

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 curtains
- 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
- 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 the Daikin Cloud Service: 24/7 monitoring for maximum efficiency, extended lifetime and immediate service support thanks to failure prediction



Inverter

2 Specifications

2-1 Technical Specifications				RXYSCQ4TV1	RXYSCQ5TV1	
Recommended combinations				3 x FXSQ25A2VEB + 1 x FXSQ32A2VEB	4 x FXSQ32A2VEB	
Cooling capacity	Prated,c		kW	12.1 (1)	14.0 (1)	
Heating capacity	Prated,h		kW	8.4 (2)	9.7 (2)	
	Max.	6°CWB	kW	14.2 (3)	16.0 (3)	
ESEER - Automatic				6.93	6.57	
ESEER - Standard				5.44	5.07	
SEER				8.1	7.7	
SCOP				4.6	4.7	
ηs,c			%	322.8	303.4	
ηs,h			%	182.3	185.1	
Space cooling	A Condition (35°C - 27/19)	EERd		3.2	2.7	
		Pdc	kW	12.1	14.0	
	B Condition (30°C - 27/19)	EERd		5.5	5.0	
		Pdc	kW	8.9	10.3	
	C Condition (25°C - 27/19)	EERd		11.4	10.5	
		Pdc	kW	5.7	6.6	
	D Condition (20°C - 27/19)	EERd		18.6	19.9	
		Pdc	kW	4.8	4.9	
Space heating (Average climate)	TBivalent	COPd (declared COP)		2.8	2.7	
		Pdh (declared heating cap)	kW	8.4	9.7	
		Tbiv (bivalent temperature)	°C	-10		
	TOL	COPd (declared COP)		2.8	2.7	
		Pdh (declared heating cap)	kW	8.4	9.7	
		Tol (temperature operating limit)	°C	-10		
	A Condition (-7°C)	COPd (declared COP)		3.2	3.1	
		Pdh (declared heating cap)	kW	7.4	8.5	
	B Condition (2°C)	COPd (declared COP)		4.5		
		Pdh (declared heating cap)	kW	4.5	5.2	
	C Condition (7°C)	COPd (declared COP)		6.3	6.4	
		Pdh (declared heating cap)	kW	3.4		
	D Condition (12°C)	COPd (declared COP)		7.9	8.1	
		Pdh (declared heating cap)	kW	4.0		
	Capacity range			HP	4	5
	Maximum number of connectable indoor units				64 (4)	
	Indoor index connection	Min.			50.0	62.5
		Max.			130.0	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		
Capacity control	Method			Inverter controlled		

2 Specifications

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2-1 Technical Specifications					RXYSCQ4TV1	RXYSCQ5TV1	
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	m³/h		5,460 (2)	
Heating		Rated	m³/h		5,460 (2)		
Compressor	Quantity				1		
	Type				Hermetically sealed swing compressor		
	Crankcase heater			W	33		
Fan	Quantity				1		
Fan motor	Quantity				1		
	Type				DC motor		
	Output			W	200		
Sound power level	Cooling	Nom.	dBA		68.0 (5)	69.0 (5)	
Sound pressure level	Cooling	Nom.	dBA		51.0 (6)	52.0 (6)	
Operation range	Cooling	Min.~Max.	°CDB		-5.0~46.0		
	Heating	Min.~Max.	°CWB		-20.0~15.5		
Refrigerant	Type				R-410A		
	GWP				2,087.5		
	Charge			TCO _{2eq}	7.7		
				kg	3.7		
Refrigerant oil	Type				Synthetic (ether) oil FVC50K		
Piping connections	Liquid	Type			Flare connection		
		OD		mm	9.52		
	Gas	Type			Flare connection		
		OD		mm	15.9		
	Total piping length	System	Actual	m		300 (7)	
Defrost method					Reversed cycle		
Safety devices	Item	01			High pressure switch		
		02			Fan driver overload protector		
		03			Inverter overload protector		
		04			PC board fuse		
PED	Category				Category I		
	Most critical part	Name			Compressor		
		Ps*V		Bar*l		167	
Cooling	Cdc (Degradation cooling)				0.25		
Heating	Cdh (Degradation heating)				0.25		
Power consumption in other than active mode	Off mode	Cooling	POFF	kW		0.039	
		Heating	POFF	kW		0.049	
	Standby mode	Cooling	PSB	kW		0.039	
		Heating	PSB	kW		0.049	
	Thermostat-off mode	Cooling	PTO	kW		0.000	
		Heating	PTO	kW		0.049	
Indication if the heater is equipped with a supplementary heater					no		
Supplementary heater	Back-up capacity	Heating	elbu	kW		0.0	

Standard Accessories : Installation manual; Quantity : 1;

Standard Accessories : Operation manual; Quantity : 1;

Standard Accessories : Connection pipes; Quantity : 1;

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	

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2 Specifications

2-2 Electrical Specifications				RXYSCQ4TV1	RXYSCQ5TV1
Current	Nominal running current (RLA) - 50Hz	Cooling	A	19.0 (8)	
Current - 50Hz	Starting current (MSC) - remark			(9)	
	Zmax	List		No requirements	
	Minimum circuit amps (MCA)		A	29.1 (10)	
	Maximum fuse amps (MFA)		A	32 (11)	
	Total overcurrent amps (TOCA)		A	29.1 (12)	
	Full load amps (FLA)	Total	A	0.6 (13)	
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	

Notes

- (1) Cooling: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB; equivalent piping length: 7.5m; level difference: 0m
- (2) For detailed contents of standard accessories, see installation/operation manual
- (3) Heating: indoor temp. 20°CDB; outdoor temp. 7°CDB, 6°CWB; equivalent refrigerant piping: 7.5m; level difference: 0m
- (4) 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; $50\% \leq CR \leq 130\%$).
- (5) Sound power level is an absolute value that a sound source generates.
- (6) Sound pressure level is a relative value, depending on the distance and acoustic environment. For more details, please refer to the sound level drawings.
- (7) Refer to refrigerant pipe selection or installation manual
- (8) RLA is based on following conditions: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB
- (9) 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.
- (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) TOCA means the total value of each OC set.
- (13) FLA means the nominal running current of the fan

Cooling: T1: indoor temp. 26,7°CDB, 19,4°CWB, outdoor temp. 35°CB, AHRI 1230:2010, power input indoor units (duct type) included

Cooling: T3: indoor temp. 29,0°CDB, 19,0°CWB, outdoor temp. 46°CB, ISO15042:2011, power input indoor units (duct type) included

Cooling: T2: indoor temp. 26,6°CDB, 19,4°CWB, outdoor temp. 48°CB, AHRI 1230:2010, power input indoor units (duct type) included

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

Maximum allowable voltage range variation between phases is 2%.

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

The automatic ESEER value corresponds with normal VRV IV-S heat pump operation, including the advanced energy saving functionality (variable refrigerant temperature control).

The standard ESEER value corresponds with normal VRV IV-S heat pump operation, not taking into account the advanced energy saving functionality.

Sound values are measured in a semi-anechoic room.

EN/IEC 61000-3-12: European/international technical standard setting the limits for harmonic currents produced by equipment connected to public low-voltage system with input current $> 16A$ and $\leq 75A$ per phase

S_{sc} : Short-circuit power

3 Options

3 - 1 Options

3

RXYSCQ-TV1

VRV-S Heat pump Option list

Nr.	Item	RXYSCQ4~5TMV1B	RXYSQ4~6T7V1B RXYSQ4~6T8VB	RXYSQ4~6T7Y1B RXYSQ4~6T8YB	RXYSQ8~12TMY1B	RXYSQ6T7Y1B9 RXYSQ6T8Y1B9	RXYSQ6TMYFK
I.	Refnet header	KHRQ22M29H					
		-	-	-	KHRQ22M64H	-	KHRQ22M64H
II.	Refnet joint	KHRQ22M20T					
		-	-	-	KHRQ22M29T9	-	KHRQ22M29T9
		-	-	-	KHRQ22M64T	-	KHRQ22M64T
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	EKPCAB*					
4.	Demand PCB	DTA104A61/62*					
5.	Branch provider - 2 rooms	BPMKS967A2				-	-
6.	Branch provider - 3 rooms	BPMKS967A3				-	-

Notes

- All options are kits
- To mount option 1a, option 1b is required.
- For RXYSQ4~6T7V1B
For RXYSQ4~6T8VB
To operate the cool/heat selector function, options 1a and 1c are both required.
- For RXYSQ4~6T7Y1B
For RXYSQ4~6T8YB
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

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 ₁	X	X	O ₁

O: Allowed
 X: Not allowed

Notes

- O₁
 - Combination of AHU only + control box EKEQFA (not combined with VRV DX indoor units)
 - X-control is possible (up to 3x [EKEV+EKEQFA* boxes] can be connected to one outdoor unit (system)). No Variable Refrigerant Temperature control possible.
 - Y-control is possible (up to 3x [EKEV+EKEQFA* boxes] can be connected to one outdoor unit (system)). No Variable Refrigerant Temperature control possible.
 - W-control is possible (up to 3x [EKEV+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 [EKEV + EKEQMA boxes] is determined by the connection ratio (90-110%) and the capacity of the outdoor unit.
- Combination of AHU and VRV DX indoor units
 - Z-control is possible [EKEQMA* boxes are allowed, but with a limited connection ratio].
- ⁽¹⁾ The following units are considered AHUs:
 - EKEV + EKEQ(MA/FA) + AHU coil
 - Biddle air curtain
 - FXMQ_MF units

Information

→ VRM units are considered to be regular VRV DX indoor units.

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RXYSCQ-TV1
RXYSQ-TV1
RXYSQ-TY1

Combination table	RXYSCQ4~5TMV1B	RXYSQ4~6T7V1B	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

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

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4 Combination table

4 - 1 Combination Table

4

RXYSCQ-TV1

VRV4-S
Heat pump
RA/SA DX indoor unit
Compatibility list

Configuration		Indoor unit type		
RA indoor unit	Wall-mounted	Emura	FTXJ20M (W/S)	
			FTXJ25M (W/S)	
			FTXJ35M (W/S)	
			FTXJ50M (W/S)	
			FTXM20M	
		FTXM	FTXM25M	
			FTXM35M	
			FTXM42M	
			FTXM50M	
			FTXM60M	
			FTXM71M	
			CTXM	CTXM15M
	Floor-standing	Flex	FLXS25B	
	Ceiling-mounted		FLXS35B	
			FLXS50B	
			FLXS60B	
	Floor-standing	FVXM	FVXM25F	
			FVXM35F	
			FVXM50F	
Nexura		FVXG25K		
		FVXG35K		
		FVXG50K		
Duct	FDXM	FDXM25F		
		FDXM30F		
		FDXM50F		
		FDXM60F		

Configuration		Indoor unit type	
SA indoor unit	Cassette	Fully Flat 2x2	FFA25A
			FFA35A
			FFA50A
			FFA60A
		Roundflow 3x3	FCAG35A
	FCAG50A		
	FCAG60A		
	Ceiling-suspended		FHA35A
			FHA50A
			FHA60A
		FHA71A	
Duct		FBA35A	
		FBA50A	
		FBA60A	
		FBA71A	
Floor-standing	FNA	FNA25A	
		FNA35A	
		FNA50A	
		FNA60A	

Remark

- 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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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.

[Click here to access the capacity table viewer.](#)



- For more information about all our tools we offer [click here to see the overview](#) on my.daikin.eu



5 Capacity tables

5 - 2 Capacity Correction Factor

5

RXYSCQ-TV1

MINI VRV 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:

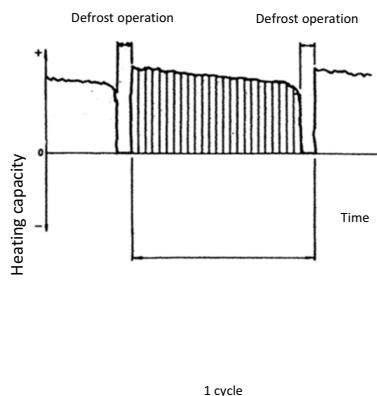
Formula

- 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
RXYSCQ4TMV1B							
RXYSCQ5TMV1B							
RXYSCQ4T7V1B							
RXYSCQ5T7V1B							
RXYSCQ6T7V1B							
RXYSCQ4T7Y1B							
RXYSCQ5T7Y1B							
RXYSCQ6T7Y1B							
RXYSCQ6T7Y1B9	0,88	0,86	0,80	0,75	0,76	0,82	1,00
RXYSCQ4T8VB							
RXYSCQ5T8VB							
RXYSCQ6T8VB							
RXYSCQ4T8YB							
RXYSCQ5T8YB							
RXYSCQ6T8YB							
RXYSCQ6T8Y1B9							
RXYSCQ8TMY1B	0,95	0,93	0,88	0,84	0,85	0,90	1,00
RXYSCQ10TMY1B	0,95	0,93	0,87	0,79	0,80	0,88	1,00
RXYSCQ6TMYFK							
RXYSCQ12TMY1B	0,95	0,92	0,87	0,75	0,76	0,85	1,00



Notes

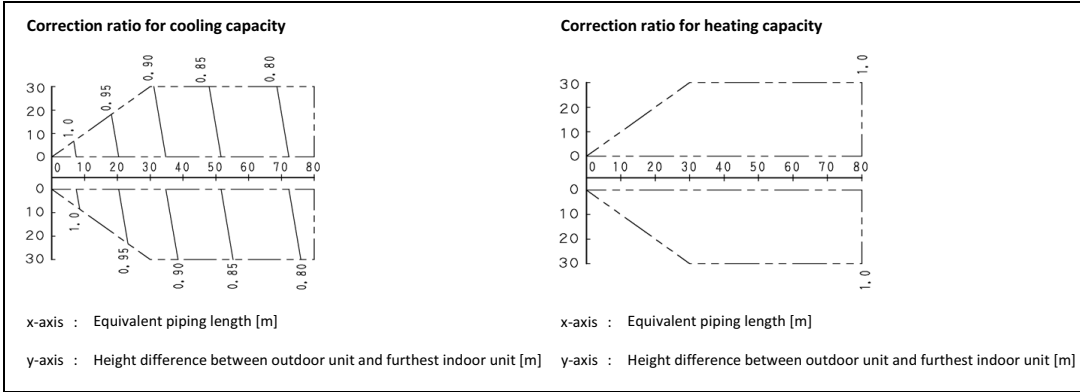
- (1) The figure shows the integrated heating capacity for a single cycle (from one defrost operation to the next).
- (2) When there is an accumulation of snow against the outdoor unit heat exchanger, there will always be a temporary reduction in capacity depending on the outdoor temperature (°C DB),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

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5 Capacity tables

5 - 2 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

3. Method of calculating the capacity of the outdoor units.

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

Indoor connection ratio ≤ 100%.

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

Indoor connection ratio > 100%.

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

- 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 Ø	Increased liquid side Ø	Standard gas side Ø	Increased gas side Ø
RXYSCQ4TMV1B	9,5	Not increased	15,9	19,1
RXYSCQ5TMV1B				

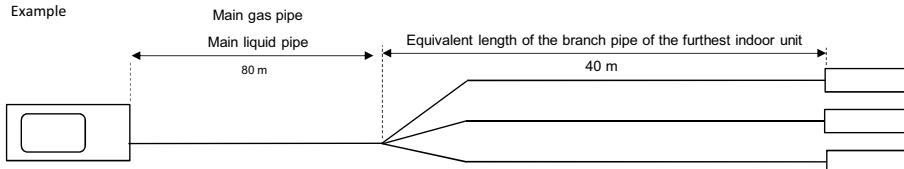
5. Overall equivalent length

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

Choose the correction factor from the following table.
 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



Overall equivalent length

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

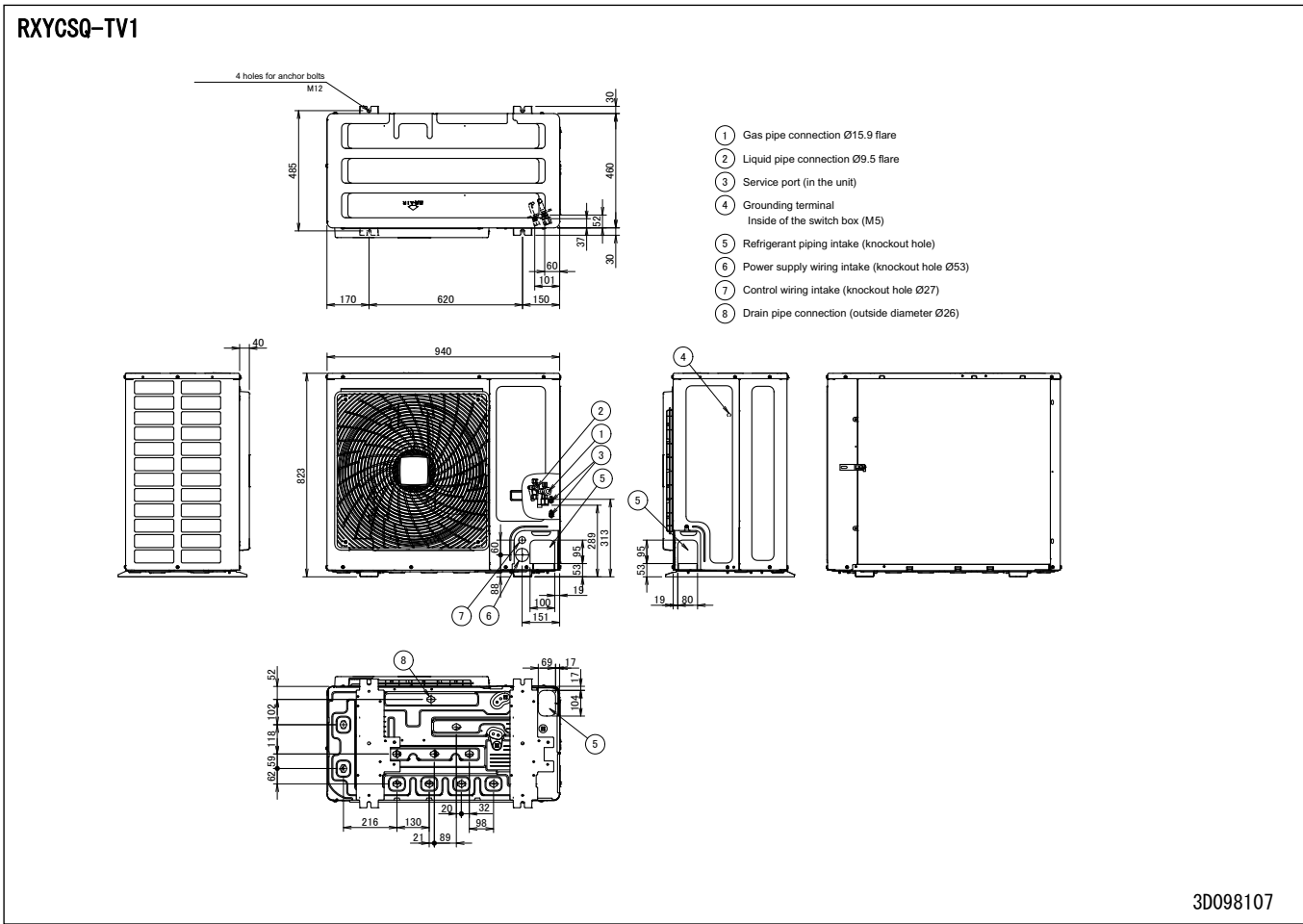
Capacity correction ratio (height difference = 0)

- Cooling mode = 0,78
- Heating mode = 1,0

6 Dimensional drawings

6 - 1 Dimensional Drawings

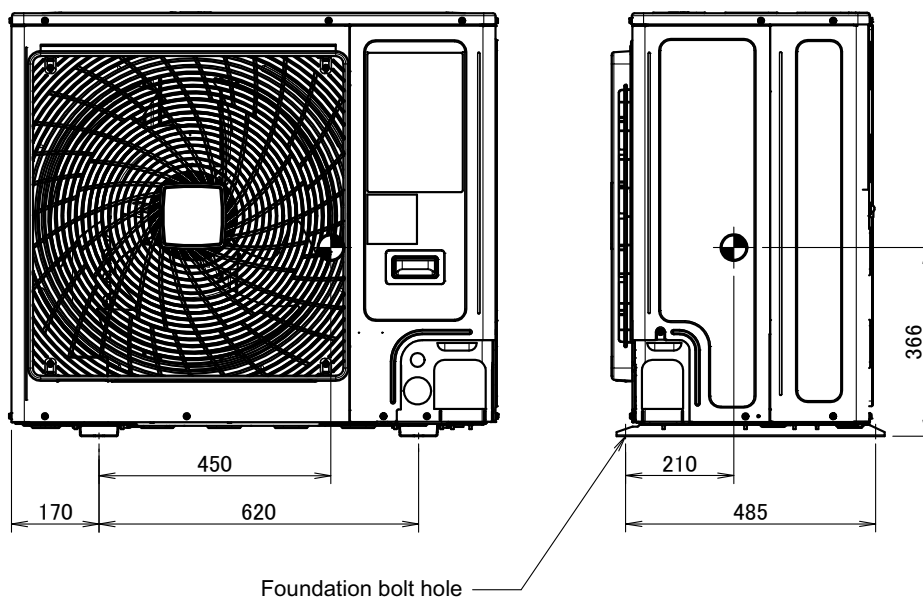
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7 Centre of gravity

7 - 1 Centre of Gravity

RXYSCQ-TV1



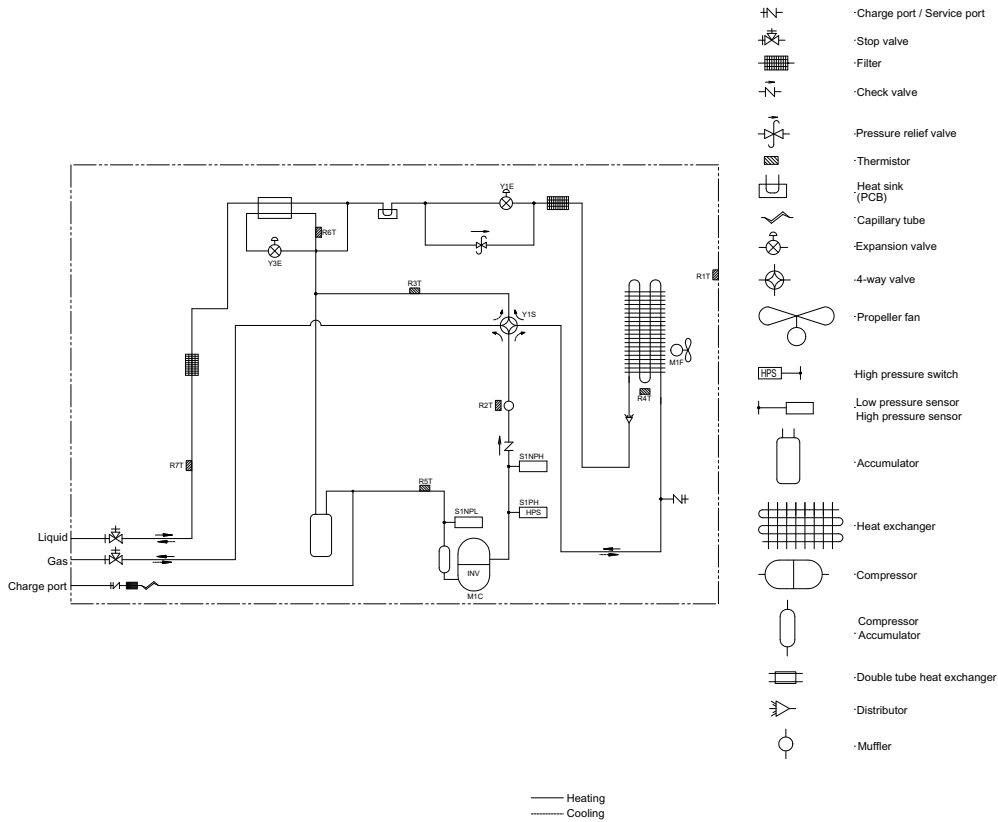
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8 Piping diagrams

8 - 1 Piping Diagrams

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RXYSCQ-TV1



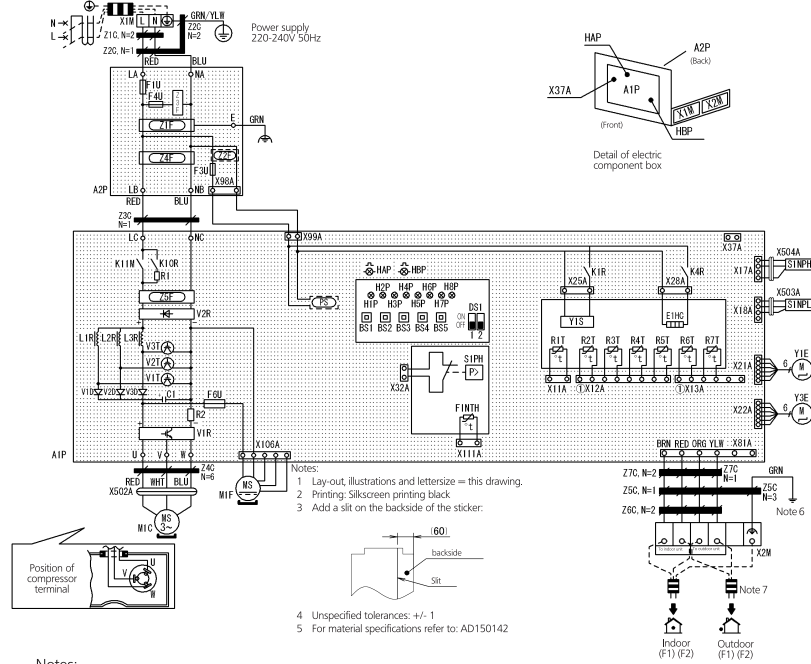
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9 Wiring diagrams

9 - 1 Wiring Diagrams - Single Phase

RXYSCQ-TV1

- E1HC : Crankcase heater
- A1P : Printed circuit board (Main)
- A2P : Printed circuit board
- BS1-B5S : Push button switch
- C1 : Capacitor
- DS1 : Dip switch
- F1U : Fuse
- F3U : Fuse (T 6.3A / 250V)
- F4U : Fuse (T 6.3A / 250V)
- F6U : Fuse (T 5A / 250V)
- H1P-H8P : Pilot lamp (service monitor-orange) [H2P] Prepare, Test ----- Flickering
- HAP : Malfunction Detection - Light up
- HBP : Pilotlamp (service monitor - green)
- K11M : Magnetic contactor
- K1R : Magnetic relay (Y1S)
- K4R : Magnetic relay (E1HC)
- K1OR : Magnetic relay
- M1C : Motor (compressor)
- M1F : Motor (fan)
- PS : Switching power supply
- R1 : Resistor
- R2 : Resistor
- R1T : Thermistor (Air)
- R2T : Thermistor (Discharge)
- R3T : Thermistor (Suction 1)
- R4T : Thermistor (Heat exchanger)
- R5T : Thermistor (Suction 2)
- R6T : Thermistor (Subcooling H,Ex)
- R7T : Thermistor (Liquid pipe)
- F1NTH : Thermistor (Fin)
- S1NPH : Pressure sensor(High)
- S1NPL : Pressure sensor(low)
- S1PH : High pressure switch
- V1R : IGBT power module
- V2R : Diode module
- V1T-V3T : IGBT
- V1D-V3D : Diode
- L1R-L3R : Reactor
- X1M : Terminal strip
- X2M : Terminal strip
- Y1E : Electronic expansion valve
- Y3E : Electronic expansion valve
- Y1S : Solenoid valve (4 way valve)
- Z1C-Z7C : Noise filter (ferrite core)
- Z1F-Z5F : Noise filter
- X37A : Connector



- Notes:
- 1 Lay-out, illustrations and letterize = this drawing.
 - 2 Printing: Silkscreen printing black
 - 3 Add a slit on the backside of the sticker.
-
- 4 Unspecified tolerances: +/- 1
 - 5 For material specifications refer to: AD150142

- Notes:
1. This wiring diagram only applies to the outdoor unit.
 2. [Symbol] : Field wiring [Symbol] : Terminal block, [Symbol] : Connector, [Symbol] : Movable connector, [Symbol] : Fixed connector, [Symbol] : Terminal, [Symbol] : Protective earth (screw), [Symbol] : Noiseless earth
 3. Refer to the installation manual on how to use BS1 - B5S and DS1, DS2 switch.
 4. When operating, do not short circuit for protection device. (S1PH)
 5. Colours: BLK: Black, RED: Red, BLU: Blue, WHT: White, GRN: Green, BRN: Brown, YLW: Yellow
 6. Refer to the installation manual for connection wiring to indoor-outdoor transmission F1 - F2.
 7. When using the central control system, connect outdoor-outdoor transmission F1-F2.

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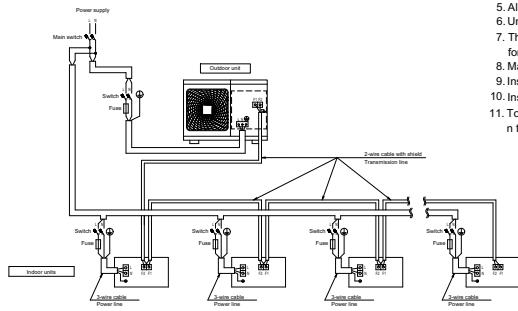
10 External connection diagrams

10 - 1 External Connection Diagrams

RXYSCQ-TV1

External connection diagram

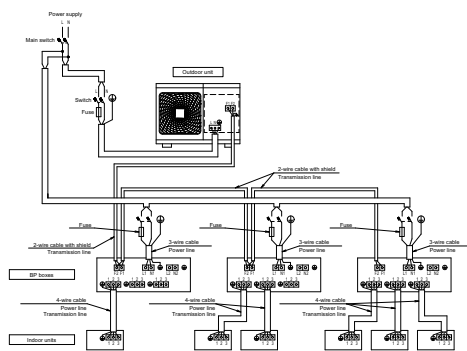
VRV indoor unit



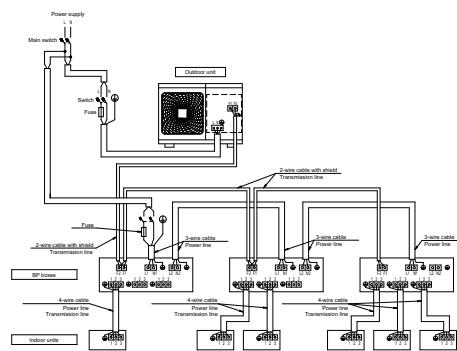
Notes

1. All wiring, components and materials to be procured on-site must comply with the applicable legislation.
2. Use copper conductors only
3. For more details, refer to the wiring diagram of the unit.
4. Install a circuit breaker for safety.
5. All field wiring and components must be provided by an authorised electrician.
6. Unit has to be grounded in compliance with the applicable legislation.
7. The wiring shown is a general points-of-connection guide and is not intended to include all details for a specific installation.
8. Make sure to install the switch and the fuse to the power line of each equipment.
9. Install a main to switch to (if necessary) immediately interrupt all the system's power sources.
10. Install an earth leakage circuit breaker.
11. To ensure proper earthing, connect the shields of the incoming and outgoing transmission wiring of each indoor unit (or each BP box, depending on the system layout) to each other.

BP box + RA/SA indoor unit



Power source is supplied to each BP box individually.



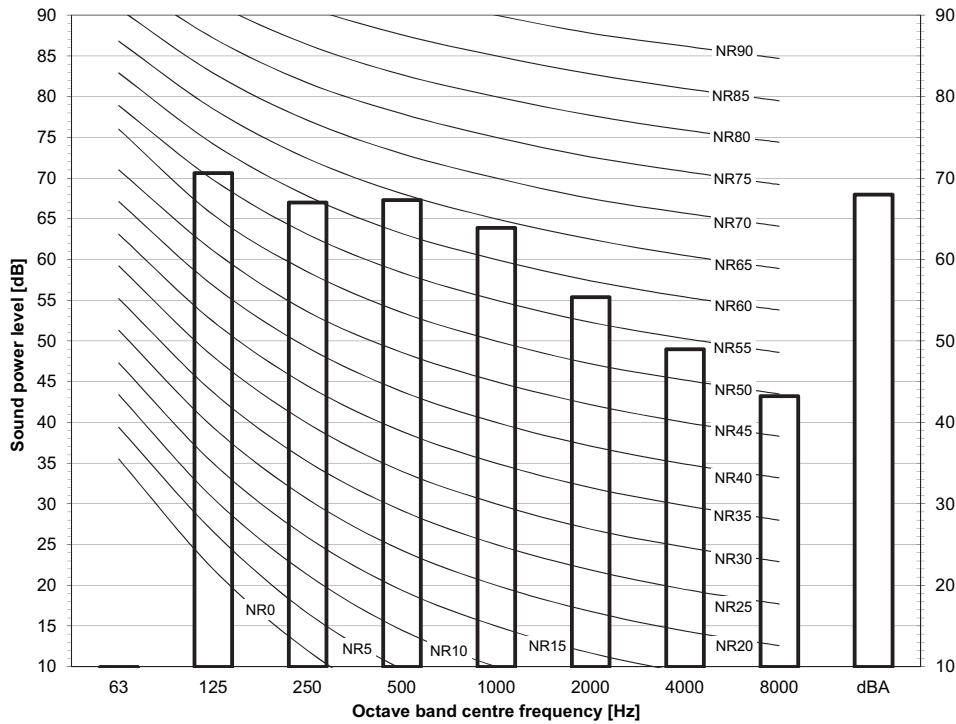
Power source is connected in series between the units.

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11 Sound data

11 - 1 Sound Power Spectrum

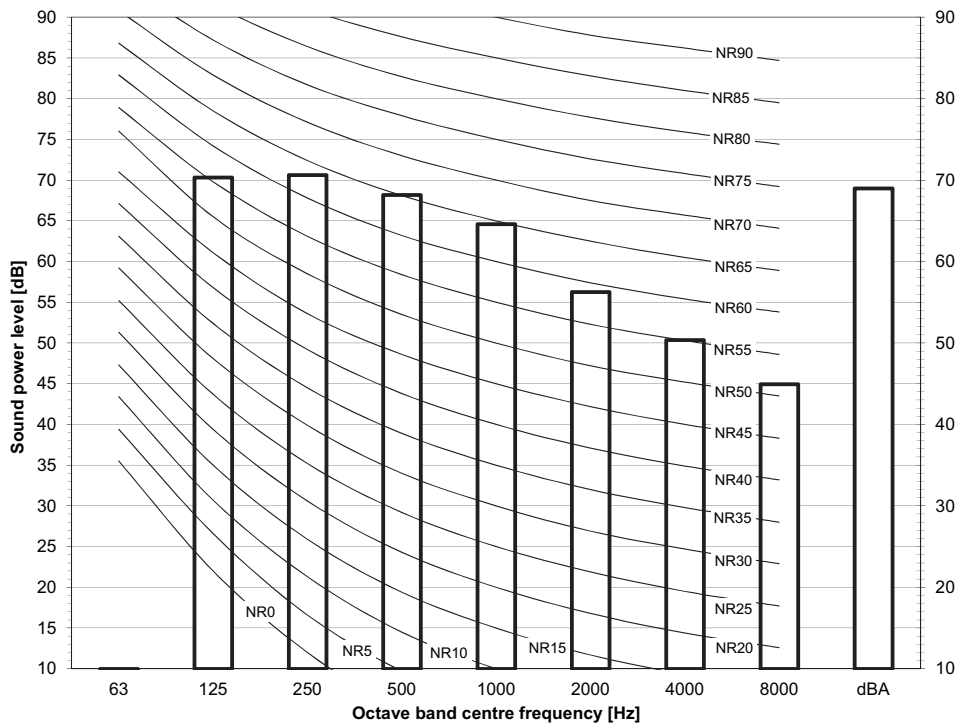
RXYSCQ4TV1



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

3D098238

RXYSCQ5TV1



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

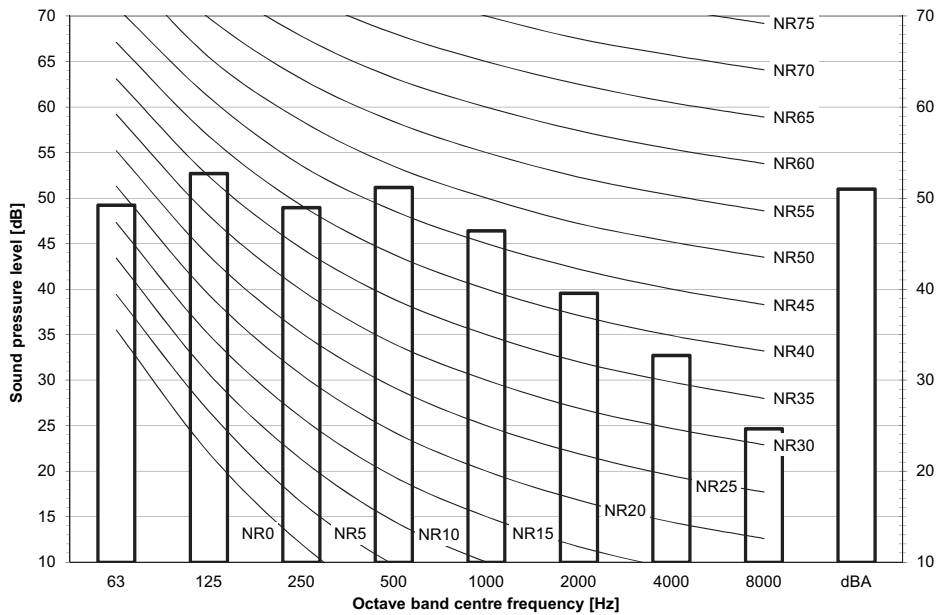
3D098239

11 Sound data

11 - 2 Sound Pressure Spectrum

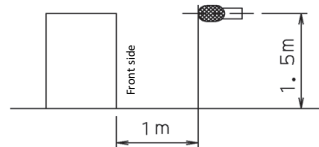
11

RXYSCQ4TV1



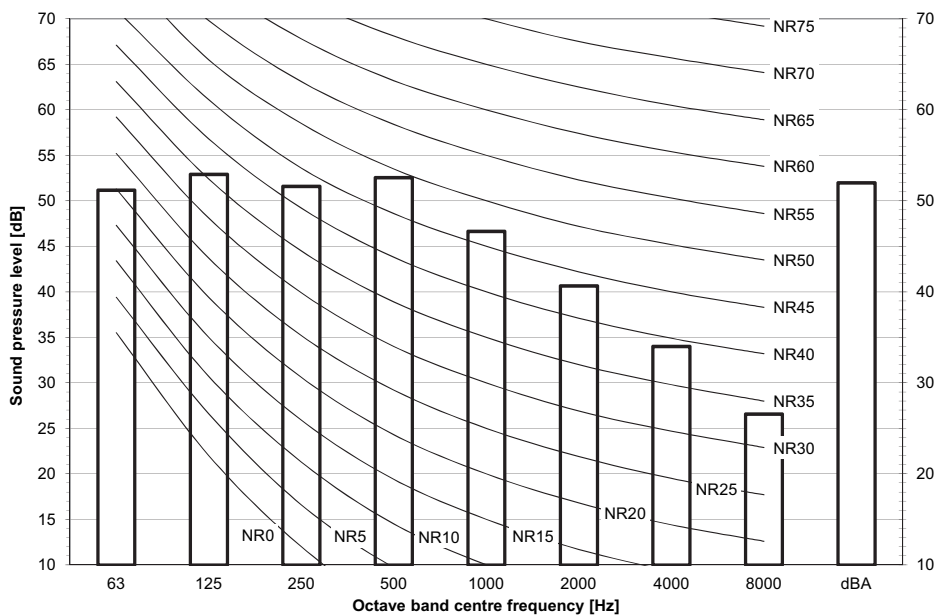
Notes

- 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 μPa



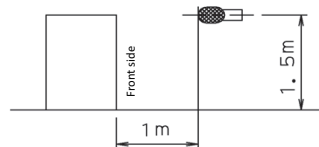
3D098243

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 μPa



3D098244

12 Installation

12 - 1 Installation Method

RXYSCQ-TV1

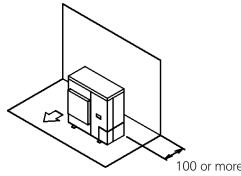
Required installation space

The unit of the values is mm.

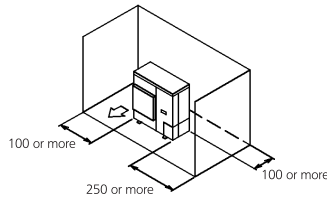
(A) When there are obstacles on suction sides.

• No obstacle above

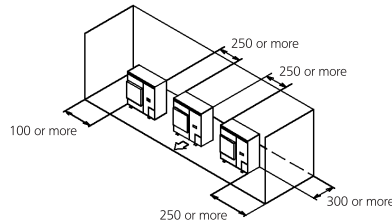
- ① Stand-alone installation
 - Obstacle on the suction side only



- Obstacle on both sides

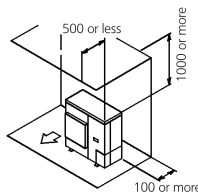


- ② Series installation (2 or more)
 - Obstacle on both sides

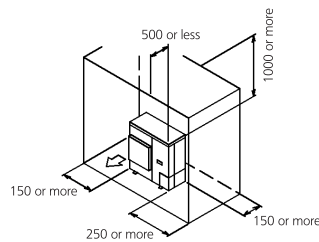


• Obstacle above, too.

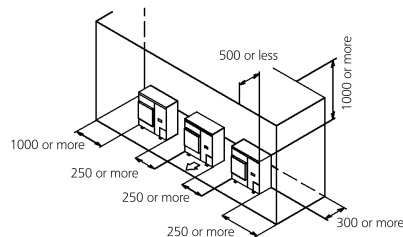
- ① Stand-alone installation
 - Obstacle on the suction side, too



- Obstacle on the suction side and both sides



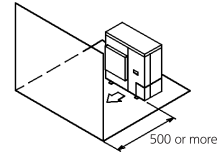
- ② Series installation (2 or more)
 - Obstacle on the suction side and both sides



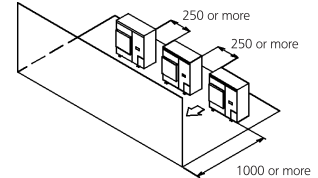
(B) When there are obstacles on discharge sides.

• No obstacle above

- ① Stand-alone installation

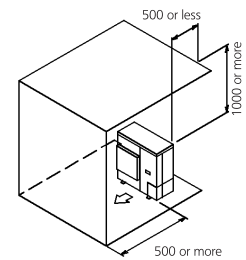


- ② Series installation (2 or more)

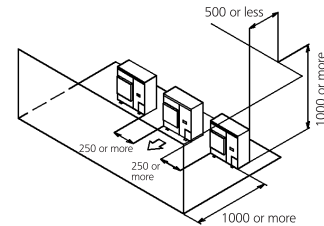


• Obstacle above, too

- ① Stand-alone installation



- ② Series installation (2 or more)



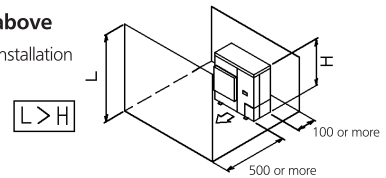
(C) When there are obstacles on both suction and discharge sides.

Pattern 1

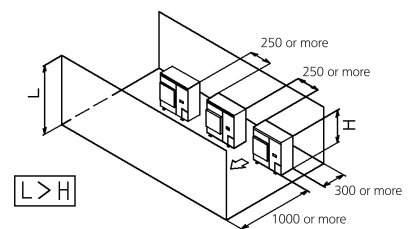
When the obstacles on the discharge side is higher than the unit.
(There is no height limit for obstructions on the intake side.)

• No obstacle above

- ① Stand-alone installation



- ② Series installation (2 or more)



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12 Installation

12 - 1 Installation Method

RXYSCQ-TV1

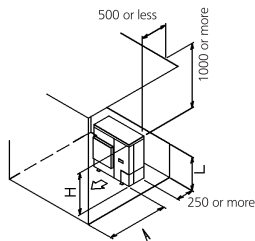
● Obstacle above, too

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.

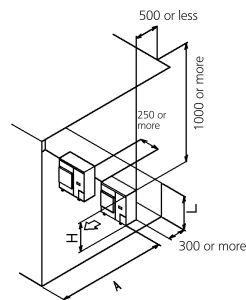


② Series installation (2 or more)

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

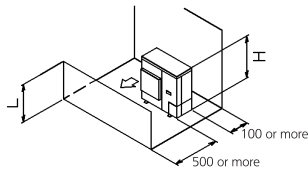
	L	A
$L \leq H$	$0 < L \leq 1/2 H$	1000
	$1/2 H < L \leq H$	1250
$H < L$	Set the stand as: $L \leq H$	

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.)



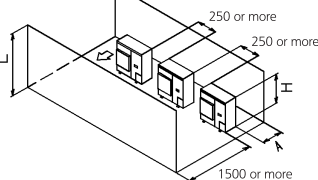
① Stand-alone installation

$L > H$

② Series installation (2 or more)

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

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



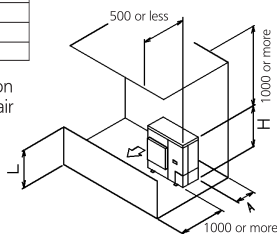
● Obstacle above, too

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.

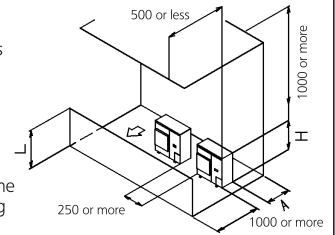


② Series installation

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: $L \leq H$	

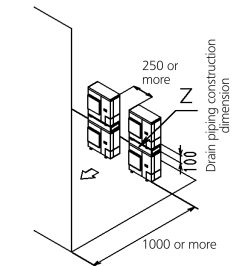
Close the bottom of the installation frame to prevent the discharged air from being bypassed. Only two units can be installed for this series.



(D) Double-decker installation

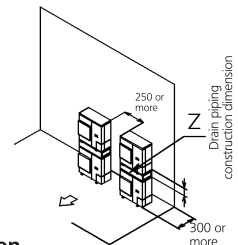
① Obstacle on the discharge side.

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.



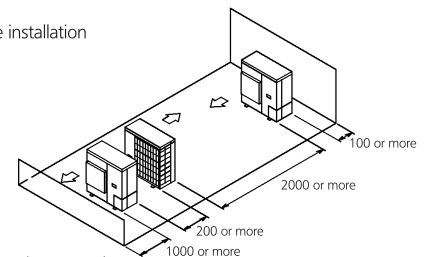
② Obstacle on the suction side.

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.)

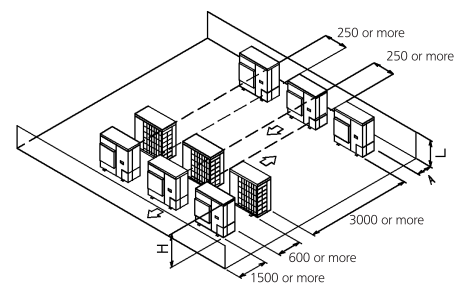
① One row of stand-alone installation



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	



12 Installation

12 - 2 Refrigerant Pipe Selection

RXYSCQ-TV1

For the reference drawing, see page 2/3.

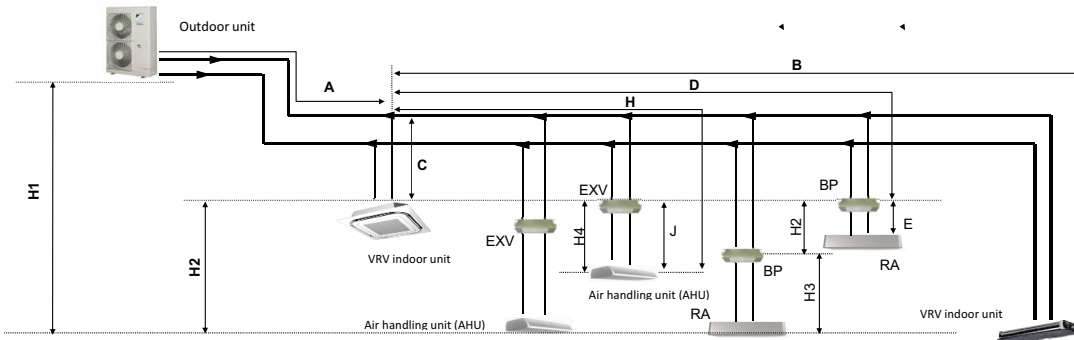
		Maximum piping length		Maximum height difference		Total piping length
		Longest pipe (A+[B,D+E,H])	After first branch (B,D+E,H)	Indoor-to-outdoor (H1)	Indoor-to-indoor (H2)	
		Actual / (Equivalent)	Actual	Outdoor above indoor / (indoor above outdoor)		
Standard	RXYSCQ4~5TMV1B	70/(90)m	40m	30/(30)m	15m	300m
	RXYSQ4~6T7(V/Y)1B	120/(150)m	40m	50/(40)m	15m	300m
VRV DX indoor units only	RXYSQ4~6T8(V/Y)B	100/(130)m	40m	50/(40)m	15m	300m
	RXYSQ10~12TMY1B	120/(150)m	40m	50/(40)m	15m	300m
RA connection	RXYSCQ4~5TMV1B	35/(45)m	40m	30/(30)m	15m	140m
	RXYSQ4~6T7(V/Y)1B	65/(85)m	40m	30/(30)m	15m	140m
	RXYSQ4~6T8(V/Y)B	80/(100)m	40m	30/(30)m	15m	140m
	RXYSQ10~12TMY1B	80/(100)m	40m	30/(30)m	15m	140m
Air handling unit (AHU) connection	Pair	50/(55)m ⁽¹⁾	-	40/(40)m	-	-
	Multi ⁽²⁾	50/(55)m ⁽¹⁾	40m	40/(40)m	15m	300m
	Mix ⁽³⁾	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.

3D097984A

RXYSCQ-TV1



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	-
Air handling unit (AHU) Connection	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.

3D097984A

12 Installation

12 - 2 Refrigerant Pipe Selection

12

RXYSCQ-TV1

System pattern Allowed connection ratio (CR) Other combinations are not allowed.	Total		Allowed capacity		
	Capacity	Maximum allowed amount of connectable indoor units (VRV, RA, AHU) Excluding BP units and including EXV kits.	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 ⁽⁴⁾	90~110% ⁽³⁾	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. Biddle air curtains are considered air handling units, following air handling unit limitations:
For information on the operation range, refer to the documentation of the Biddle unit.
- III. EKEXV + EKEQ units combined with an air handling unit are considered air handling units, following air handling unit limitations.
For information on the operation range, refer to the documentation of the EKEXV-EKEQ unit.
- IV. VKM units are considered to be regular VRV DX indoor units.
For information on the operation range, refer to the documentation of the VKM unit.
- V. Because there is no refrigerant connection with the outdoor unit (only communication F1/F2), VAM units do not have connection limitations.
However, since there is communication via F1/F2, count them as regular indoor unit when calculating the maximum allowed number of connectable indoor units.

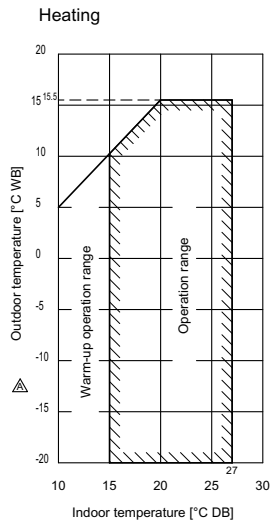
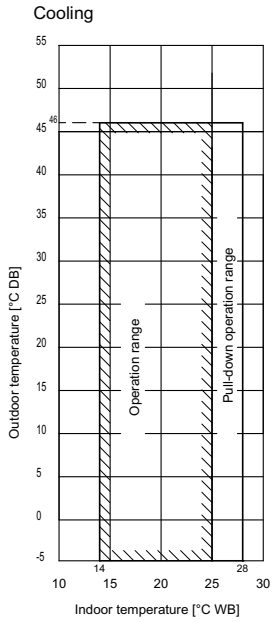
3D097984A

13 Operation range

13 - 1 Operation Range

RXYSCQ-TV1
 RXYSQ-TV1
 RXYSQ-6TY1

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



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14 Appropriate Indoors

14 - 1 Appropriate Indoors

RXYSCQ-TV1

Recommended indoor units for RXYSQ*T* AND RXYSCQ*T* outdoor units

HP	4	5	6	8	10	12
	3xFXSQ25 1xFXSQ32	4xFXSQ32	2xFXSQ32 2xFXSQ40	4xFXMQ50	4xFXMQ63	6xFXMQ50

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

Appropriate indoor units for RXYSQ*T* AND RXYSCQ*T* outdoor units

Covered by ENER LOT21

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

Covered by ENER LOT10

- FTXJ25-35-50
- FTXM20-25-35-42-50-60-71
- CTXM15
- FLXS25-35-50-60
- FVXM25-35-50
- FVXG25-35-50
- FNA25-35-50-60
- FDXM25-30-50-60
- FFA25-35-50-60
- FCAG35-50-60-71
- FHA35-50-60-71
- FBA35-50-60-71

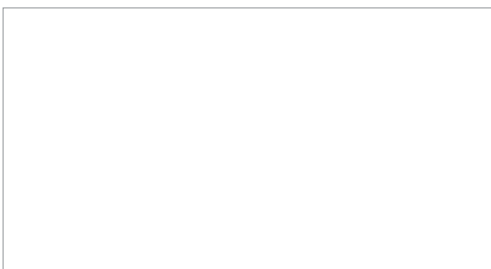
Outside the scope of ENER LOT21

- EKEXV50-63-80-100-125-140-200-250 + EKEQM / EKEQF
- VKM50-80-100
- CYVS100-150-200-250
- CYVM100-150-200-250
- CYVL100-150-200-250

3D113977A



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EEDEN18 09/18



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