DAIKIN

TECHNICAL DATA

Split-Sky Air

RP-B7

Twin/Triple/Double Twin Application

Split Sky Air

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

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

Daikin Europe NV 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 Europe NV is participating in the EUROVENT Certification Programme. Products are as listed in the EUROVENT Directory of Certified Products.

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Internet http://www.daikin.be

Prepared in Belgium by Goekint Graphics • 05/2001

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1 Features

Outdoor units for twin/triple/double twin application.

- It is possible to connect 2, 3 or 4 indoor units to one single outdoor unit. The indoor units may be of different types (e.g. ceiling mounted cassette, wall mounted,...) and even different capacities (e.g. 45 and 60 class).
  All indoor units are operated together within the same mode (cooling or heating) from one remote control. This allows an equal air distribution in larger rooms, even if they are irregularly shaped.
- Daikin outdoor units are neat and sturdy and can be mounted easily on a roof or terrace or simply placed against an outside wall.
  A special acryl precoated fin for anti-corrosion treatment on the heat exchanger ensures greater resistance against severe weather conditions.

2 Specifications

TECHNICAL SPECIFICATIONS								
OUTDOOR UNITS				**RP71B7V1/W1/T1**	**RP100B7V1/W1/T1**	**RP125B7W1/T1**	**RP200B7W1**	**RP250B7W1**
DIMENSIONS	Unit	H	mm	860	1,215	1,215	1,220	1,440
		W	mm	880	880	880	1,290	1,290
		D	mm	320	320	320	700	700
WEIGHT			kg	88/85/85	103/98/98	100	194	206
MATERIAL	Unit			Painted galvanised steel plate				
COLOUR	Unit			Ivory white				
SOUND LEVEL	Sound pressure (1)	high	dBA	50	53	53	56	56
		low	dBA	–	–	–	–	–
	Sound power (2)		dBA	63	66	67	77	77
FAN	Air flow rate	high	m^3/min	51	94	94	170	175
	Speed	steps		3 steps			1 step	
		high	rpm	–	–	–	–	–
		low	rpm	–	–	–	–	–
	Type			-	-	-	-	-
	Qty x model			1 x P47L11S	2 x P47L11S	2 x P47L11S	1 x P55J11F	1 x P55J11F
	Qty x motor output		W	1 x 80	1 x (80+85)	1 x (80+85)	1 x (230+190)	1 x (230+140)
HEAT EXCHANGER	Type			Non symm. waffle louvre, Hi-XA U-cooling tube				
	Rows x stages x fin pitch		mm	2 x 38 x 2.0	2 x 54 x 2.0	2 x 54 x 2.0	2 x 40 x 2	2 x 50 x 2
	Face area		m^2	0.719	1.022	1.022	1.57	1.97
REFRIGERANT CIRCUIT	Refrigerant type			R-407C	R-407C	R-407C	R-407C	R-407C
	Refrigerant charge		kg	3.1	3.6	3.9	7.5	9.2
	Number of circuits			–	–	–	–	–
COMPRESSOR	Type			Hermetically sealed scroll type				
	Qty x model			1xJT90FA-V1N/ 1xJT90FA-YE/ 1xJT90FA-T1	1xJT125FA-V1N/ 1xJT125FA-YE/ 1xJT125FA-T1	1xJT160FA-YE/ 1xJT160FA-T1	1xJT236DA-YE@2	1xJT300DA-YE@2
	No. of cylinders			–	–	–	–	–
	Speed		rpm	–	–	–	2900	2900
	Oil type			DAPHNE FVC68D			DAPHNE FVC68D	
	Oil charge volume		ℓ	1.2	1.5	1.5	4	4
	Crankcase heater		W	–	–	–	50	72
PIPING CONNECTIONS		liquid	mm	ϕ9.5	ϕ9.5	ϕ9.5	ϕ12.7 x 0.90	ϕ15.9 x 0.45
		gas	mm	ϕ15.9	ϕ19.1	ϕ19.1	ϕ28.6 x 1.15	ϕ28.6 x 1.15
		Drain	mm	ϕ26 x 3	ϕ26 x 3	ϕ26 x 3	ϕ26 x 6	ϕ26 x 6
INSULATION MATERIAL	Heat insulation			Both liquid and gas pipes				
SAFETY DEVICE SETTINGS				High and low pressure switch, thermal protector for indoor and outdoor fan motor, overcurrent relay (compressor), reverse phase protection (W1/T1) fuse.			High and low pressure switch, thermal protection for indoor and outdoor fan motor, fuse, overcurrent relay (compressor), reserve phase protection, compr. Thermal protection	

2 Specifications

ELECTRICAL SPECIFICATIONS								
OUTDOOR UNITS				**RP71B7V1/W1/T1**	**RP100B7V1/W1/T1**	**RP125B7W1/T1**	**RP200B7W1**	**RP250B7W1**
CURRENT	Nominal running current	cooling	A	-	-	-	14.4	17.2
	Starting current	cooling	A	-	-	-	17.9	27.5

OUTDOOR UNITS			**RP71B7V1/W1/T1**	**RP100B7V1/W1/T1**	**RP125B7W1/T1**	**RP200B7W1**	**RP250B7W1**
POWER SUPPLY			V1/W1/T1	V1/W1/T1	W1/T1	W1	W1
NOMINAL DISTRIBUTION SYSTEM VOLTAGE	Phase		1~/3N~/3~	1~/3N~/3~	3N~/3~	3N~	3N~
	Frequency	Hz	50	50	50	50	50
	Voltage	V	230/400/230	230/400/230	400/230	400	400

NOTES

1 The sound pressure level is measured via a microphone at a certain distance from the unit. It is a relative value, depending on the distance and acoustic environment. For measuring conditions: please refer to item 9 of this chapter.

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

3 Maximum allowable distance between indoor and outdoor unit: 70m (for RP71-125), 50m (for RP200-250: 70m equivalent), maximum allowable level difference: 30m.

4 Additional refrigerant charge: for RP71-125: no additional refrigerant charge, for RP200: 60g/m for total piping length >30m, for RP250: 90g/m for total piping length>30m

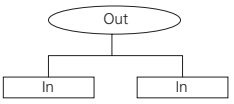
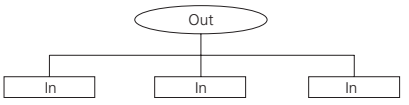
ELECTRICAL DATA

See chapter R-GZ7 / RP-B7 for the electrical data of RP71-100-125-200-250B7

3 Combination table

Possible combinations and standard capacity for twin and triple operation

RP71-125B7

Outdoor models	Possible indoor combination						
	Simultaneous operation						
	Twin			Triple			
							
RP71B7T1/V1/W1	35-35 (KHRP79BA7)						
RP100B7T1/V1/W1	45-45 (KHRP79BA7)	45-60 (KHRP74BA7)	35-71 (KHRP79BA7)	35-35-35 (KHRP96H7)			
RP125B7T1/W1	60-60 (KHRP79BA7)	45-71 (KHRP79BA7)		45-45-45 (KHRP96H7)			

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NOTES

1 Possible indoor units: FHYCP35-71, FHYP35-71, FHYBP35-71, FUYP71, FAYP71, FHYKP71

2 Individual indoor capacities are not given because the combinations are for simultaneous operation (=indoor units installed in same room).

3 When different indoor models are used in combination, designate the remote controller that is equipped with the most functions as the main unit.
In note 1 are the indoor units mentioned in order of the possible function (most functions are on FHYC, less functions are on FHYB).

4 Between brackets are the required Refnet kits mentioned, that are necessary to install the combination.

5 For unit specification of the outdoor units and the indoor units refer to the unit specifications mentioned for pair systems.

6 Nominal cooling capacities are based on the following conditions: Indoor air temperature: 27°CDB, 19.0°CWB, outdoor temperature 35°CDB.
Nominal heating capacities are based on the following conditions: Indoor air temperature : 20°CDB, outdoor temperature : 7°CDB, 6°CWB.

3 Combination table

Possible combinations for twin, triple and double twin application

RP200-250B7

Outdoor models	Capacity [kW]		Possible indoor combination																	
			Simultaneous operation																	
			Twin		Triple										Double twin					
	Cooling	Heating																		
RP200B7W1	20.0	-	100-100 (KHRP102BA7)	71-125 (KHRP102BA7)	71-71-71 (KHRP127HA7)	60-60-60 (KHRP127HA7)	45-71-71 (KHRP127HA7)	45-45-100 (KHRP127HA7)	35-71-100 (KHRP127HA7)	35-35-125 (KHRP127HA7)	45-60-100 (KHRP127HA7)	71-60-60 (KHRP127HA7)	45-45-45-45 (2 x KHRP79BA7 + KHRP102BA7)							
RP250B7W1	25.0	-	125-125 (KHRP102BA7)		45-100-100 (KHRP127HA7)		60-60-125 (KHRP127HA7)		125-45-71 (KHRP127HA7)		100-71-71 (KHRP127HA7)		60-60-60-60 (2 x KHRP79BA7 + KHRP102BA7)							

3TW23619-1

NOTES

1 Possible indoor units: FHYCP35-125, FUYP71-125, FHYKP35-71, FAYP71-100, FHYP35-60, FHYP71-125, FHYBP35-125, FDYP125-250

2 Individual indoor capacities are not given because the combinations are for simultaneous operation (=indoor units installed in same room).

3 When different indoor models are used in combination, designate the remote controller that is equipped with the most functions as the main unit.
Note 1 mentions the indoor units in order of the possible function (most functions are on FHYC, less functions are on FDY).

4 Between brackets are the required Refnet kits mentioned, that are necessary to install the combination.

5 For unit specification of the outdoor units and the indoor units refer to the unit specifications mentioned for pair systems.

6 Nominal cooling capacities are based on: indoor temperature: 27°CDB/19°CWB * outdoor temperature: 35°CDB.
Nominal heating capacities are based on: indoor temperature: 20°CDB * outdoor temperature: 7°CDB/6°CWB.

4 Capacity tables

Simultaneous operation RP71-125B7

Cooling capacity **W1: 400V [50Hz]**

Outdoor	Indoor EWB (°C)	Indoor EDB (°C)	Outdoor temperature (°CDB) 20 TC	20 PI o	25 TC	25 PI o	32 TC	32 PI o	35 TC	35 PI o	40 TC	40 PI o	46 TC	46 PI o
RP71	12.0	18.0	6.2	1.7	6.1	1.9	5.7	2.1	5.5	2.3	5.2	2.5	4.9	2.8
	14.0	20.0	6.6	1.8	6.5	2.0	6.0	2.2	5.9	2.3	5.5	2.5	5.2	2.8
	16.0	22.0	7.2	1.8	7.0	2.0	6.5	2.2	6.4	2.4	6.0	2.6	5.5	2.9
	18.0	25.0	7.7	1.8	7.5	2.0	7.2	2.3	6.8	2.4	6.4	2.6	6.0	3.0
	19.0	27.0	7.9	1.8	7.7	2.0	7.3	2.3	7.1	2.4	6.6	2.7	6.2	3.0
	22.0	30.0	8.7	1.9	8.5	2.1	8.0	2.4	7.8	2.5	7.4	2.7	6.8	3.0
	24.0	32.0	9.4	1.9	9.2	2.1	8.6	2.4	8.4	2.5	7.9	2.8	7.4	3.1
RP100	12.0	18.0	8.4	2.3	8.3	2.6	8.1	3.0	7.8	3.2	7.5	3.5	6.9	3.8
	14.0	20.0	8.9	2.4	8.8	2.6	8.7	3.0	8.4	3.2	7.8	3.5	7.5	3.8
	16.0	22.0	10.1	2.4	9.8	2.7	9.1	3.1	8.9	3.3	8.5	3.6	7.8	3.9
	18.0	25.0	10.8	2.5	10.5	2.7	9.8	3.1	9.6	3.3	9.0	3.6	8.4	4.0
	19.0	27.0	11.1	2.5	10.8	2.8	10.1	3.2	10.0	3.4	9.4	3.6	8.7	4.1
	22.0	30.0	12.2	2.6	11.8	2.8	11.2	3.3	11.0	3.4	3.7	9.6	4.2	3.0
	24.0	32.0	13.0	2.7	12.7	2.9	11.9	3.4	11.6	3.5	11.1	3.8	10.3	4.3
RP125	12.0	18.0	11.0	3.3	10.7	3.5	10.0	3.9	9.7	4.2	9.2	4.6	8.6	5.3
	14.0	20.0	11.8	3.3	11.4	3.5	10.7	4.0	10.4	4.3	9.8	4.7	9.2	5.4
	16.0	22.0	12.7	3.3	12.1	3.6	11.4	4.0	11.0	4.4	10.4	4.8	9.7	5.4
	18.0	25.0	13.4	3.4	13.0	3.7	12.1	4.1	11.8	4.5	11.1	4.9	10.4	5.4
	19.0	27.0	13.7	3.5	13.4	3.8	12.7	4.2	12.2	4.5	11.5	5.0	10.7	5.5
	22.0	30.0	15.1	3.6	14.6	3.8	13.8	4.3	13.5	4.6	12.9	5.1	12.0	5.6
	24.0	32.0	15.9	3.7	15.5	3.9	14.6	4.4	14.3	4.7	13.7	5.2	12.9	5.7

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SYMBOLS

EWB:	Entering wet bulb temp.	(°CWB)
EDB:	Entering dry bulb temp.	(°CDB)
TC:	Total capacity cooling	(kW)
PI o:	Power input of outdoor unit	(kW)
PI corr1:	Correction factor for Pi depending on voltage of outdoor	(kW)
PI corr2:	Correction factor for Pi depending used indoor units	(kW)
PI:	Total power input	(kW)

PI = PI o + ∑PI corr

e.g. RYP1100B7V1 + FHYBP71B7V1 + FHYP35B7V1

PI = 3.3 + 0.2 + 0.21 = 3.85 kW

Caution:
TC and SHC are shown by kW

NOTES

1. Ratings shown are net capacities which include a deduction for indoor fan motor heat
2. ▭ Shows nominal capacities
3. Direct interpolation is permissible Do not extrapolate.
4. Capacities are based on the following conditions:
   Corresponding refrigerant piping length: 7.5 m
   Level difference: 0 m
5. Add the following correction to the power input for the different outdoor units (PI corr1)

Outdoor model	Power supply V1	Power supply W1
RP71	0.2	0
RP100	0.3	0

6. Add the following correction to the power input for each connected indoor unit (PI corr2)

Indoor model	Indoor types FHYBP	FH(Y)P	FHY(C)P	FHYKP	FAYP	FUYP
35	0.12	0.14	0.14	0.0046		
45	0.16	0.14	0.14	0.0069		
60	0.21	0.14	0.16	0.12		
71	0.21	0.14	0.16	0.12	0.069	0.16

7. For R(W)P125 twin and tripple combination, add the following correction to the total capacity for the following connected indoor units (TC corr 1)

Indoor model	Indoor types FHYKP	FAYP	FUYP
35	0.08	0.08	0.08
45	0.11	0.11	0.11
60	0.14	0.14	0.14
71	0.17	0.17	0.17

4 Capacity tables

Simultaneous operation RP200-250B7W1

Cooling capacity **W1: 400V [50Hz]**

Outdoor	Indoor EWB (°C)	Indoor EDB (°C)	Outdoor temperature (°CDB) 20 TC	20 PI o	25 TC	25 PI o	32 TC	32 PI o	35 TC	35 PI o	40 TC	40 PI o	46 TC	46 PI o
RP200	12.0	18.0	19.8	5.55	19.0	6.00	17.9	6.88	17.4	7.33	16.7	8.11	15.9	9.22
	14.0	20.0	21.1	5.66	20.2	6.11	19.1	6.99	18.6	7.44	18.0	8.22	17.1	9.33
	16.0	22.0	22.6	5.77	21.7	6.22	20.5	7.11	20.0	7.55	19.2	8.33	18.3	9.44
	18.0	25.0	24.1	5.88	23.1	6.33	21.8	7.22	21.4	7.66	20.6	8.55	19.7	9.66
	19.0	27.0	24.7	5.88	23.8	6.44	22.6	7.33	22.0	7.77	21.2	8.55	20.2	9.77
	22.0	30.0	27.2	6.11	26.2	6.66	24.9	7.55	24.3	7.99	23.4	8.88	22.4	9.99
	24.0	32.0	28.9	6.22	27.8	6.77	26.4	7.66	25.9	8.22	25.0	8.99	23.8	10.21
RP250	12.0	18.0	24.7	6.90	23.7	7.61	22.2	8.67	21.7	9.15	20.8	10.21	19.8	11.51
	14.0	20.0	26.4	7.02	25.3	7.73	23.9	8.79	23.3	9.26	22.4	10.33	21.4	11.74
	16.0	22.0	28.2	7.14	27.1	7.85	25.6	8.91	25.0	9.50	24.0	10.44	22.9	11.86
	18.0	25.0	30.0	7.26	28.9	7.97	27.3	9.15	26.7	9.62	25.7	10.68	24.6	12.10
	19.0	27.0	30.9	7.38	29.7	8.08	28.2	9.15	27.5	9.74	26.5	10.80	25.3	12.21
	22.0	30.0	34.0	7.61	32.7	8.32	31.1	9.50	30.4	10.09	29.2	11.03	28.0	12.57
	24.0	32.0	36.1	7.73	34.8	8.44	33.0	9.62	32.4	10.21	31.2	11.27	29.8	12.80

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SYMBOLS

EWB:	Entering wet bulb temp.	(°CWB)
EDB:	Entering dry bulb temp.	(°CDB)
TC:	Total capacity cooling	(kW)
PI o:	Power input of outdoor unit	(kW)
PI corr:	Correction factor for Pi depending used indoor units	(kW)
PI:	Total power input	(kW)

PI = PI o + ∑PI corr

e.g. RYP200B7W1 + FHYP100 + FHYCP100

PI = 7.43 + 0.16 + 0.2 = 7.79 kW

Caution:
TC and SHC are shown by kW

NOTES

1. Ratings shown are net capacities which include a deduction for indoor fan motor heat
2. ▭ Shows nominal capacities
3. Direct interpolation is permissible Do not extrapolate.
4. Capacities are based on the following conditions:
   Corresponding refrigerant piping length: 7.5 m
   Level difference: 0 m
5. Add the following correction to the power input for the different outdoor units (PI corr1)

Indoor model	Indoor types FHYBP	FHYP	FHYCP	FHYKP	FAYP	FDYP	FUYP
35	0.13	0.09	0.14	0.08			
45	0.14	0.09	0.14	0.08			
60	0.17	0.1	0.16	0.105			
71	0.18	0.1	0.16	0.105	0.05		0.14
100	0.22	0.16	0.2		0.06		0.23
125	0.29	0.18	0.24			0.7	0.23

5 Dimensional drawings

See chapter R-GZ7 / RP-B7 for the dimensional drawings of RP71-100-125-200-250B7

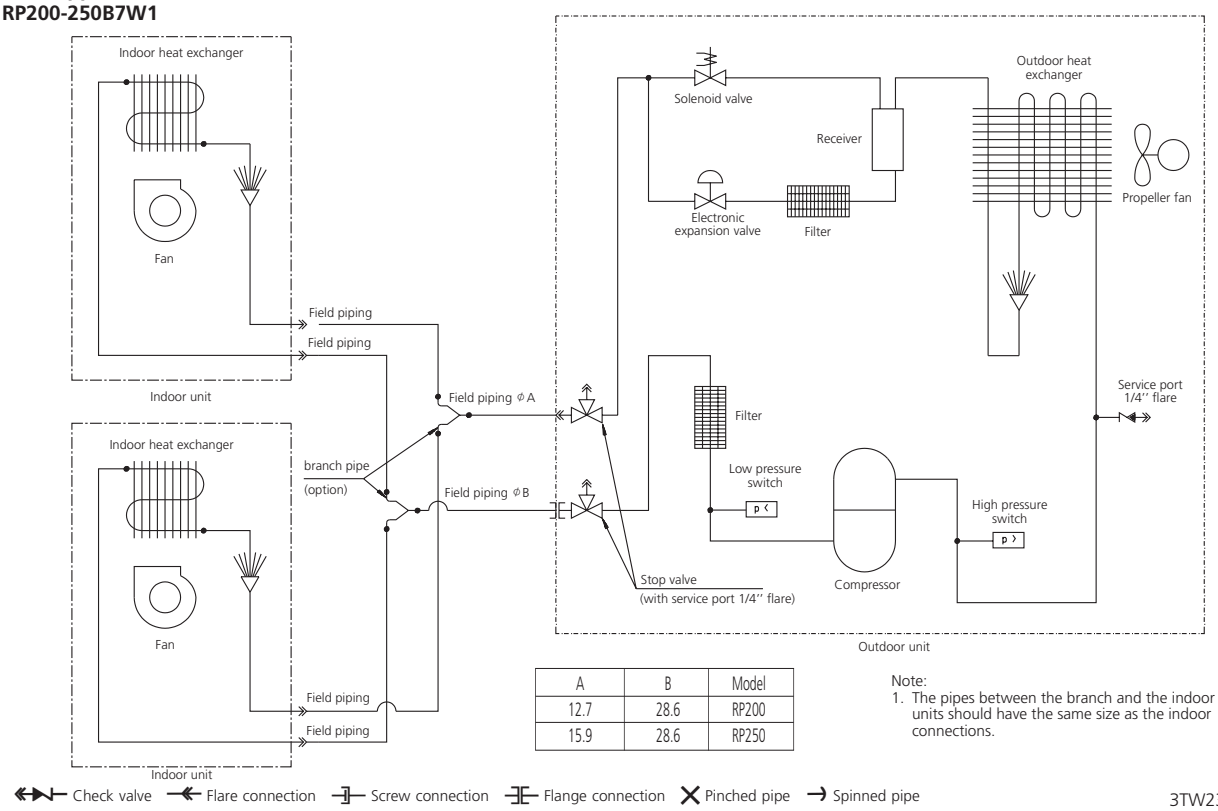
6 Operation range

See chapter R-GZ7 / RP-B7 for the operation range of RP71-100-125-200-250B7

7 Piping diagrams

See chapter R-GZ7 / RP-B7 for the piping diagrams of RP71-100-125-200-250B7

Twin application
RP200-250B7W1



A	B	Model
12.7	28.6	RP200
15.9	28.6	RP250

Note:
1. The pipes between the branch and the indoor units should have the same size as the indoor connections.

Check valve — Flare connection — Screw connection — Flange connection — Pinched pipe — Spinned pipe

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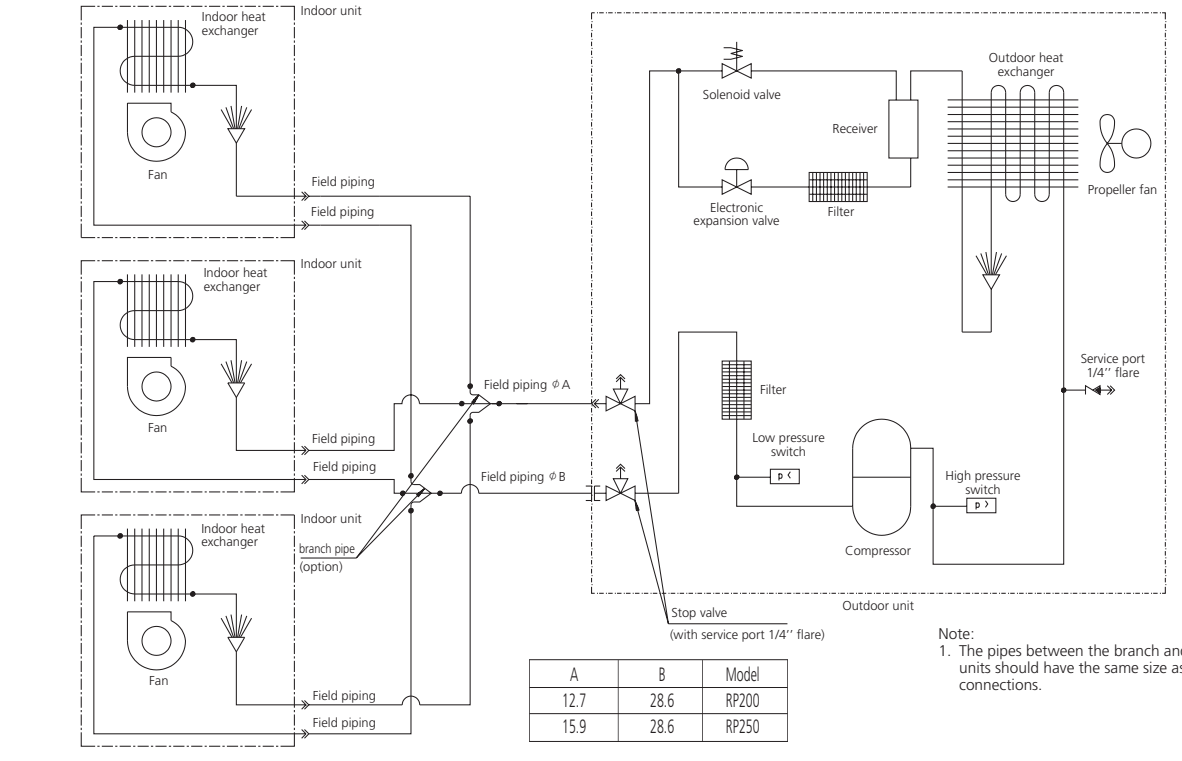
Triple application
RP200-250B7W1



A	B	Model
12.7	28.6	RP200
15.9	28.6	RP250

Note:
1. The pipes between the branch and the indoor units should have the same size as the indoor connections.

Check valve — Flare connection — Screw connection — Flange connection — Pinched pipe — Spinned pipe

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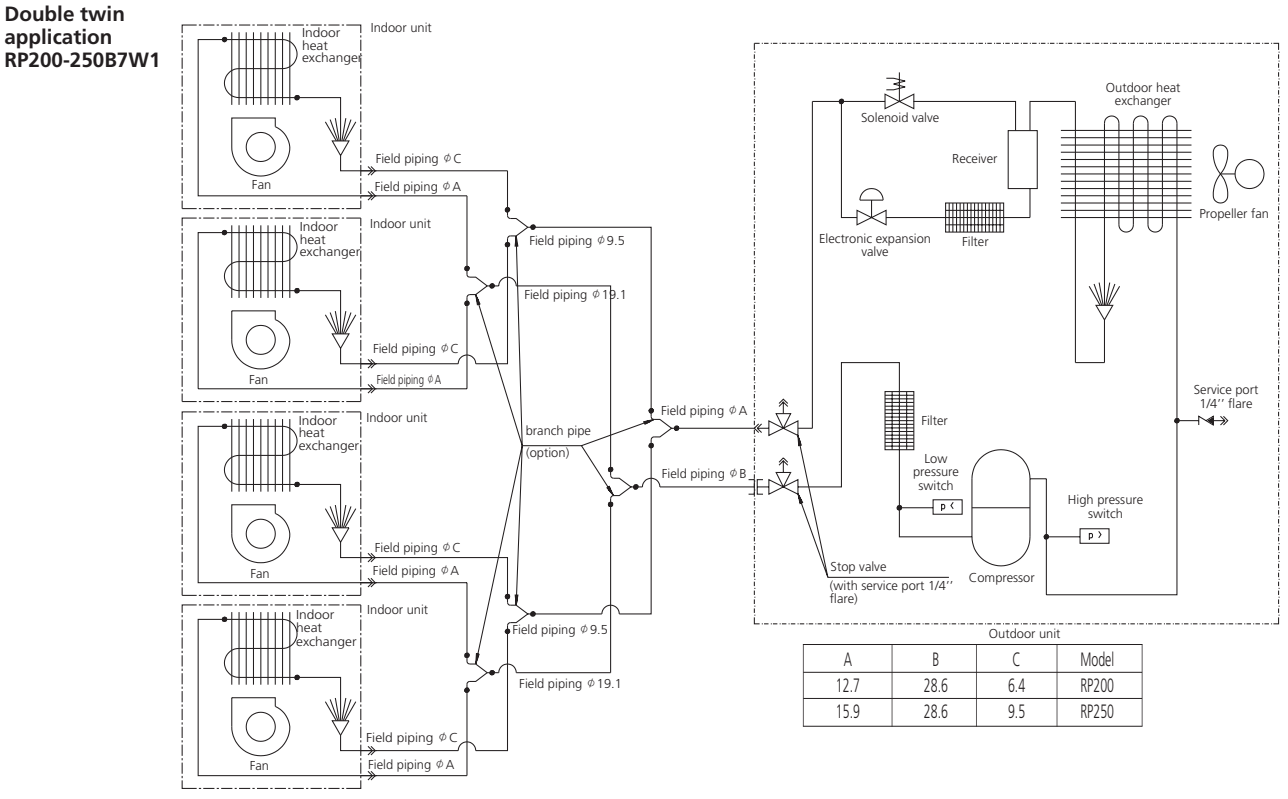
7 Piping diagrams

See chapter R-GZ7 / RP-B7 for the piping diagrams of RP71-100-125-200-250B7

Double twin application RP200-250B7W1



A	B	C	Model
12.7	28.6	6.4	RP200
15.9	28.6	9.5	RP250

8 Wiring diagrams

See chapter R-GZ7 / RP-B7 for the wiring diagrams of RP71-100-125-200-250B7

9 Sound level

See chapter R-GZ7 / RP-B7 for the sound levels of RP71-100-125-200-250 B7

10 Accessories

See chapter R-GZ7 / RP-B7 for the accessories of RP71-100-125-200-250 B7

11 Installation

See chapter R-GZ7 / RP-B7 for the installation of RP71-100-125-200-250B7

12 Safety device settings

See chapter R-GZ7 / RP-B7 for the safety device settings of RP71-100-125-200-250B7