



Air Conditioning
Technical Data
RXYSQ-T8Y
RXYSQ-TY1



- > RXYSQ4T8YB
- > RXYSQ5T8YB
- > RXYSQ6T8YB
- > RXYSQ8TMY1B
- > RXYSQ10TMY1B
- > RXYSQ12TMY1B

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RXYSQ-T8Y, RXYSQ-TY1

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1 Features

1 - 1 RXYSQ-T8Y

- Space saving trunk design for flexible installation
- 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
- 3 steps in night quiet mode to reduce sound levels at night
- 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

1 Features

1 - 2 RXYSQ-TY1

- Space saving trunk design for flexible installation
- 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 ...
- Wide range of units (4 to 12HP) suitable for projects up to 200m² with space limitations
- 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
- 3 steps in night quiet mode: step 1: 47dBA, step 2: 44 dBA, step 3: 41 dBA
- 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

2-1 Technical Specifications				RXYSQ4T8Y	RXYSQ5T8Y	RXYSQ6T8Y	RXYSQ8TY1	RXYSQ10TY1	RXYSQ12TY1	
Recommended combinations				3 x FXSQ25A2VE B + 1 x FXSQ32A2VE B	4 x FXSQ32A2VE B	2 x FXSQ32A2VE B + 2 x FXSQ40A2VE B	4 x FXMQ50P7VE B	4 x FXMQ63P7VE B	6 x FXMQ50P7VE B	
Cooling capacity	Prated,c		kW	12.1 (1)	14.0 (1)	15.5 (1)	22.4 (1)	28.0 (1)	33.5 (1)	
	Nom.	35°C AHRI	Btu/h	-			76,400 (2)	95,500 (2)	114,300 (2)	
			kW	-			22.4 (2)	28.0 (2)	33.5 (2)	
		46°C AHRI	Btu/h	-			58,000 (3)	68,200 (3)	81,850 (3)	
			kW	-			17.0 (3)	20.0 (3)	24.0 (3)	
		48°C AHRI	Btu/h	-			51,150 (4)	58,000 (4)	68,200 (4)	
			kW	-			15.0 (4)	17.0 (4)	20.0 (4)	
	Heating capacity		Prated,h	kW	8.0 (5)	9.2 (5)	10.2 (5)	14.9 (5)	19.6 (5)	23.5 (5)
Max.		6°CWB	kW	14.2 (2)	16.0 (2)	18.0 (2)	25.0 (6)	31.5 (6)	37.5 (6)	
Power input - 50Hz	Cooling	Nom.	35°C AHRI	-			6.78 (2)	8.54 (2)	10.20 (2)	
			46°C AHRI	-			5.80 (3)	7.02 (3)	8.60 (3)	
			48°C AHRI	-			5.34 (4)	6.80 (4)	7.97 (4)	
		EER at nom. capacity		35°C AHRI	Btu/h	-			11.30 (2)	11.20 (2)
			kW/kW	-			3.30 (2)	3.28 (2)		
		46°C AHRI	Btu/h	-			10.00 (3)	9.72 (3)	9.52 (3)	
			kW/kW	-			2.93 (3)	2.85 (3)	2.79 (3)	
		48°C AHRI	Btu/h	-			9.58 (4)	8.53 (4)	8.56 (4)	
			kW/kW	-			2.81 (4)	2.50 (4)	2.51 (4)	
ESEER - Automatic				7.89	7.49	6.73	6.72	6.41	6.18	
ESEER - Standard				6.18	5.77	5.23	5.63	5.02	4.87	
SEER				6.8	6.6	6.8	6.3		6.5	
SCOP				3.9	4.2	4.4	4.2	4.1	4.3	
ηs,c			%	269.2	260.5	268.3	247.3	247.4	256.5	
ηs,h			%	154.4	164.5	174.1	165.8	162.4	169.6	
Space cooling	A Condition (35°C - 27/19)	EERd		3.1	2.6			2.8	2.7	
		Pdc		kW	12.1	14.0	15.5	22.4	28.0	33.5
	B Condition (30°C - 27/19)	EERd		5.2	4.8			4.2	4.3	
		Pdc		kW	8.9	10.3	11.4	16.5	20.6	24.7
	C Condition (25°C - 27/19)	EERd		9.3	8.9	9.1	7.7		7.9	
		Pdc		kW	5.7	6.6	7.3	10.6	13.3	15.9
	D Condition (20°C - 27/19)	EERd		13.0	14.2	15.1	13.7	12.2	13.6	
		Pdc		kW	4.3	4.5	4.6	6.4	7.1	7.3

2 Specifications

2-1 Technical Specifications				RXYSQ4T8Y	RXYSQ5T8Y	RXYSQ6T8Y	RXYSQ8TY1	RXYSQ10TY1	RXYSQ12TY1
Space heating (Average climate)	TBivalent	COPd (declared COP)		2.4		2.5	2.4	2.2	
		Pdh (declared heating cap)	kW	8.0	9.2	10.2	14.9	19.6	23.5
		Tbiv (bivalent temperature)	°C	-10					
	TOL	COPd (declared COP)		2.4		2.5	2.4	2.2	
		Pdh (declared heating cap)	kW	8.0	9.2	10.2	14.9	19.6	23.5
		Tol (temperature operating limit)	°C	-10					
	A Condition (-7°C)	COPd (declared COP)		2.7	2.8	2.9	2.6	2.4	
		Pdh (declared heating cap)	kW	7.0	8.1	9.0	13.2	17.4	20.8
	B Condition (2°C)	COPd (declared COP)		3.6	3.8	4.0		4.1	4.3
		Pdh (declared heating cap)	kW	4.3	5.0	5.5	8.0	10.6	12.7
	C Condition (7°C)	COPd (declared COP)		5.7	6.1	6.5	5.9		6.3
		Pdh (declared heating cap)	kW	3.4	3.5	3.6	5.0	6.8	8.1
D Condition (12°C)	COPd (declared COP)		7.0	7.6	8.1	7.8	6.3	6.7	
	Pdh (declared heating cap)	kW	4.1		4.3	5.8	6.4	6.6	
Capacity range		HP	4	5	6	8	10	12	
Maximum number of connectable indoor units			64 (3)			64 (7)			
Indoor index connection	Min.		50.0	62.5	70.0	100.0	125.0	150.0	
	Max.		130.0	162.5	182.0	260.0	325.0	390.0	
Dimensions	Unit	Height	mm	1,345			1,430	1,615	
		Width	mm	900			940		
		Depth	mm	320				460	
	Packed unit	Height	mm	1,524			1,615	1,745	
		Width	mm	980			1,030	1,015	
		Depth	mm	420				575	
Weight	Unit		kg	104		144	175	180	
	Packed unit		kg	114		158	191	196	
Packing	Material		Carton						
	Weight		kg	3.9		5.6	8.2		
Packing 2	Material		Wood						
	Weight		kg	5.6		5.5	8.8		
Packing 3	Material		Plastic						
	Weight		kg	0.5		0.3	0.4		
Capacity control	Method		Inverter controlled						
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	6,360 (5)			8,400 (5)	10,920 (5)
Heating		Rated	m³/h	6,360 (5)			8,400 (5)	10,920 (5)	
Compressor	Quantity		1						
	Type		Hermetically sealed swing compressor			Hermetically sealed scroll compressor			
	Crankcase heater		W	33					
Fan	Quantity		2						
Fan motor	Quantity		2						
	Type		DC motor						
	Output		W	70			200		
Sound power level	Cooling	Nom.	dBA	68.0 (4)	69.0 (4)	70.0 (4)	73.0 (8)	74.0 (8)	76.0 (8)
Sound pressure level	Cooling	Nom.	dBA	50.0 (6)	51.0 (6)		55.0 (9)		57.0 (9)
Operation range	Cooling	Min.~Max.	°CDB	-5.0~46.0			-5.0~52.0		
	Heating	Min.~Max.	°CWB	-20.0~15.5					

2 Specifications

2

2-1 Technical Specifications					RXYSQ4T8Y	RXYSQ5T8Y	RXYSQ6T8Y	RXYSQ8TY1	RXYSQ10TY1	RXYSQ12TY1	
Refrigerant	Type		R-410A								
	GWP		2,087.5								
	Charge	TCO ₂ eq	kg	7.5		11.5		14.6		16.7	
3.6				5.5		7.0		8.0			
Refrigerant oil	Type	Synthetic (ether) oil FVC50K				Synthetic (ether) oil FVC68D					
Piping connections	Liquid	Type	Flare connection				Braze connection				
		OD	mm	9,52				12,7			
	Gas	Type	Flare connection				Braze connection				
		OD	mm	15.9		19.1		22.2		25.4	
Total piping length	System	Actual	m	300 (7)			300 (10)				
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				Category II				
	Most critical part	Name		Compressor				Accumulator			
		Ps*V	Bar*1	167		202		279			
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		0.035		0.046		
		Heating	POFF	kW	0.049		0.040		0.046		
	Standby mode	Cooling	PSB	kW	0.039		0.035		0.046		
		Heating	PSB	kW	0.049		0.040		0.046		
	Thermostat-off mode	Cooling	PTO	kW	0.000		0.015		0.013		
		Heating	PTO	kW	0.049		0.055		0.059		
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					RXYSQ4T8Y	RXYSQ5T8Y	RXYSQ6T8Y	RXYSQ8TY1	RXYSQ10TY1	RXYSQ12TY1	
Power supply	Name		Y1								
	Phase		3N~								
	Frequency		Hz	50							
	Voltage		V	380-415							
Voltage range	Min.		%								
	Max.		%								
Current	Nominal running current (RLA) - 50Hz	Cooling	A	4.44 (8)	5.55 (8)	6.84 (8)	9.6 (11)	10.7 (11)	13.4 (11)		
Current - 50Hz	Starting current (MSC) - remark		(9)				(12)				
	Zmax	List	No requirements								
	Minimum circuit amps (MCA)		A	14.1 (10)		18.5 (13)		22.0 (13)		24.0 (13)	
	Maximum fuse amps (MFA)		A	16 (11)		25 (14)				32 (14)	
	Total overcurrent amps (TOCA)		A	14.1 (12)		16.5 (15)		25.0 (15)		27.0 (15)	
	Full load amps (FLA)		Total	A	0.6 (16)		1.4 (17)				
Wiring connections - 50Hz	For power supply	Quantity	5G								
	For connection with indoor	Quantity	2								
		Remark	F1,F2								
Power supply intake	Both indoor and outdoor unit										

2 Specifications

Notes

- (1) Cooling: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB; equivalent piping length: 7.5m; level difference: 0m
- (2) Heating: indoor temp. 20°CDB; outdoor temp. 7°CDB, 6°CWB; equivalent refrigerant piping: 7.5m; level difference: 0m
- (3) Actual number of 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) 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
- (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) The automatic ESEER value corresponds with normal VRV IV-S heat pump operation, including the advanced energy saving functionality (variable refrigerant temperature control).
- (14) The standard ESEER value corresponds with normal VRV IV-S heat pump operation, not taking into account the advanced energy saving functionality.
- (15) Sound values are measured in a semi-anechoic room.
- (16) FLA means the nominal running current of the fan
- (17) 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.

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

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

Ssc: Short-circuit power

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

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

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

3 Options

3 - 1 Options

3

RXYSQ-T8Y RXYSQ-TY1

Nr.	Item	RXYSQ4~5TMV1B	RXYSQ4~6T7V1B RXYSQ4~6T8VB	RXYSQ4~6T7Y1B RXYSQ4~6T8YB	RXYSQ8~12TMY1B	RXYSQ6T7Y1B9 RXYSQ6T8Y1B9
I.	Refnet header	-	-	KHRQ22M29H	KHRQ22M64H	-
II.	Refnet joint	-	-	KHRQ22M20T	KHRQ22M29T9	-
		-	-	-	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	-	-	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 RXYSQ4~6T7V1B
For RXYSQ4~6T8VB
To operate the cool/heat selector function, options 1a and 1c are both required.
4. 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

RXYSQ-T8Y
RXYSQ-TY1

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)
		FTXM	FTXM20M
			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
		Roundflow 3x3	FFA60A
			FCAG35A
			FCAG50A
	Ceiling-suspended		FCAG60A
			FCAG71A
			FHA35A
			FHA50A
Duct		FHA60A	
		FHA71A	
		FBA35A	
		FBA50A	
		FBA60A	
Floor-standing	FNA	FBA71A	
		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 Integrated Heating Capacity Correction Factor

RXYSQ-T8Y
RXYSQ-TY1

**MINI VRV
Integrated heating capacity coefficient**

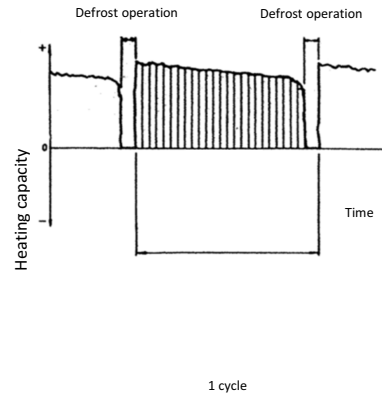
The heating capacity tables do not take into account the capacity reduction in case of frost accumulation or defrost operation.
The capacity values that take these factors into account, or in other words, the integrated heating capacity values, can be calculated as follows:

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
RXYSQ4TMV1B							
RXYSQ5TMV1B							
RXYSQ4T7V1B							
RXYSQ5T7V1B							
RXYSQ6T7V1B							
RXYSQ4T7Y1B							
RXYSQ5T7Y1B							
RXYSQ6T7Y1B	0,88	0,86	0,80	0,75	0,76	0,82	1,00
RXYSQ6T7Y1B9							
RXYSQ4T8V8							
RXYSQ5T8V8							
RXYSQ6T8V8							
RXYSQ4T8Y8							
RXYSQ5T8Y8							
RXYSQ6T8Y8							
RXYSQ6T8Y1B9							
RXYSQ8TMY1B	0,95	0,93	0,88	0,84	0,85	0,90	1,00
RXYSQ10TMY1B	0,95	0,93	0,87	0,79	0,80	0,88	1,00
RXYSQ6TMYFK	0,95	0,93	0,87	0,79	0,80	0,88	1,00
RXYSQ12TMY1B	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.

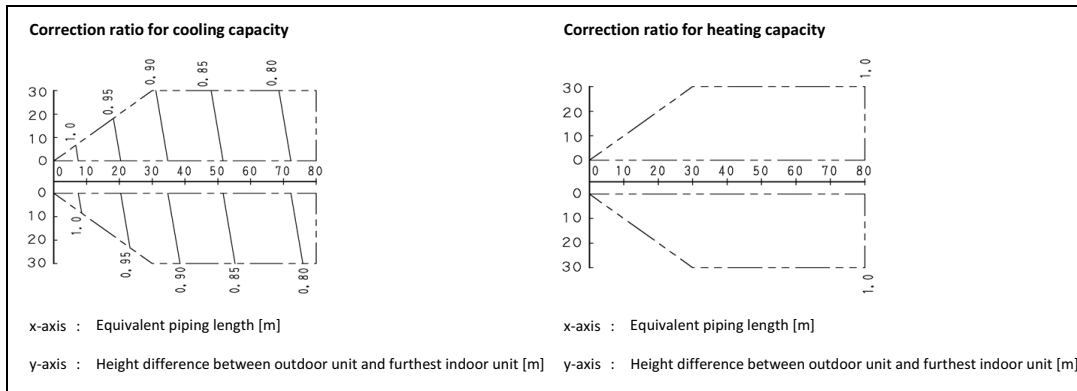
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5 Capacity tables

5 - 3 Capacity Correction Factor

5

RXYSQ-T8Y
RXYSQ-TY1



Notes

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

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

2. 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%.

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

Indoor connection ratio > 100%.

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

4. 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
RXYSQ4TMV1B	9,5	Not increased	15,9	19,1
RXYSQ5TMV1B				

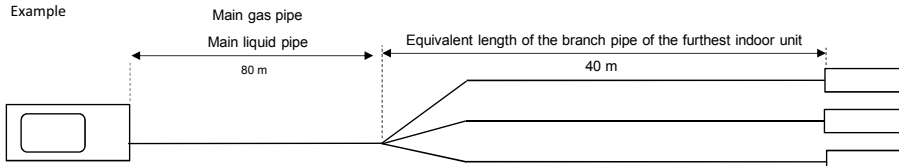
5. Overall equivalent length

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

Choose the correction factor from the following table.
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

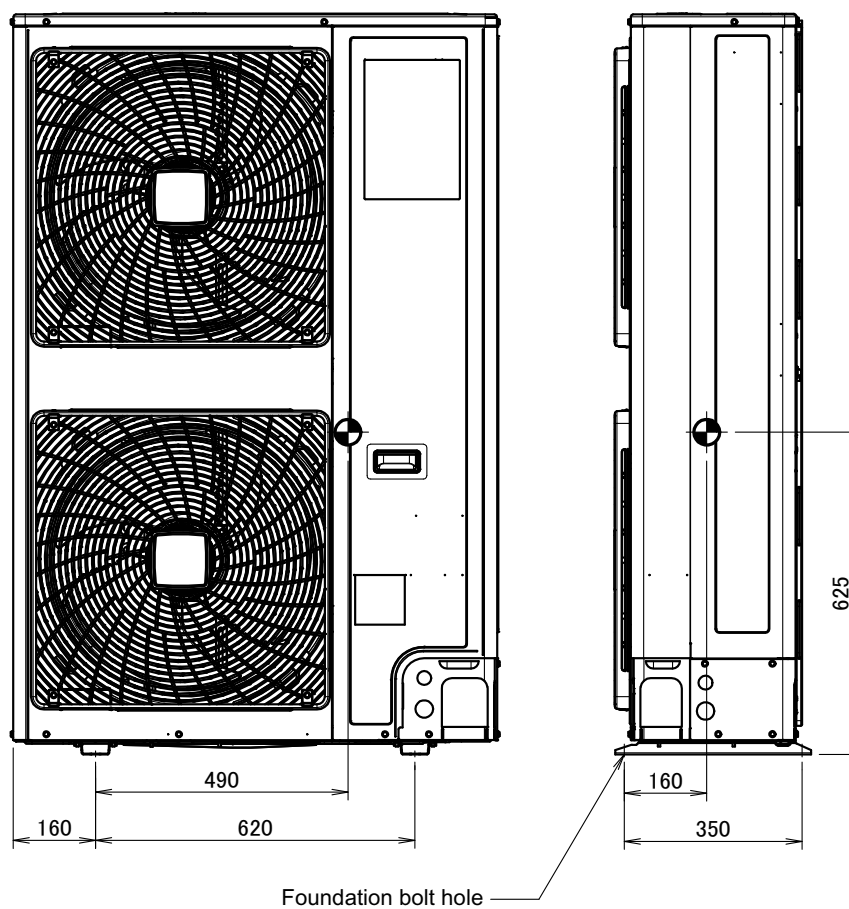
3D094660B

7 Centre of gravity

7 - 1 Centre of Gravity

RXYSQ8TY1

7

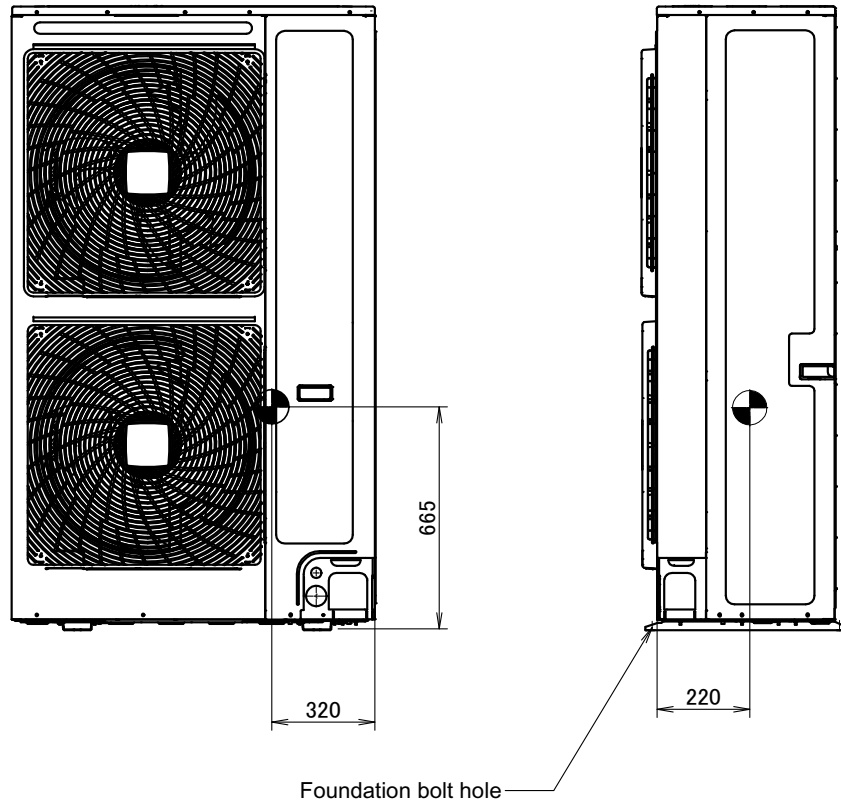


4D098084

7 Centre of gravity

7 - 1 Centre of Gravity

RXYSQ10-12TY1

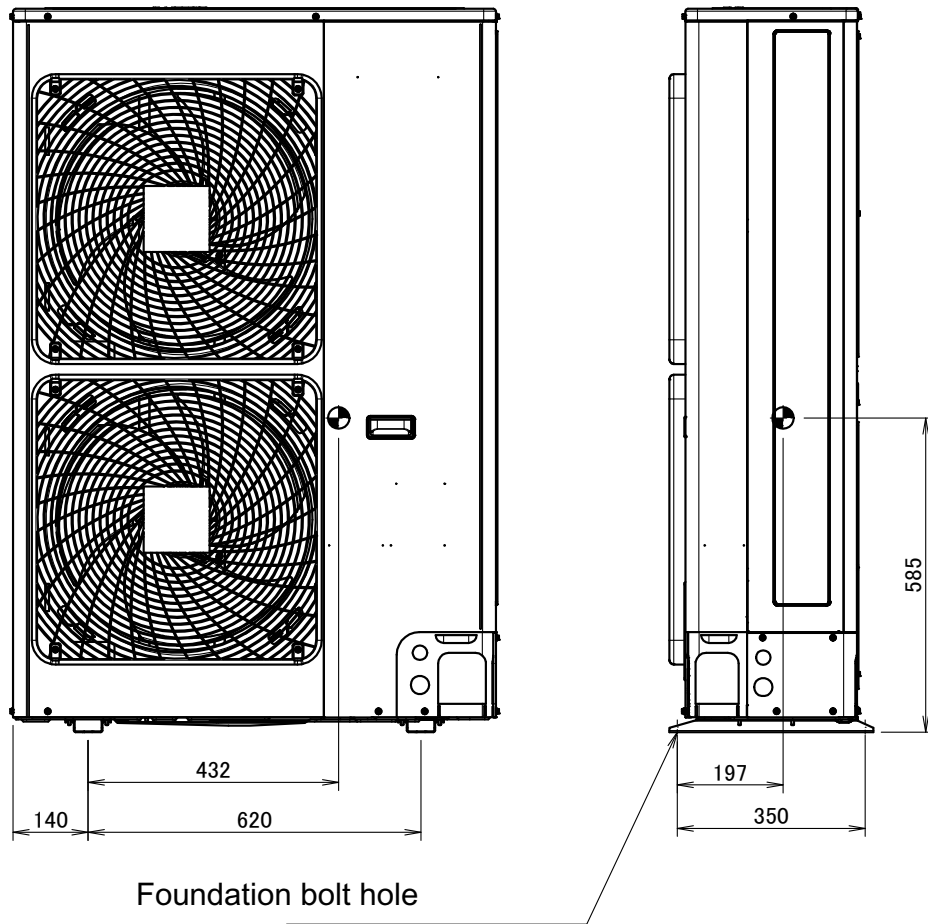


4D098085

7 Centre of gravity

7 - 1 Centre of Gravity

RXYSQ-T8Y



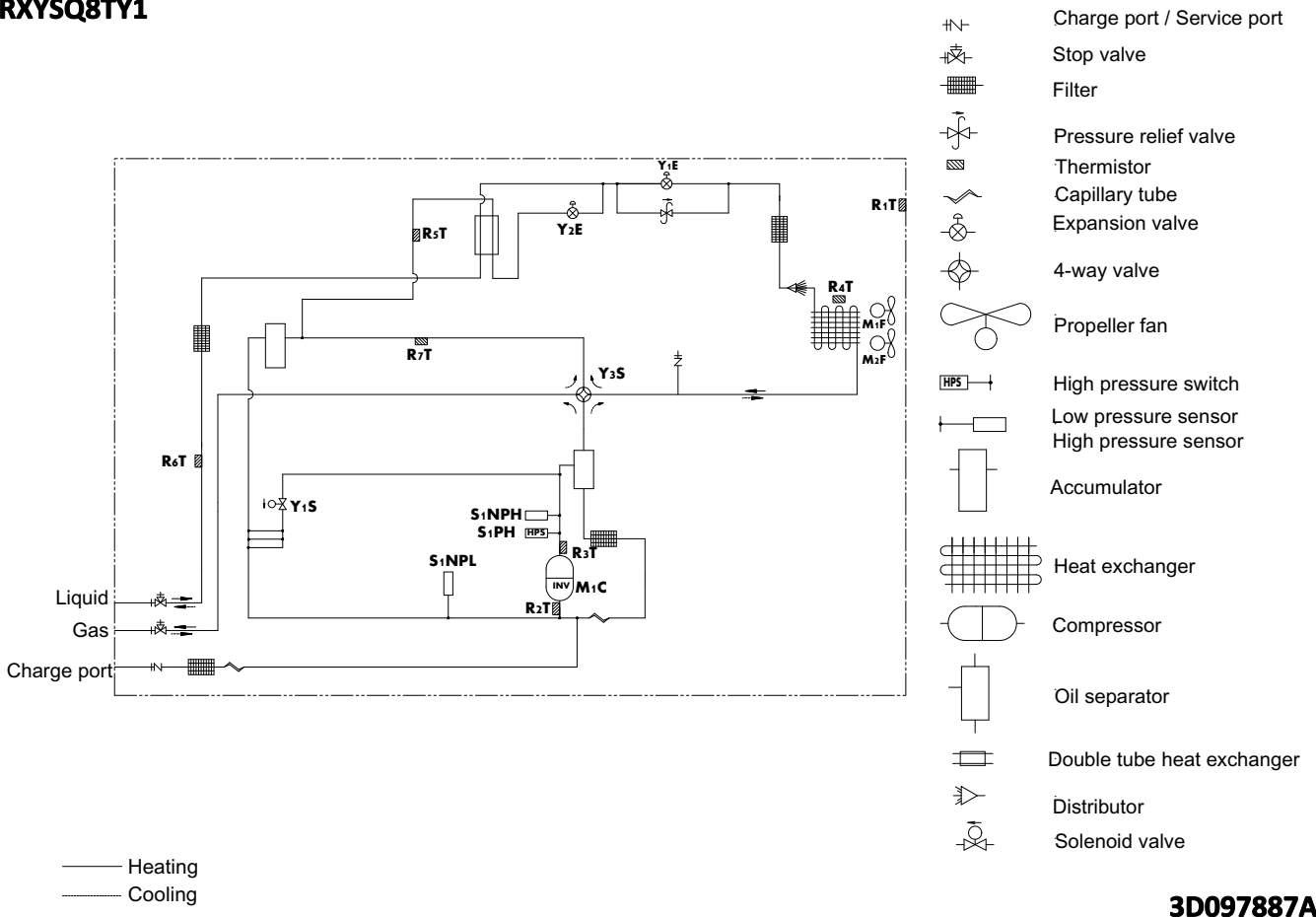
4D094635

8 Piping diagrams

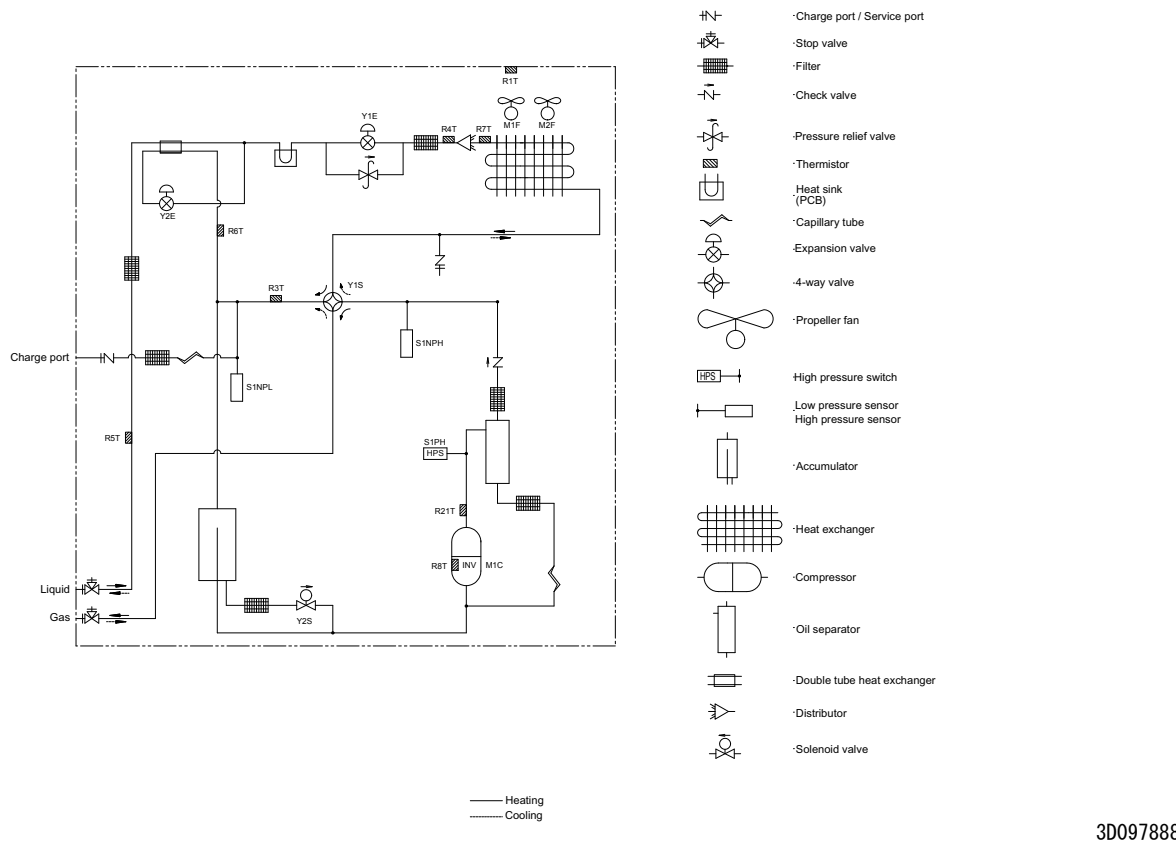
8 - 1 Piping Diagrams

8

RXYSQ8TY1



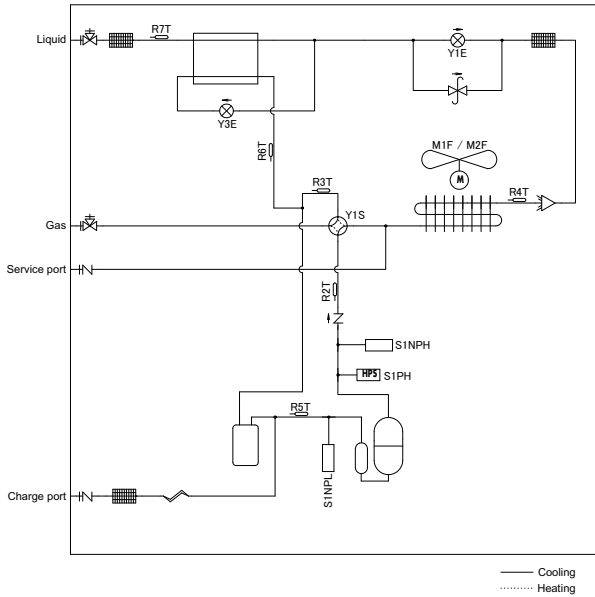
RXYSQ10-12TY1



8 Piping diagrams

8 - 1 Piping Diagrams

RXYSQ-T8Y



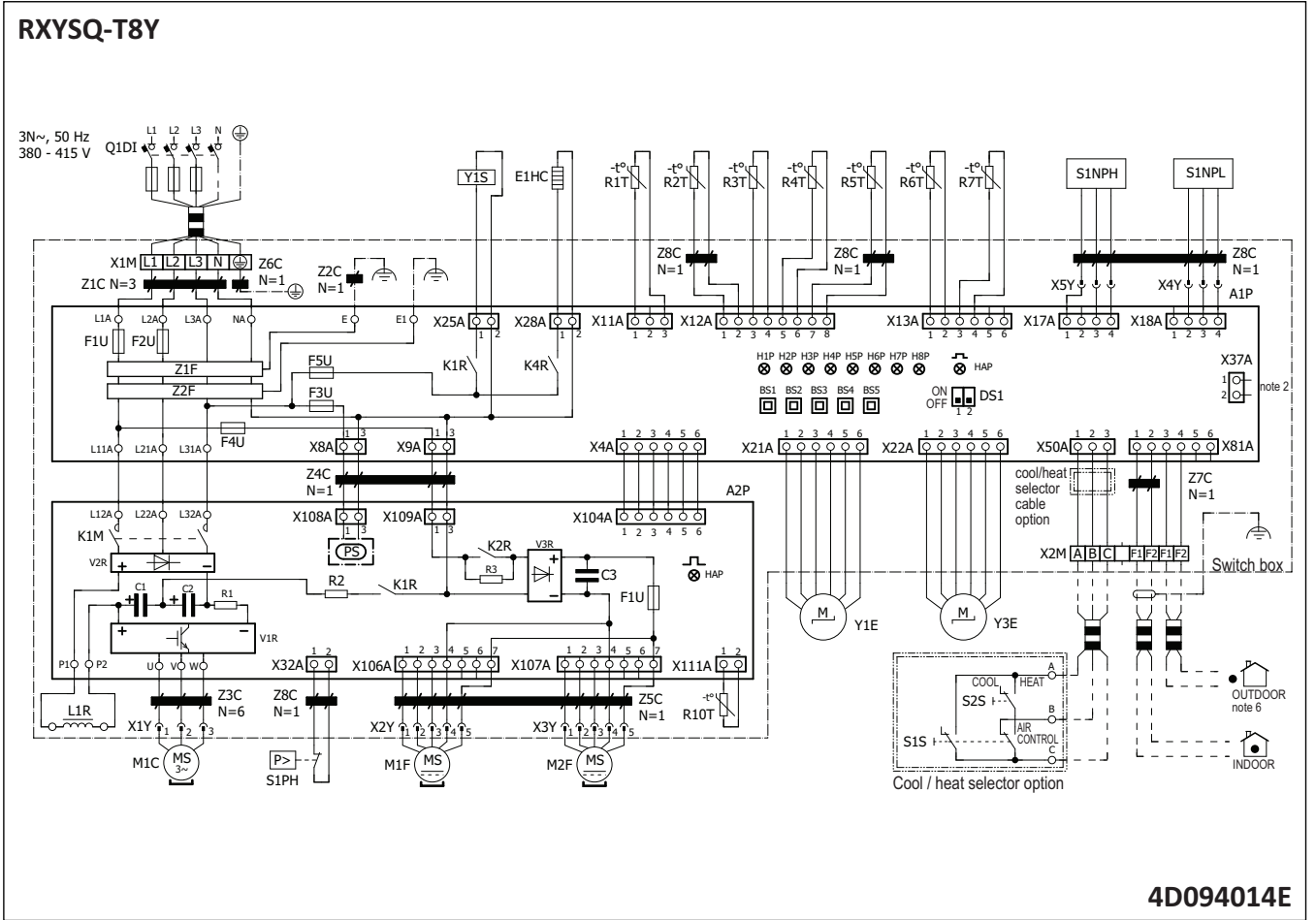
- Charge port / Service port
- Stop valve
- Filter
- Check valve
- Pressure relief valve
- Thermistor
- Capillary tube
- Expansion valve
- 4-way valve
- Propeller fan
- High pressure switch
- Low pressure sensor
- High pressure sensor
- Accumulator
- Heat exchanger
- Compressor
- Compressor
· Accumulator
- Double tube heat exchanger
- Distributor

3D094631A

9 Wiring diagrams

9 - 1 Wiring Diagrams - Single Phase

9








9 Wiring diagrams

9 - 1 Wiring Diagrams - Single Phase

RXYSQ-T8Y

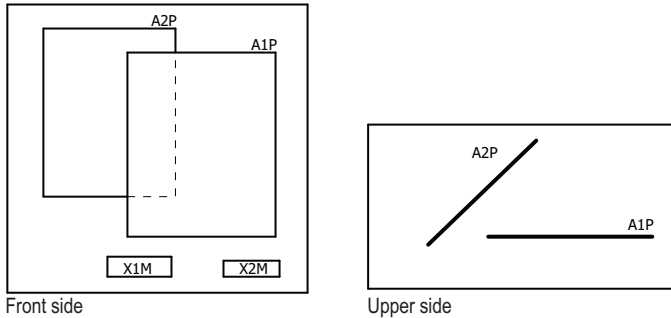
NOTES to go through before starting the unit

1. Symbols:

- X1M : Main terminal
- — — — — : Earth wiring
- 15 : Wire number 15
- - - - - : Field wire
-  : Field cable
- **/12.2 : Connection ** continues on page 12 column 2
- ① : Several wiring possibilities
-  : Option
-  : Not mounted in switch box
-  : Wiring depending on model
-  : PCB

2. For X37A refer to the installation manual of the option.
3. Refer to the installation or service manual on how to use BS1 ~ BS4 push buttons and DS1-1 ~ DS1-2 DIP switches.
4. Do not operate the unit by short-circuiting protection device S1PH.
5. Refer to the installation manual for indoor-outdoor transmission F1-F2 wiring.
6. When using the central control system, connect outdoor-outdoor transmission F1-F2.

POSITION IN SWITCH BOX



LEGEND

Part n°	Description	Part n°	Description
A1P	main PCB	R3T	thermistor (suction1)
A2P	inverter PCB	R4T	thermistor (heat exchanger)
BS* (A1P)	push buttons (mode, set, return, test ,reset)	R5T	thermistor (suction 2)
C* (A2P)	capacitors	R6T	thermistor (subcool heat ex)
DS1 (A1P)	dipswitch	R7T	thermistor (liquid)
E1HC	crankcase heater	R10T	thermistor (fin)
F1U (A1P)	fuse T 31,5 A 500 V	S1NPH	high pressure sensor
F2U (A1P)	fuse T 31,5 A 500 V	S1NPL	low pressure sensor
F1U (A2P)	fuse T 5 A 250 V	S1PH	high pressure switch
F3U (A1P)	fuse T 6.3 A 250 V	S1S	* air control switch
F4U (A1P)	fuse T 6.3 A 250 V	S2S	* cool / heat switch
F5U (A1P)	fuse T 6.3 A 250 V	V1R (A2P)	IGBT power module
HAP (A*P)	running LED (service monitor-green)	V2R (A2P)	diode module
H*P (A1P)	LED (service monitor-orange)	V3R (A2P)	diode module
K1M (A2P)	magnetic contactor	X37A	connector (power supply for option PCB)
K4R (A1P)	magnetic relay (E1HC)	X*A	PCB connector
K*R (A*P)	magnetic relay	X*M	terminal strip
L1R	reactor	X*Y	connector
M1C	motor (compressor)	Y1E	electronic expansion valve (main)
M1F	fan motor (upper)	Y3E	electronic expansion valve (subcool)
M2F	fan motor (lower)	Y1S	solenoid valve (4-way valve)
PS (A2P)	power supply	Z*C	noise filter (ferrit core)
Q1DI	# earth leakage circuit breaker	Z*F	noise filter
R* (A2P)	resistor		
R1T	thermistor (air)		
R2T	thermistor (discharge)		

* : optional
: field supply

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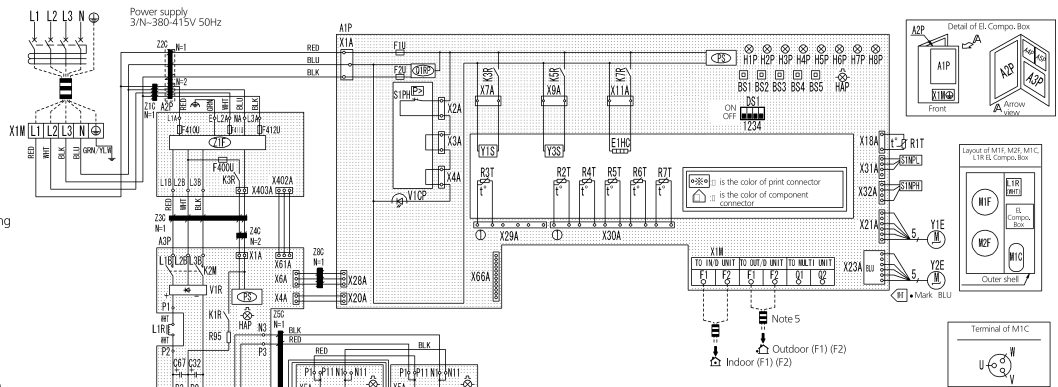
9 Wiring diagrams

9 - 2 Wiring Diagrams - Three Phase

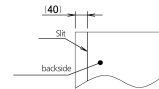
9

RXYSQ8TY1

- A1P : Printed circuit board (Main)
- A2P : Printed circuit board (Noise filter)
- A3P : Printed circuit board (INV)
- A4P : Printed circuit board (Fan 1)
- A5P : Printed circuit board (Fan 2)
- BS1-B55 : Push button switch (Mode, set, return, test, reset)
- C32, C67 : Capacitor
- DS1 : Dip switch
- E1HC : Crankcase heater
- F101U : Fuse (5A, DC650V) (A4P) (A5P)
- F1U, F2U : Fuse (T 3.15A / 250V) (A1P)
- F400U : Fuse (T 6.3A / 250V) (A3P)
- H1P-H8P : Pilot lamp (Service monitor-orange) [H2P] Prepare, Test ----- Flickering Malfunction Detection -- Light up
- HAP : Pilotlamp (service monitor - green)
- K1R : Magnetic relay (A3P)
- K2M : Magnetic contactor (M1C) (A3P)
- K3R : Magnetic relay (A2P)
- K3M : Magnetic relay (Y1S)
- K5R : Magnetic relay (Y3S)
- K7R : Magnetic relay (E1HC)
- L1R : Reactor
- M1C : Motor (compressor)
- M1F, M2F : Motor (fan)
- PS : Switching power supply (A1P) (A3P)
- Q1RP : Reverse phase protector
- R24 : Resistor (current sensor) (A4P) (A5P)
- R2, R3 : Resistor
- R95 : Resistor (current limiting)
- R1T : Thermistor (Air)
- R2T : Thermistor (Suction)
- R3T : Thermistor (M1C Discharge)
- R4T : Thermistor (Heat exchanger deicer)
- R5T : Thermistor (heat exchanger outlet)
- R6T : Thermistor (Liquid pipe)
- R7T : Thermistor (Accumulator)
- S1NPH : Pressure sensor (High)
- S1NPL : Pressure sensor (low)
- S1PH : High pressure switch
- V1CP : Safety device input
- V1R : IGBT Module (A4P) (A5P)
- V1R : Diode bridge IGBT Module (A3P)
- X1A, X2A : Connector (M1F)
- X3A, X4A : Connector (M2F)
- X1M : Terminal strip (Power supply)
- X1M : Terminal strip (Control) (A1P)
- Y1E : Electronic expansion valve (Main)
- Y2E : Electronic expansion valve (Subcool)
- Y1S : Solenoid valve (hot gas)
- Y3S : Solenoid valve (4 way valve)
- Z1C-8C : Noise filter (ferrite core)
- Z1F : Noise filter (with surge absorber)



- Notes:
- 1 Lay-out, illustrations and letterize = this drawing.
 - 2 Printing: Silkscreen printing black.
 - 3 Add a slit on the backside of the sticker:



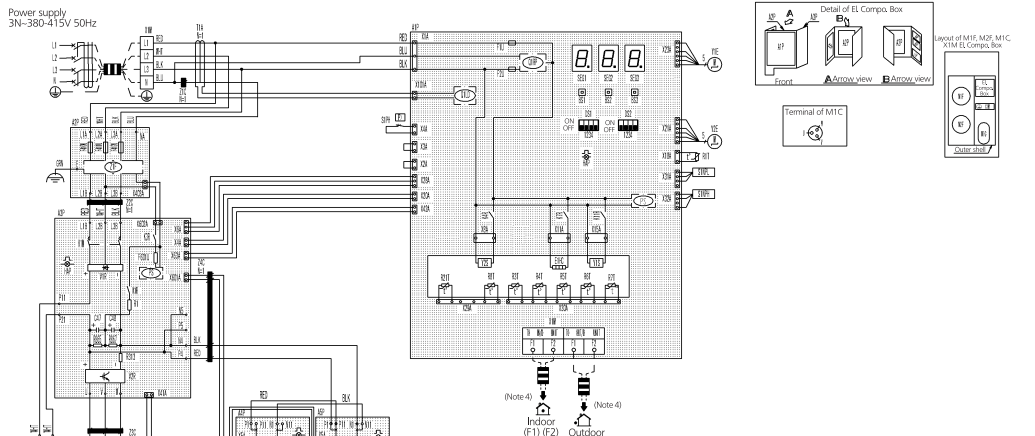
- 4 Unspecified tolerances: +/- 1
- 5 For material specifications refer to: AD150142

- Notes:
1. This wiring diagram only applies to the outdoor unit.
 2. ---: Field wiring
 3. □: Terminal, □: Connector, ⊕: Movable connector, ⊖: Fixed connector, ⊙: Terminal strip
 4. Refer to the installation manual, for connection wiring to indoor-outdoor transmission F1 - F2, outdoor-outdoor transmission F1 - F2.
 5. Refer to "installation manual" (on back front plate). How to use BS1-B55 and DS1 switch.
 6. When operating, do not short circuit for protection device, (S1PH)
 7. Colours: BLK: Black, RED: Red, BLU: Blue, WHT: White, GRN: Green, BRN: Brown, YLW: Yellow

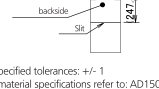
2D094434D

RXYSQ10-12TY1

- A1P : Printed circuit board (Main)
- A2P : Printed circuit board (Noise filter)
- A3P : Printed circuit board (INV)
- A4P : Printed circuit board (Fan 1)
- A5P : Printed circuit board (Fan 2)
- BS1-B35 : Push button switch (Mode, Set, Return)
- C47, C48 : Capacitor
- DS1, DS2 : Dip switch (A1P)
- E1HC : Crankcase heater
- F1U, F2U : Fuse (T 3.15A / 250V) (A1P)
- F101U : Fuse (A4P) (A5P)
- F411U-F412U : Fuse (A2P)
- F601U : Fuse (A3P)
- HAP : Pilotlamp (service monitor - green) (A1P) (A3P) (A4P) (A5P)
- K1M : Magnetic contactor (A3P)
- K1R : Magnetic relay (A3P)
- K3R : Magnetic relay (A3P)
- K4R : Magnetic relay (Y2S) (A1P)
- K7R : Magnetic relay (E1HC) (A1P)
- K11R : Magnetic relay (Y1S) (A1P)
- L1R : Reactor
- M1C : Motor (compressor)
- M1F, M2F : Motor (fan)
- PS : Switching power supply (A1P) (A3P)
- Q1LD : Leakage detection circuit (A1P)
- Q1RP : Phase reversal detect circuit (A1P)
- R1T : Thermistor (Air) (A1P)
- R21T : Thermistor (M1C Discharge)
- R3T : Thermistor (Accumulator)
- R4T : Thermistor (Heat exchanger liq. Pipe)
- R5T : Thermistor (Subcool liq. Pipe)
- R6T : Thermistor (Heat exchanger gas pipe)
- R7T : Thermistor (heat exchanger deicer)
- R8T : Thermistor (M1C body)
- R1 : Resistor (current limiting) (A3P)
- R24 : Resistor (current sensor) (A4P)
- R13 : Resistor (current sensor) (A3P)
- R865, R867 : Resistor (A3P)
- S1NPH : Pressure sensor (High)
- S1NPL : Pressure sensor (low)
- S1PH : High pressure switch
- SEG1-SEG3 : 7-segment display (A1P)
- T1A : current sensor
- V1R : Power module (A3P) (A4P) (A5P)
- V2R : Power module (A3P)
- X1A, X2A : Connector (M1F)
- X3A, X4A : Connector (M2F)
- X1M : Terminal block (Power supply)
- X1M : Terminal block (Control) (A1P)
- Y1E : Electronic expansion valve (Main)
- Y2E : Electronic expansion valve (injection)
- Y1S : Solenoid valve (Main)
- Y2S : Solenoid valve (Accumulator oil return)
- Z1C-24C : Noise filter (ferrite core)
- Z1F : Noise filter (with surge absorber) (A2P)



- 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. ---: Field wiring □: Terminal block, □: Connector, ⊕: Terminal, ⊕: Protective earth (screw)
 3. Refer to the installation manual, for connection wiring to indoor-outdoor transmission F1 - F2, outdoor-outdoor transmission F1 - F2.
 4. How to use BS1-B35 switch, refer to the installation manual.
 5. When operating, do not short circuit for protection device, (S1PH)
 6. Colours: BLK: Black, RED: Red, BLU: Blue, WHT: White, GRN: Green

3D094435D

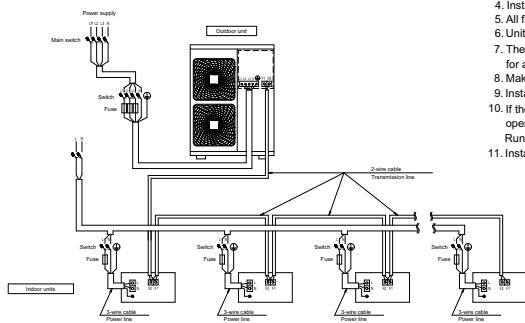
10 External connection diagrams

10 - 1 External Connection Diagrams

RXYSQ-12TY1

External connection diagram

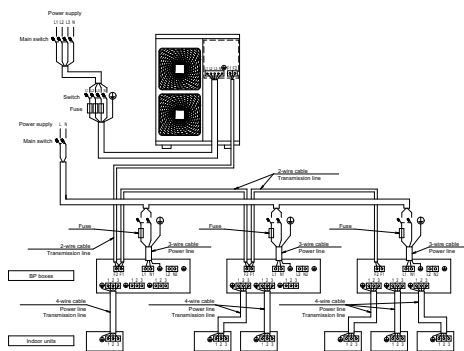
VRV indoor unit



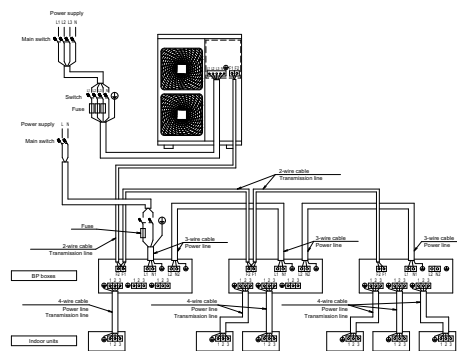
Notes

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. If there exists the possibility of reversed phase, loose phase or momentary blackout, or if the power goes on and off while the product is operating, attach a reversed phase protection circuit locally.
11. Install an earth leakage circuit breaker.

BP box + RA/SA indoor unit



Power source is supplied to each BP box individually.



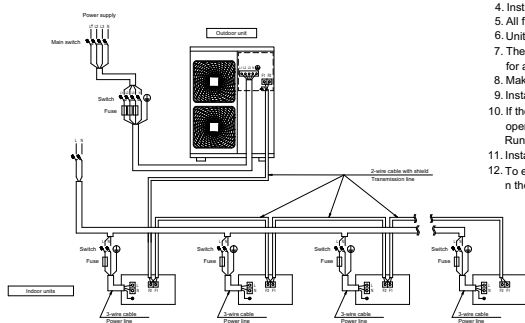
Power source is connected in series between the units.

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RXYSQ-T8Y

External connection diagram

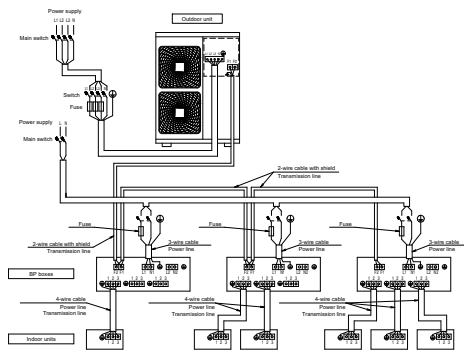
VRV indoor unit



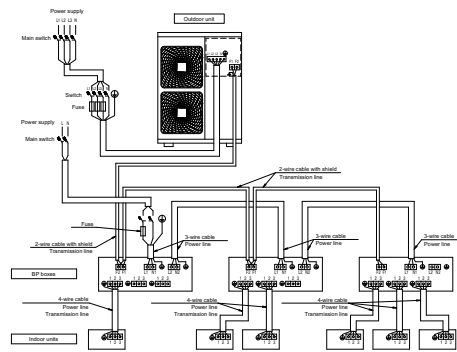
Notes

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. If there exists the possibility of reversed phase, loose phase or momentary blackout, or if the power goes on and off while the product is operating, attach a reversed phase protection circuit locally.
11. Install an earth leakage circuit breaker.
12. 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.

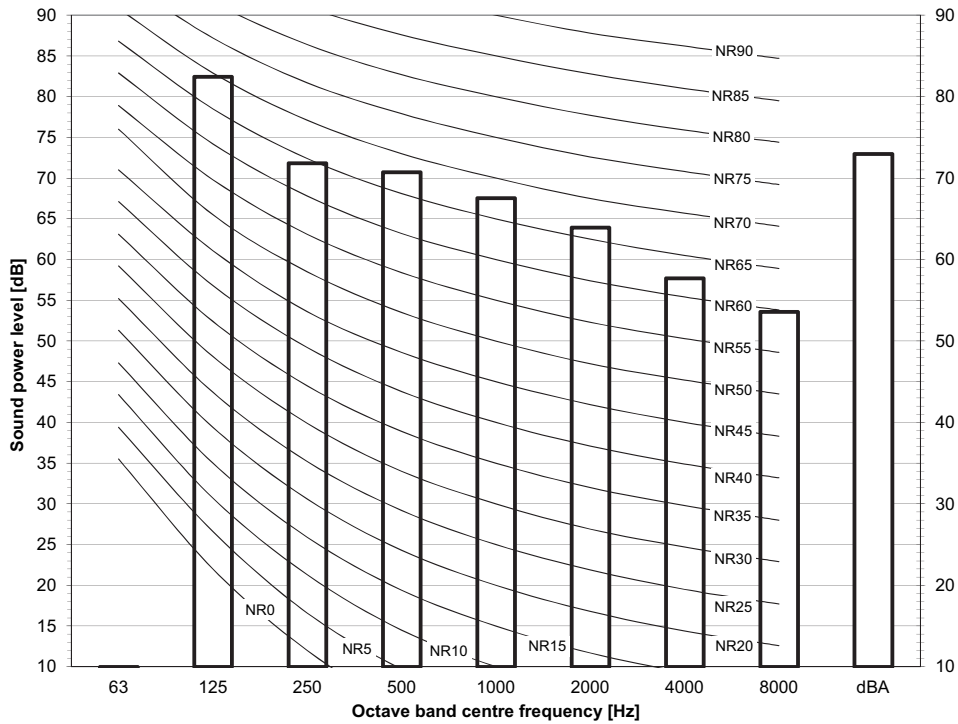
10094667

11 Sound data

11 - 1 Sound Power Spectrum

11

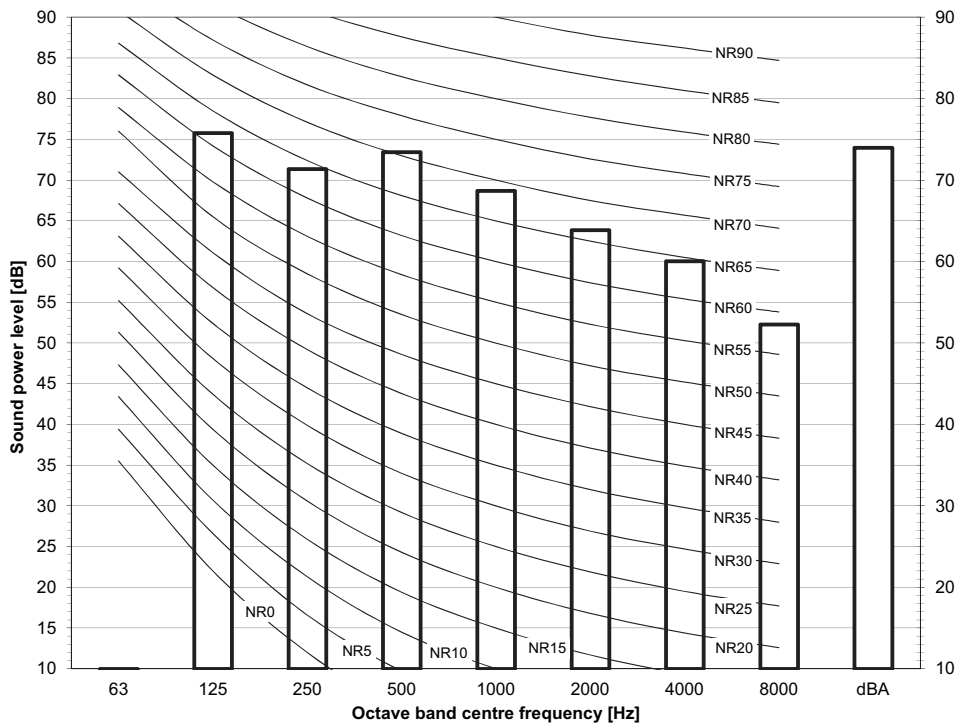
RXYSQ8TY1



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

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RXYSQ10TY1



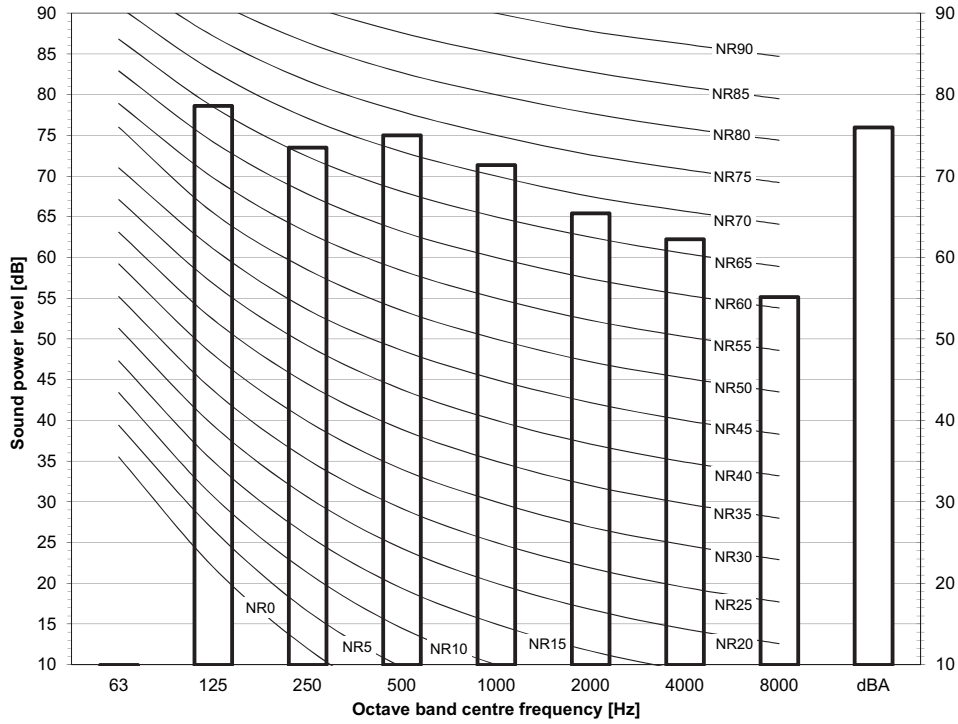
Notes
 - dBA = A-weighted sound power level (A scale according to IEC).
 - Reference acoustic intensity $OdB = 10E-6\mu W/m^2$
 - Measured according to ISO 3744

3D098241

11 Sound data

11 - 1 Sound Power Spectrum

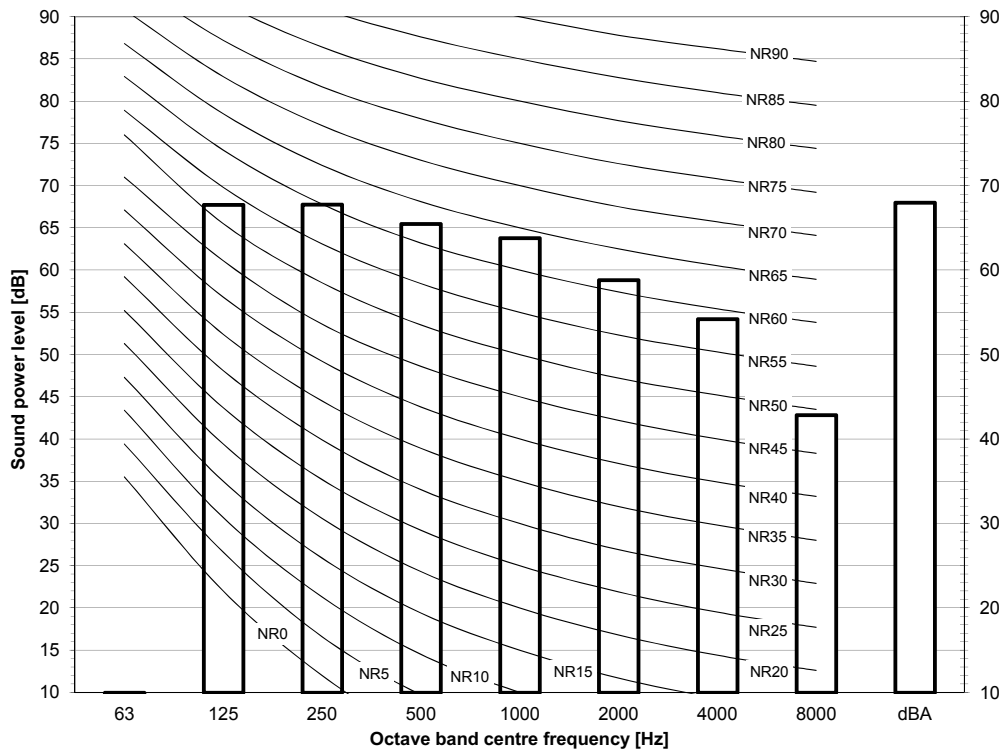
RXYSQ12TY1



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

3D098242

RXYSQ4T8Y



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

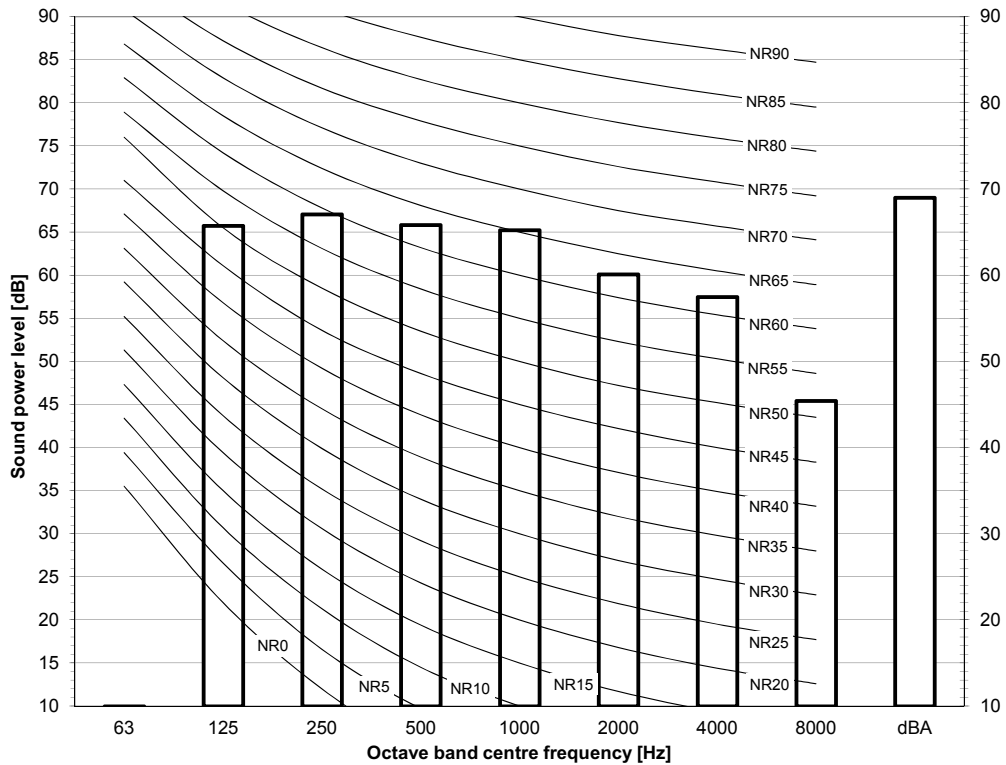
3D098212

11 Sound data

11 - 1 Sound Power Spectrum

11

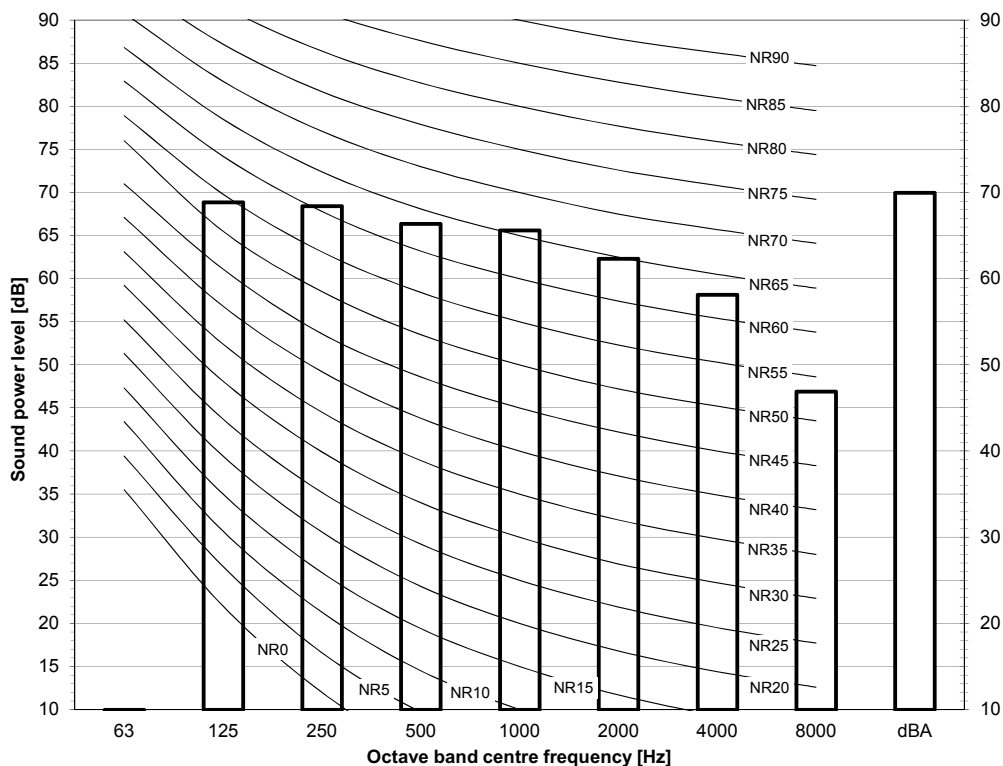
RXYSQ5T8Y



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

3D098213

RXYSQ6T8Y



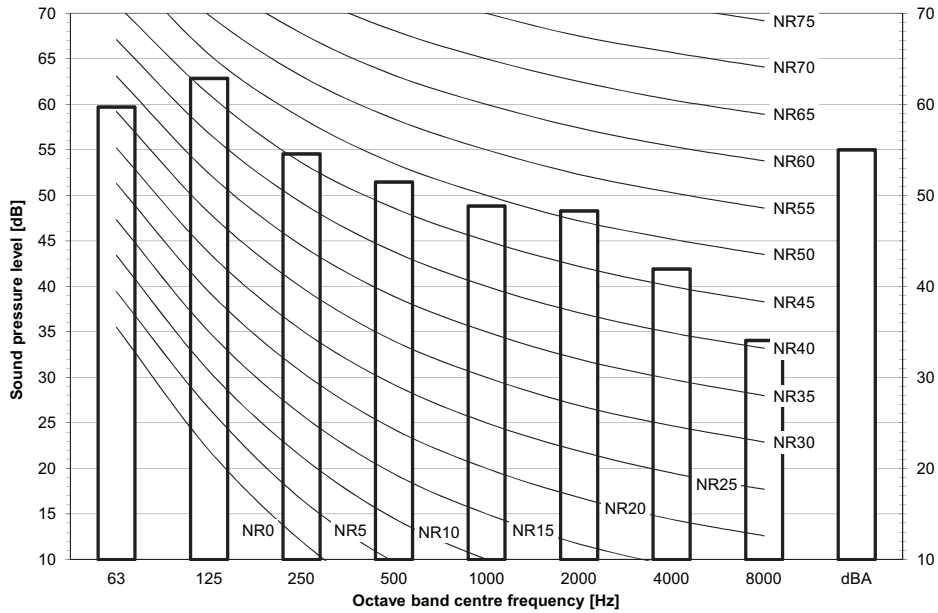
Notes
 - dBA = A-weighted sound power level (A scale according to IEC).
 - Reference acoustic intensity $0dB = 10E-6\mu W/m^2$
 - Measured according to ISO 3744

3D098214

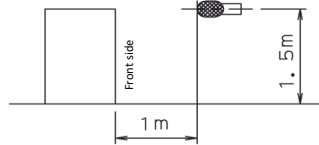
11 Sound data

11 - 2 Sound Pressure Spectrum

RXYSQ8TY1

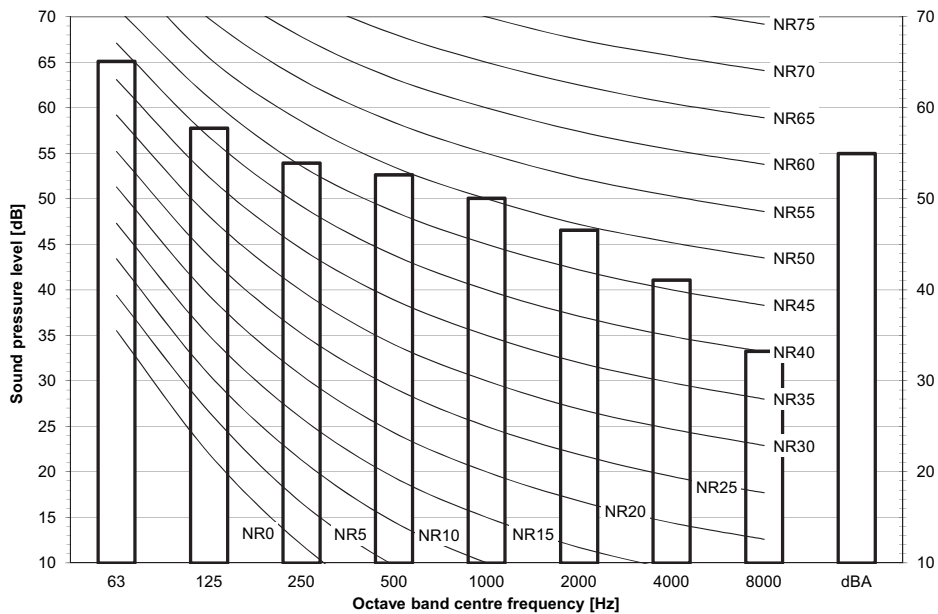


- Notes**
- Data is valid at free field condition.
 - Data is valid at nominal operation condition.
 - dBA = A-weighted sound pressure level (A scale according to IEC).
 - Reference acoustic pressure 0 dB = 20 μ Pa

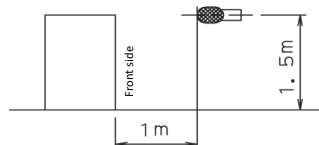


3D098245

RXYSQ10TY1



- 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 μ Pa



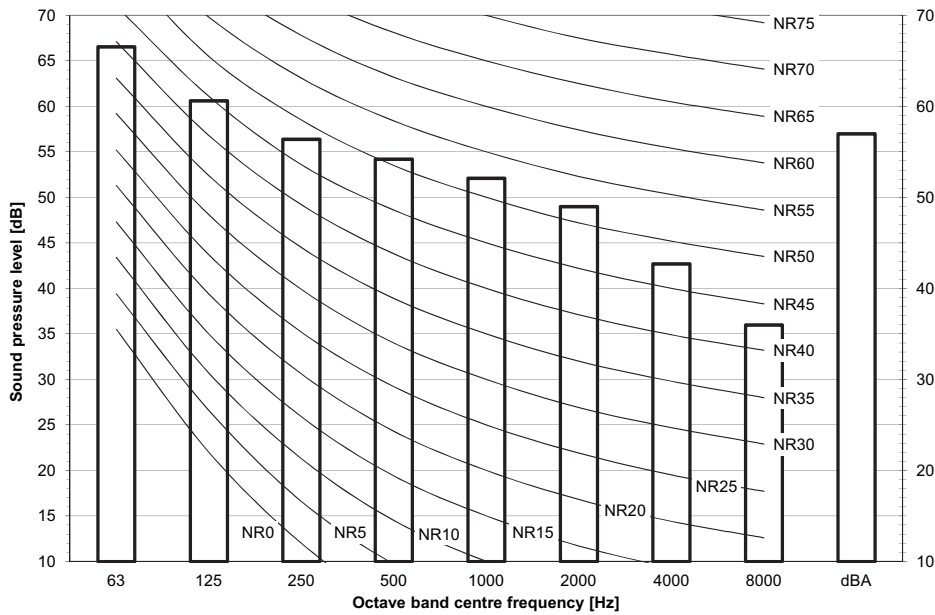
3D098246

11 Sound data

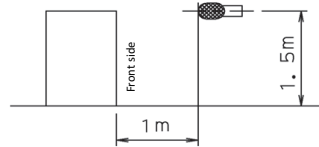
11 - 2 Sound Pressure Spectrum

11

RXYSQ12TY1

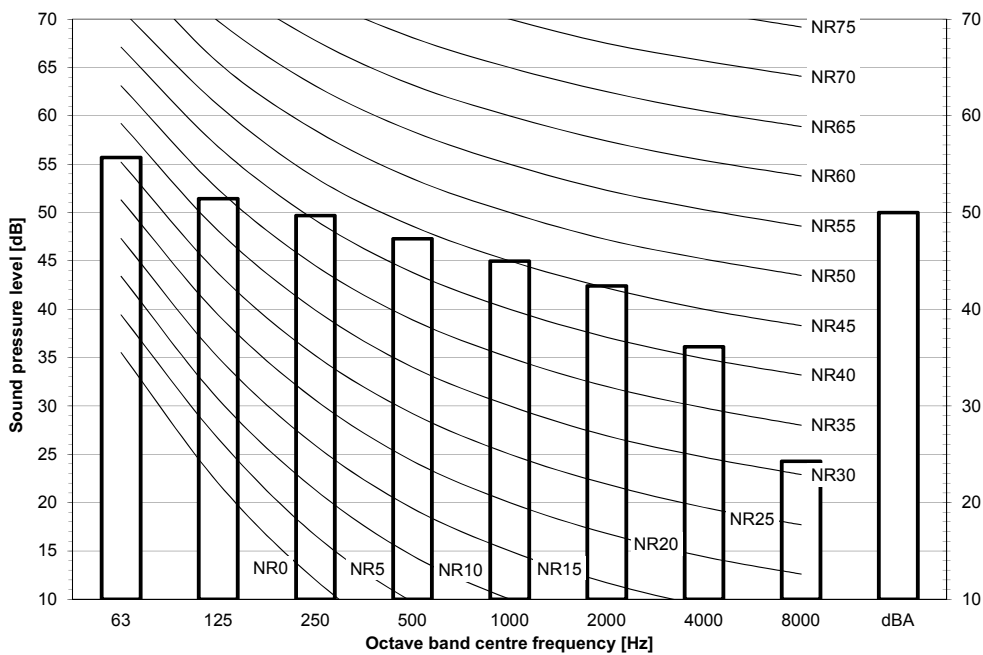


- Notes**
- Data is valid at free field condition.
 - Data is valid at nominal operation condition.
 - dBA = A-weighted sound pressure level (A scale according to IEC).
 - Reference acoustic pressure 0 dB = 20 µPa

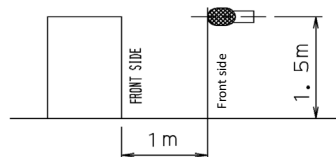


3D098247

RXYSQ4T8Y



- 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

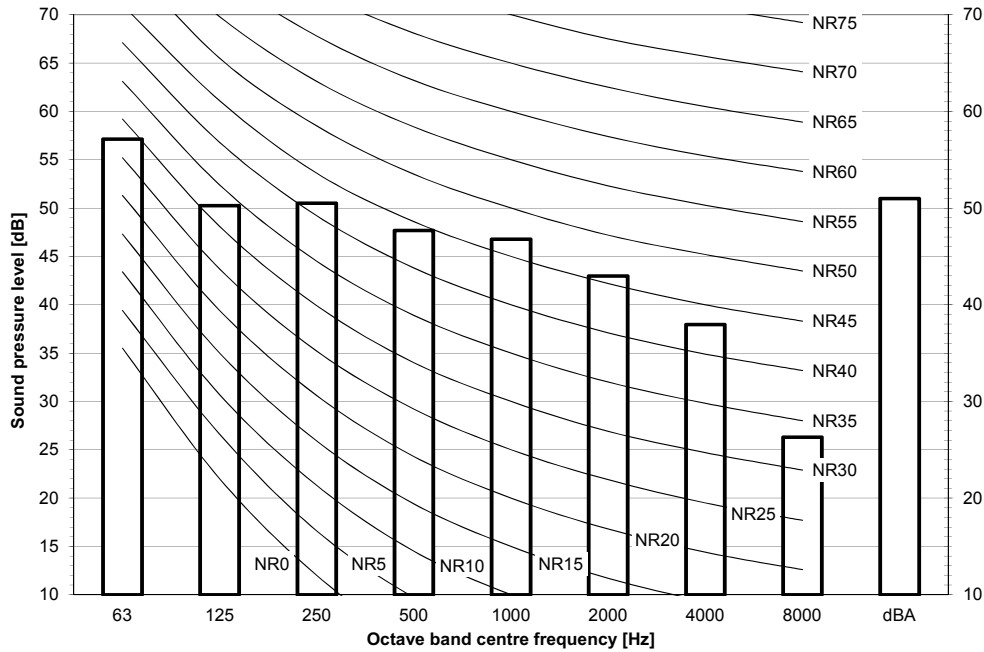


3D098215

11 Sound data

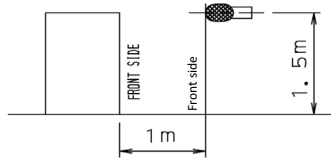
11 - 2 Sound Pressure Spectrum

RXYSQ5T8Y



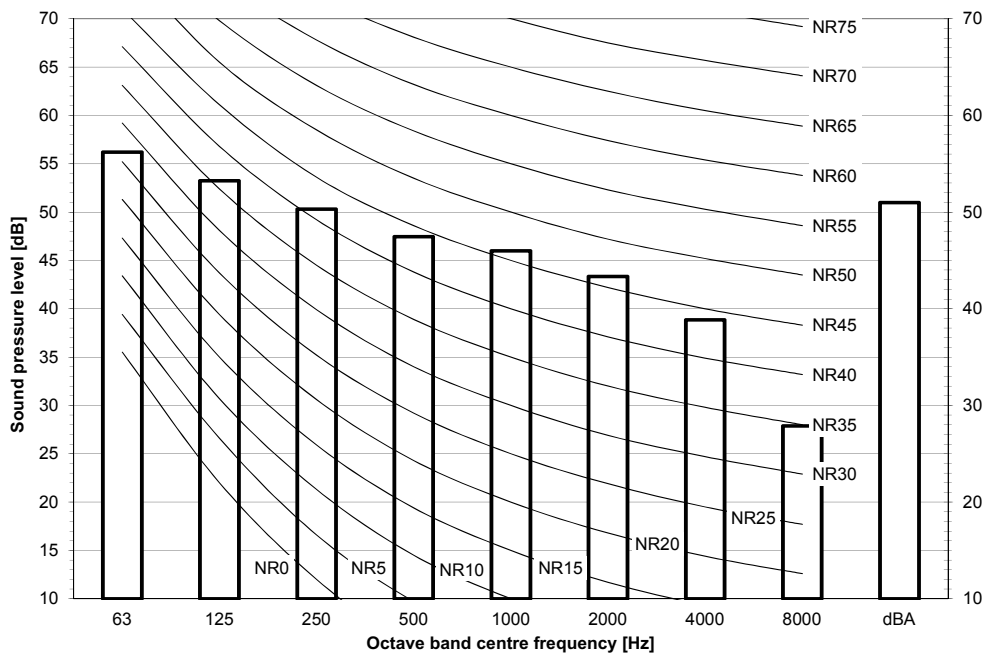
Notes

- 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



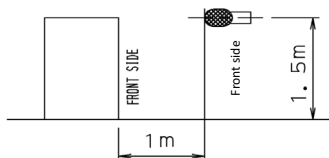
3D098216

RXYSQ6T8Y



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



3D098217

12 Installation

12 - 1 Installation Method

RXYSQ8TY1

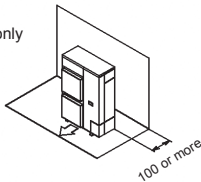
Required installation space

The unit of these values is mm.

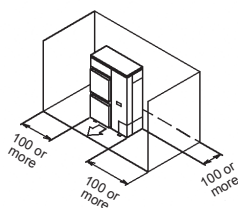
1. Where there is an obstacle on the suction side:

(a) No obstacle above

- (1) Stand-alone installation
• Obstacle on the suction side only

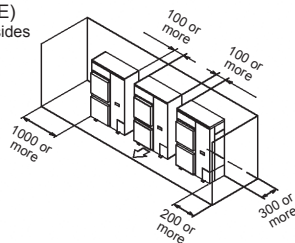


- Obstacle on both sides



(2) Series installation (2 or more) (NOTE)

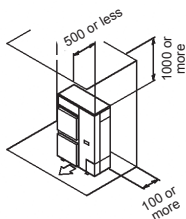
- Obstacle on both sides



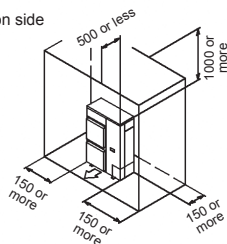
(b) Obstacle above, too

(1) Stand-alone installation

- Obstacle on the suction side, too

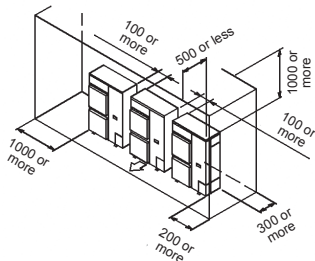


- Obstacle on the suction side and both sides



(2) Series installation (2 or more) (NOTE)

- Obstacle on the suction side and both sides



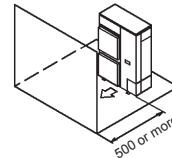
NOTE

When install the units in a line, have to leave the distance over 100 mm between the two units.

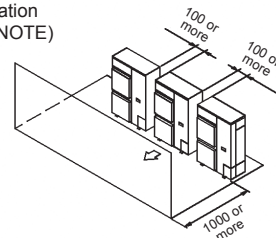
2. Where there is an obstacle on the discharge side:

(a) No obstacle above

(1) Stand-alone installation

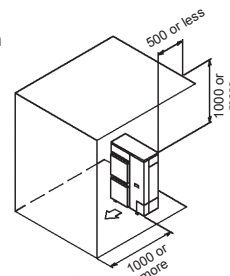


(2) Series installation (2 or more) (NOTE)

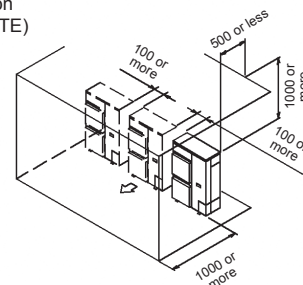


(b) Obstacle above, too

(1) Stand-alone installation



(2) Series installation (2 or more) (NOTE)



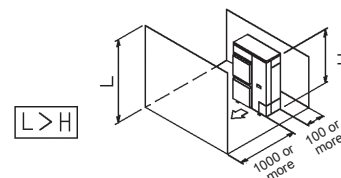
3. Where there are obstacles on both suction and discharge sides:

Pattern 1

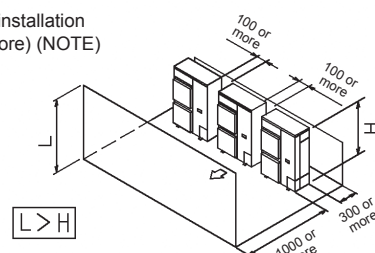
Where the obstacle on the discharge side is higher than the unit:
(There is no height limit for obstructions on the intake side)

(a) No obstacle above

(1) Stand-alone installation



(2) Series installation (2 or more) (NOTE)



12 Installation

12 - 1 Installation Method

RXYSQ8TY1

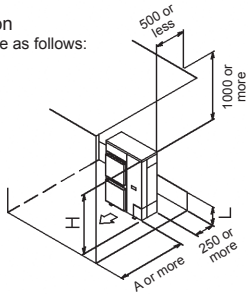
(b) Obstacle above, too

(1) Stand-alone installation

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

	L	A
$L \leq H$	$0 < L \leq 1/2 H$	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.



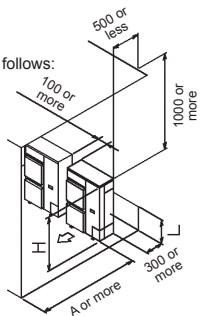
(2) Series installation (2 or more) (NOTE)

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

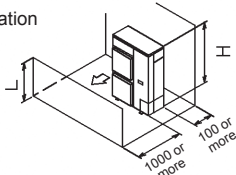
Where the obstacle on the discharge side is lower than the unit:

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

(a) No obstacle above

(1) Stand-alone installation

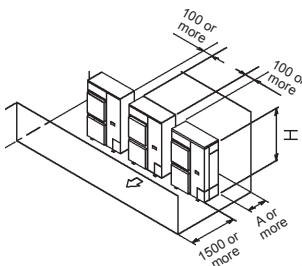
$$L \leq H$$



(2) Series installation (2 or more) (NOTE)

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



(b) Obstacle above, too

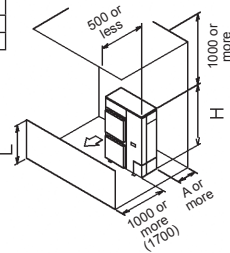
(1) Stand-alone installation

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.

If the distance exceeds the figure in the (), then it's no need to set the stand.



(2) Series installation (NOTE)

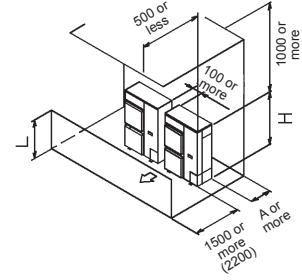
The relations between H, A and L are as follows:

	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.

If the distance exceeds the figure in the (), then it's no need to set the stand.



4. Double-decker installation

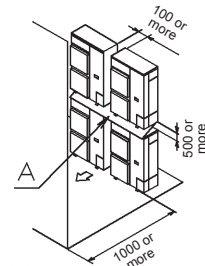
(a) Obstacle on the discharge side (NOTE)

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

Do not stack more than two units.

Set the board (field supply) as the detail A between two units to prevent the drainage from freezing.

Leave the enough space between the layer one and the board.



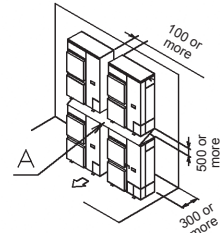
(b) Obstacle on the suction side (NOTE)

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

Do not stack more than two units.

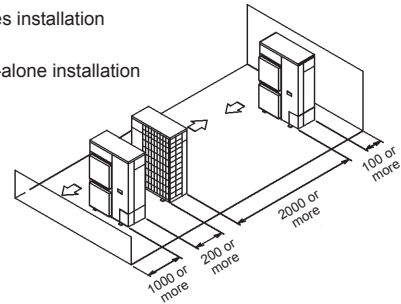
Set the board (field supply) as the detail A between two units to prevent the drainage from freezing.

Leave the enough space between the layer one and the board.



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

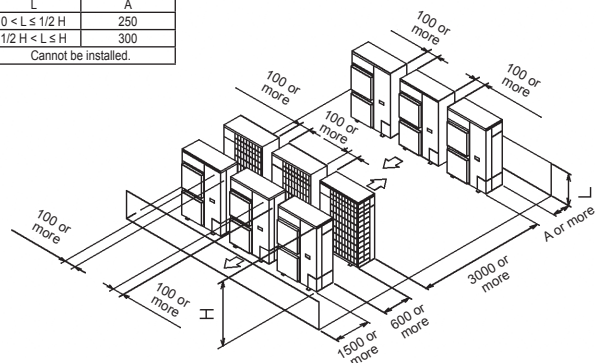
(a) One row of stand-alone installation



(b) 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
$H < L$	Cannot be installed.	



NOTE

When install the units in a line, have to leave the distance over 100 mm between the two units.

3D068442R

12 Installation

12 - 1 Installation Method

RXYSQ10-12TY1

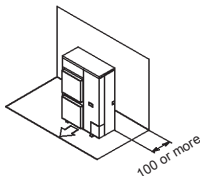
Required installation space

The unit of these values is mm.

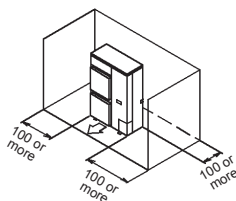
1. Where there is an obstacle on the suction side:

(a) No obstacle above

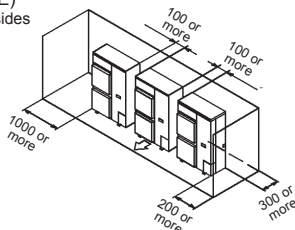
- (1) Stand-alone installation
- Obstacle on the suction side only



- Obstacle on both sides

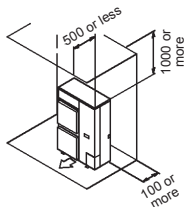


- (2) Series installation
- (2 or more) (NOTE)
- Obstacle on both sides

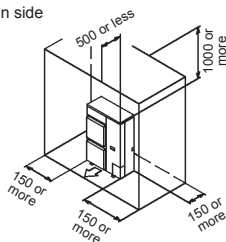


(b) Obstacle above, too

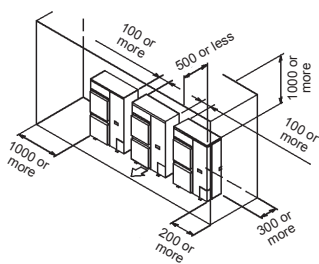
- (1) Stand-alone installation
- Obstacle on the suction side, too



- Obstacle on the suction side and both sides



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



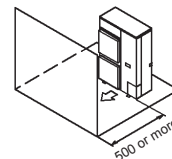
NOTE

When install the units in a line, have to leave the distance over 100 mm between the two units.

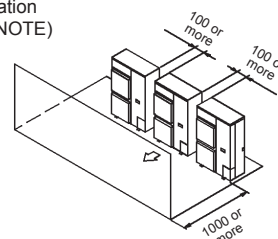
2. Where there is an obstacle on the discharge side:

(a) No obstacle above

- (1) Stand-alone installation

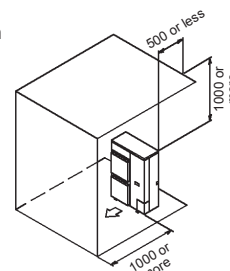


- (2) Series installation
- (2 or more) (NOTE)

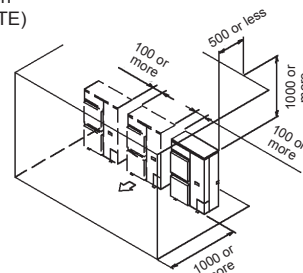


(b) Obstacle above, too

- (1) Stand-alone installation



- (2) Series installation
- (2 or more) (NOTE)



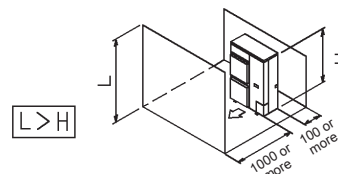
3. Where there are obstacles on both suction and discharge sides:

Pattern 1

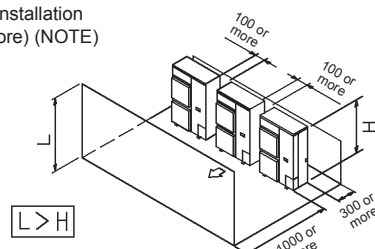
Where the obstacle on the discharge side is higher than the unit: (There is no height limit for obstructions on the intake side)

(a) No obstacle above

- (1) Stand-alone installation



- (2) Series installation
- (2 or more) (NOTE)



3D083122L

12 Installation

12 - 1 Installation Method

RXYSQ10-12TY1

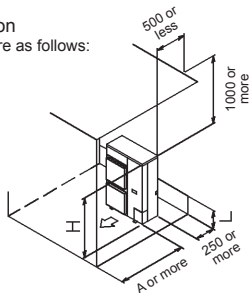
(b) Obstacle above, too

(1) Stand-alone installation

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

	L	A
$L \leq H$	$0 < L \leq 1/2 H$	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.



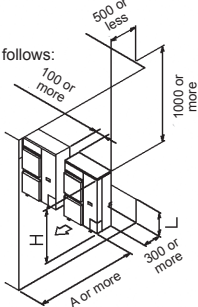
(2) Series installation (2 or more) (NOTE)

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

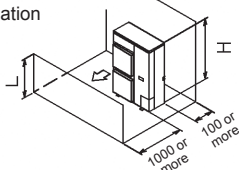
Where the obstacle on the discharge side is lower than the unit:

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

(a) No obstacle above

(1) Stand-alone installation

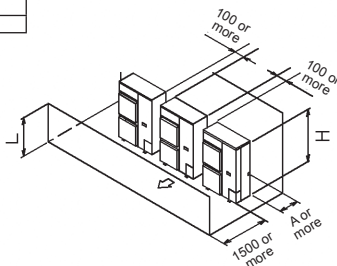
$$L \leq H$$



(2) Series installation (2 or more) (NOTE)

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



(b) Obstacle above, too

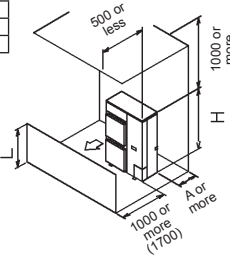
(1) Stand-alone installation

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.

If the distance exceeds the figure in the (), then it's no need to set the stand.



(2) Series installation (NOTE)

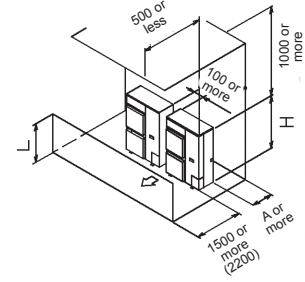
The relations between H, A and L are as follows:

	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.

If the distance exceeds the figure in the (), then it's no need to set the stand.



4. Double-decker installation

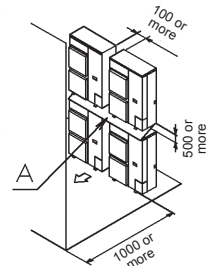
(a) Obstacle on the discharge side (NOTE).

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

Do not stack more than two units.

Set the board (field supply) as the detail A between two units to prevent the drainage from freezing.

Leave the enough space between the layer one and the board.



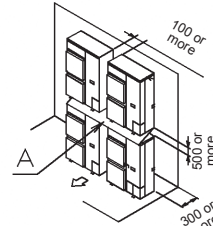
(b) Obstacle on the suction side (NOTE).

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

Do not stack more than two units.

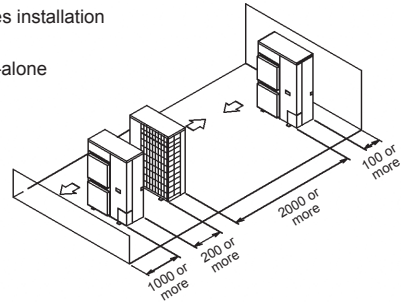
Set the board (field supply) as the detail A between two units to prevent the drainage from freezing.

Leave the enough space between the layer one and the board.



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

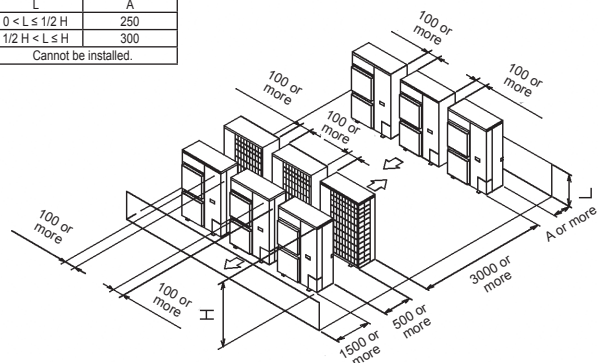
(a) One row of stand-alone installation



(b) 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
$H < L$	Cannot be installed.	



NOTE

When install the units in a line, have to leave the distance over 100 mm between the two units.

3D083122L

12 Installation

12 - 1 Installation Method

12

RXYSQ-T8Y

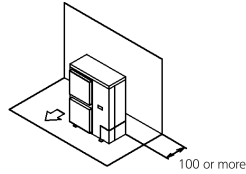
Required installation space

The unit of the values is mm.

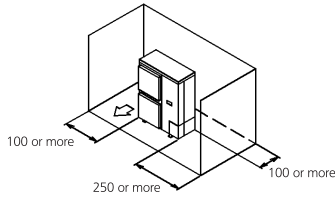
(A) When there are obstacles on suction sides.

• No obstacle above

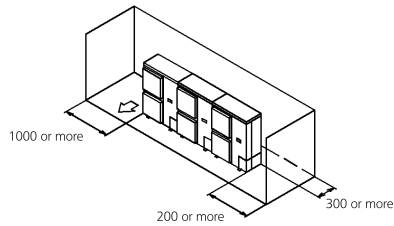
- ① Stand-alone installation
 - Obstacle on the suction side only



- Obstacle on both sides

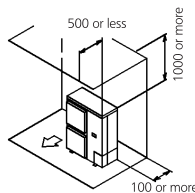


- ② Series installation (2 or more)
 - Obstacle on both sides

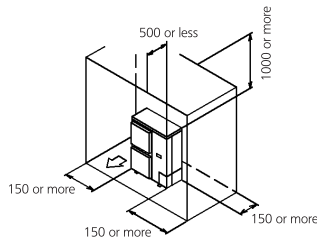


• Obstacle above, too.

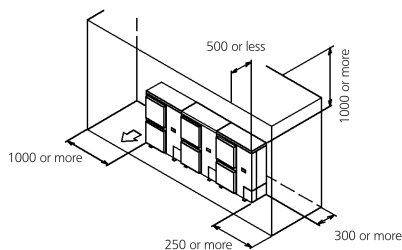
- ① Stand-alone installation
 - Obstacle on the suction side, too



- Obstacle on the suction side and both sides



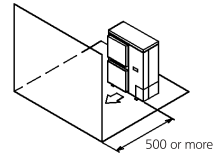
- ② Series installation (2 or more)
 - Obstacle on the suction side and both sides



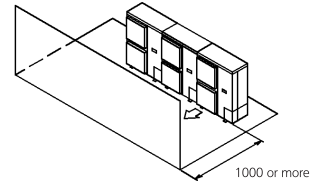
(B) When there are obstacles on discharge sides.

• No obstacle above

- ① Stand-alone installation

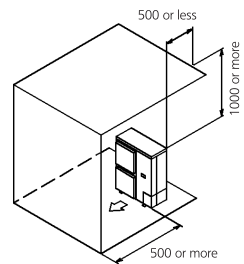


- ② Series installation (2 or more)

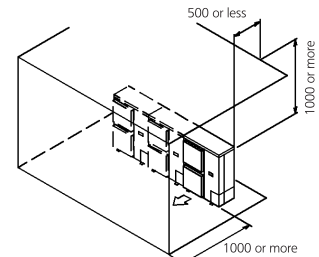


• Obstacle above, too

- ① Stand-alone installation



- ② Series installation (2 or more)



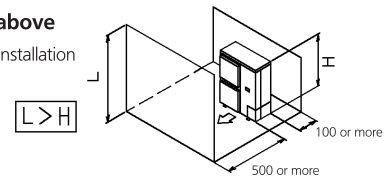
(C) When there are obstacles on both suction and discharge sides.:

Pattern 1

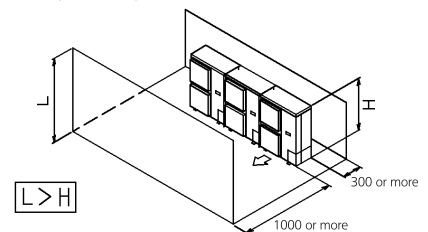
When the obstacles on the discharge side is higher than the unit.
(There is no height limit for obstructions on the intake side.)

• No obstacle above

- ① Stand-alone installation



- ② Series installation (2 or more)



3D045696D

12 Installation

12 - 1 Installation Method

RXYSQ-T8Y

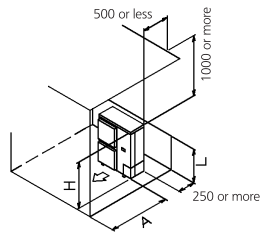
● **Obstacle above, too**

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.

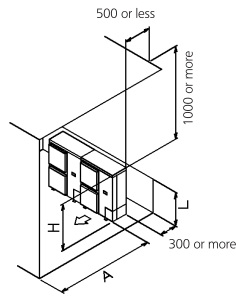


② Series installation (2 or more)

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

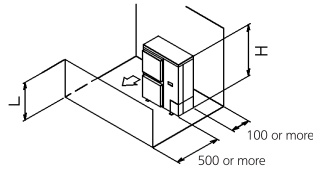
	L	A
$L \leq H$	$0 < L \leq 1/2 H$	1000
	$1/2 H < L \leq H$	1250
$H < L$	Set the stand as: $L \leq H$	

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**

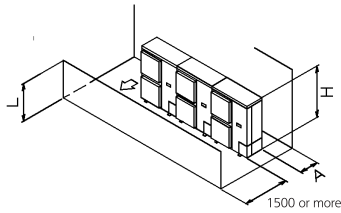
① Stand-alone installation

$L \leq H$

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



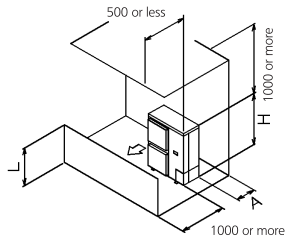
● **Obstacle above, too**

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.

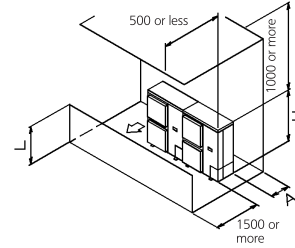
	L	A
$L \leq H$	$0 < L \leq 1/2 H$	250
	$1/2 H < L \leq H$	300
$H < L$	Set the stand as: $L \leq H$	

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

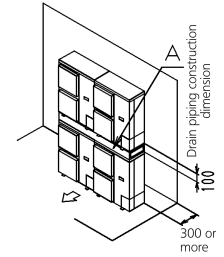
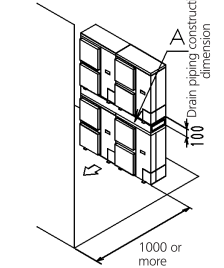
① Obstacle on the discharge side.

Close the gap A (the gap between the upper and lower outdoor units) to prevent the discharged air from being bypassed. Do not stack more than two unit.



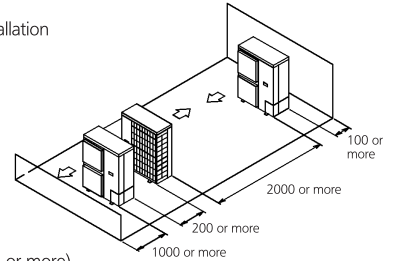
② Obstacle on the suction side.

Close the gap A (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.)

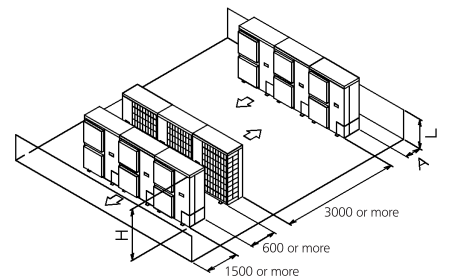
① One row of stand-alone installation



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

RXYSQ-T8Y RXYSQ-TY1

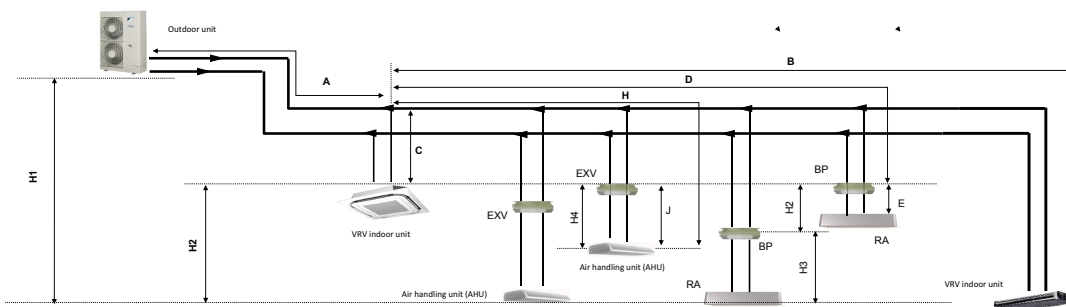
For the reference drawing, see page 2/3.

		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	RXYSQ4~5TMV1B	70/(90)m	40m	30/(30)m	15m	300m
	RXYSQ4~6T7(V/Y)1B	120/(150)m	40m	50/(40)m	15m	300m
	RXYSQ4~6T8(V/Y)B					
	VRV DX indoor units only	RXYSQ8TMY1B	100/(130)m	40m	50/(40)m	15m
RXYSQ10~12TMV1B		120/(150)m	40m	50/(40)m	15m	300m
RA connection	RXYSQ4~5TMV1B	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					
	RXYSQ8TMY1B	80/(100)m	40m	30/(30)m	15m	140m
RXYSQ10~12TMV1B	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**
- The allowable minimum length is 5 m.
 - Multiple air handling units (AHU)(EKEV + EKEQ kits).
 - Mix of air handling units (AHU) and VRV DX indoor units.

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RXYSQ-T8Y RXYSQ-TY1



- Notes**
- Schematic indication. Illustrations may differ from the actual appearance of the unit.
 - 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	Pair	2~15m	-	5m	-
	Multi (1)	-	≤5m	-	5m
Air handling unit (AHU) Connection	Multi (1)	-	≤5m	-	5m
	Mix (2)	-	≤5m	-	5m

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

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12 Installation

12 - 2 Refrigerant Pipe Selection

RXYSQ-T8Y RXYSQ-TY1

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.

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13 Operation range

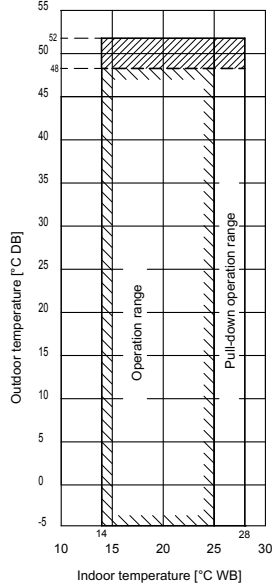
13 - 1 Operation Range

13

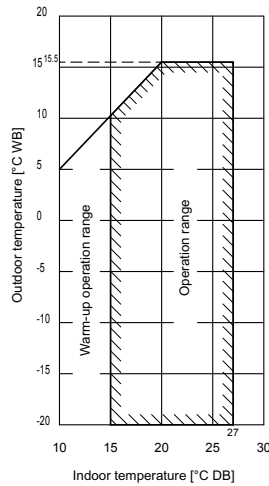
RXYSQ8-12TY1

- 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.
 - ///: Unit operation is possible, but no guaranteed capacity
 - If the unit is selected to operate at ambient temperatures <-5°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

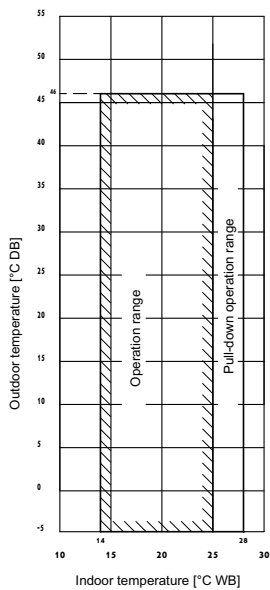


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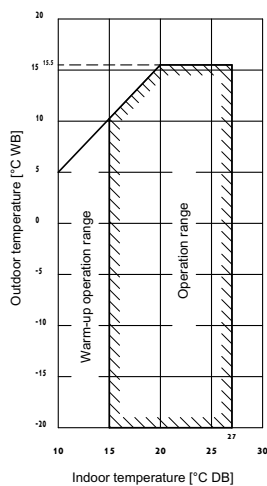
RXYSQ-T8Y

- 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°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



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14 Appropriate Indoors

14 - 1 Appropriate Indoors

RXYSQ-T8Y
RXYSQ-TY1

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

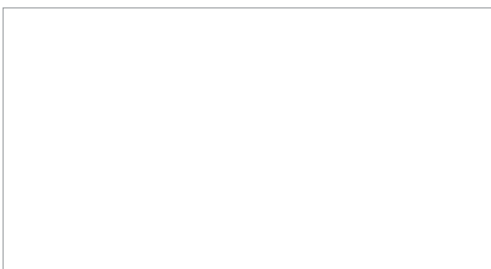
Outside the scope of ENER LOT21

- 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

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