

# technical data

RXS-F8V1B

air conditioning systems

Split  
Sky Air

**R-410A**

# Split - Sky Air

In all of us,  
a green heart



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



Het ISO14001 assures an effective environmental management system in order to help protect human health and the environment from potential impact of our activities, products and services and to assist in maintaining and improving the quality of the environment.



Daikin Europe N.V. is approved by LRQA for its Quality Management System in accordance with the ISO9001 standard. ISO9001 pertains to quality assurance regarding design, development, manufacturing as well as to services related to the product.

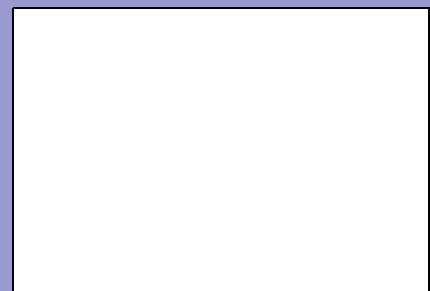


Daikin units comply with the European regulations that guarantee the safety of the product.



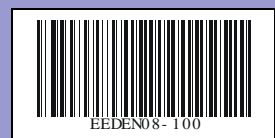
Daikin Europe N.V. participates in the Eurovent Certification Programme for Air Conditioners (AC), Liquid Chilling Packages (LCP) and Fan Coil Units (FC); the certified data of certified models are listed in the Eurovent Directory.

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air conditioning systems

Split  
Sky Air

**R-410A**

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# 1 Features

- Outdoor units for pair application
- High COP values
- Daikin outdoor units are neat and sturdy and can be mounted easily on a roof or terrace or simply placed against an outside wall.
- Outdoor units are fitted with a swing compressor, renowned for its low noise and high energy efficiency

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## 2 Specifications

2-1 NOMINAL CAPACITY AND NOMINAL INPUT				RXS60F8V1B	
For combination indoor units + outdoor units	Indoor Units			FBOH60B7V3B	
Cooling capacity	Standard	kW		5.70	
Heating capacity	Standard	kW		7.00	
Power Input	Cooling	Standard	kW	1.78	
	Heating	Standard	kW	1.84	
For combination indoor units + outdoor units	EER	Nominal		3.21	
	COP	Nominal		3.80	
	Energy Label	Cooling			A
		Heating			A
Annual energy consumption	kWh		890		

2-2 TECHNICAL SPECIFICATIONS				RXS60F8V1B	
Casing	Colour			Ivory White	
	Material			Painted galvanised steel	
Dimensions	Unit	Height	mm	770	
		Width	mm	900	
		Depth	mm	320	
	Packing	Height	mm	900	
		Width	mm	980	
		Depth	mm	420	
Weight	Unit		kg	67	
	Packed Unit		kg	71	
Heat Exchanger	Dimensions	Length	mm	857	
		Nr of Rows		2	
		Fin Pitch	mm	1.4	
		Nr of Passes		8	
		Face Area	m <sup>2</sup>	0.641	
		Nr of Stages		34	
	Tube type			Hi-XSS(8)	
	Fin	Type	WF fin		
Treatment		Anti-corrosion treatment (PE)			
Fan	Type			Propeller	
	Discharge direction			Horizontal	
	Quantity			1	
	Air Flow Rate (nominal at 230V)	Cooling	m <sup>3</sup> /min	52	
		Heating	m <sup>3</sup> /min	52	
	Motor	Quantity		1	
Model			KFD-325-70-8A		
Motor	Speed (nominal)	Steps	8		
		Cooling (Standard)	rpm	800	
		Heating (Standard)	rpm	745	
Fan	Motor	Output	W	70	
Compressor	Quantity			1	
	Motor	Model		2YC63DXD	
		Type			Hermetically sealed swing compressor
		Motor Output	W	1,700	
Operation Range	Cooling	Min	°CDB	-5.0	
		Max	°CDB	46.0	
	Heating	Min	°CWB	-15.0	
		Max	°CWB	15.5	

## 2 Specifications

2

2-2 TECHNICAL SPECIFICATIONS				RXS60F8V1B		
Sound Level (nominal)	Cooling	Sound Power	dBA	65.0		
		Sound Pressure (Standard)	dBA	49.0		
	Heating	Sound Pressure (Standard)	dBA	51.0		
Sound Level (Night quiet)	Sound Pressure		dBA	47.0		
Refrigerant	Type			R-410A		
	Charge	kg	2.75			
	Control			Expansion valve (electronic type)		
	Nr of Circuits			1		
Refrigerant Oil	Type			FVC50K		
	Charged Volume	l	0.75			
Piping connections	Liquid (OD)	Quantity		1		
		Type			Flare connection	
		Diameter (OD)	mm	9.52		
	Gas	Quantity		1		
		Type			Flare connection	
		Diameter (OD)	mm	15.9		
	Drain	Quantity		3		
		Type			Hole	
		Diameter (OD)	mm	26		
	Piping Length	Minimum	m	5		
		Maximum	m	30		
		Equivalent	m	40		
		Chargeless	m	30		
	Additional Refrigerant Charge		kg/m	see installation manual 4PW40420-1		
	Installation height difference	Maximum	m	15		
Max. internunit level difference		m	0.5			
Heat Insulation			Both liquid and gas pipes			
Defrost Method				Pressure equalising		
Defrost Control				Sensor for outdoor heat exchanger temperature		
Capacity Control Method				Inverter controlled		
Safety Devices				High pressure switch		
				Thermal protector for outdoor fan motor.		
				Fuse		
Standard Accessories	Item	Tie-wraps				
	Quantity	2				
	Item	Installation manual				
	Quantity	1				
Notes				Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19.0°CWB; outdoor temperature: 35°CDB; corresponding refrigerant piping length: 7.5m; level difference: 0m		
				Nominal heating capacities are based on: indoor temperature: 20°CDB; outdoor temperature: 7°CDB, 6°CWB; corresponding refrigerant piping length: 7.5m; level difference: 0m		

2-3 ELECTRICAL SPECIFICATIONS				RXS60F8V1B	
Power Supply	Name			V1	
	Phase			1~	
	Frequency	Hz	50		
	Voltage			220V-240V	
	Voltage range	Minimum	V	198	
		Maximum	V	264	
Current	Recommended fuses		A	20	

7

## 2 Specifications

2-3 ELECTRICAL SPECIFICATIONS			RXS60F8V1B
Wiring connections	For Power Supply	Remark	see installation manual 4PW40420-1
	For connection with indoor	Remark	see installation manual 4PW40420-1
Power Supply Intake			Outdoor unit only
Notes			(1) European/international technical standard setting the limits for harmonic currents produced by equipment connected to public low-voltage system with input current > 16A smaller than or equal to 75A per phase.
			(2) Short-circuit power
			See separate drawings for electrical data



### 3 Options

**Available option for RXS60F8**

3

Name of option		Kit name
		RXS60F8
Central drain plug		KKPJ5F180
Refrigerant branch piping	Twin	KHRQ22M20TA
	Triple	KHRQ127H
	Double twin	-
Demand adapter kit		KRP58M51

3TW26739-1E

## 4 Capacity tables

### 4 - 1 Combination table

REFRIGERANT R410A		
		duct
	Model name	<b>FBQH60B7V3B</b>
Outdoor Units	<b>RXS60F8V1B</b>	Pair

#### NOTES

- 1 See main specifications table about MAX cooling capacity & heating capacity.
- 2 Individual indoor capacities are not given because the combinations are for simultaneous operation (=indoor units installed in same room).

4TW30499-2

## 4 Capacity tables

### 4 - 2 Cooling capacity tables

**Cooling capacity table**  
**FBQH60B7V3B+RXS60F8V1B**

Outdoor	Indoor		Outdoor temperature (°CDB)											
	EWB (°C)	EDB (°C)	25			30			35			40		
			TC	SHC	CPI	TC	SHC	CPI	TC	SHC	CPI	TC	SHC	CPI
60	16,0	22,0	5,19	3,52	0,76	5,19	3,56	0,89	5,35	3,71	0,99	5,13	3,60	1,09
	18,0	25,0	5,96	3,87	0,83	5,78	3,79	0,91	5,58	3,70	1,00	5,35	3,59	1,10
	19,0	27,0	6,09	3,85	0,84	5,90	3,78	0,91	5,70	3,69	1,00	5,48	3,58	1,10
	19,5	27,0	6,15	3,85	0,84	5,96	3,77	0,91	5,76	3,68	1,00	5,53	3,58	1,10
	22,0	30,0	6,46	3,80	0,85	6,27	3,73	0,92	6,06	3,64	1,01	5,83	3,54	1,11
	24,0	32,0	6,72	0,85	6,52	3,68	0,93	6,30	3,60	1,02	6,06	3,49	1,12	

3TW30492-1

#### SYMBOLS

AFR:	Air flow rate	(m <sup>3</sup> /min)
BF:	Bypass factor	
EWB:	Entering wet bulb temp.	(°CWD)
EDB:	Entering dry bulb temp.	(°CDB)
DB*:	Dry bulb temp. (°CDB)	(kW)
TC:	Total capacity	(kW)
SHC:	Sensible heating capacity	(kW)
CPI:	Coefficient of power input.	

#### NOTES

- Ratings shown are net capacities. Influence of fan motor heat is included.
- Rated power unit: 1,77kW
- Capacities are based on the following conditions:  
 Corresponding refrigerant piping length: 7.5 m  
 Level difference: 0 m
- Shows nominal capacities
- SHC is based on each EWB and EDB  
 $SHC^* = SHC \text{ correction for other dry bulb}$   
 $SHC^* = 0,29 \times 60 \times AFR \text{ m}^3/\text{min.} \times (1-BF) \times (DB^*-EDB)/860$   
 Add SHC\* to SHC if SHC > TC, then TC equal SHC
- Direct interpolation is permissible. Do not extrapolate.

## 4 Capacity tables

### 4 - 3 Heating capacity tables

Heating capacity table  
FBQH60B7V3B+RXS60F8V1B

Outdoor	Indoor	Outdoor temperature (°CDB)											
	EDB	-15		-10		-5		0		6		10	
	(°C)	TC	CPI	TC	CPI	TC	CPI	TC	CPI	TC	CPI	TC	CPI
60	16,0	4,50	1,06	4,97	1,12	5,44	1,17	5,91	1,23	7,02	0,92	7,56	0,97
	18,0	4,50	1,10	4,96	1,16	5,43	1,22	5,90	1,28	7,01	0,96	7,54	1,01
	20,0	4,49	1,15	4,96	1,21	5,43	1,27	5,90	1,33	7,00	1,00	7,53	1,05
	21,0	4,49	1,17	4,95	1,23	5,43	1,29	5,63	1,35	7,00	1,02	7,53	1,07
	22,0	4,48	1,19	4,95	1,25	5,42	1,32	5,89	1,38	6,99	1,04	7,53	1,09
	24,0	4,48	1,23	4,94	1,30	5,42	1,36	5,88	1,43	6,98	1,08	7,52	1,13

3TW30492-2

#### SYMBOLS

EWB: Entering wet bulb temp. (°CWD)  
 EDB: Entering dry bulb temp. (°CDB)  
 TC: Total capacity (kW)  
 CPI: Coefficient of power input.

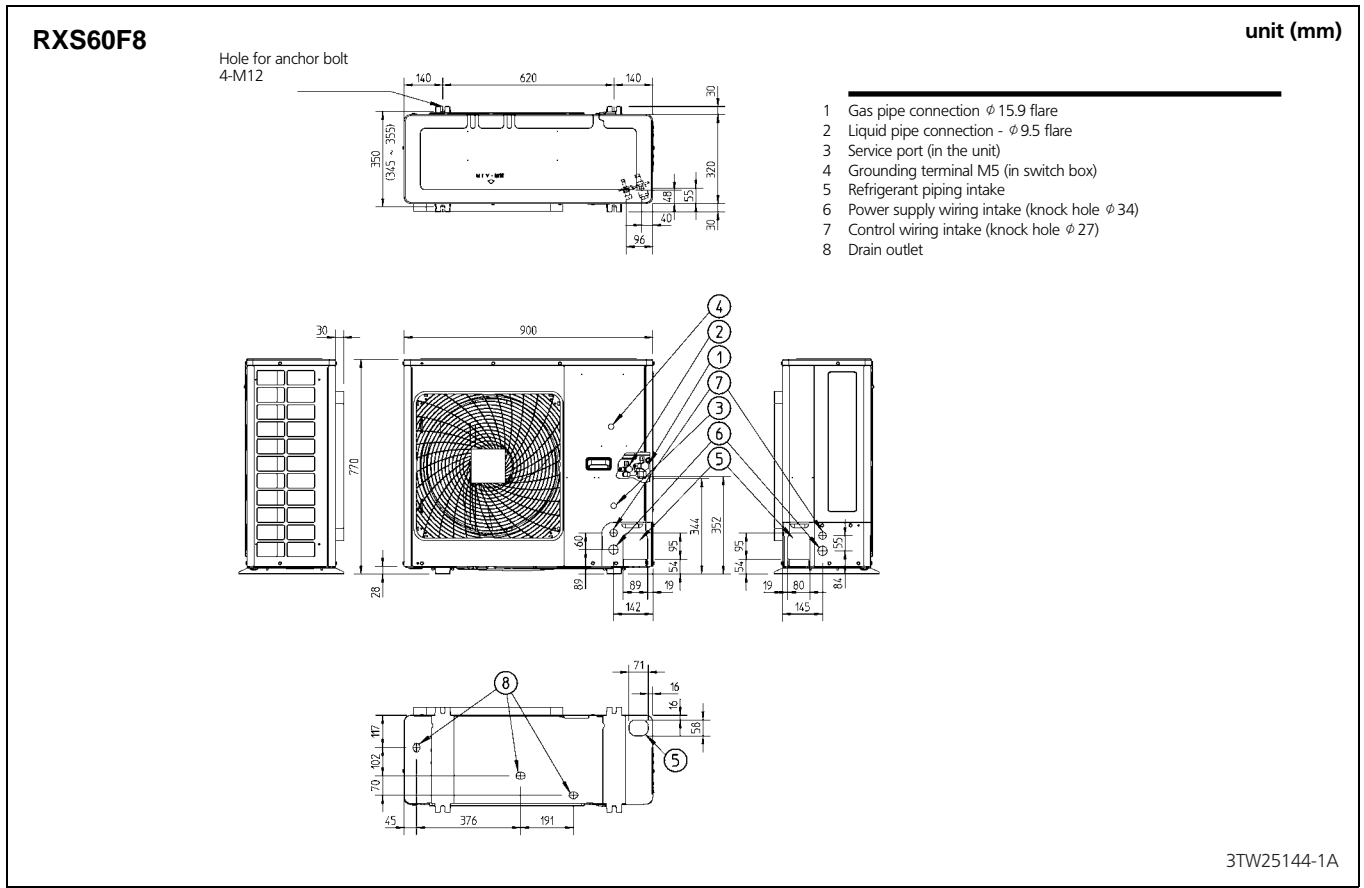
#### NOTES

1. Ratings shown are net capacities. Influence of fan motor heat is included.
2. Rated power unit: 1,84kW
3. Capacities are based on the following conditions:  
 Corresponding refrigerant piping length: 7.5 m  
 Level difference: 0 m
4.  Shows nominal capacities
5. Direct interpolation is permissible. Do not extrapolate.

# 5 Dimensional drawing & centre of gravity

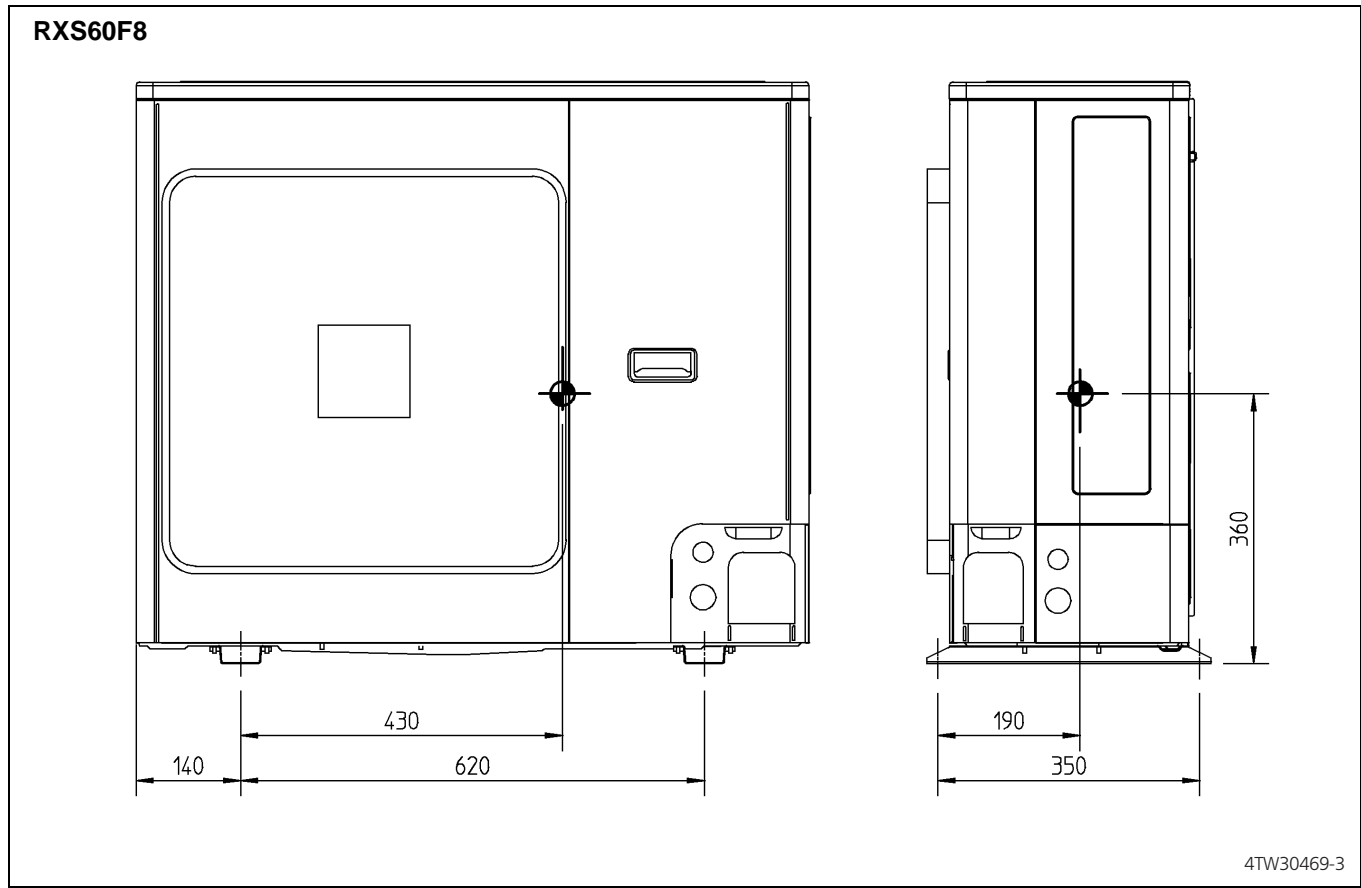
## 5 - 1 Dimensional drawing

5



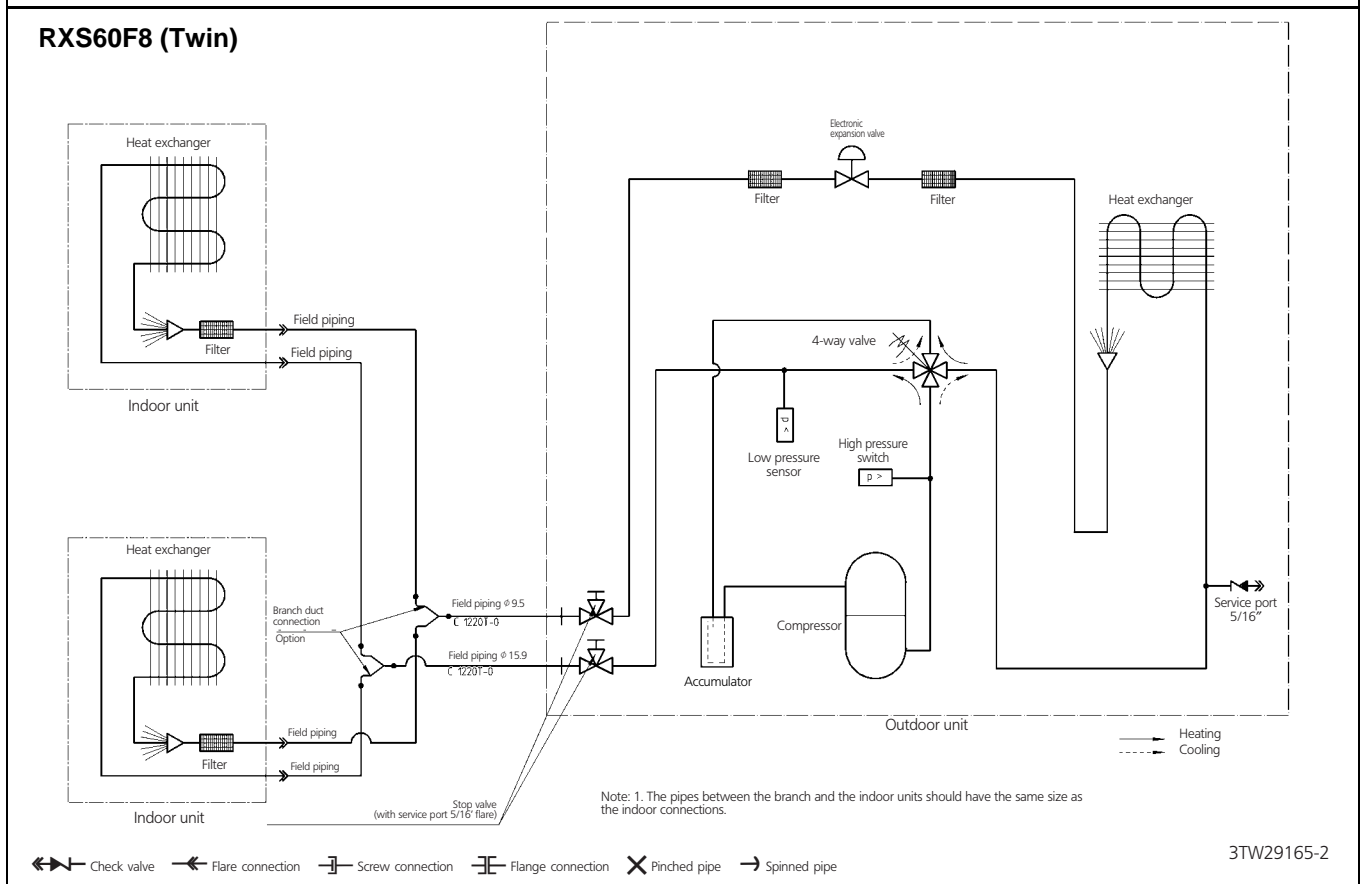
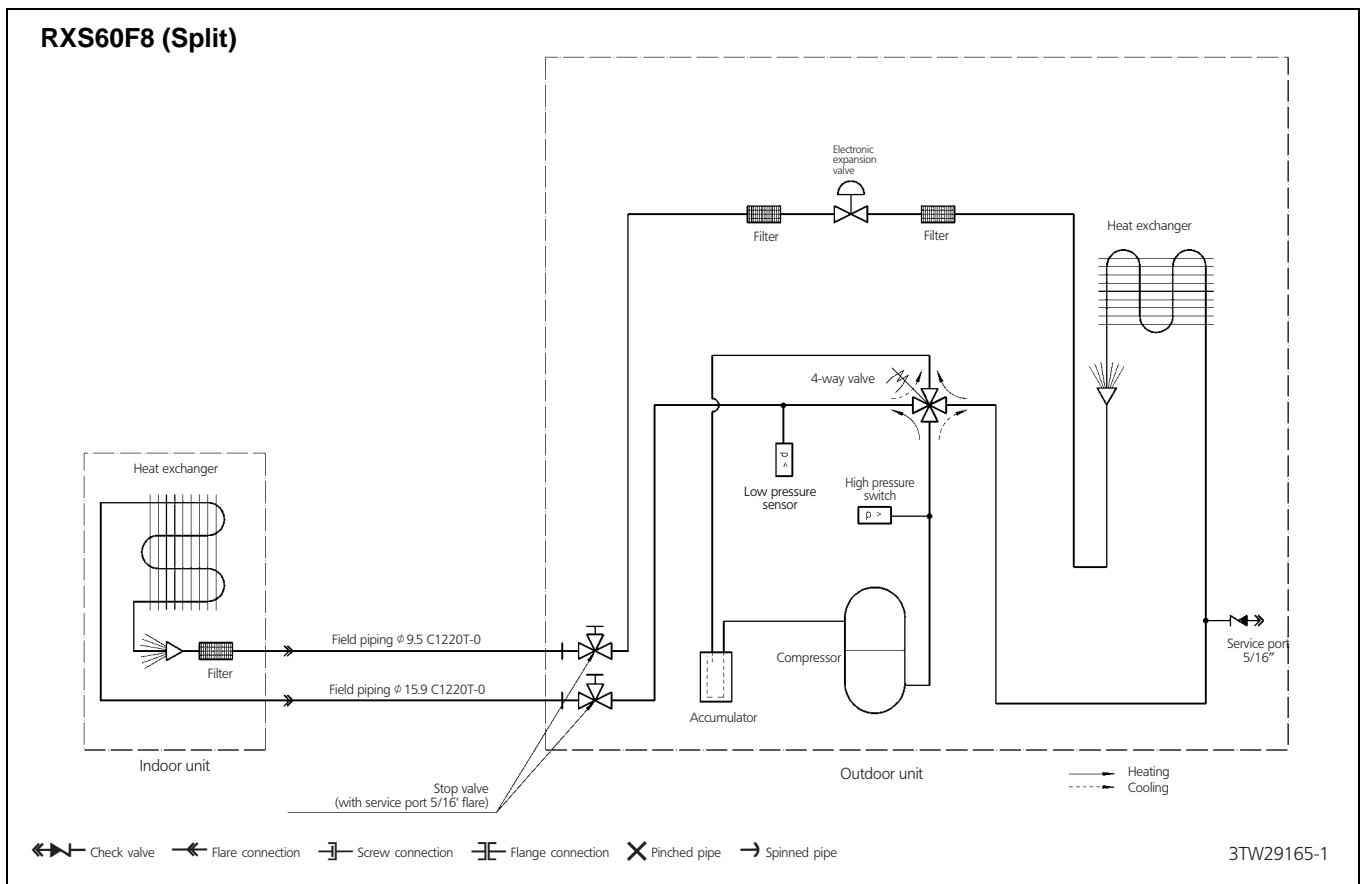
## 5 Dimensional drawing & centre of gravity

### 5 - 2 Centre of gravity

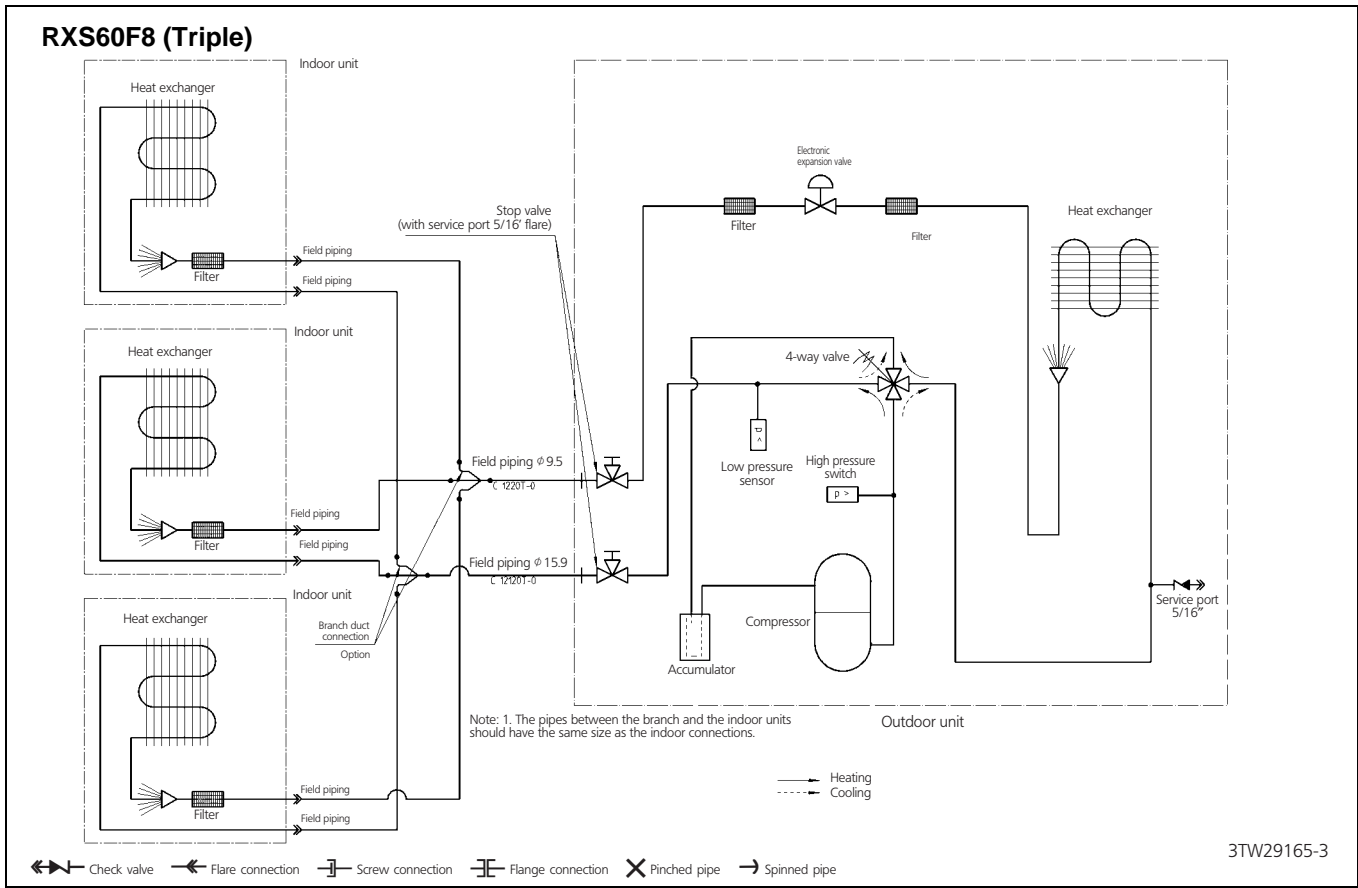


# 6 Piping diagram

6



# 6 Piping diagram





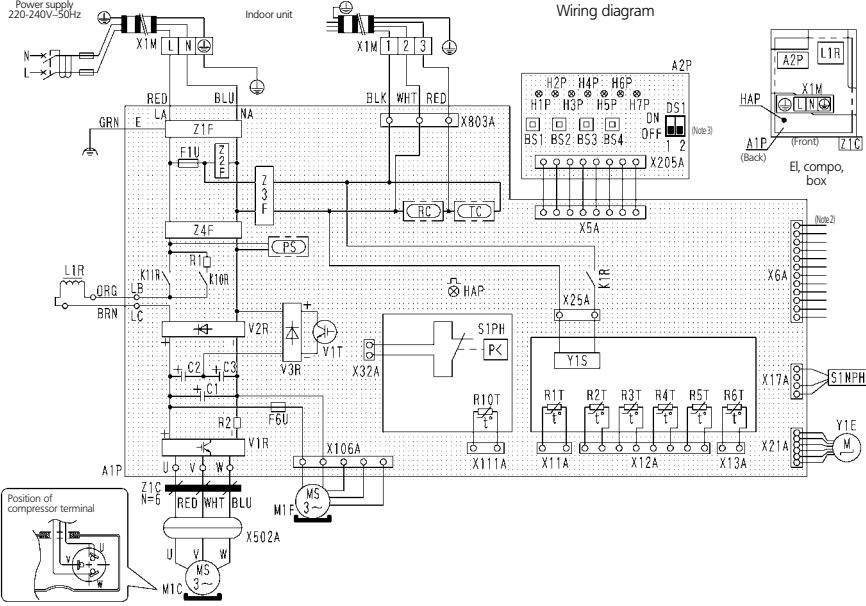
# 7 Wiring diagram

## 7 - 1 Wiring diagram

7

### RXS60F8

- A1P : Printed circuit board
- A2P : Printed circuit board
- BS1-BS4 : Push button switch
- C1-3 : Capacitor
- DS1 : Dip switch
- F1U : Fuse (T 6.3A/250V)
- F6U : Fuse (T 3.15/250V)
- F6U : Fuse (T 3.15/250V)
- H1P-7P(A2P) : Pilot lamp (service monitor-orange)
- HAP : Flashing lamp (service monitor-green)
- K1R : Magnetic relay (Y1S)
- K10R : Magnetic relay
- K11R : Magnetic relay
- L1R : Reactor
- M1C : Motor (compressor)
- M1F : Motor (fan)
- PS : Switching power supply
- R1 : Resistor
- R2 : Resistor
- R1T : Thermistor (Air)
- R2T : Thermistor (M1C Discharge)
- R3T : Thermistor (Suction)
- R4T : Thermistor (Coil)
- R5T : Thermistor (Coil middle)
- R6T : Thermistor (Liquid)
- RC : Signal receiver circuit
- R10T : Thermistor (fin)
- S1NPH : Pressure sensor(High)
- S1PH : Pressure switch (High)
- TC : Signal transmission circuit
- V1R : Power module
- V2R/V3R : Diode bridge
- V1T : IGBT
- X1M : Terminal block
- Y1E : Electronic expansion valve
- Y1S : Solenoid valve (4 way valve)
- Z1C : Noise filter (ferite core)
- Z1F-4F : Noise filter

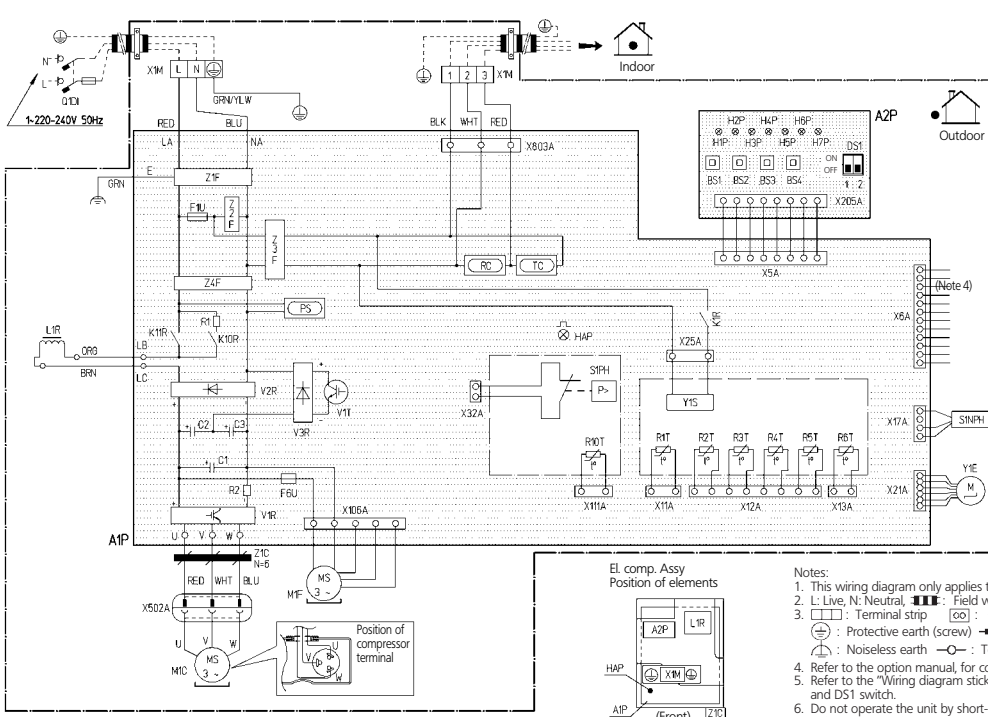


Notes:

1. : Field wiring : Terminal block : Connector
2. Refer to the optional manual, for connection wiring to X6A.
3. The positions of the selector switches (DS1) indicate factory setting. Refer to the service manual in detail.
4. Colours: WHT: White / RED: Red / BLU: Blue / GRY: Gray / GRN: Green / YLW: Yellow / ORG: Orange / BLK: Black

3D058404C

### RXS60F8



- A1P : Printed circuit board (Main)
- A2P : Printed circuit board (Inverter)
- BS1-BS4 : Push button switch
- C1-3 : Capacitor
- DS1 : Dip switch
- F1U : Fuse (T 6.3A / 250V)
- F6U : Fuse (T 3.15A / 250V)
- H1P-7P(A2P) : Light emitting diode (service monitor orange)
- HAP(A1P) : Light emitting diode (service monitor green)
- K1R : Magnetic relay (Y1S)
- K10R : Magnetic relay
- K11R : Magnetic relay
- L1R : Reactor
- M1C : Motor (compressor)
- M1F : Motor (fan)
- PS : Switching power supply
- R1 : Resistor
- R2 : Resistor
- R1T : Thermistor (air)
- R2T : Thermistor (discharge)
- R3T : Thermistor (Suction)
- R4T : Thermistor (Heat exchanger)
- R5T : Thermistor (Thermistor (heat exchanger middle)
- R6T : Thermistor (liquid)
- R10T : Thermistor (fin)
- RC : Signal receiver circuit
- S1NPH : Pressure sensor
- S1PH : Pressure switch (High)
- TC : Signal transmission circuit
- V1R : Power module
- V2R/V3R : Diode module
- V1T : IGBT
- X1M : Terminal strip (Power supply)
- Y1E : Electronic expansion valve
- Y1S : Solenoid valve (4 way valve)
- Z1C : Noise filter (ferite core)
- Z1F-4F : Noise filter

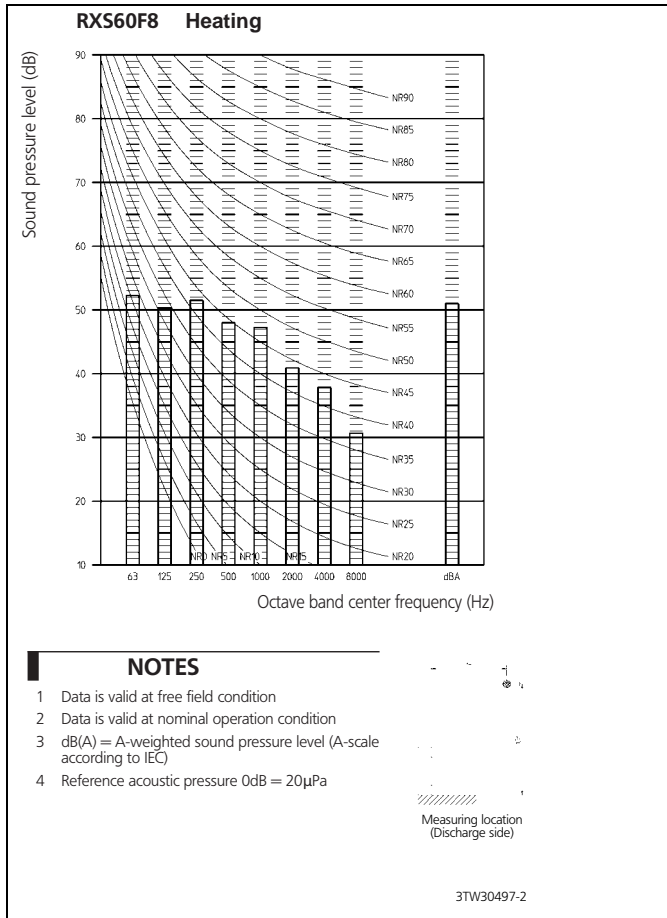
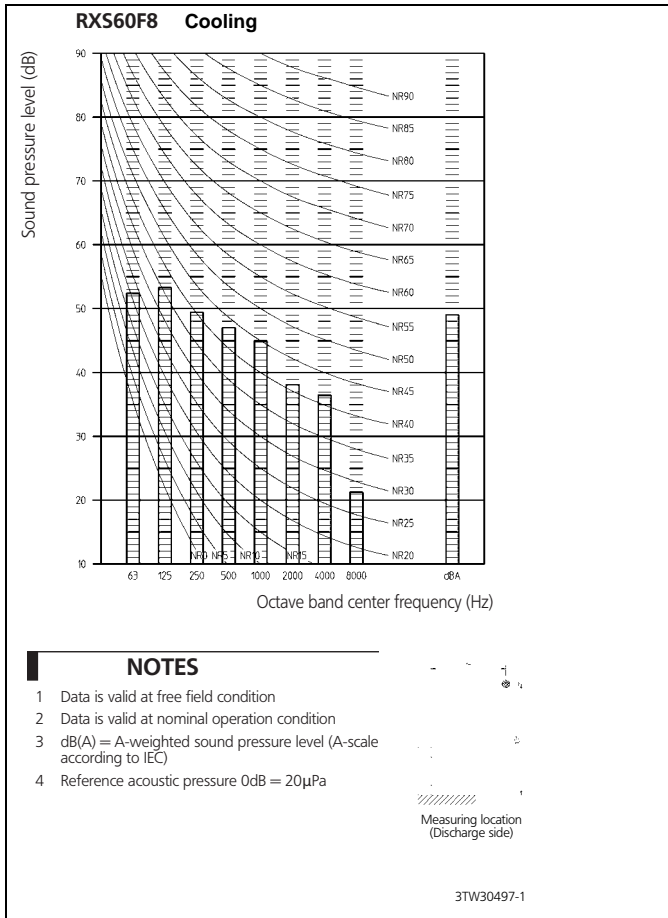
Notes:

1. This wiring diagram only applies to the outdoor unit
2. L: Live, N: Neutral, : Field wiring
3. : Terminal strip : Connector : Connection : Protective earth (screw) : Relay connector : Noiseless earth : Terminal
4. Refer to the option manual for connecting wiring to x6A.
5. Refer to the "Wiring diagram sticker" (on back of front plate) on how to use BS1- BS4 and DS1 switch.
6. Do not operate the unit by short-circuiting protection device S1PH
7. Colours: WHT: White / RED: Red / BLU: Blue / ORG: Orange  
BRN: Brown / GRN: Green / YLW: Yellow
8. Confirm the method of setting the selector switches (DS1) by service manual.  
Factory setting of all switches: "OFF".

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# 8 Sound data

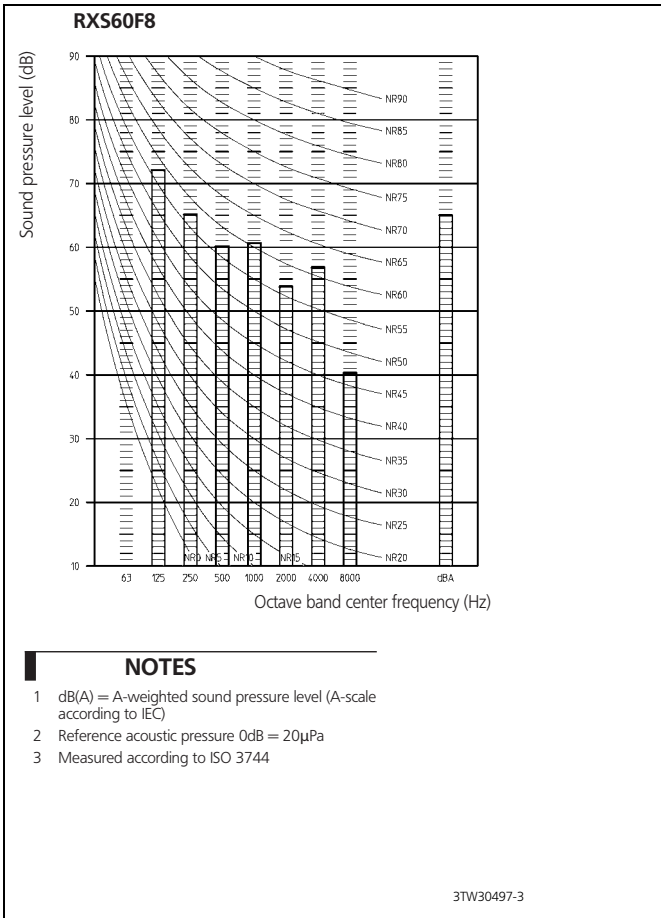
## 8 - 1 Sound pressure spectrum



# 8 Sound data

## 8 - 2 Sound power spectrum

8

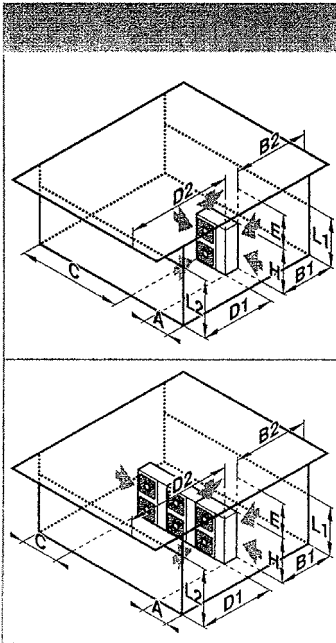


# 9 Installation

## 9 - 1 Service space

### RXS60F8

#### A. Non stacked installation



	↖	↗	↘	↙		A	B1	B2	C	D1	D2	E	L1/L2
✓						≥50(100)							
✓		✓	✓			≥100	≥100		≥100				
✓				✓		≥100					≤500	≥1000	
✓	✓	✓	✓	✓		≥150	≥150		≥150		≤500	≥1000	
	✓										≤500		
✓	✓			✓				≤500		≥500		≥1000	
✓	✓				L1<L2	≥50(100)					≥500		
					L2<L1	≥50(100)					≥500		
✓	✓			✓	L1<L2	L1≤H	≥150(250)	≤500		≥750		≥1000	0<L1≤1/2H
					L2<L1	L2≤H	≥50(100)			≥500	≥500	≥1000	0<L1≤1/2H
					L1<L2	L1≤H	≥100(200)			≥500	≥500	≥1000	0<L2≤1/2H
					L2<L1	L2≤H	≥100(200)			≥500	≥500	≥1000	1/2H<L2≤H
✓	✓			✓	L1<L2	L1≤H	≥200(300)	≤500		≥1000		≥1000	0<L1≤1/2H
					L2<L1	L2≤H	≥200(300)			≥1000	≥1000	≥1000	0<L2≤1/2H
					L1<L2	L1≤H	≥150(250)			≥1000	≥1000	≥1000	1/2H<L2≤H
					L2<L1	L2≤H	≥150(250)			≥1000	≥1000	≥1000	1/2H<L2≤H
✓	✓			✓	L1<L2	L1≤H	≥200(300)	≤500		≥1000		≥1000	0<L1≤1/2H
					L2<L1	L2≤H	≥200(300)			≥1000	≥1000	≥1000	0<L2≤1/2H
					L1<L2	L1≤H	≥150(250)			≥1000	≥1000	≥1000	1/2H<L1≤H
					L2<L1	L2≤H	≥150(250)			≥1000	≥1000	≥1000	1/2H<L2≤H

Legend

- ↖ Suction side obstacle
- ↗ Discharge side obstacle
- ↘ Left side obstacle
- ↙ Right side obstacle
- ↖ Top side obstacle
- ✓ Obstacle is present

In these cases, close the bottom of the installation frame to prevent discharged air from being bypassed.

In these cases, only 2 units can be installed.

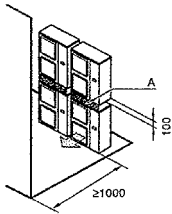


This situation is not allowed.

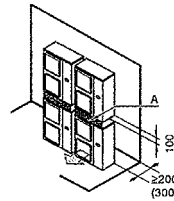
Figures between ( ) indicate the dimensions only for the 100-125-140 class models.

#### B. Stacked installation

##### 1. Obstacles exist in front of the outlet side



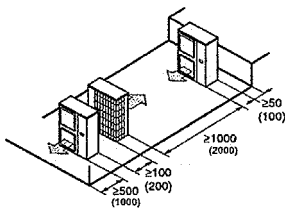
##### 2. Obstacles exist in front of the air inlet



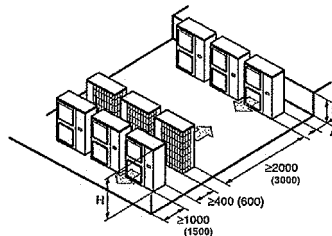
Do not stack more than one unit.  
About 100mm is required as the dimension for laying the upper outdoor unit's drain pipe.  
Get the portion A sealed so that air from the outlet does not bypass.

#### C. Multiple-row installation

##### 1. Installation of one unit per row



##### 2. Installing multiple units (2 units or more) in lateral connection per row



Relation of dimensions of H, A, and L are shown in the table below.

	L	A
L ≤ H	0 < L ≤ 1/2 H	150 (250)
	1/2 H < L	200 (300)
H < L	Installation impossible	

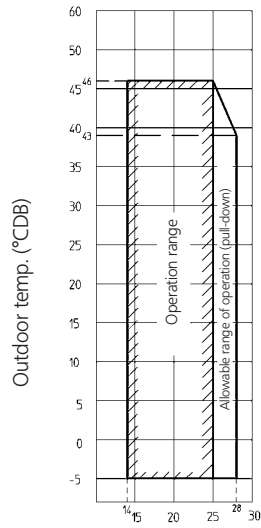
3TW26739-4

# 10 Operation range

10

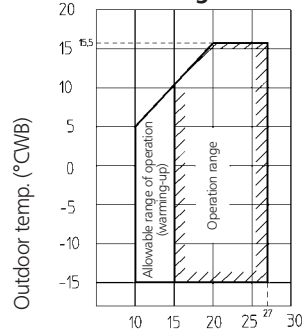
RXS60F8

### Cooling



Indoor temp. (°CWB)

### Heating



Indoor temp. (°CDB)

**Notes:**

- 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.

3TW29063-1C