



# Air Conditioning Technical Data

VRV IV S-series compact heat pump



EEDEN16-200\_2

RXYSCQ-TV1



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# 1 Features

## The most compact VRV

- Compact & lightweight single fan design makes the unit almost unnoticeable
- Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, air handling units and Biddle air cutains
- Wide range of indoor units: either connect VRV or stylish indoor units such as Daikin Emura, Nexura ...
- Incorporates VRV IV standards & technologies: Variable Refrigerant Temperature and full inverter compressors
- Customize your VRV for best seasonal efficiency & comfort with the weather dependant Variable Refrigerant Temperature function. Increased seasonal efficiency with up to 28%. No more cold draft by supply of high outblow temperatures
- VRV configurator software for the fastest and most accurate commissioning, configuration and customisation
- Outdoor unit display for quick on-site settings and easy read out of errors together with the indication of service parameters for checking basic functions.
- 3 steps in night quiet mode: step 1: 47dBA, step 2: 44 dBA, step 3: 41 dBA
- Simplified installation & guaranteed optimal efficiency with automatic charging & testing
- Easy compliance with F-gas regulation thanks to automated refrigerant containment check
- Possibility to limit peak power consumption between 30 and 80%, for example during periods with high power demand
- Connectable to all VRV control systems
- Keep your system in top condition via our i-Net service: 24/7 monitoring for maximum efficiency, extended lifetime, immediate service support thanks to failure prediction and a clear understanding of operability and usage



Inverter

## 2 Specifications

2-1 Technical Specifications				RXYSCQ4TV1	RXYSCQ5TV1
Capacity range		HP		4	5
Cooling capacity	Nom.	kW		12.1 (1)	14.0 (1)
Heating capacity	Nom.	kW		12.1 (2)	14.0 (2)
	Max.	kW		14.2 (2)	16.0 (2)
Power input - 50Hz	Cooling	Nom.	kW	3.43 (1)	4.26 (1)
	Heating	Nom.	kW	3.18 (2)	3.91 (2)
		Max.	kW	4.14 (2)	5.00 (2)
Capacity control	Method			Inverter controlled	
Maximum number of connectable indoor units				64 (3)	
Indoor index connection	Min.			50	62.5
	Nom.			-	
	Max.			130	162.5
Dimensions	Unit	Height	mm	823	
		Width	mm	940	
		Depth	mm	460	
	Packed unit	Height	mm	995	
		Width	mm	1,030	
		Depth	mm	580	
Weight	Unit	kg		94	
	Packed unit	kg		106	
Packing	Material				Carton
	Weight	kg		3.8	
Packing 2	Material				Wood
	Weight	kg		5.8	
Packing 3	Material				Plastic
	Weight	kg		1.1	
Casing	Colour				Daikin White
	Material				Painted galvanized steel plate
Heat exchanger	Type				Cross fin coil
	Fin	Treatment			
Compressor	Quantity				1
	Type				Hermetically sealed swing compressor
	Crankcase heater	W		33	
	Model				Inverter
Fan	Quantity				1
	Air flow rate	Cooling	Nom.	m <sup>3</sup> /min	91
	External static pressure	Max.		Pa	-
	Discharge direction				Horizontal
	Type				Propeller fan
Fan motor	Quantity				1
	Model				Brushless DC motor
	Output	W		200	
Sound power level	Cooling	Nom.	dBA	68 (4)	69 (4)
Sound pressure level	Cooling	Nom.	dBA	51 (5)	52 (5)
Operation range	Cooling	Min.~Max.	°CDB	-5~46	
	Heating	Min.~Max.	°CWB	-20~15.5	
Refrigerant	Type				R-410A
	Charge	kg		3.7	
		TCO <sub>2</sub> eq		7.7	
	GWP				2,087.5
Refrigerant oil	Type				Synthetic (ether) oil FVC50K
	Charged volume	l		1.4	

## 2 Specifications

2

2-1 Technical Specifications				RXYSCQ4TV1	RXYSCQ5TV1
Piping connections	Liquid	Type			Flare connection
		OD	mm	9.52	
	Gas	Type			Flare connection
		OD	mm	15.9	
	Heat insulation				Both liquid and gas pipes
	Piping length	OU - IU	Max.	m	300
	Total piping length	System	Actual	m	-
	Level difference	OU - IU	Outdoor unit in highest position	m	-
		Indoor unit in highest position	m		-
Defrost method				Reversed cycle	
Safety devices	Item	01			High pressure switch
		02			Fan driver overload protector
		03			Inverter overload protector
		04			PC board fuse
		05			Fusible plugs
PED	Category			Category I	
	Most critical part	Name		Compressor	
	Ps*V	Bar*I		167	

Standard Accessories : Installation manual;

Standard Accessories : Operation manual;

Standard Accessories : Connection pipes;

2-2 Electrical Specifications			RXYSCQ4TV1	RXYSCQ5TV1
Power supply	Name		V1	
	Phase		1~	
	Frequency	Hz	50	
	Voltage	V	220-240	
Voltage range	Min.	%	-10	
	Max.	%	10	
Current	Nominal running current (RLA) - 50Hz	Cooling	A	19.0 (6)
Current - 50Hz	Minimum circuit amps (MCA)	A	29.1	
	Maximum fuse amps (MFA)	A	32	
	Total overcurrent amps (TOCA)	A	29.1 (7)	
	Full load amps (FLA)	Total	A	0.6
Wiring connections - 50Hz	For power supply	Quantity		3G
	For connection with indoor	Quantity		2
		Remark		F1,F2
Power supply intake			Both indoor and outdoor unit	

## 2 Specifications

### Notes

(1) Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB, outdoor temperature: 35°CDB, equivalent refrigerant piping: 5m, level difference: 0m. Data for standard efficiency series. Eurovent 2015 tolerances are used.

(2) Nominal heating capacities are based on: indoor temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, equivalent refrigerant piping: 5m, level difference: 0m. Data for standard efficiency series. Eurovent 2015 tolerances are used.

(3) Actual number of units depends on the indoor unit type (VRV DX indoor, RA DX indoor, etc.) and the connection ratio restriction for the system (being;  $50\% \leq CR \leq 130\%$ ).

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

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

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

(7) TOCA means the total value of each OC set.

Sound values are measured in a semi-anechoic room.

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

MSC means the maximum current during start up of the compressor. VRV IV uses only inverter compressors. Starting current is always  $\leq$  max. running current.

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

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

FLA means the nominal running current of the fan

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

Maximum allowable voltage range variation between phases is 2%.

In accordance with EN/IEC 61000-3-11, respectively EN/IEC 61000-3-12, it may be necessary to consult the distribution network operator to ensure that the equipment is connected only to a supply with  $Z_{sys} \leq Z_{max}$ , respectively  $S_{sc} \geq$  minimum  $S_{sc}$  value.

EN/IEC 61000-3-11: European/international technical standard setting the limits for voltage changes, voltage fluctuations and flicker in public low-voltage supply systems for equipment with rated  $\leq 75A$

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  $\leq 75A$  per phase

$S_{sc}$ : Short-circuit power

$Z_{sys}$ : system impedance

### 3 Options

#### 3 - 1 Options

**RXYSCQ-TV1**

**RXYSQ-TV1**

**RXYSQ-TY1**

**3**

Nr.	Item	RXYSCQ4~5TMV1B	RXYSQ4~6T7V1B	RXYSQ4~6T7Y1B	RXYSQ8~12TMY1B	RXYSQ6T7Y1B9
I.	Refnet header	-	-	-	KHRQ22M64H	-
				KHRQ22M29H		
II.	Refnet joint	-	-	-	KHRQ22M20T	
					KHRQ22M29T9	-
1a.	Cool/heat selector (switch)	-	KRC19-26	-	-	KRC19-26
1b.	Cool/heat selector (fixing box)	-	KJB111A	-	-	KJB111A
1c.	Cool/heat selector (PCB)	-	EBRP2B	-	-	-
1d.	Cool/heat selector (cable)	-	-	EKCHSC	-	EKCHSC
2.	Drain plug kit	-	EKDK04	-	-	EKDK04
3.	VRV configurator			EKPCCAB*		
4.	Demand PCB			DTA104A61/62*		
5.	Branch provider - 2 rooms			BPMKS967A2	-	-
6.	Branch provider - 3 rooms			BPMKS967A3	-	-

**Notes**

1. All options are kits
2. To mount option 1a, option 1b is required.
3. For RXYSCQ4~6T7V1B  
To operate the cool/heat selector function, options 1a and 1c are both required.
4. For RXYSCQ4~6T7Y1B  
To operate the cool/heat selector function, options 1a and 1d are both required.

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## 4 Combination table

### 4 - 1 Combination Table

RXYSCQ-TV1  
RXYSQ-TV1  
RXYSQ-TY1

4

Configuration		Indoor unit type
RA box + indoor unit	Wall-mounted	<i>Emura</i>
		FTXG20L (W/S)
		FTXG25L (W/S)
		FTXG35L (W/S)
		FTXG50L (W/S)
	FTXS	FTXS20K
		FTXS25K
		FTXS35K
		FTXS42K
		FTXS50K
	CTXS	FTX560G
		FTX571G
	Floor-standing Ceiling-mounted	CTXS15K
		CTXS35K
		FLX525B
		FLX535B
		FLX550B
	Floor-standing	FLX560B
		FVXS
		FVXS25F
		FVXS35F
		FVXS50F
	Nexura	FVXG25K
		FVXG35K
		FVXG50K
		FDXS
	Duct	FDXS25F
		FDXS30F
		FDXS50F9
		FDXS60F

Configuration		Indoor unit type
SA box + indoor unit	Cassette	<i>Fully Flat 2x2</i>
		FFQ25C
		FFQ35C
		FFQ50C
		FFQ60C
	Roundflow 3x3	FCQG35F
		FCQG50F
		FCQG60F
		FCQG71F
		<i>Ceiling-suspended</i>
	Duct	FHQ35C
		FHQ50C
		FHQ60C
		FHQ71C
		FBQ35D
		FBQ50D
		FBQ60D
		FBQ71D

Remark

1. The limitations on the use of RA/SA indoor units with the VRV4-S Heat Pump are subject to the rules set out in drawings 3D097983 and 3D097984.

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## 4 Combination table

### 4 - 1 Combination Table

**RXYSCQ-TV1**  
**RXYSQ-TV1**  
**RXYSQ-TY1**

4

Indoor unit combination pattern	VRV* DX box + indoor unit	RA DX box + indoor unit	Hydrobox unit	Air handling unit (AHU) (1)
VRV* DX box + indoor unit	O	X	X	O
RA DX box + indoor unit	X	O	X	X
Hydrobox unit (1)	X	X	X	X
Air handling unit (AHU)	O <sub>1</sub>	X	X	O <sub>1</sub>

O: Allowed  
X: Not allowed

Notes

1. O<sub>1</sub>
  - Combination of AHU only + control box EKEQFA (not combined with VRV DX indoor units)
  - X-control is possible (up to 3x [EKEVX+EKEQFA\* boxes] can be connected to one outdoor unit (system)). No Variable Refrigerant Temperature control possible.
  - Y-control is possible (up to 3x [EKEVX+EKEQFA\* boxes] can be connected to one outdoor unit (system)). No Variable Refrigerant Temperature control possible.
  - W-control is possible (up to 3x [EKEVX+EKEQFA\* boxes] can be connected to one outdoor unit (system)). No Variable Refrigerant Temperature control possible.
- Combination of AHU only + control box EKEQMA (not combined with VRV DX indoor units)
  - Z-control is possible (the allowed number of [EKEVX + EKEQMA boxes] is determined by the connection ratio (90-110%) and the capacity of the outdoor unit).

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

3. (1) The following units are considered AHUs:
  - EKEVX + EKEQ(MA)FA + AHU coil
  - Biddle air curtain
  - FXMQ\_MF units

Information

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

3D097983

Page 1

**RXYSCQ-TV1**  
**RXYSQ-TV1**  
**RXYSQ-TY1**

Combination table	RXYSCQ4~5TMV1B	RXYSCQ4~6T7V1B	RXYSQ4~6T7Y1B	RXYSQ8~12TMY1B
VRV* DX box + indoor unit	O	O	O	O
RA DX box + indoor unit	O	O	O	O
Hydrobox unit	X	X	X	X
Air handling unit (AHU) (2)	O	O	O	O

O: Allowed  
X: Not allowed

Notes

1. (2) The following units are considered AHUs:
  - EKEVX + EKEQ(MA)FA + AHU coil
  - Biddle air curtain
  - FXMQ\_MF units

3D097983

Page 1

## 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.  
→ <http://extranet.daikineurope.com/captab>
- E-data app: gives a complete overview of the Daikin products available in your country, with all engineering data and commercial info in your own language. Download the app now!  
→ <https://itunes.apple.com/us/app/daikin-e-data/id565955746?mt=8>
- Selection software: allows you to do load calculations, equipment selections and energy simulations for our VRV, Daikin Altherma, refrigeration and applied systems products.  
→ <http://extranet.daikineurope.com/en/software/downloads/default.jsp>



## 5 Capacity tables

### 5 - 2 Integrated Heating Capacity Correction Factor

**RXYSCQ-TV1**

**RXYSQ-TV1**

**RXYSQ-TY1**

5

#### Integrated heating capacity coefficient

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

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

Formula

A = Integrated heating capacity

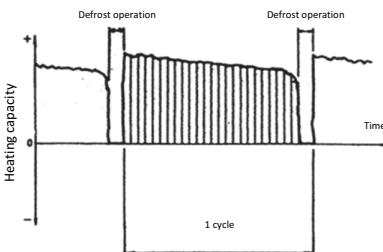
B = Capacity characteristics value

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

$$A = B * C$$

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
RXYSC04TMV1B							
RXYSC05TMV1B							
RXYSQ477V1B							
RXYSQ577V1B							
RXYSG677V1B	0,88	0,86	0,80	0,75	0,76	0,82	1,00
RXYSQ477V1B							
RXYSQ577V1B							
RXYSG677V1B							
RXYSG677V1B9							
RXYSQ8TMV1B	0,95	0,93	0,88	0,84	0,85	0,90	1,00
RXYSQ10TMV1B	0,95	0,93	0,87	0,79	0,80	0,88	1,00
RXYSQ12TMV1B	0,95	0,92	0,87	0,75	0,76	0,85	1,00



Notes

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

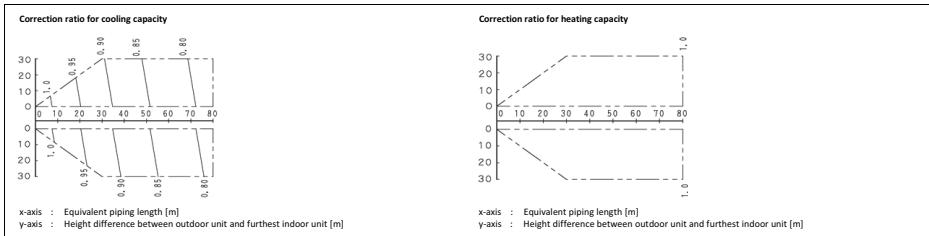
(2) When there is an accumulation of snow against the outdoor unit heat exchanger, there will always be a temporary reduction in capacity depending on the outdoor temperature (°C DB), relative humidity (RH) and the amount of frosting which occurs.

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## 5 Capacity tables

### 5 - 3 Capacity Correction Factor

#### RXYSCQ-TV1



#### Notes

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

- With this outdoor unit, the following control is used:
  - in case of cooling: constant evaporating pressure control
  - in case of heating: constant condensing pressure control

- 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%**

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

**Indoor connection ratio > 100%**

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

- When the overall equivalent piping length is 90 m or more, the diameter of the main gas pipes (outdoor unit - branch sections) must be increased.

For the new diameters, see below.

Model	Standard liquid side $\phi$	Increased liquid side $\phi$	Standard gas side $\phi$	Increased gas side $\phi$
RXYSCQ41MV1B	9,5	Not increased	15,9	19,1
RXYSCQ25MV1B				

- Overall equivalent length

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

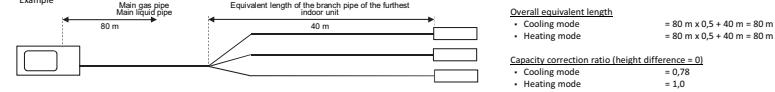
Choose the correction factor from the following table.

When calculating the cooling capacity: gas pipe size

When calculating the heating capacity: liquid pipe size

	Standard size	Size increase
Cooling (gas pipe)	1,0	0,5
Heating (liquid pipe)	1,0	0,5

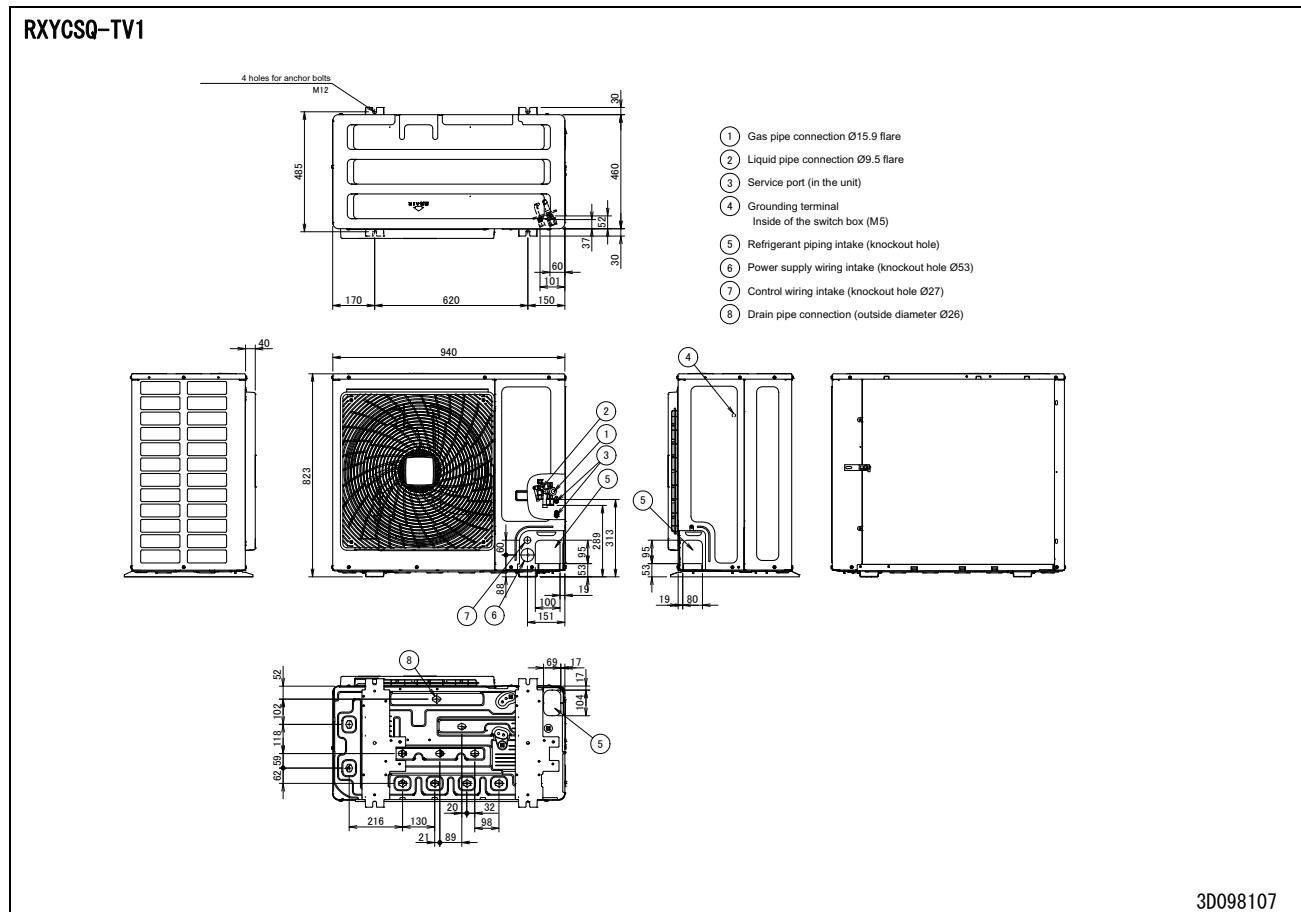
Example



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## 6 Dimensional drawings

### 6 - 1 Dimensional Drawings

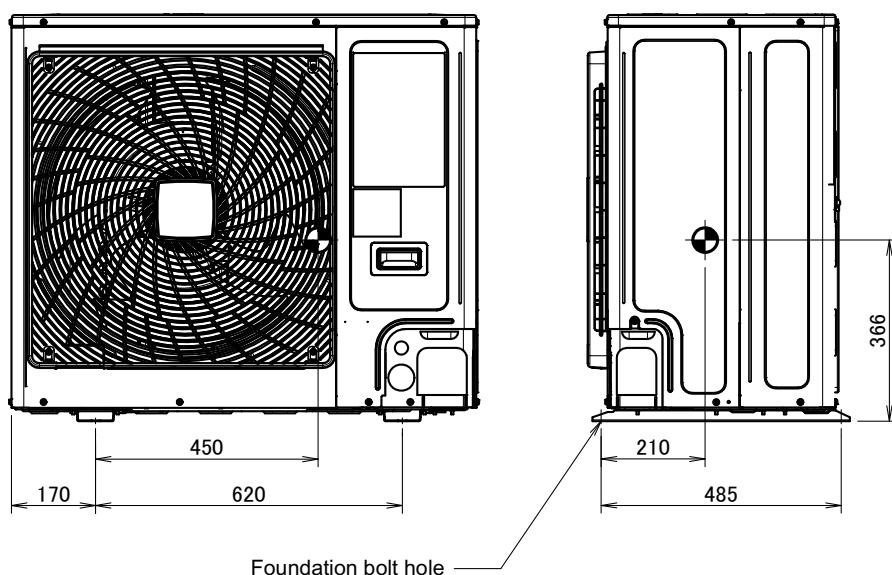


## 7 Centre of gravity

### 7 - 1 Centre of Gravity

#### RXYSCQ-TV1

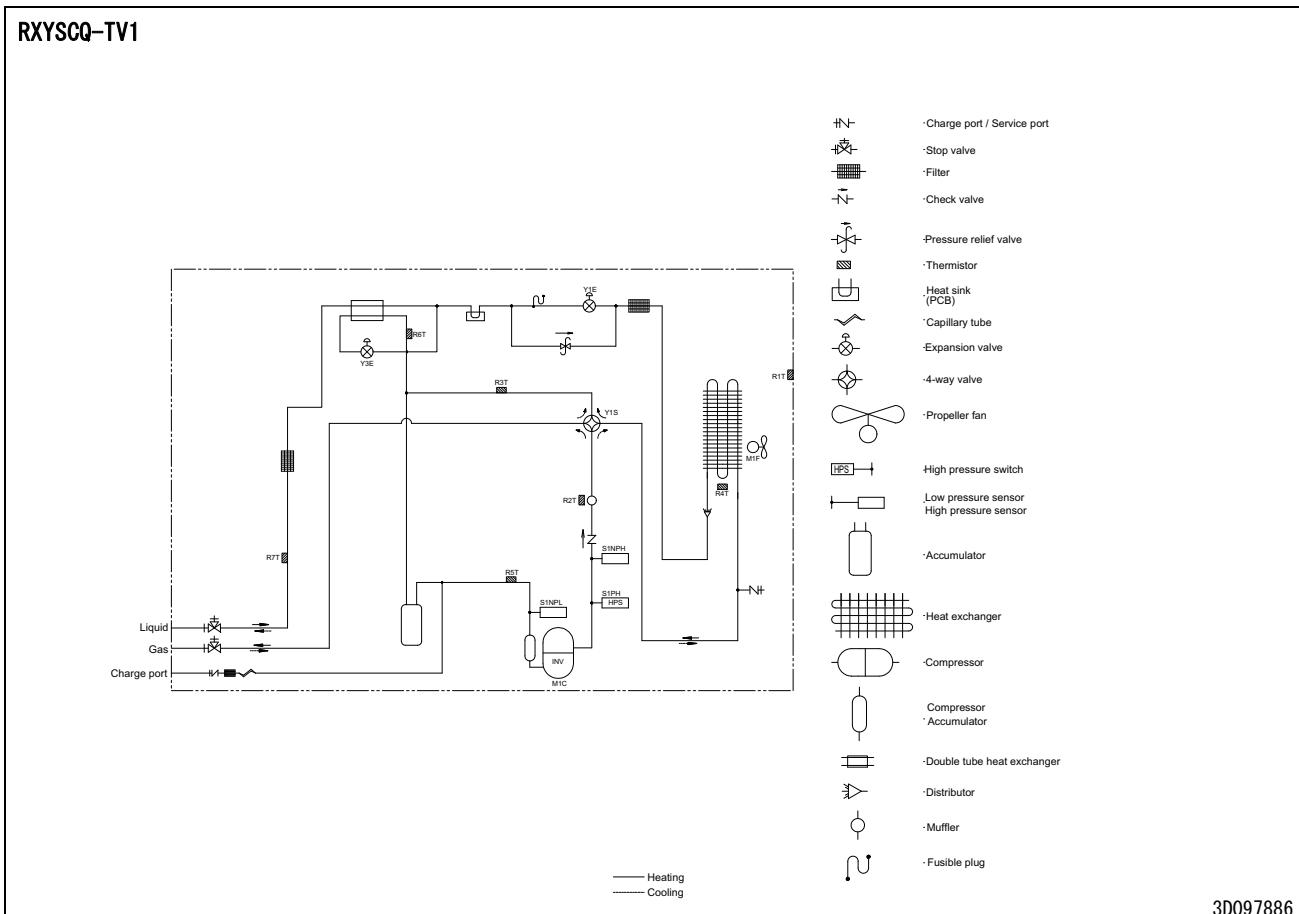
7



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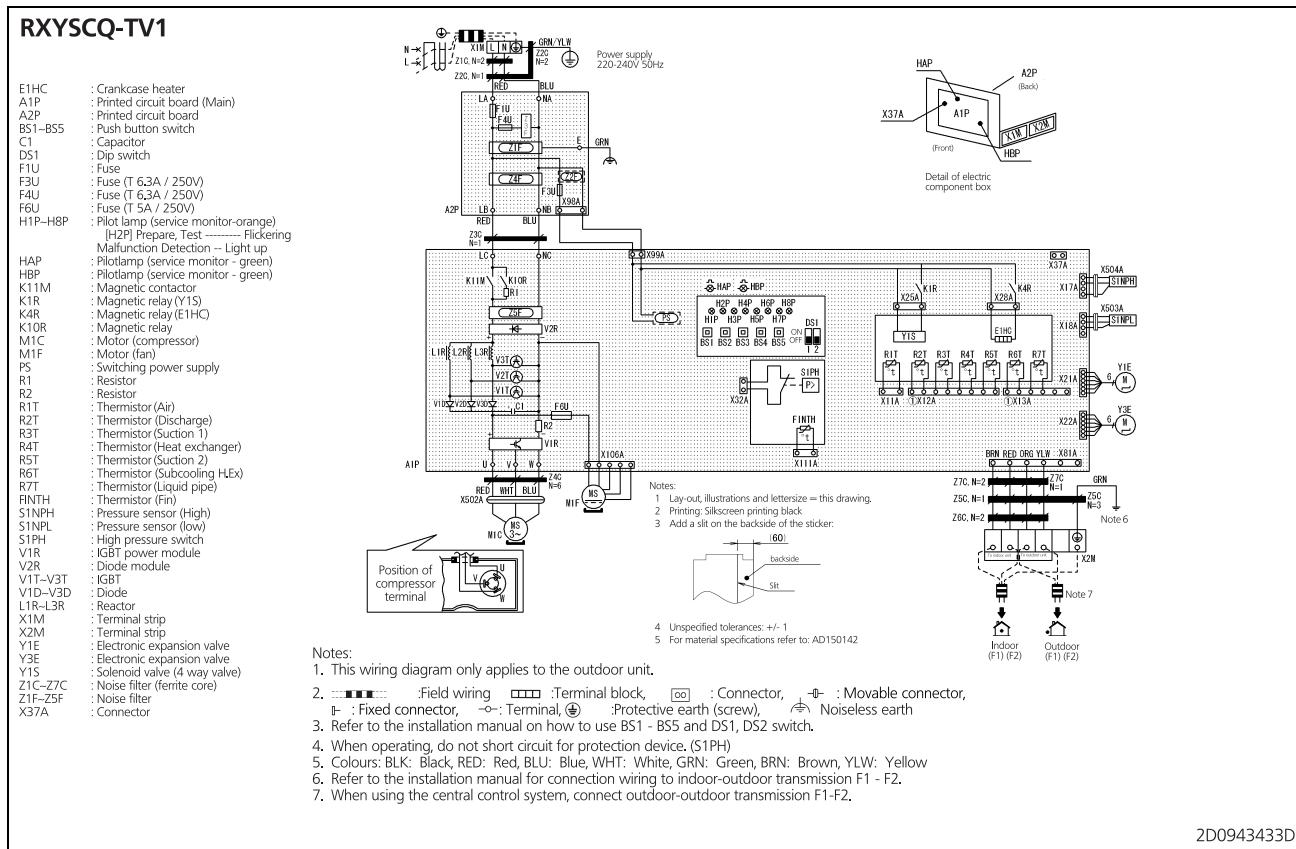
## 8 Piping diagrams

### 8 - 1 Piping Diagrams



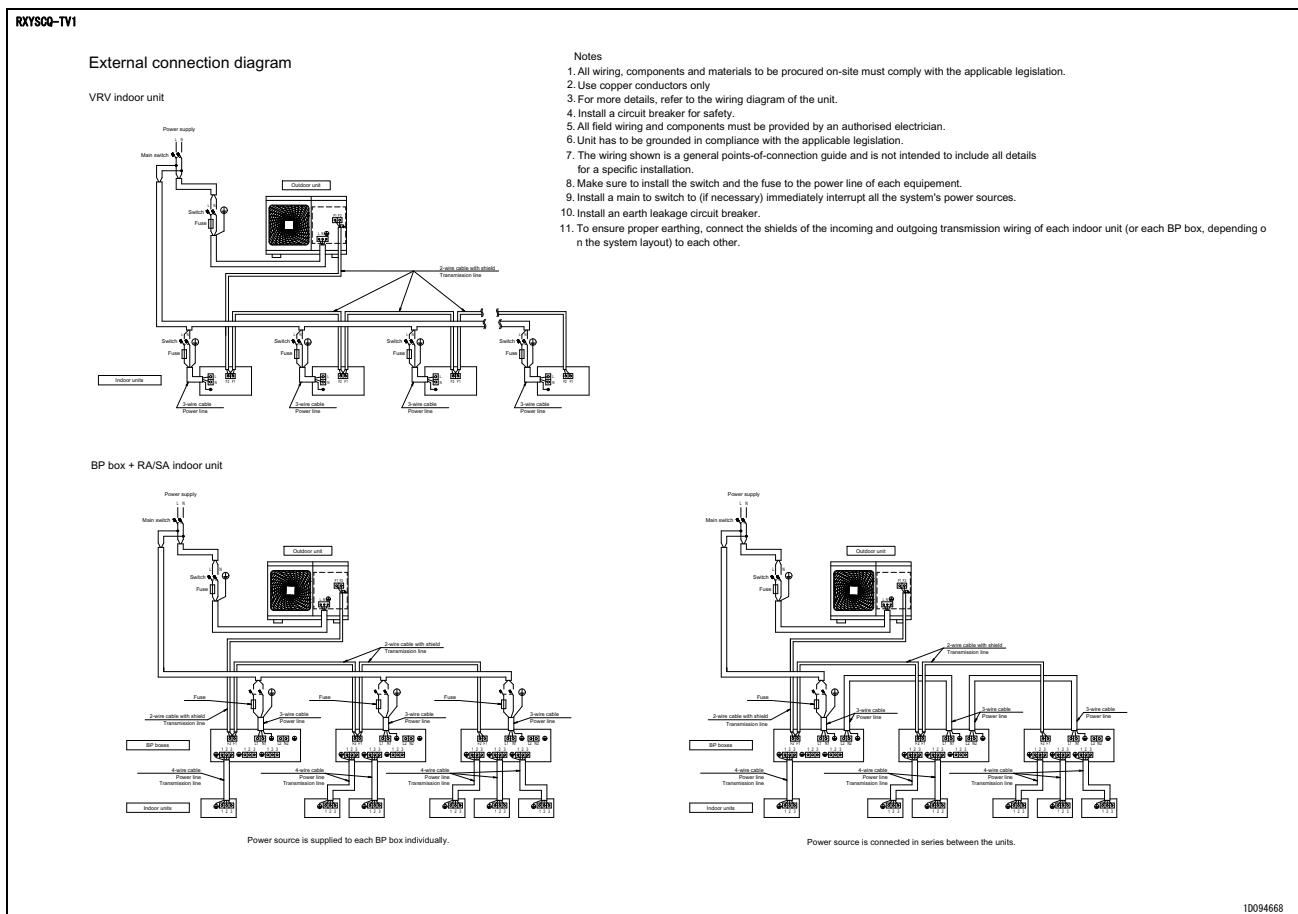
## 9 Wiring diagrams

### 9 - 1 Wiring Diagrams - Single Phase



## 10 External connection diagrams

### 10 - 1 External Connection Diagrams

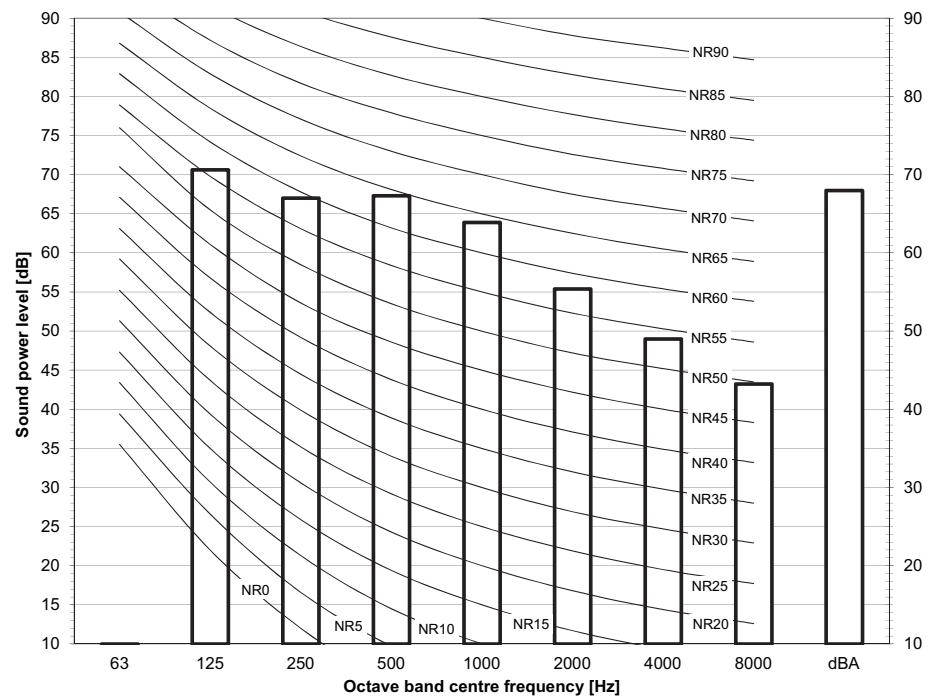


# 11 Sound data

## 11 - 1 Sound Power Spectrum

11

RXYSCQ4TV1

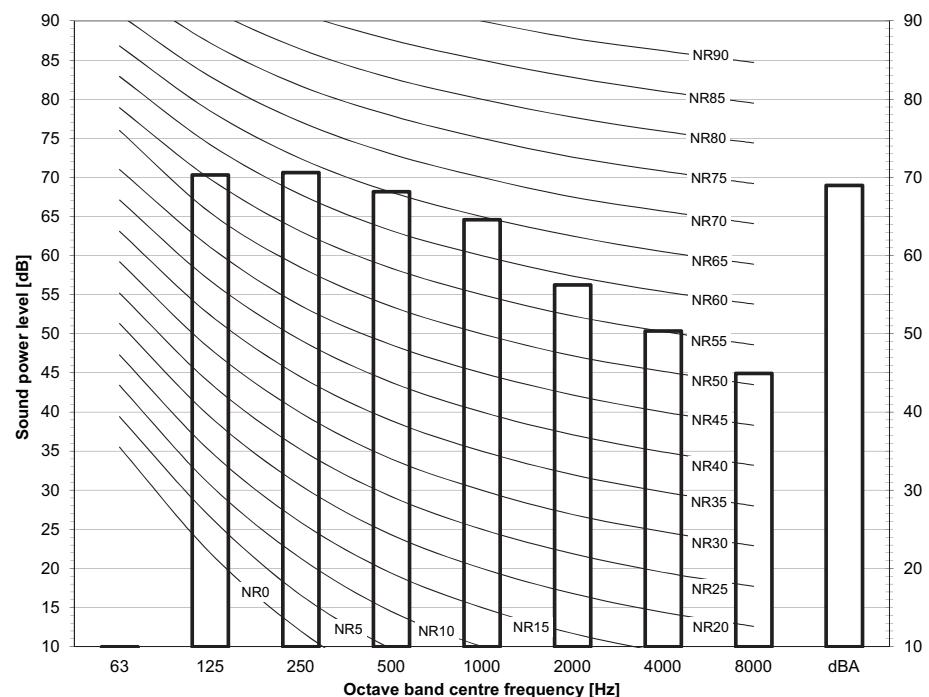


## Notes

- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity 0dB =  $10E-6\mu\text{W}/\text{m}^2$
- Measured according to ISO 3744

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RXYSCQ5TV1



## Notes

- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity 0dB =  $10E-6\mu\text{W}/\text{m}^2$
- Measured according to ISO 3744

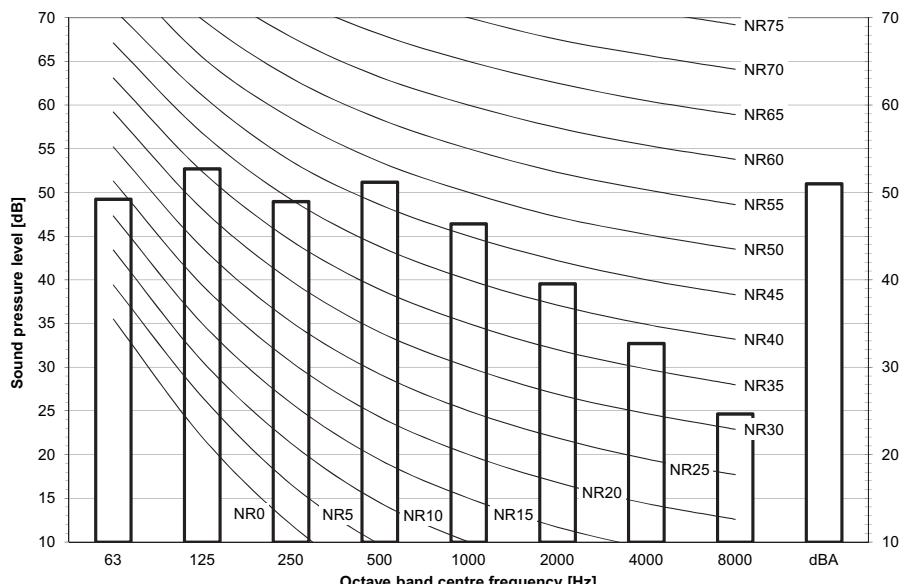
3D098239

## 11 Sound data

### 11 - 2 Sound Pressure Spectrum

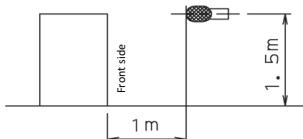
11

RXYSCQ4TV1



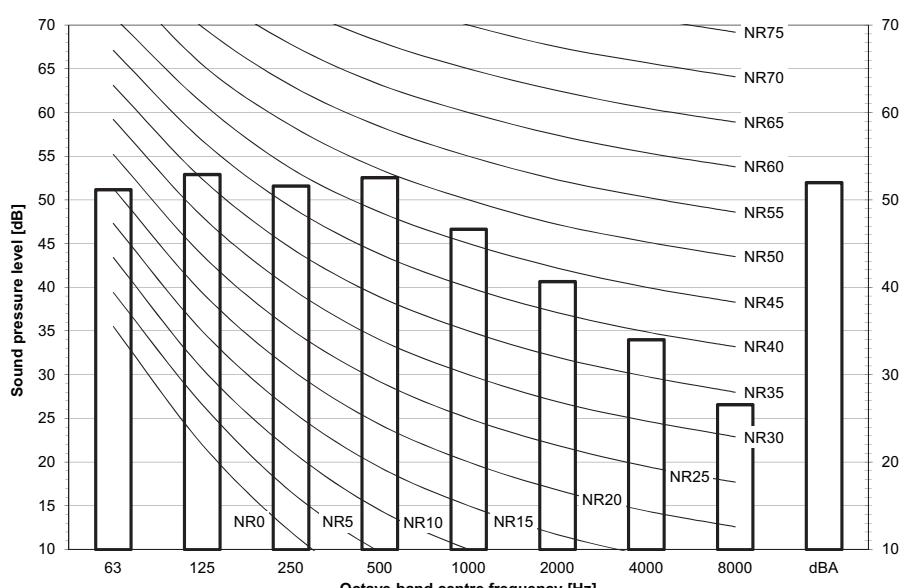
**Notes**

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



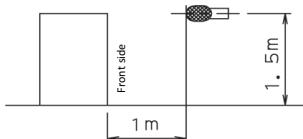
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RXYSCQ5TV1



**Notes**

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



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## 12 Installation

### 12 - 1 Installation Method

#### RXYSCQ-TV1

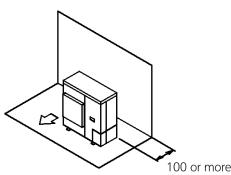
##### Required installation space

The unit of the values is mm.

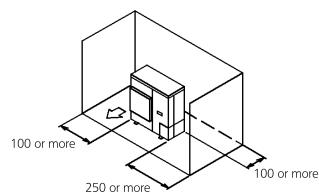
##### (A) When there are obstacles on suction sides.

###### • No obstacle above

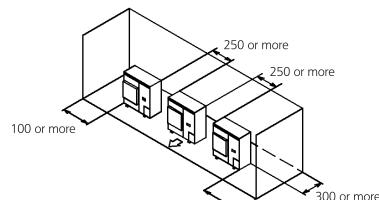
- ① Stand-alone installation
- Obstacle on the suction side only



- Obstacle on both sides

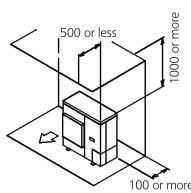


- ② Series installation (2 or more)
- Obstacle on both sides

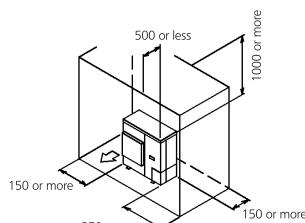


###### • Obstacle above, too.

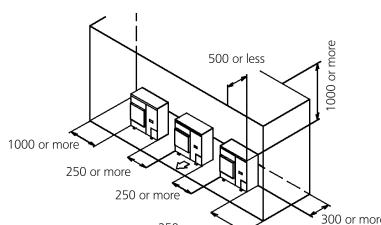
- ① Stand-alone installation
- Obstacle on the suction side, too



- Obstacle on the suction side and both sides



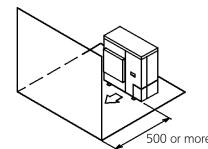
- ② Series installation (2 or more)
- Obstacle on the suction side and both sides



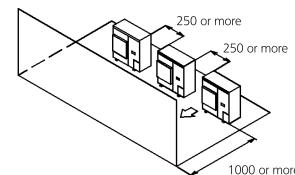
##### (B) When there are obstacles on discharge sides.

###### • No obstacle above

- ① Stand-alone installation

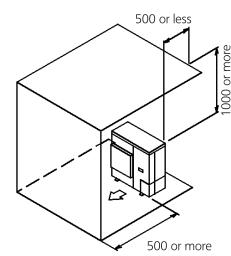


- ② Series installation (2 or more)

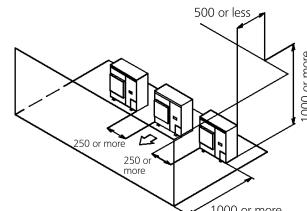


###### • Obstacle above, too

- ① Stand-alone installation



- ② Series installation (2 or more)



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

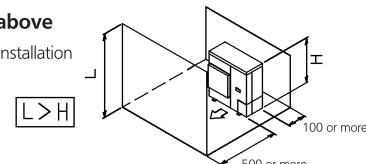
###### Pattern 1

When the obstacles on the discharge side is higher than the unit.

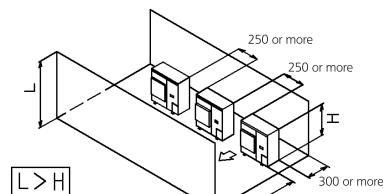
(There is no height limit for obstructions on the intake side.)

###### • No obstacle above

- ① Stand-alone installation



- ② Series installation (2 or more)



3D089310A

## 12 Installation

### 12 - 1 Installation Method

#### RXYSCQ-TV1

##### • Obstacle above, too

###### ① Stand-alone installation

The relations between H, A and L are as follows.

	L	A
$L \leq H$	$0 < L \leq 1/2 H$	750
	$1/2 H < L \leq H$	1000
$H < L$		Set the stand as: $L \leq H$

Close the bottom of the installation frame to prevent the discharged air from being bypassed.

###### ② Series installation (2 or more)

The relations between H, A and L are as follows.

	L	A
$L \leq H$	$0 < L \leq 1/2 H$	1000
	$1/2 H < L \leq H$	1250
$H < L$		Set the stand as: $L \leq H$

Close the bottom of the installation frame to prevent the discharged air from being bypassed.

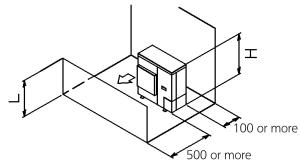
Only two units can be installed for this series.

##### Pattern 2

When the obstacle on the discharge side is lower than the unit:  
(There is no height limit for obstructions on the intake side.)

##### • No obstacle above

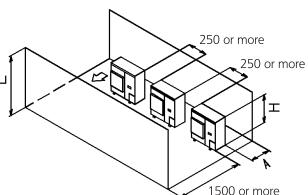
###### ① Stand-alone installation $L > H$



###### ② Series installation (2 or more)

The relations between H, A and L are as follows.

	L	A
$L \leq H$	$0 < L \leq 1/2 H$	250
	$1/2 H < L \leq H$	300



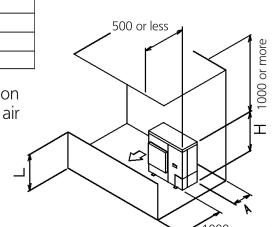
##### • Obstacle above, too

###### ① Stand-alone installation

The relations between H, A and L are as follows.

	L	A
$L \leq H$	$0 < L \leq 1/2 H$	100
	$1/2 H < L \leq H$	200
$H < L$		Set the stand as: $L \leq H$

Close the bottom of the installation frame to prevent the discharged air from being bypassed.



##### ② Series installation

The relations between H, A and L are as follows.

	L	A
$L \leq H$	$0 < L \leq 1/2 H$	250
	$1/2 H < L \leq H$	300
$H < L$		Set the stand as: $L \leq H$

Close the bottom of the installation frame to prevent the discharged air from being bypassed.

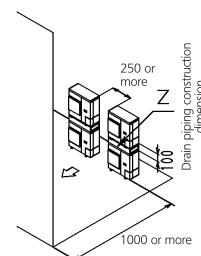
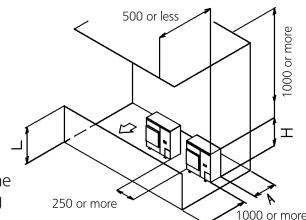
Only two units can be installed for this series.

##### (D) Double-decker installation

###### ① Obstacle on the discharge side.

Close the gap Z (the gap between the upper and lower outdoor units) to prevent the discharged air from being bypassed.

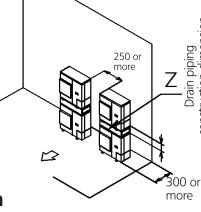
Do not stack more than two unit.



###### ② Obstacle on the suction side.

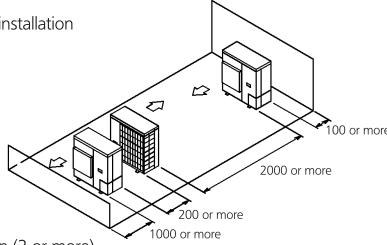
Close the gap Z (the gap between the upper and lower outdoor units) to prevent the discharged air from being bypassed.

Do not stack more than two unit.



##### (E) Multiple rows of series installation (on the rooftop, etc.)

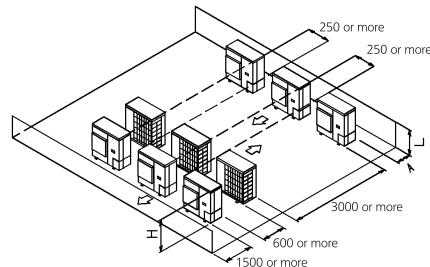
###### ① One row of stand-alone installation



###### ② Rows of series installation (2 or more)

The relations between H, A and L are as follows.

	L	A
$L \leq H$	$0 < L \leq 1/2 H$	250
	$1/2 H < L \leq H$	300
$H < L$		Can not be installed



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## 12 Installation

### 12 - 2 Refrigerant Pipe Selection

12

RXYSCQ-TV1

RXYSQ-TV1

RXYSQ-TY1

For the reference drawing, see page 2/3.

		Maximum piping length		Maximum height difference		Total piping length
		Longest pipe (A+[B,D+E,H]) Actual / (Equivalent)	After first branch (B,D+E,H) Actual	Indoor-to-outdoor (H1) Outdoor above indoor / (indoor above outdoor)	Indoor-to-indoor (H2)	
Standard -VRV DX-indoor units only	RXYSCQ4-5TMV1B	70/(90)m	40m	30/(30)m	15m	300m
	RXYSQ4-67V/Y1B	120/(150)m	40m	50/(40)m	15m	300m
	RXYSQ8TMV1B	100/(130)m	40m	50/(40)m	15m	300m
-RA- connection	RXYSCQ4-5TMV1B	120/(150)m	40m	50/(40)m	15m	300m
	RXYSQ4-67V/Y1B	35/(45)m	40m	30/(30)m	15m	140m
	RXYSQ8TMV1B	65/(85)m	40m	30/(30)m	15m	140m
Air handling unit (-AHU)- connection	RXYSCQ10-12TMV1B	80/(100)m	40m	30/(30)m	15m	140m
	Pair	50/(55)m (1)	-	40/(40)m	-	-
	Multi (2)	50/(55)m (1)	40m	40/(40)m	15m	300m
Mix		50/(55)m (1)	40m	40/(40)m	15m	300m

## Notes

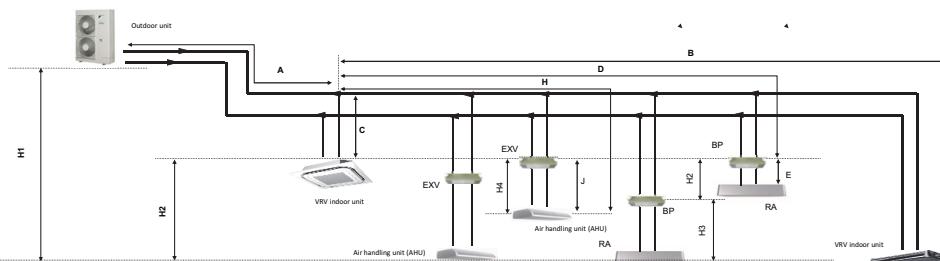
1. The allowable minimum length is 5- m.
2. Multiple air handling units (-AHU)- (EKEV- + -EKEQ- kits).
3. Mix of air handling units (-AHU-) and -VRV DX- indoor units.

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RXYSCQ-TV1

RXYSQ-TV1

RXYSQ-TY1



## Notes

1. Schematic indication  
Illustrations may differ from the actual appearance of the unit.
2. This is only to illustrate piping length limitations.  
Refer to combination table 3D097983- for details about the allowed combinations.

	Allowed piping length		Maximum height difference	
	BP- to -RA- (E)	-EXV- to -AHU- (J)	-BP- to -RA- (H3)	-EXV- to -AHU- (H4)
RA- connection	2-15m	-	5m	-
Pair	-	≤5m	-	5m
Multi (1)	-	≤5m	-	5m
Mix (2)	-	≤5m	-	5m

## Notes

1. Multiple air handling units (-AHU)- (EKEV- + -EKEQ- kits).
2. Mix of air handling units (-AHU-) and -VRV DX- indoor units.

3D097984

## 12 Installation

### 12 - 2 Refrigerant Pipe Selection

#### RXYSCQ-TV1

#### RXYSQ-TV1

#### RXYSQ-TY1

12

System pattern Allowed connection ratio (CR) Other combinations are not allowed.	Capacity	Total Maximum allowed amount of connectable indoor units (-VRV, RA, AHU-) Excluding -BP- units and including -EXV- kits.	Allowed capacity		
			VRV DX indoor unit	-RA DX- indoor unit	Air handling unit (AHU)
-VRV DX- indoor units only	50~130%	Maximum -64-	50~130%	-	-
-RA DX- indoor units only	80~130%	Maximum -32- (1)	-	80~130%	-
-VRV DX- indoor unit + -AHU- Mix	50~110% (3)	Maximum -64- (2)	50~110%	-	0~110%
-AHU- only Pair + multi	90~110% (4)	Maximum -64- (2)	-	-	90~110%

#### Notes

1. There is no restriction on the number of connectable -BP- boxes.
2. EKEXV- kits are also considered indoor units.
3. Restrictions regarding the air handling unit capacity
4. Pair AHU = system with 1 air handling unit connected to one outdoor unit  
Multi AHU = system with multiple air handling units connected to one outdoor unit

#### About ventilation applications

- I. -FXMQ\_MF- units are considered air handling units, following air handling unit limitations:
  - Maximum connection ratio when combined with -VRV DX- indoor units: CR ≤ 30%.
  - Maximum connection ratio when only air handling units are connected: CR ≤ 100%.
  - Minimum connection ratio when only -FXMQ\_MF- units are connected: CR ≥ 50%
 For information on the operation range, refer to the documentation of the -FXMQ\_MF- unit.
- II. -Bidle- air curtains are considered air handling units, following air handling unit limitations:
 For information on the operation range, refer to the documentation of the -Bidle- unit.
- III. -EKEXV + EKEQ- units combined with an air handling unit are considered air handling units, following air handling unit limitations.
 For information on the operation range, refer to the documentation of the -EKEXV-EKEQ- unit.
- IV. -VKM- units are considered to be regular -VRV DX- indoor units.
 For information on the operation range, refer to the documentation of the -VKM- unit.

V. Because there is no refrigerant connection with the outdoor unit (only communication F1/F2), -VAM- units do not have connection limitations.  
However, since there is communication via F1/F2, count them as regular indoor unit when calculating the maximum allowed number of connectable indoor units.

3D097984

## 13 Operation range

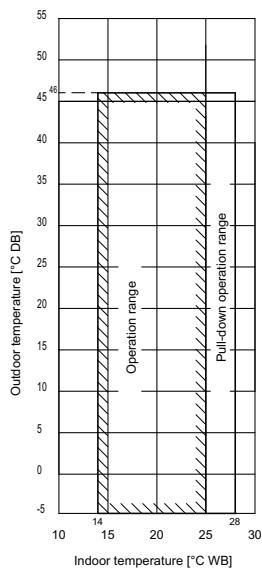
### 13 - 1 Operation Range

RXYSCQ-TV1  
RXYSQ-TV1  
RXYSQ4-6TY1

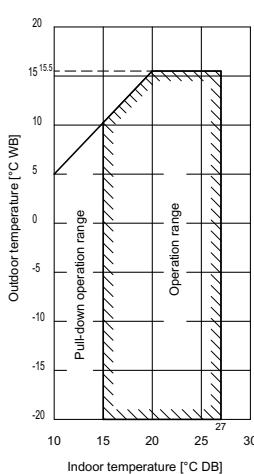
Notes

- These figures assume the following operation conditions  
Indoor and outdoor units  
Equivalent piping length: 5m  
Level difference: 0m
- Depending on operation and installation conditions, the indoor unit can change over to freeze-up operation (indoor de-icing).
- To reduce the freeze-up operation (indoor de-icing) frequency, it is recommended to install the outdoor unit in a location not exposed to wind.
- Operation range is valid in case direct expansion indoor units are used.  
If other indoor units are used, refer to the documentation of the respective indoor units.
- If the unit is selected to operate at ambient temperatures  $<-5^{\circ}\text{C}$  for 5 days or more, with relative humidity levels  $>95\%$ , it is recommended to apply a Daikin range specifically designed for such application.  
For more information, contact your dealer.

Cooling



Heating







Daikin Europe N.V. participates in the Eurovent Certification programme for Liquid Chilling Packages (LCP), Air handling units (AHU), Fan coil units (FCU) and variable refrigerant flow systems (VRF). Check ongoing validity of certificate online: [www.eurovent-certification.com](http://www.eurovent-certification.com) or using: [www.certiflash.com](http://www.certiflash.com)

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