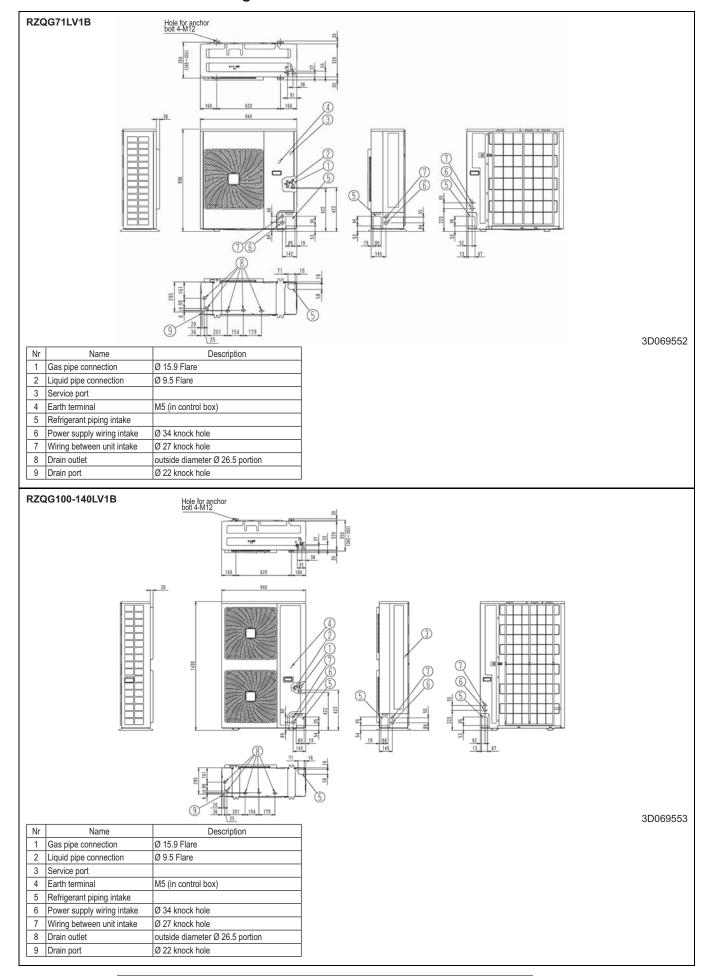
| (raii) | | |
|-------------|--------------|--------------|
| | FCQG140E | FCQG140C |
| AFR (BF) | 33 (0.23) | 34 (0.17) |

Rated power input of each model is tabulated below.

| i alij | | |
|---------|----------|----------|
| | FCQG140E | FCQG140C |
| Cooling | 4.36 | 4.65 |
| Heating | 3.99 | 4.42 |

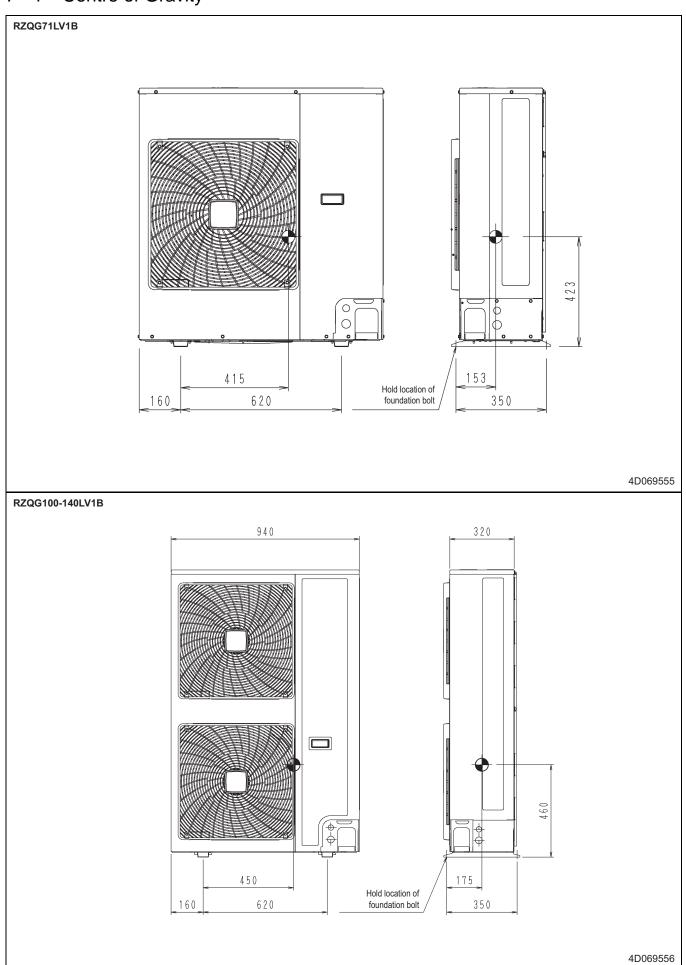
6 Dimensional drawings

6 - 1 Dimensional Drawings



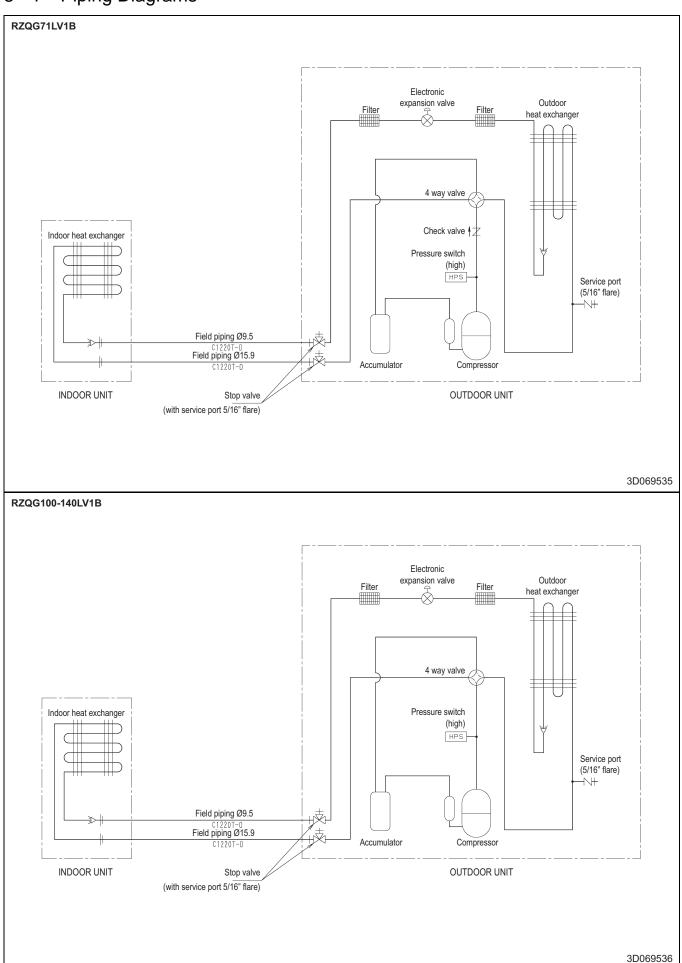
7 Centre of gravity

7 - 1 Centre of Gravity



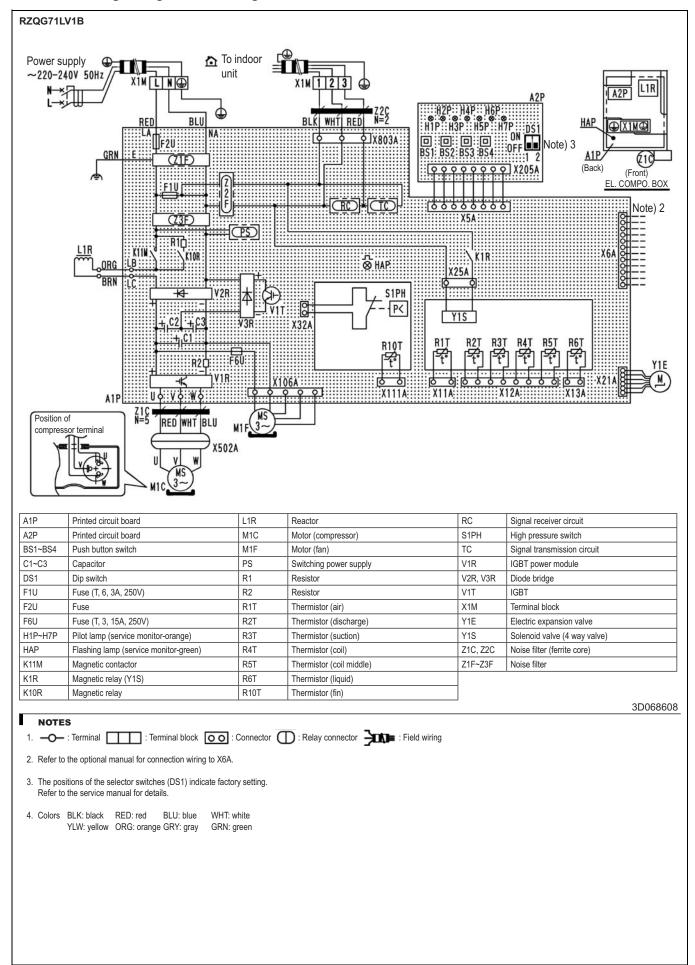
8 Piping diagrams

8 - 1 Piping Diagrams



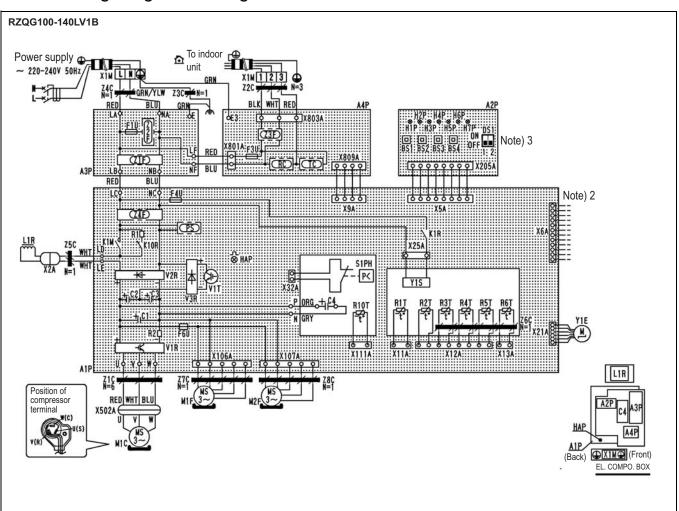
9 Wiring diagrams

9 - 1 Wiring Diagrams - Single Phase



9 Wiring diagrams

9 - 1 Wiring Diagrams - Single Phase



| A1P | Printed circuit board | K10R | Magnetic relay | R6T | Thermistor (liquid) |
|---------------|---------------------------------------|------|--------------------------|----------|------------------------------|
| A2P | Printed circuit board | L1R | Reactor | R10T | Thermistor (fin) |
| A3P | Printed circuit board | M1C | Motor (compressor) | RC | Signal receiver circuit |
| A4P | Printed circuit board | M1F | Motor (fan) (upper) | S1PH | High pressure switch |
| BS1~BS4 | Push button switch | M2F | Motor (fan) (lower) | TC | Signal transmission circuit |
| C1~C4 | Capacitor | PS | Switching power supply | V1R | IGBT power module |
| DS1 | Dip switch | R1 | Resistor | V2R, V3R | Diode bridge |
| F1U, F3U, F4U | Fuse (T, 6, 3A, 250V) | R2 | Resistor | V1T | IGBT |
| F6U | Fuse (T, 5, 0A, 250V) | R1T | Thermistor (air) | X1M | Terminal block |
| H1P~H7P | Pilot lamp (service monitor-orange) | R2T | Thermistor (discharge) | Y1E | Electric expansion valve |
| HAP | Flashing lamp (service monitor-green) | R3T | Thermistor (suction) | Y1S | Solenoid valve (4 way valve) |
| K1M | Magnetic contactor | R4T | Thermistor (coil) | Z1C~Z8C | Noise filter (ferrite core) |
| K1R | Magnetic relay (Y1S) | R5T | Thermistor (coil middle) | Z1F~Z4F | Noise filter |
| | • | | • | | 3D06926 |

NOTES

1. —O— : Terminal IIII : Terminal block OO : Connector III : Relay connector : Field wiring

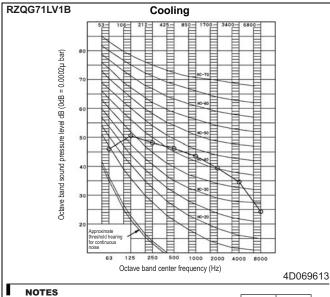
^{2.} Refer to the optional manual for connection wiring to X6A.

^{3.} The positions of the selector switches (DS1) indicate factory setting. Refer to the service manual for details.

^{4.} Colors BLK: black RED: red BLU: blue WHT: white YLW: yellow ORG: orange GRY: gray GRN: green

10 Sound data

10 - 1 Sound Pressure Spectrum





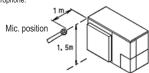
- Over All (dB):
- (B,G,N is already rectified) Operating conditions:

Power source: 220~240V 50Hz

Cooling: Indoor unit: Return air temperature: 27°C DB, 19°C WB

Outdoor unit: Outdoor temperature: 35°C DB, 24°C WB

- Measuring place: Anechoic chamber
 The operating sound is measured in anechoic chamber, if it is measured under the actual installation conditions, it is normally over the set value due to environmental noise and sound reflection.
- Location of microphone





| INZ QOT ILV ID | rieating | | | |
|--|---------------------------------|-------|-------|----------|
| eq rf2000'0 = 800) 80 level ainssaud punos pued eveloc | 53 106 212 425 850 1700 3400 68 | 8000 | 4D069 | 9614 |
| NOTES | | | | . — I |
| 1 Over All (dB): | | Scale | 50Hz | |
| (B,G,N is alread | rectified) | Δ | 50 | |

Heating

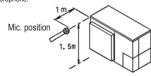
- Operating conditions:

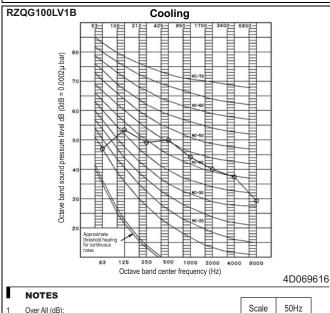
RZQG71LV1B

Power source: 220~240V 50Hz
Cooling: Indoor unit: Return air temperature: 20°C DB, 15°C WB Outdoor unit: Outdoor temperature: 7°C DB, 6°C WB

- Measuring place: Anechoic chamber

 The operating sound is measured in anechoic chamber, if it is measured under the actual installation conditions, it is normally over the set value due to environmental noise and sound reflection.
- Location of microphone





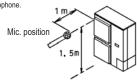
- Over All (dB):
- (B,G,N is already rectified) Operating conditions: Power source: 220~240V 50Hz

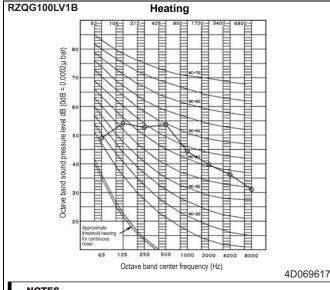
Cooling: Indoor unit: Return air temperature: 27°C DB, 19°C WB Outdoor unit: Outdoor temperature: 35°C DB, 24°C WB

Measuring place: Anechoic chamber

- The operating sound is measured in anechoic chamber, if it is measured under the actual installation conditions, it is normally over the set value due to environmental noise and sound reflection.

Location of microphone





NOTES

50

56

Α

Over All (dB):

(B,G,N is already rectified)

Operating conditions: Power source: 220~240V 50Hz

Cooling: Indoor unit: Return air temperature: 20°C DB, 15°C WB
Outdoor unit: Outdoor temperature: 7°C DB, 6°C WB

Measuring place: Anechoic chamber

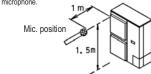
The operating sound is measured in anechoic chamber, if it is measured under the actual installation conditions, it is normally over the set value due to environmental noise and sound reflection. Location of microphone

50Hz

52

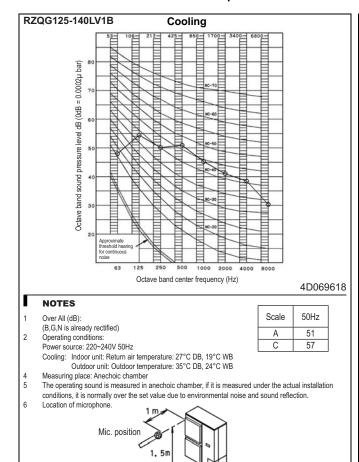
59

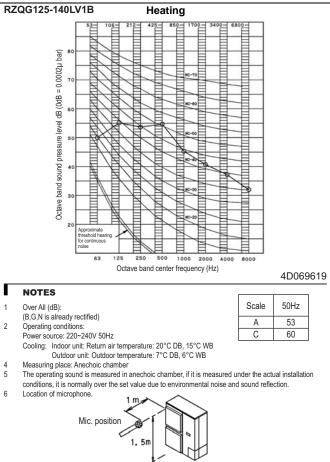
Α



10 Sound data

10 - 1 Sound Pressure Spectrum





11 Installation

11 - 1 Installation Method

RZQG-LV1B

<u>Installation service space</u>

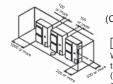
- (A) When there are obstacles on suction sides
- No obstacle above
- 1 Stand-alone installation
 - · Obstacle on the suction side only



Obstacle on both sides and suction side, too



- ② Series installation (2 or more)(Note 1)
 - Obstacle on the suction side and both sides



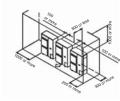
- · Obstacle above, too
- 1 Stand-alone installation
 - Obstacle on the suction side, too



· Obstacle on both sides and suction side, too



- ② Series installation (2 or more)(Note 1)
 - · Obstacle on the suction side and both sides

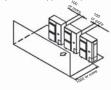


- (B) When there are obstacles on discharge sides
 - · No obstacle above
 - Stand-alone installation
 - Obstacle on the discharge side only

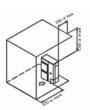


② Series installation (2 or more)(Note 1)

· Obstacle on the discharge side only

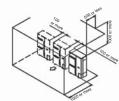


- · Obstacle above, too
- 1) Stand-alone installation
 - Obstacle on the discharge side only, too



2 Series installation (2 or more)(Note 1)

 Obstacle on the discharge side



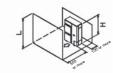
(C) When there are obstacles on both suction and discharge sides

Pattern 1

When the obstacles on the discharge side is higher than

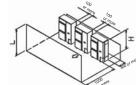
(There is no limit for the height of obstructions on the

- · No obstacle above
- (1) Stand-alone installation
 - · No obstacle above



(2) Series installation (2 or more)(Note 1

No obstacle above

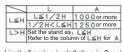


- · Obstacle above, too
- 1 Stand-alone installation (Note 2)
 - · When there are obstacles on suction, discharge and top sides

| | L | A | |
|--------|---|-----------------|--------|
| 1 - 11 | L≤1/2H | 750 or more | |
| Lan | | 1 0 0 0 or more | K |
| L>H | Set the stand as: Refer to the colur | 1 10 | |
| | Refer to the colur | nn of L≦H for A | N. |
| | | | V 1124 |
| | | | \ III |
| | | | |
| | | | ~ |

- 2 Series installation (2 or more)(Note 1, Note 2)
 - · When there are obstacles on suction, discharge and top sides

The relations between H. A and L are as follows



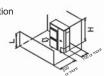
Limit of series installation is 2 unit

Pattern 2

When the obstacle on the discharge side is lower than the unit (L ≤ H)

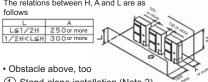
(There is no limit for the height of obstructions on the suction side)

- No obstacle above
- Stand-alone installation
 - No obstacle above



- (2) Series installation (2 or more)(Note 1)
- · When there are obstacles on both suction and discharge sides

The relations between H, A and L are as



- (1) Stand-alone installation (Note 2)
 - · When there are obstacles on suction, discharge and top sides

n H A and L are

| L≤H L≤1/2H 100 or more 1/2H <l≤h 200="" more<br="" or="">L>H Set the stand as: L≤H</l≤h> | / |
|--|-----------|
| | |
| L > LI Sot the stand as . I < LI | |
| Refer to the column of L≤H for A | 1 |
| | 1 1 |
| No. | \bowtie |

2 Series installation (2 or more)(Note 1, Note 2) · When there are obstacles on suction,

discharge and top sides The relations between H, A and L are as

| follow | /S | | < |
|---------------|---|-------------------|---|
| $\overline{}$ | L | A | |
| 1 - 11 | L≤1/2H | 250 or more |] |
| LSH | 1/2H <l≦h< td=""><td></td><td>1</td></l≦h<> | | 1 |
| L>H | Set the stand as: Refer to the colun | ·!< | |
| Limit | of series insta | ıllation is 2 uni | t |

(D) Double-decker installation

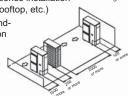
- Obstacle on the discharge side (Note 1)
 Do not exceed two levels for stacked
- Installation.

 Install a roof cover similar to A (field supply), as outdoor units with downward drainage are prone to dripping and freezing.

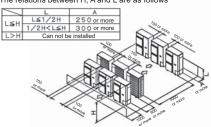
 Install the upper-level outdoor unit so that its
- bottom plate is a sufficient height above th roof cover. This is to prevent the buildup of ice on the underside of the bottom plate.
- 2 Obstacle on the suction side (Note 1)
- Do not exceed two levels for stacked installation
- Installation.

 Install a roof cover similar to A (field supply), as outdoor units with downward drainage are prone to dripping and freezing.

 Install the upper-level outdoor unit so that its
- bottom plate is a sufficient height above the roof cover. This is to prevent the buildup of on the underside of the bottom plate.
- (E) Multiple rows of series installation (on the rooftop, etc.)
- (1) One row of standalone installation



2 Rows of series installation (2 or more) The relations between H, A and L are as follows

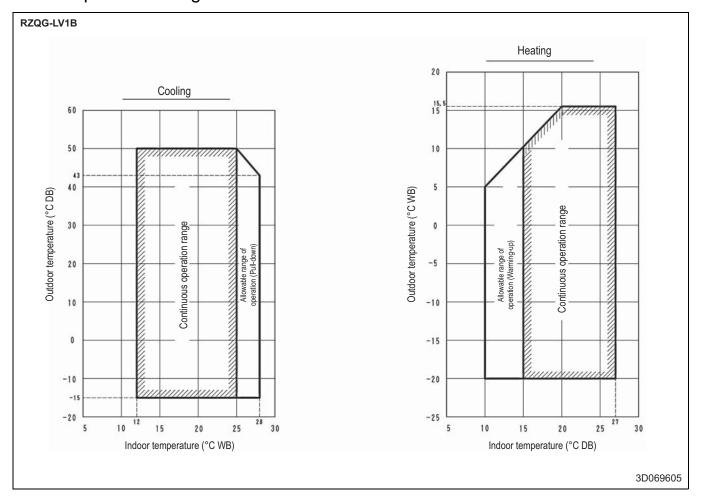


NOTES

- In case of the sideway's piping, make a 100mm gap between the unit above
- Close the bottom of the installation frame to prevent the discharged air from being bypassed.
- It is not necessary to install a roof cover if there is no danger of drainage dripping and freezing. In this case, the space between the upper and lower outdoor units should be at least 100mm. (Close off the gap between the upper and lower units so there is no reintake of discharged air.)

12 Operation range

12 - 1 Operation Range





Daikin's unique position as a manufacturer of air conditioning equipment, compressors and refrigerants has led to its close involvement in environmental issues. For several years Daikin has had the intention to become a leader in the provision of products that have limited impact on the environment. This challenge demands the eco design and development of a wide range of products and an energy management system, resulting in energy conservation and a reduction of waste.







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