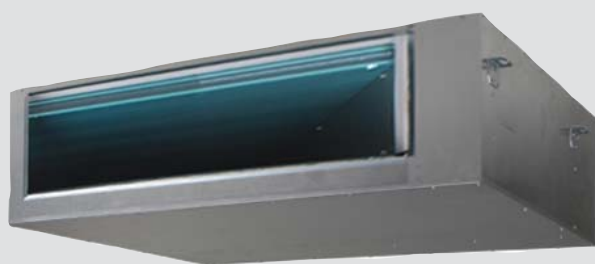


Air Conditioning Technical Data

SB.RKXYQ-T



- > SB.RKXYQ5T
- > SB.RKXYQ8T

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SB.RKXYQ-T

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1 Features

The invisible VRV

- Unique VRV heat pump for indoor installation
- Unrivalled flexibility because the unit is split up into two elements: the heat exchanger and the compressor
- Highly suited to densely populated areas thanks to the low operation sound and seamless integration into surrounding architecture as only the grille is visible
- Incorporates VRV IV standards & technologies: Variable Refrigerant Temperature, VRV configurator and full inverter compressors
- Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, air handling units and Biddle air curtains
- 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
- Lightweight units (max. 105kg) can be installed by two people
- Unique V-shape heat exchanger results in compact dimensions (h/e unit only 400mm high) allowing false ceiling installation, while ensuring top efficiency
- Super efficient centrifugal fans (over 50% efficiency increase compared to sirocco fan)
- Small footprint compressor unit (760 x 554 mm) maximizing useable floor space
- Connectable to all VRV control systems
- Keep your system in top condition via our i-Net service: 24/7 monitoring for maximum efficiency, extended lifetime, immediate service support thanks to failure prediction and a clear understanding of operability and usage



Inverter

2 Specifications

2-1 Technical Specifications					SB.RKXYQ5T		SB.RKXYQ8T		
System	Heat exchanger unit				RDXYQ5T		RDXYQ8T		
	Compressor unit				RKXYQ5T		RKXYQ8T		
Capacity range				HP	5		8		
Cooling capacity	Nom.	35°CDB		kW	14.0 (1)		21.4 (1)		
Heating capacity	Nom.	6°CWB		kW	14.0 (2)		21.4 (2)		
	Max.	6°CWB		kW	16.0 (2)		25.0 (2)		
Power input - 50Hz	Cooling	Nom.	35°CD B	kW	4.38 (1)		7.64 (1)		
		Heating	Nom.	6°CWB	kW	3.68 (2)		5.94 (2)	
		Max.	6°CWB	kW	4.71 (2)		7.60 (2)		
Capacity control	Method				Inverter controlled				
EER at nom. capacity	35°CDB			kW/kW	3.20 (1)		2.80 (1)		
COP at nom. capacity	6°CWB			kW/kW	3.80 (2)		3.60 (2)		
COP at max. capacity	6°CWB			kW/kW	3.40 (2)		3.29 (2)		
Maximum number of connectable indoor units					10 (3)		17 (3)		
Indoor index connection	Min.				63		100		
	Nom.				125		200		
	Max.				163		260		
Fan	External static pressure	Max.		Pa	150				
		Nom.		Pa	60				
Piping connections	Between Compressor module (CM) and heat exchanger module (HM)	Liquid	Type		Braze connection				
			OD	mm	12.7				
		Gas	Type		Braze connection				
			OD	mm	19.1		22.2		
		Piping length	Max.	m	30.0				
		Level difference	CM below HM	m	10.0				
			CM above HM	m	10.0				
		Between Compressor module (CM) and indoor units (IU)	Liquid	Type		Braze connection			
				OD	mm	9.52			
	Gas		Type		Braze connection				
			OD	mm	15.9		19.1		
	Level difference		CM below IU	m	30.0				
			CM above IU	m	30.0				
	Liquid		OD		mm		-		
	Total piping length		System	Actual	m	140 (4)		300 (4)	
Level difference		IU - IU	Max.	m	15				
Defrost method					Reversed cycle				
2-2 Electrical Specifications					SB.RKXYQ5T		SB.RKXYQ8T		
Current - 50Hz	Zmax			List	No requirements				
	Minimum Ssc value			kVa	-		3,329 (5)		
Wiring connections - 50Hz	For connection with indoor			Quantity	2		-		
				Remark	F1,F2		-		

2 Specifications

Notes

(1) Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB, outdoor temperature: 35°CDB, equivalent refrigerant piping: 5m, level difference: 0m. Data for standard efficiency series. Nominal air flow rate, ESP 30 Pa.

(2) Nominal heating capacities are based on: indoor temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, equivalent refrigerant piping: 5m, level difference: 0m. Data for standard efficiency series. Nominal air flow rate, ESP 30 Pa.

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

(4) Refer to refrigerant pipe selection or installation manual

(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 Ssc ≥ minimum Ssc value

The sound power level is an absolute value indicating the power which a sound source generates.

Sound pressure level is a relative value, depending on the distance and acoustic environment. For more details, please refer to sound level drawings. Nominal air flow rate, ESP 60 Pa.

Sound values are measured in a semi-anechoic room.

Contains fluorinated greenhouse gases

2-3 Technical Specifications					RDXYQ8T	RKXYQ8T	RDXYQ5T	RKXYQ5T
Dimensions	Unit	Height	mm		397	701	397	701
		Width	mm		1,456	760	1,456	600
		Depth	mm		1,044	554	1,044	554
	Packed unit	Height	mm		1,245	825	1,245	838
		Width	mm		1,604	875	1,604	720
		Depth	mm		470	660	470	660
	Ducting	Height	mm		298	-	298	-
		Width	mm		1,196	-	1,196	-
Weight	Unit			kg	103	105	97	77
	Packed unit			kg	123	116	117	86
Packing	Material				Carton			
	Weight			kg	4.9	2.2	4.9	2.1
Packing 2	Material				Wood			
	Weight			kg	14.0	8.5	14.0	6.9
Packing 3	Material				-	Plastic	-	Plastic
	Weight			kg	-	0.3	-	0.3
Casing	Colour				Unpainted	Daikin White	Unpainted	Daikin White
	Material				Galvanised steel	Painted galvanized steel plate	Galvanised steel	Painted galvanized steel plate
Compressor	Quantity				-	1	-	1
	Type				-	G-type scroll compressor	-	Hermetically sealed swing inverter compressor
	Crankcase heater			W	-	33	-	
Fan	Quantity				3	-	2	-
	Air flow rate	Cooling	Nom.	m³/min	100	-	55	-
Fan motor	Quantity				3	-	2	-
	Output			W	500	-	500	-
Sound power level	Cooling	Nom.	dBA		81	64	76	60
Sound pressure level	Cooling	Nom.	dBA		54	48	47	
Refrigerant	Type				R-410A			
	GWP				-	2,087.5	-	2,087.5
	Charge			TCO ₂ eq	-	8.35	-	4.20
				kg	-	4.00	-	2.00
Refrigerant oil	Type				Daphne FVC68D		Synthetic (ether) oil	
Piping connections	Drain	OD	mm		32	-	32	-

2-4 Electrical Specifications				RDXYQ8T	RKXYQ8T	RDXYQ5T	RKXYQ5T
Power supply	Name			V1	Y1	V1	Y1
	Phase			1N~	3N~	1N~	3N~
	Frequency		Hz	50			
	Voltage		V	220-240	380-415	220-240	380-415

2 Specifications

2-4 Electrical Specifications				RDXYQ8T	RKXYQ8T	RDXYQ5T	RKXYQ5T
Voltage range	Min.		%	-10			
	Max.		%	10			
Current	Nominal running current (RLA) - 50Hz	Cooling	A	4.6	8.6	1.8	5.8
Current - 50Hz	Minimum circuit amps (MCA)		A	7.0	17.4	4.6	13.5
	Maximum fuse amps (MFA)		A	10	20	10	16
	Total overcurrent amps (TOCA)		A	7.0	17.4	4.6	13.5
	Full load amps (FLA)	Total	A	6.6	-	4.4	-
Wiring connections - 50Hz	For power supply	Quantity		3G	5G	3G	5G
	For connection with indoor	Quantity		-	2	-	
		Remark		-	F1,F2	-	

3 Options

3 - 1 Options

3

SB.RKXYQ-T

VRV4-i
Heat pump
Option list

N°.	Item	SB.RKXYQST		SB.RKXYQBT	
		Heat exchanger unit	Compressor unit	Heat exchanger unit	Compressor unit
I.	Refract header		KHR022/M29H		KHR022/M29H
II.	Refract joint		KHR022/M20T		KHR022/M20T
III.	Refract joint				KHR022/M29T9
1a.	Cool/heat selector (switch)	-	KRC19-26	-	KRC19-26
1b.	Cool/heat selector (Rising box)	-	KIB111A	-	KIB111A
1c.	Cool/heat selector (cable)	-	EXC45C	-	
1d.	Cool/heat selector (PCB)	-		-	BRP2A81
2.	VRV configurator	-	EXPCCAB*	-	EXPCCAB*
3.	Demand PCB		DTA10A461/G2*		DTA10A461/G2*
4.	Drain pan heater	EKDPH18DX	-	EKDPH18DX	-

Notes

1. All options are kits.
2. To mount option 1a, option 1b is required.
3. VRV4-i S4P: To operate the cool/heat selector function, options 1a and 1c are both required.
VRV4-i B4P: To operate the cool/heat selector function, options 1a and 1d are both required.
4. If the outdoor temperature can drop below -7°C for more than 24 hours, it is recommended to install drain pan heater kit EKDPH18DX.

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4 Combination table

4 - 1 Combination Table

SB.RKXYQ-T

VRV4-i

Heat pump

Indoor unit combination restrictions

System pattern	Capacity [%]	DX [%]	AHU [%]	FXMQ*MF [%]
VRV DX indoor unit	50 - 130	50 - 130	-	-
RA indoor unit	-	-	-	-
Hydrobox unit	-	-	-	-
DX + AHU See note 1.	50 - 110	50 - 110	0 - 60	-
Air handling unit only See note 1.	90 - 110	-	90 - 110	-
FXMQ*MF	50 - 100	-	-	50 - 100

AHU: Air handling unit (AHU)

Notes

1. AHU = CYV (biddle) air curtain OR EKEXV + EKEQM

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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.
→ webtools.daikin.eu
- E-data app: gives a complete overview of the Daikin products available in your country, with all engineering data and commercial info in your own language. Download the app now!
→ <https://itunes.apple.com/us/app/daikin-e-data/id565955746?mt=8>



- Selection software: allows you to do load calculations, equipment selections and energy simulations for our VRV, Daikin Altherma, refrigeration and applied systems products.
→ my.daikin.eu



5 Capacity tables

5 - 2 Integrated Heating Capacity Correction Factor

SB.RKXYQ-T

VRV4-i
Heat pump
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:

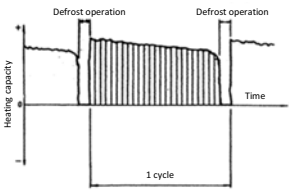
Formula

- A = Integrated heating capacity
B = Capacity characteristics value
C = Integrated correction factor for frost accumulation (see table)

$A = B \times C$

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
5 HP	0,88	0,86	0,80	0,75	0,76	0,82	1,00
8 HP	0,88	0,86	0,80	0,75	0,76	0,82	1,00



Notes

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

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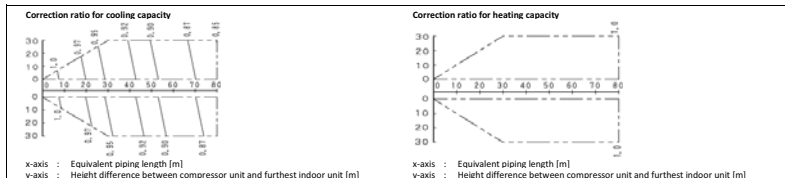
5 Capacity tables

5 - 3 Capacity Correction Factor

SB.RKXYQ5T

VRV4-i

Heat pump



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 VRV4-i system, the following control is used:- in case of cooling: constant evaporating pressure control- in case of heating: constant condensing pressure control

Method of calculating the capacity of the outdoor units.

The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity delivered by the compressor unit plus the heat exchanger unit, whichever is less.

Indoor connection ratio ≤ 100%.

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

- If the equivalent pipe length between the heat exchanger unit and the furthest indoor unit is ≥ 90 m, it is recommended to increase the size of the main gas pipe (between compressor unit and first refrigerant branch kit). If the recommended gas pipe (with increased size) is not available, you must use the standard size (which might result in a small capacity decrease).

Model	Standard liquid side Ø	Increased liquid side Ø	Standard gas side Ø	Increased gas side Ø
5 HP	9.5	Not increased	15.3	15.1

Overall equivalent length

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

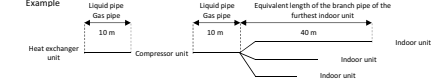
Choose the correction factor from the following table.

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 = 10 m + 10 m x 1 + 40 m = 60 m
Heating mode = 10 m + 10 m x 1 + 40 m = 60 m

Capacity correction ratio (height difference = 0)

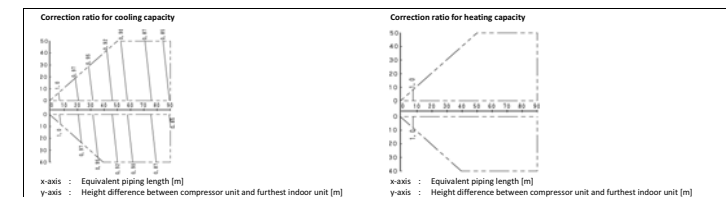
Cooling mode = 0.89
Heating mode = 1.00

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SB.RKXYQ8T

VRV4-i

Heat pump



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 VRV4-i system, the following control is used:- in case of cooling: constant evaporating pressure control- in case of heating: constant condensing pressure control

Method of calculating the capacity of the outdoor units.

The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity delivered by the compressor unit plus the heat exchanger unit, whichever is less.

Indoor connection ratio ≤ 100%.

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

- If the equivalent pipe length between the heat exchanger unit and the furthest indoor unit is ≥ 90 m, it is recommended to increase the size of the main gas pipe (between compressor unit and first refrigerant branch kit). If the recommended gas pipe (with increased size) is not available, you must use the standard size (which might result in a small capacity decrease).

If the equivalent pipe length between the heat exchanger unit and the furthest indoor unit is ≥ 90 m, you MUST increase the size of the main liquid pipe (between compressor unit and first refrigerant branch kit).

Model	Standard liquid side Ø	Increased liquid side Ø	Standard gas side Ø	Increased gas side Ø
8 HP	9.5	12.7	15.1	22.2

Overall equivalent length

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

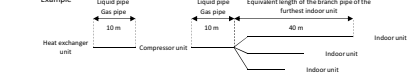
Choose the correction factor from the following table.

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	0.3

Example



Overall equivalent length

Cooling mode = 10 m + 10 m x 1 + 40 m = 60 m
Heating mode = 10 m + 10 m x 1 + 40 m = 60 m

Capacity correction ratio (height difference = 0)

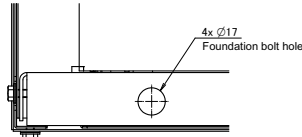
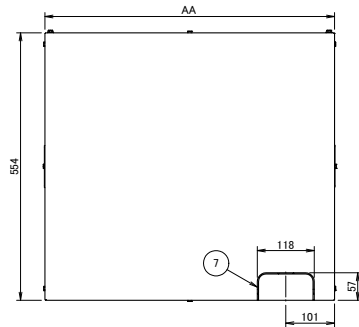
Cooling mode = 0.89
Heating mode = 1.00

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6 Dimensional drawings

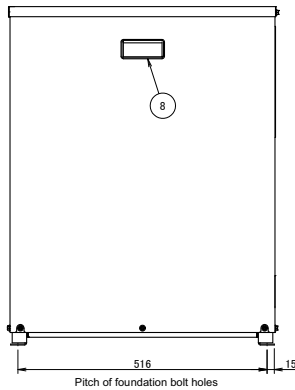
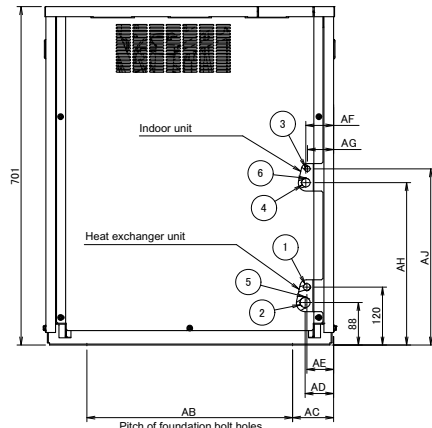
6 - 1 Dimensional Drawings

RKXYQ-T



View A

Model	AA	AB	AC	AD	AE	AF	AG	AH	AJ
RKXYQ5T	600	426	85	59	55	57	54	337	365
RKXYQ8T	760	600	78	55	52	55	52	197	222



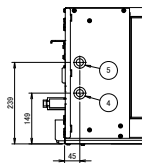
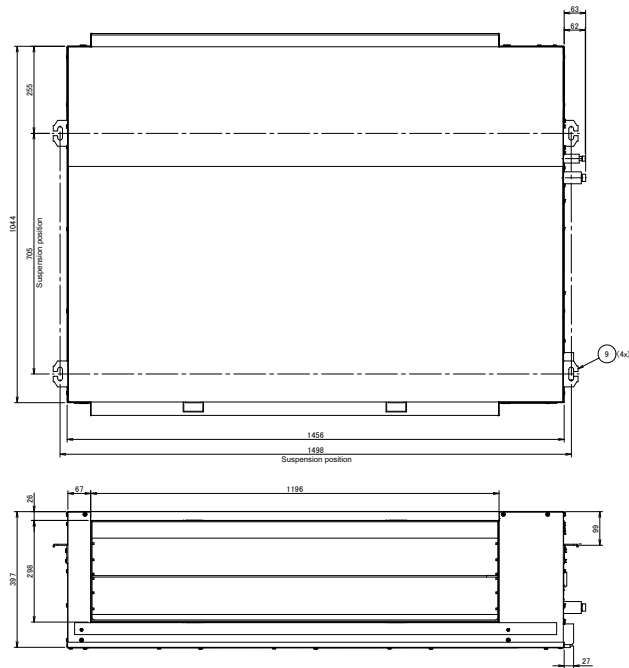
Notes

- Indoor unit
RKXYQ5T : Ø 15.9 brazing connection
RKXYQ8T : Ø 19.1 brazing connection
- Heat exchanger unit
RKXYQ5T : Ø 19.1 brazing connection
RKXYQ8T : Ø 22.2 brazing connection

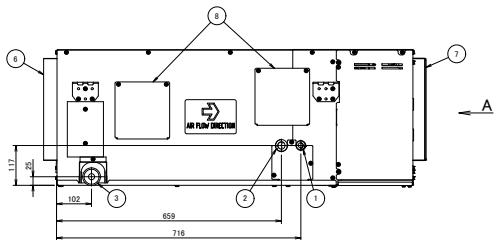
8	Handle	Knockout hole.
7	Pipe routing hole	Transmission wiring connection
6	Wiring intake (low voltage wiring)	Power supply connection
5	Wiring intake (high voltage wiring)	See note 1.
4	Gas pipe connection port	Ø 9.5 brazing connection
3	Liquid pipe connection port	See note 2.
2	Gas pipe connection port	Ø 12.7 brazing connection
1	Liquid pipe connection port	Remark
No.	Part name	

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SB.RKXYQ-T



View A



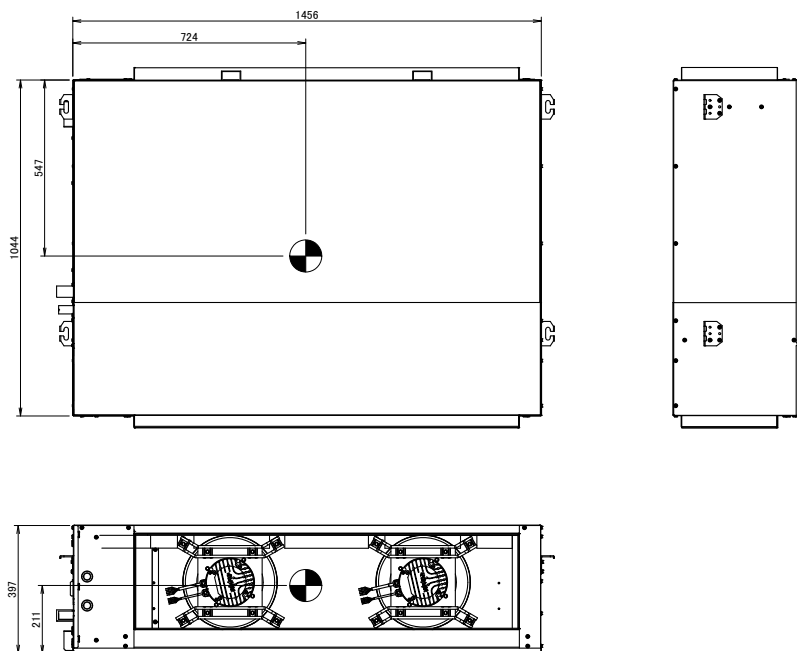
9	Hook	
8	Service door	
7	Air discharge side	
6	Air suction side	
5	Wiring intake (low voltage wiring)	Transmission wiring connection
4	Wiring intake (high voltage wiring)	Power supply connection
3	Drain outlet	VP25
2	Gas pipe connection port	Ø 19.1 brazing connection
1	Liquid pipe connection port	Ø 12.7 brazing connection
No.	Part name	Remark

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7 Centre of gravity

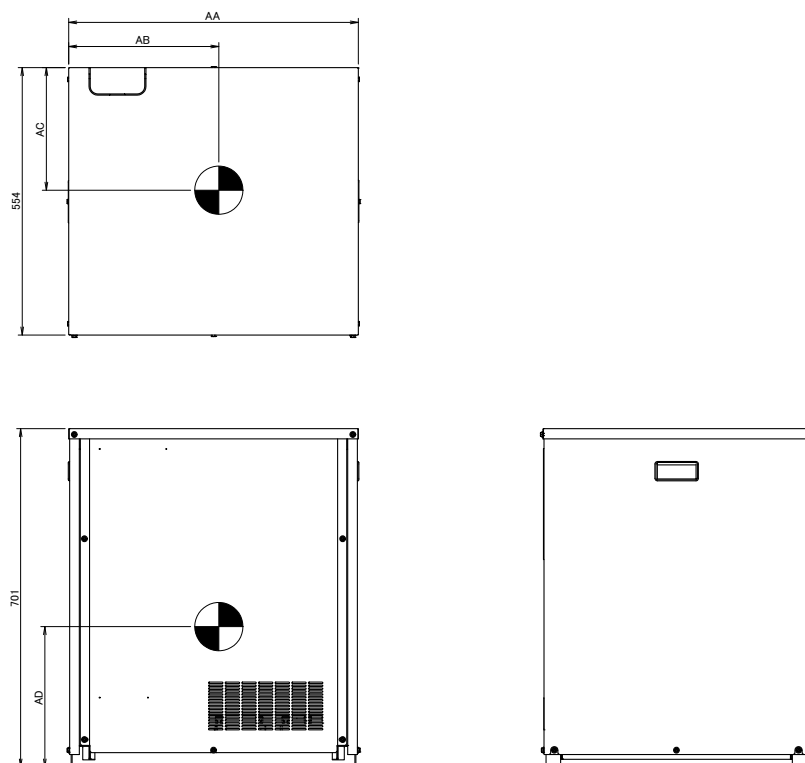
7 - 1 Centre of Gravity

RDXYQ5T



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SB.RKXYQ-T



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8 Piping diagrams

8 - 1 Piping Diagrams

SB.RKXYQ-T

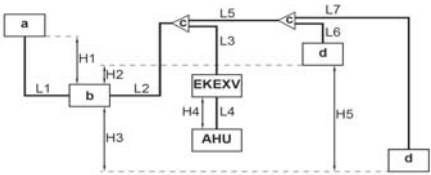
VRV4-i
Heat pump
Piping restrictions

Longest pipe		Maximum piping length [m]		After first branch		EKEVX ↔ AHU	
		Actual / (Equivalent)					
a ↔ b		b ↔ d		c ↔ d/AHU			
L1	30	L2+L3+L4	70/(90)	L3+L4	40	L4	5
		L2+L5+L6	70/(90)	L5+L6	40		
		L2+L5+L7	70/(90)	L5+L7	40		

See note 1.

a ↔ b		Maximum height difference [m]		d ↔ d		EKEVX ↔ AHU	
		b ↔ d					
H1	±10	H2	±30	H5	±15	H4	±5
		H3	±30				

Model	Total piping length [m]	
	a ↔ b	a ↔ b + b ↔ d
VRV4-i SHP	L1	L1+L2+L3+L4+L5+L6+L7
	30	115
	25	120
	20	125
	15	130
	10	135
VRV4-i BHP	5	140
	-	300



a: Heat exchanger unit
b: Compressor unit
c: Refrigerant branch kit
d: VRV DX indoor unit
EKEVX: Expansion valve kit
AHU: Air handling unit (AHU)
H1-H5: Height difference
L1-L7: Piping length

Notes

1. VRV4-i SHP:

If the equivalent pipe length between the heat exchanger unit and the furthest indoor unit is 250m, it is recommended to increase the size of the main gas pipe (between compressor unit and first refrigerant branch kit).
If the recommended gas pipe (with increased size) is not available, you must use the standard size (which might result in a small capacity decrease).

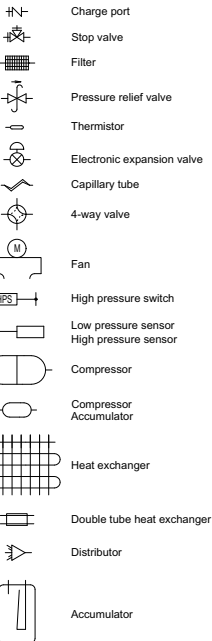
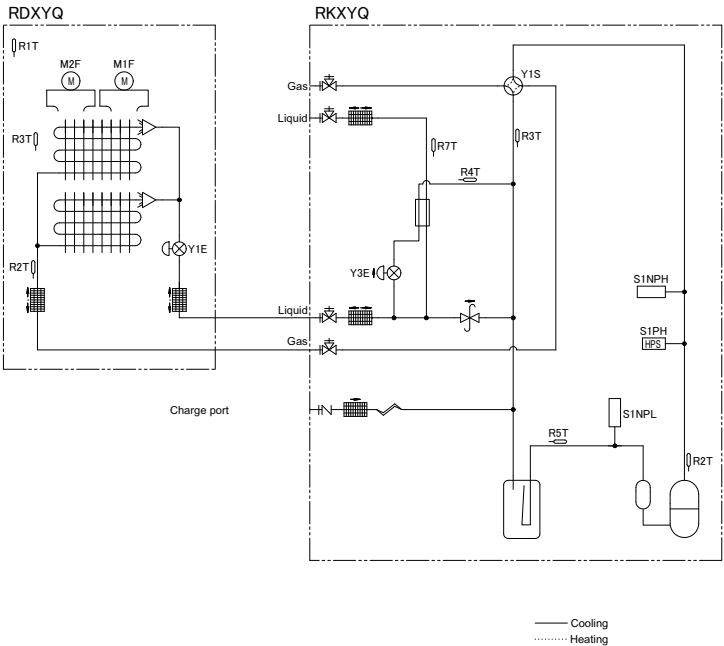
2. VRV4-i BHP:

If the equivalent pipe length between the heat exchanger unit and the furthest indoor unit is 250m, it is recommended to increase the size of the main gas pipe (between compressor unit and first refrigerant branch kit).
If the recommended gas pipe (with increased size) is not available, you must use the standard size (which might result in a small capacity decrease).

If the equivalent pipe length between the heat exchanger unit and the furthest indoor unit is 250m, you MUST increase the size of the main liquid pipe (between compressor unit and first refrigerant branch kit).

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SB.RKXYQ5T

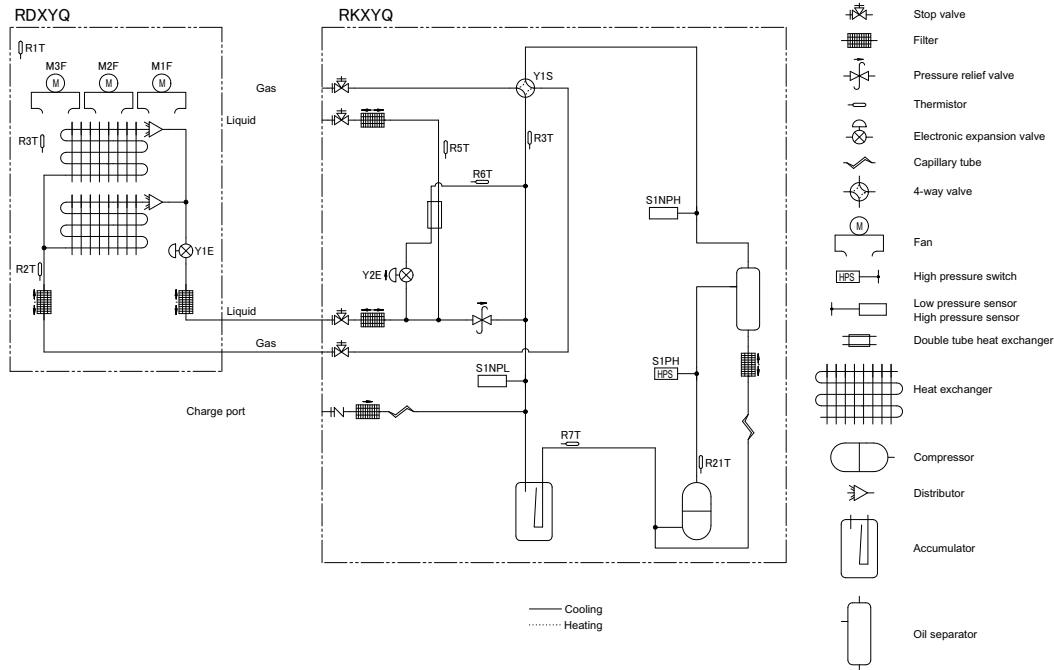


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8 Piping diagrams

8 - 1 Piping Diagrams

SB.RKXYQ8T

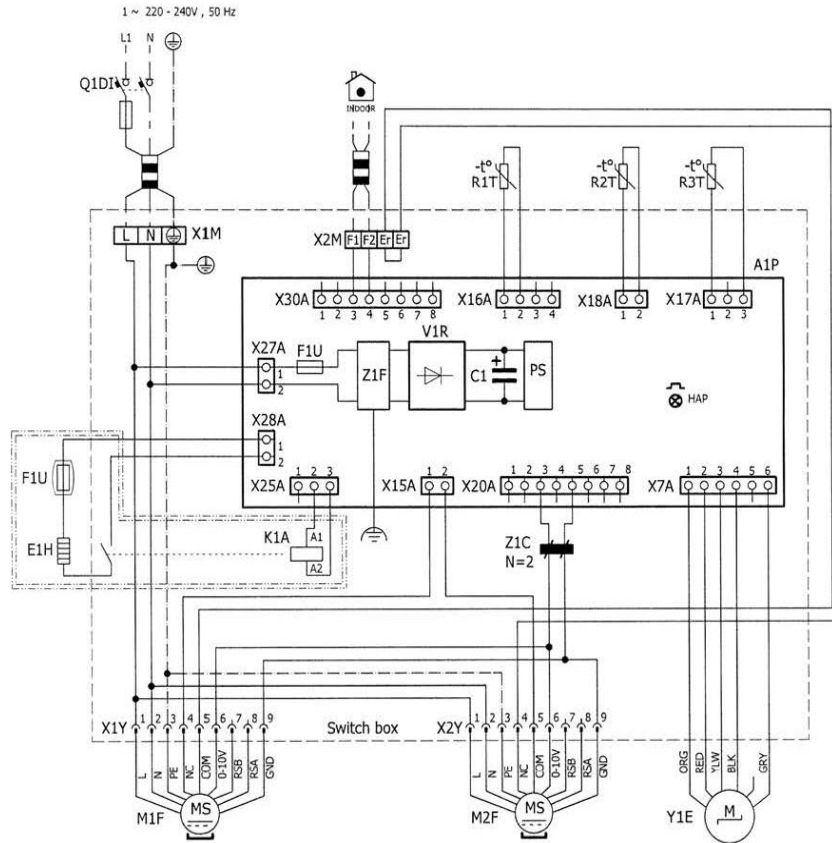


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9 Wiring diagrams

9 - 1 Wiring Diagrams - Single Phase

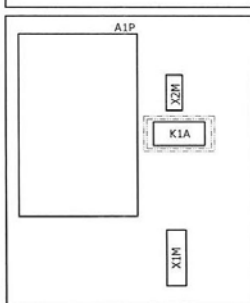
RDXYQ5T



NOTES to go through before starting the unit

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

POSITION IN SWITCH BOX



LEGEND



Translation can be found in the installation manual.

Part n°	Description
A1P	main PCB
C1 (A1P)	capacitor
E1H	* drain pan heater
F1U	* fuse F 1 A 250 V
F1U (A1P)	fuse T 6.3 A 250 V for PCB
HAP (A1P)	running LED (service monitor-green)
K1A	* auxiliary relay
M*F	motor (fan)
Q1DI	# earth leakage circuit breaker
PS (A1P)	switching power supply
R1T	thermistor air
R2T	thermistor gas
R3T	thermistor coil
V1R (A1P)	diode module
X1M	main terminal
X2M	field wiring terminal
X*M	terminal strip
X*Y	connector
Y1E	electronic expansion valve
Z1C	ferrite core
Z1F (A1P)	noise filter

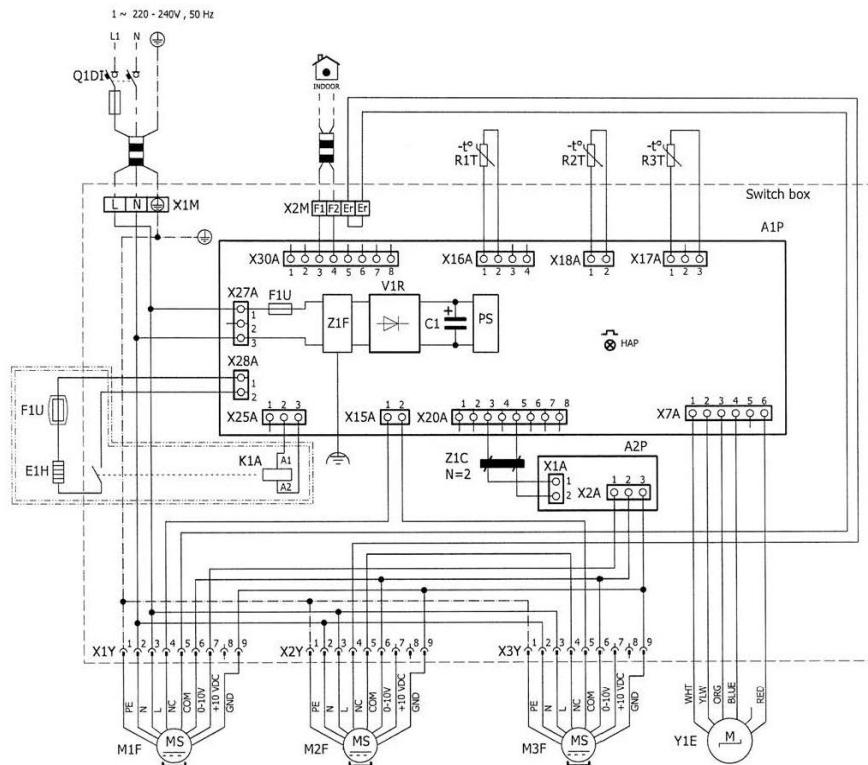
* : optional
: field supply

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9 Wiring diagrams

9 - 1 Wiring Diagrams - Single Phase

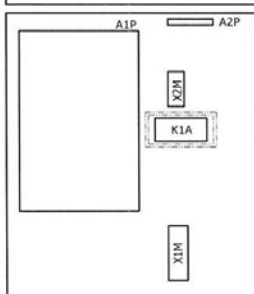
RDXYQ8T



NOTES to go through before starting the unit

- X1M : Main terminal
- 15 : 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

POSITION IN SWITCH BOX



LEGEND



Translation can be found in the installation manual.

Part n°	Description
A1P	main PCB
A2P	adapter PCB
C1 (A1P)	capacitor
E1H	* drain pan heater
F1U	* fuse F 1 A 250 V
F11U (A1P)	fuse T 6.3 A 250 V for PCB
HAP (A1P)	running LED (service monitor-green)
K1A	* auxiliary relay
M*F	motor (fan)
Q1DI	# earth leakage circuit breaker
PS (A1P)	switching power supply
R1T	thermistor air
R2T	thermistor gas
R3T	thermistor coil
V1R (A1P)	diode module
X1M	main terminal
X2M	field wiring terminal
X*Y	connector
Y1E	electronic expansion valve
Z1C	ferite core
Z1F (A1P)	noise filter

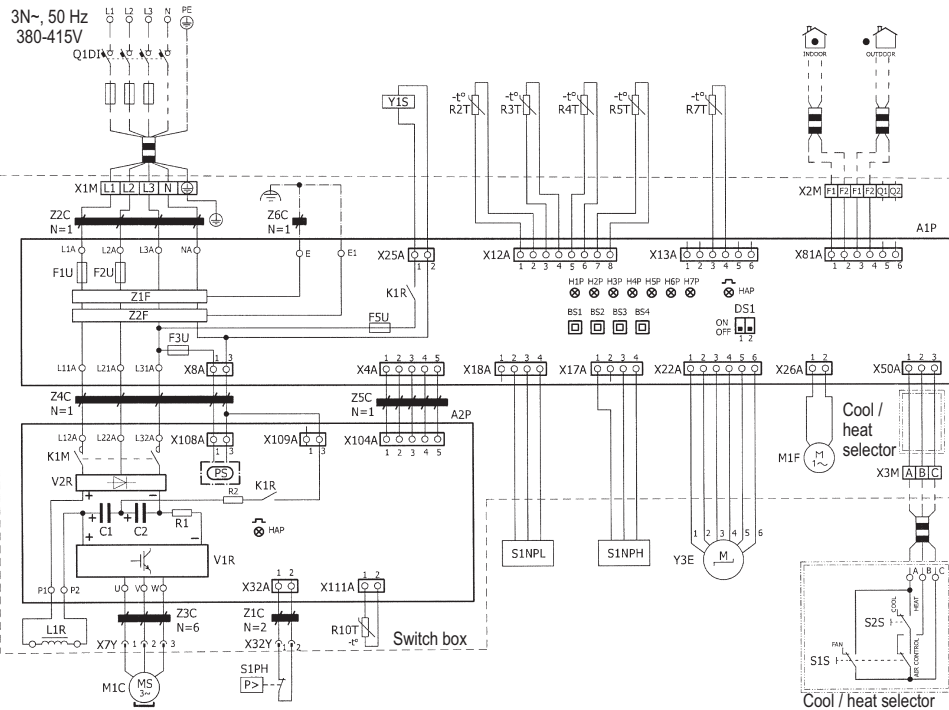
* : optional
: field supply

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9 Wiring diagrams

9 - 2 Wiring Diagrams - Three Phase

RKXYQ5T7Y1B

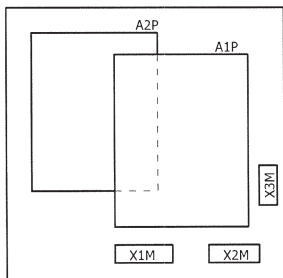


NOTES TO GO THROUGH BEFORE STARTING THE UNIT:

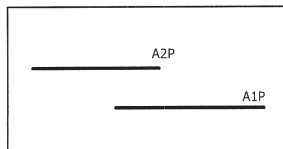
X1M: Main terminal

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

POSITION IN SWITCH BOX:



Front side



Upper side

LEGEND:

Part n°	Description
A1P	Main PCB
A2P	Inverter PCB (INV)
BS* (A1P)	Push button
C* (A2P)	Capacitor
DS1 (A1P)	Dipswitch
F1U (A1P)	Fuse (T, 31.5A, 250V) for PCB
F2U (A1P)	Fuse (T, 31.5A, 250V) for PCB
F3U (A1P)	Fuse (T, 6.3A, 250V) for PCB
F5U (A1P)	Fuse (T, 6.3A, 250V) for PCB
H*P (A1P)	LED (service monitor-orange)
HAP (A*P)	Running LED (service monitor-green)
K1M (A2P)	Magnetic relay
K1R (A*P)	Magnetic relay
L1R	Reactor
M1C	Motor (compressor)
M1F	Motor (fan)
PS (A2P)	Switching power supply
Q1DI	Earth leakage circuit breaker
R* (A2P)	Resistor
R2T	Thermistor (discharge)
R3T	Thermistor (suction accumulator)
R4T	Thermistor (subcool HE gas)
R5T	Thermistor (suction compressor)
R7T	Thermistor (liquid)
R10T	Thermistor (fin)
S1NPL	Pressure sensor (low)
S1NPH	Pressure sensor (high)
S1PH	High pressure switch
S*S	* Switch cool/heat selector
V1R (A2P)	IGBT power module
V2R (A2P)	Diode module
X1M	Terminal strip (power supply)
X2M	Terminal strip (low voltage)
X3M	Terminal strip (cool/heat selector)
X*Y	Connector
Y3E	Electronic expansion valve
Y1S	Solenoid valve (4 way valve)
Z*C	Noise filter (ferrite core)
Z*F (A1P)	Noise filter

*: Optional

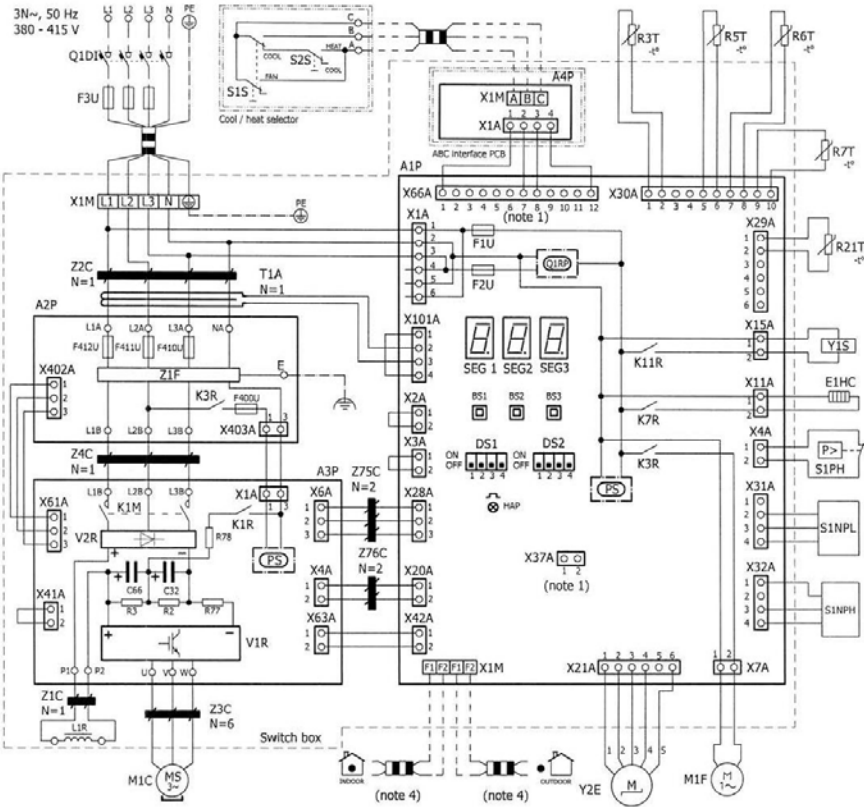
#: Field supply

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9 Wiring diagrams

9 - 2 Wiring Diagrams - Three Phase

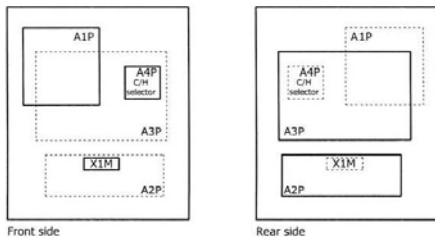
RKXYQ8T



NOTES to go through before starting the unit

1. Symbols :
 X1M : Main terminal
 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
1. When using the optional adapter, refer to the installation manual of the optional adapter.
2. Refer to the installation or service manual on how to use BS1 ~ BS3 push buttons and DS1 ~ DS2 DIP switches.
3. Do not operate the unit by short-circuiting protection device (S1PH).
4. For connection to indoor-outdoor transmission F1-F2 wiring, outdoor - outdoor transmission F1-F2, refer to "service manual".

POSITION IN SWITCH BOX



LEGEND



Translation can be found in the installation manual.

Part n°	Description	Part n°	Description
A1P	main PCB	R5T	thermistor (subcool liquid. pipe)
A2P	noise filter PCB	R6T	thermistor (heat exchanger gas pipe)
A3P	inverter PCB	R7T	thermistor (suction)
A4P	cool/heat selector PCB	R* (A3P)	resistor
BS* (A1P)	push buttons (mode, set, return)	S1NPH	high pressure sensor
C* (A3P)	capacitors	S1NPL	low pressure sensor
DS* (A1P)	dipswitch	S1PH	high pressure switch (disch)
E1HC	crankcase heater	S1S	* air control switch
F*U (A1P)	fuse T 3,15 A 250 V	S2S	* cool / heat switch
F3U	field fuse	SEG1 SEG3	7-segment display
F400U (A2P)	fuse T 6.3 A 250 V	T1A	current sensor
F410U (A2P)	fuse T 40 A 500 V	V1R (A3P)	IGBT power module
F411U (A2P)	fuse T 40 A 500 V	V2R (A3P)	diode module
F412U (A2P)	fuse T 40 A 500 V	X37A	* connector (power supply for option PCB)
HAP (A1P)	running LED (service monitor-green)	X66A	* connector (remote switching cool/heat selector)
K1M (A3P)	magnetic contactor	X1M	terminal strip (power supply)
K*R (A*P)	magnetic relay	X*A	PCB connector
L1R	reactor	X*M (A*P)	terminal strip on PCB
M1C	motor (compressor)	X*Y	connector
M1F	motor (fan)	Y*S	electronic expansion valve
PS (A1P,A3P)	power supply	Y2E	solenoid valve (4-way valve)
Q1DI	# earth leakage circuit breaker	Z*C	noise filter (ferrit core)
Q1RP (A1P)	phase reversal detect circuit	Z*F	noise filter
R21T	thermistor (M1C discharge)		
R3T	thermistor (accumulator)		

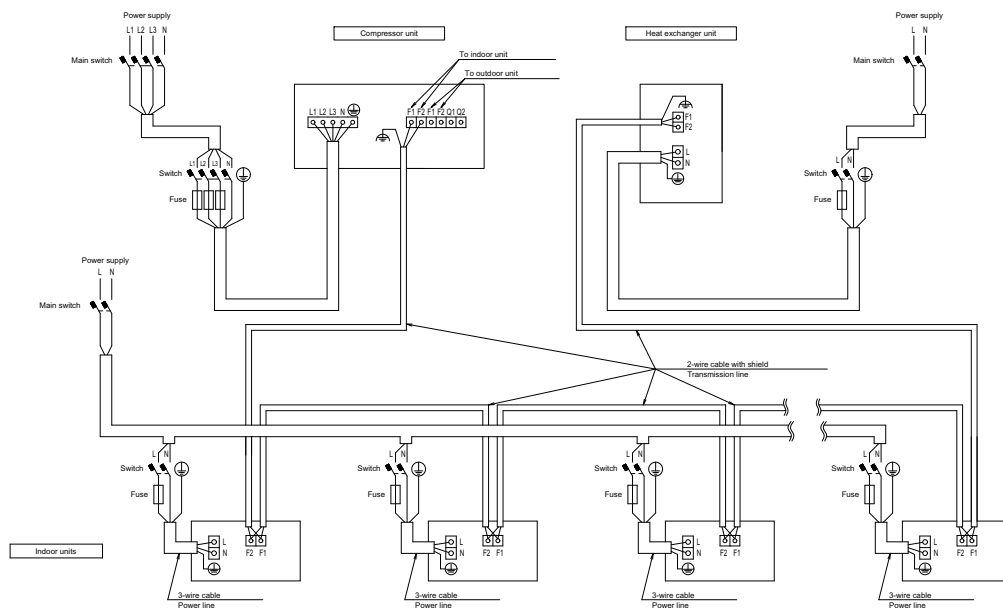
* : optional
 # : field supply

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10 External connection diagrams

10 - 1 External Connection Diagrams

SB.RKXYQ-T External connection diagram



Notes

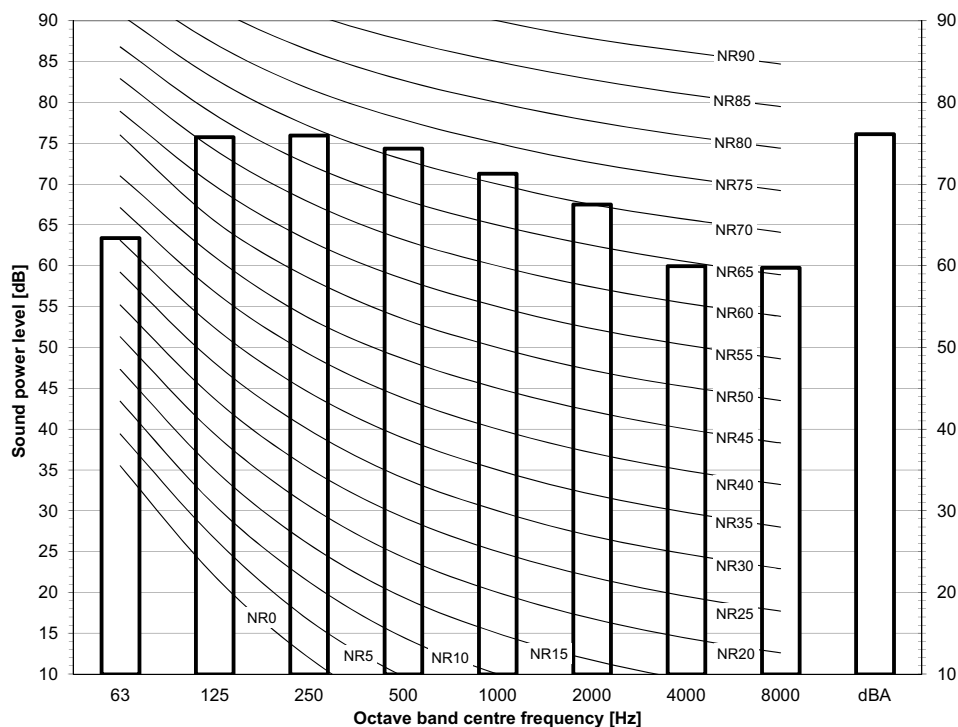
1. All wiring, components and materials to be procured on-site must comply with the applicable legislation.
2. Use copper conductors only.
3. For more details, refer to the wiring diagram of the unit.
4. Install a circuit breaker for safety.
5. All field wiring and components must be provided by an authorised 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 switch to (if necessary) immediately interrupt all the system's power sources.
10. If there exists the possibility of reversed phase, loose phase or momentary blackout, or if the power goes on and off while the product is operating, attach a reversed phase protection circuit locally.
Running the product in reversed phase may break the compressor and other parts.
11. Install an earth leakage circuit breaker.
12. To ensure proper earthing, connect the shields of the incoming and outgoing transmission wiring of each indoor unit to each other.
13. The main line is the line to which the transmission wiring of the heat exchanger unit is connected.

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11 Sound data

11 - 1 Sound Power Spectrum

RDXYQ5T

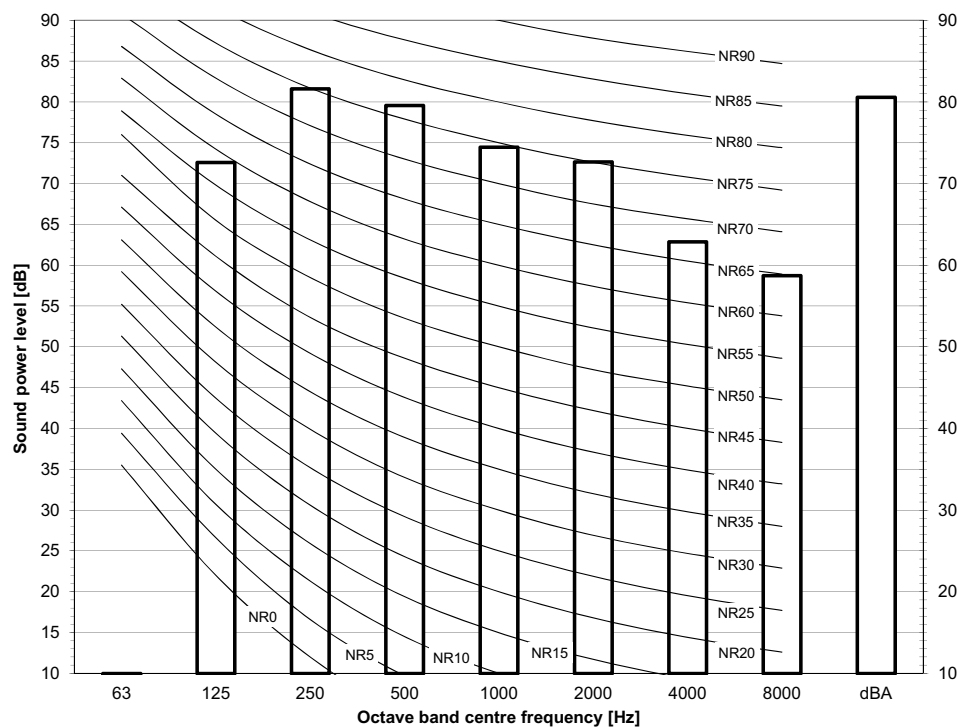


Notes

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

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RDXYQ8T



Notes

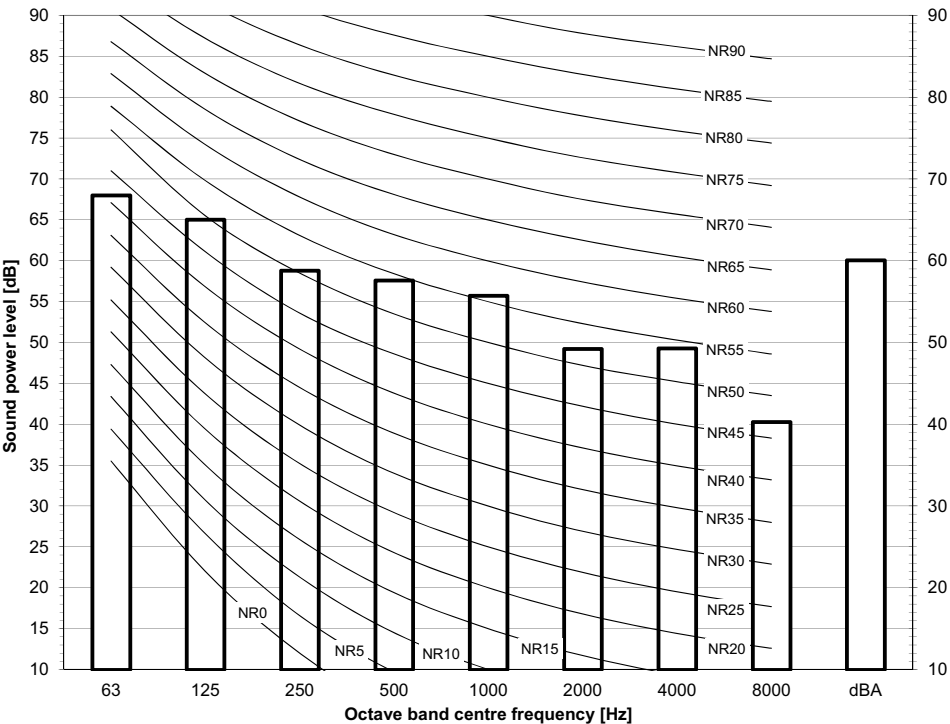
- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity $0\text{ dB} = 10\text{E-}6\text{ W/m}^2$
- Measured according to ISO 3744

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11 Sound data

11 - 1 Sound Power Spectrum

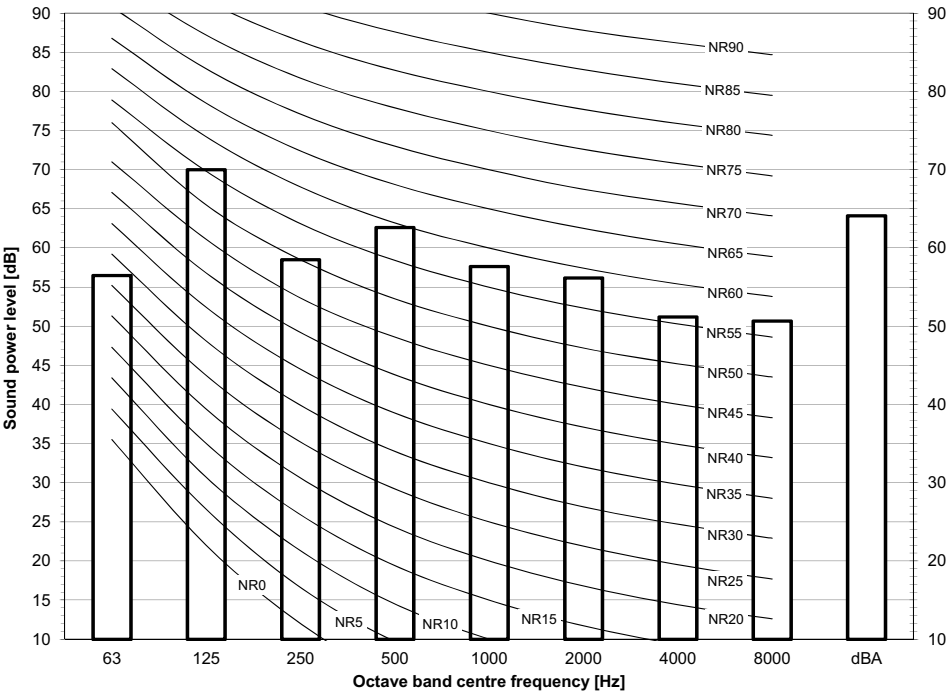
RKXYQ5T



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

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RKXYQ8T



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

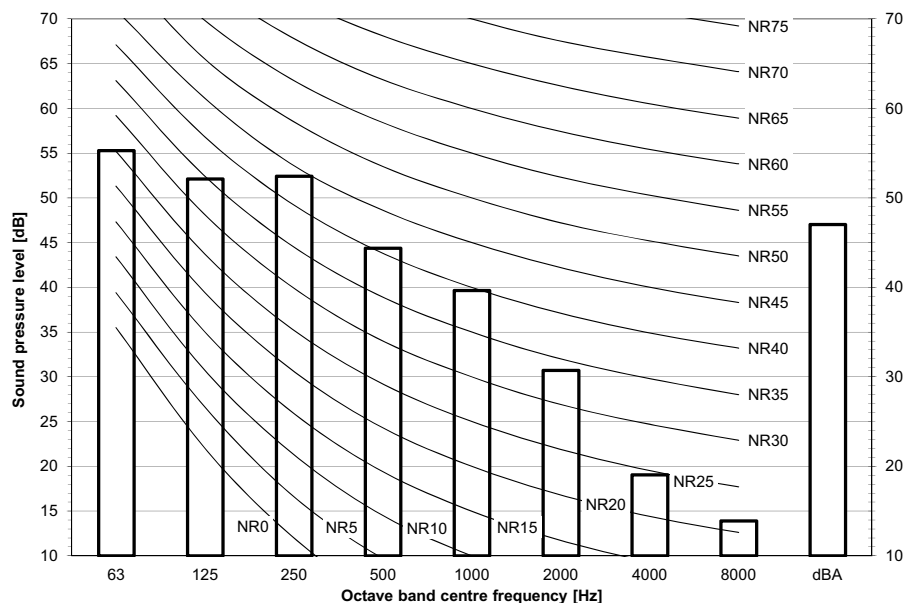
3D106014

11 Sound data

11 - 2 Sound Pressure Spectrum

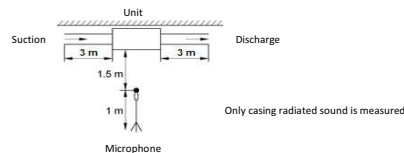
11

RDXYQ5T



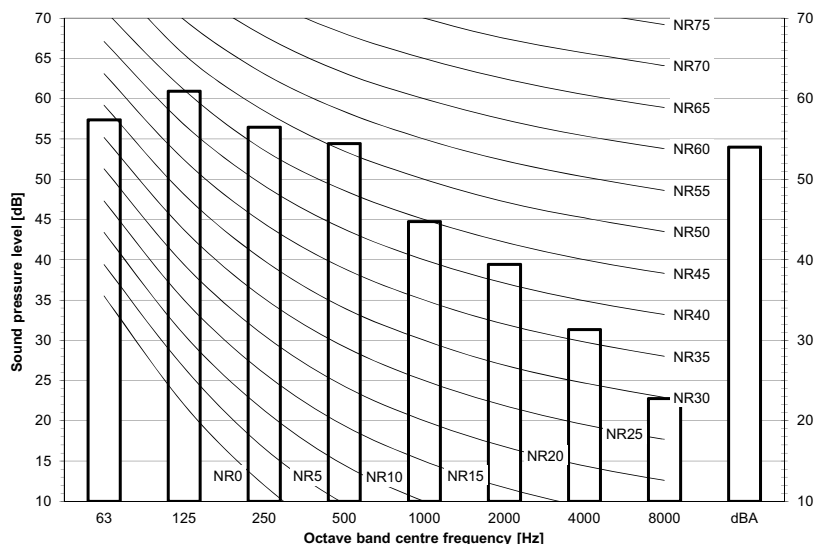
Notes

- 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



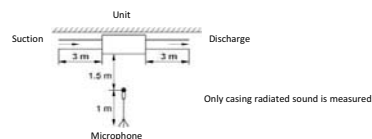
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RDXYQ8T



Notes

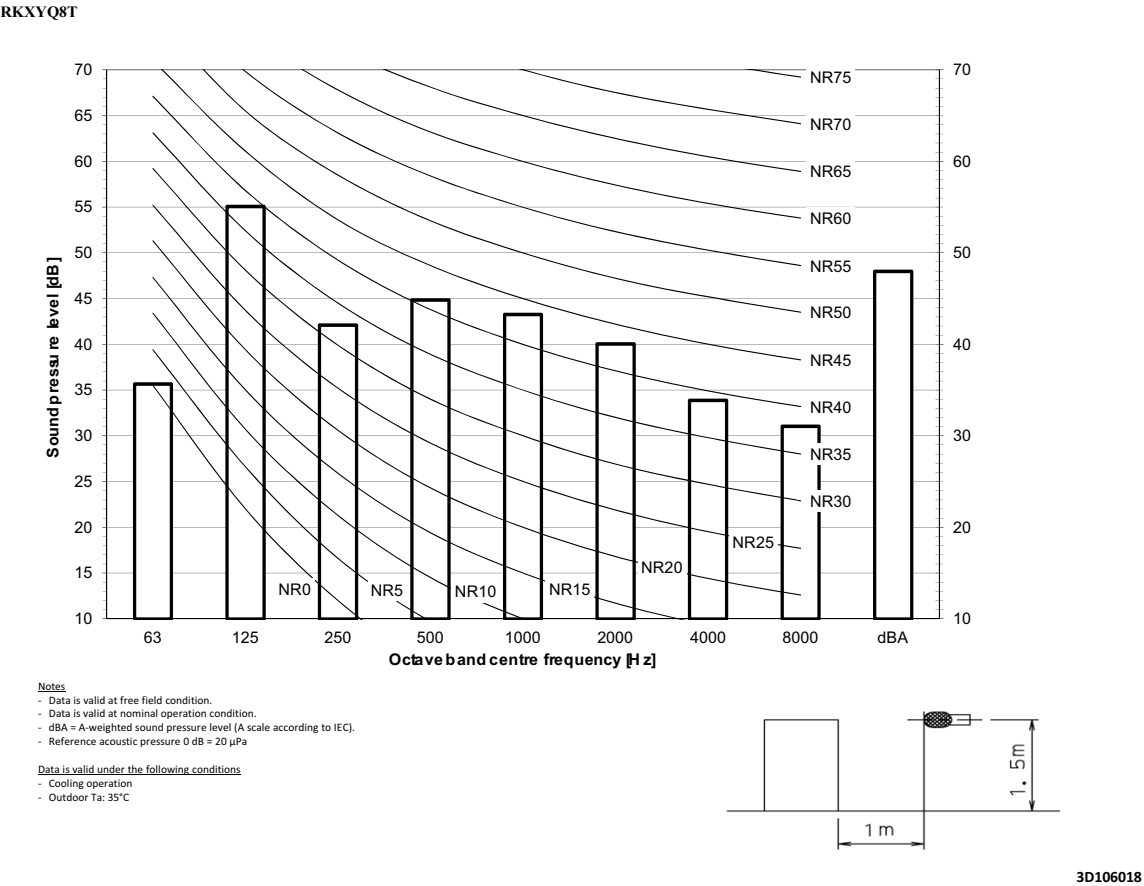
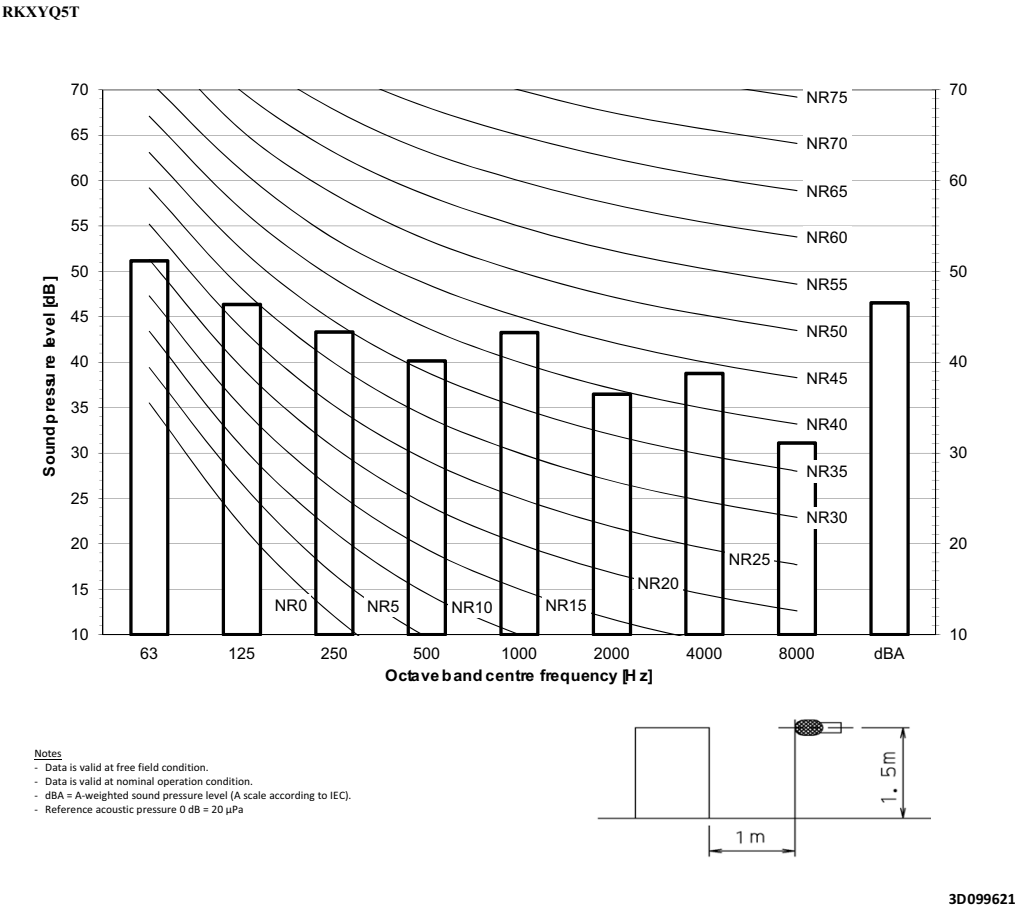
- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 μ Pa



3D105965

11 Sound data

11 - 2 Sound Pressure Spectrum

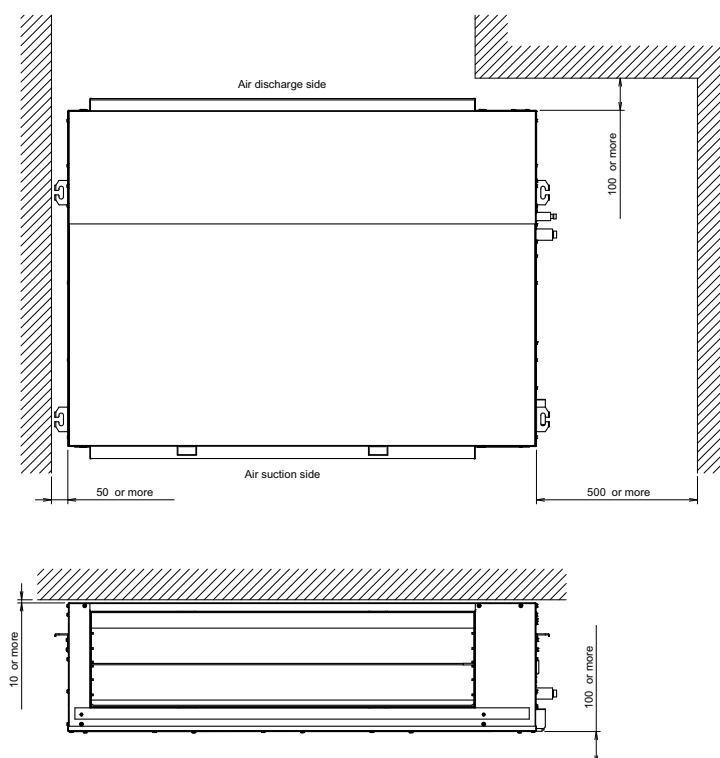


12 Installation

12 - 1 Installation Method

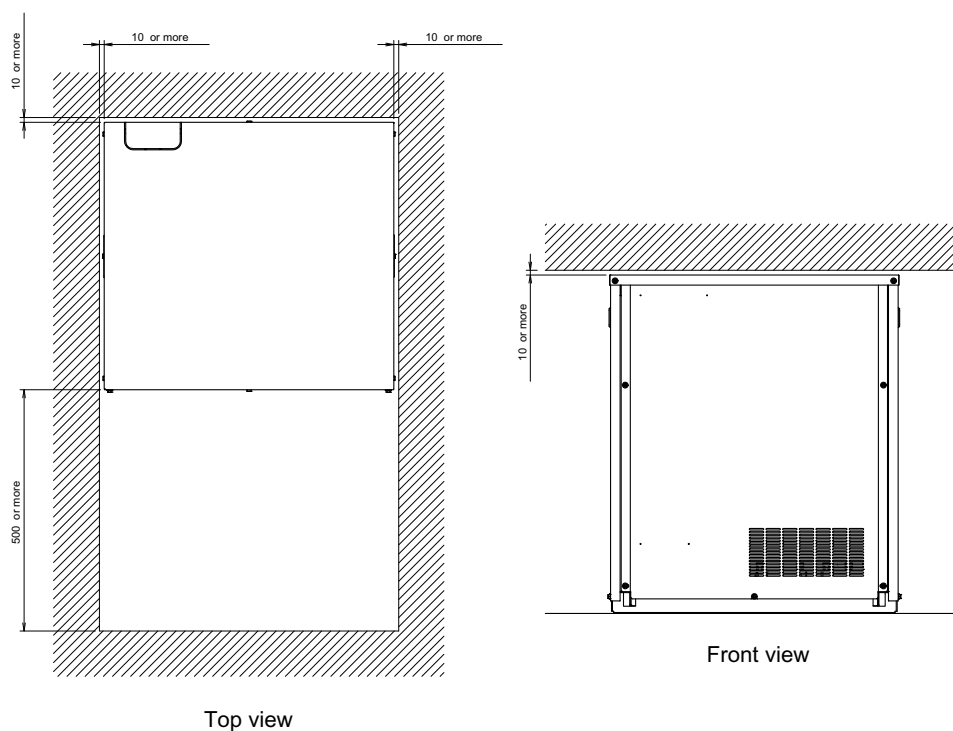
12

RDXYQ5T



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SB.RKXYQ-T



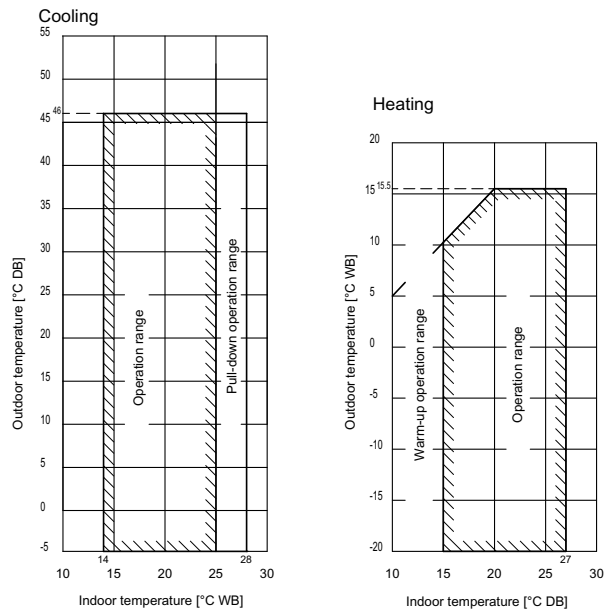
3D098835

13 Operation range

13 - 1 Operation Range

SB.RKXYQ-T

- Notes
1. These figures assume the following operation conditions
Equivalent piping length: 10m
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 heat exchanger unit in a location not exposed to wind.
 4. If the outdoor temperature can drop below -7°C for more than 24 hours, it is recommended to install drain pan heater kit _____ (EKJDPH1RDX)_____.



3D098833A



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