



technical data

RZQ-B7



**Twin/Triple/
Double Twin Application**



air conditioning systems

Split Sky Air

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.



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Specifications are subject to change without prior notice.

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1 Features



1 Outdoor units for twin/triple/double application.

The Sky Air Inverter is developed for use in shops, restaurants and small offices. This innovative Daikin unit provides a more comfortable environment and offers great savings in energy consumption to shop and office owners.

- The use of inverter type outdoor units results in an air conditioning system with a high-energy efficiency and very low sound level.
- An inverter driven compressor allows the capacity to be adjusted precisely to match variations in room and outside temperatures.
- During start up, the room can be cooled down or heated very quickly. Once the temperature in the room has reached its set point, the low power operation commences to save energy.
- 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.
- They are fitted with a swing or scroll compressor, renowned for their low noise and high-energy efficiency.
- A special acryl precoated fin for anti-corrosion treatment on the heat exchanger ensures greater resistance against severe weather conditions.



2 Specifications



2

TECHNICAL SPECIFICATIONS				RZQ71B7V3B	RZQ100B7V3B	RZQ125B7V3B
OUTDOOR UNITS						
DIMENSIONS	Unit	H	mm	770	1,345	1,345
		W	mm	900	900	900
		D	mm	320	320	320
WEIGHT	Unit		kg	61	106	106
COLOUR	Unit	Ivory white				
SOUND LEVEL	Sound pressure (cooling/heating) (1)	nominal	dB(A)	47/49	49/51	50/52
	Sound power (cooling) (2)	nominal	dB(A)	63	65	66
FAN	Air flow rate (cooling/heating)	nominal	m ³ /min	54.5/48.1	103/101	99/100
	Type	Propeller				
	Qty x model			1 x KFD-325-70-8A	2 x KFD-325-70-8A	2 x KFD-325-70-8A
	Qty x motor output	W		1 x 70	2 x 70	2 x 70
HEAT EXCHANGER	Type	φ 8 Hi-XSS				
	Rows x stages x fin pitch		mm	2 x 34 x 2	2 x 60 x 2	2 x 60 x 2
	Face area		m ²	0,648	1,131	1,131
REFRIGERANT CIRCUIT	Refrigerant type	R-410A				
	Refrigerant charge		kg	3.20	4.30	4.30
	Minimum/maximum allowable distance between indoor and outdoor		m	5/50 (equivalent length 70)	5/75 (equivalent length 95)	
	Maximum allowable level difference		m	30		
	Maximum interunit level difference		m	0.5		
COMPRESSOR	Type			Hermetically sealed swing type	Hermetically sealed scroll type	
	Qty x model			1 x 2YC63BXD	1 x JT100FCVD	
	Motor output x No.		W	1,800	2,200	2,200
	Oil type			DAPHNE FVC50K	DAPHNE FVC68D	
	Oil charge volume		ℓ	0.8	1.2	1.2
PIPING CONNECTIONS	liquid x no		mm	φ 9.52 (flare) x 1		
	gas x no		mm	φ 15.9 (flare) x 1		
	drain x no		mm	φ 26.0 (flare) x 3		
SAFETY DEVICES				High pressure switch, fan motor thermal protector, fuse		

ELECTRICAL SPECIFICATIONS				RZQ71B7V3B	RZQ100B7V3B	RZQ125B7V3B
OUTDOOR UNITS						
CURRENT	Nominal running current	cooling/heating	A	*	*	*
	Max. running current	cooling/heating	A	*	*	*
	Starting current	cooling/heating	A	*	*	*
OUTDOOR UNITS				RZQ71B7V3B	RZQ100B7V3B	RZQ125B7V3B
POWER SUPPLY				V3	V3	V3
NOMINAL DISTRIBUTION SYSTEM VOLTAGE	Phase			1~	1~	1~
	Frequency		Hz	50	50	50
	Voltage		V	230	230	230

* Information was not available at time of printing.

NOTES

- The sound pressure level is measured via a microphone at 1m distance from the unit. It is a relative value, depending on the distance and acoustic environment. For measuring conditions: please refer to item 8 of this chapter.
- The sound power level is an absolute value indicating the "power" which a sound source generates.

2 Specifications



2

ELECTRICAL DATA

RZQ71-125B7

Unit combination		Power supply				Comp.		OFM		IFM					
Indoor unit	Outdoor unit	Hz-volts	Voltage range			MSC	RLA	kW	FLA	kW	FLA				
FCQ35B7V1x2	RZQ71B7V3B	50-230	Max. 50Hz-253V Min. 50Hz-207V	MCA	TOCA	MFA	17.7	17.7	20	16.2	16.2	0.07	0.3	0.045x2	0.6x2
FFQ35BV1Bx2	RZQ71B7V3B	50-230		17.7	17.7	20	16.2	16.2	0.07	0.3	0.055x2	0.6x2			
FBQ35B7V1x2	RZQ71B7V3B	50-230		17.5	17.5	20	16.2	16.2	0.07	0.3	0.065x2	0.5x2			
FHQ35B7V1x2	RZQ71B7V3B	50-230		17.7	17.7	20	16.2	16.2	0.07	0.3	0.062x2	0.6x2			
FCQ50B7V1x2	RZQ100B7V3B	50-230	Max. 50Hz-253V Min. 50Hz-207V	21.2	21.2	30	19.4	19.4	0.07+0.07	0.3+0.3	0.045x2	0.6x2			
FCQ35B7V1x3	RZQ100B7V3B	50-230		21.8	21.8	30	19.4	19.4	0.07+0.07	0.3+0.3	0.045x3	0.6x3			
FFQ50BV1Bx2	RZQ100B7V3B	50-230		21.4	21.4	30	19.4	19.4	0.07+0.07	0.3+0.3	0.055x2	0.7x2			
FFQ35BV1Bx3	RZQ100B7V3B	50-230		21.8	21.8	30	19.4	19.4	0.07+0.07	0.3+0.3	0.055x3	0.6x3			
FBQ50B7V1x2	RZQ100B7V3B	50-230		21.4	21.4	30	19.4	19.4	0.07+0.07	0.3+0.3	0.085x2	0.7x2			
FBQ35B7V1x3	RZQ100B7V3B	50-230		21.5	21.5	30	19.4	19.4	0.07+0.07	0.3+0.3	0.065x3	0.5x3			
FHQ50B7V1x2	RZQ100B7V3B	50-230		21.2	21.2	30	19.4	19.4	0.07+0.07	0.3+0.3	0.062x2	0.6x2			
FHQ35B7V1x3	RZQ100B7V3B	50-230		21.8	21.8	30	19.4	19.4	0.07+0.07	0.3+0.3	0.062x3	0.6x3			
FCQ60B7V1x2	RZQ125B7V3B	50-230		Max. 50Hz-253V Min. 50Hz-207V	25.2	25.2	30	23.4	23.4	0.07+0.07	0.3+0.3	0.045x2	0.6x2		
FCQ50B7V1x3	RZQ125B7V3B	50-230			25.8	25.8	30	23.4	23.4	0.07+0.07	0.3+0.3	0.045x3	0.6x3		
FCQ35B7V1x4	RZQ125B7V3B	50-230	26.4		26.4	30	23.4	23.4	0.07+0.07	0.3+0.3	0.045x4	0.6x4			
FFQ60BV1Bx2	RZQ125B7V3B	50-230	25.4		25.4	30	23.4	23.4	0.07+0.07	0.3+0.3	0.055x2	0.7x2			
FFQ50BV1Bx3	RZQ125B7V3B	50-230	26.1		26.1	30	23.4	23.4	0.07+0.07	0.3+0.3	0.055x3	0.7x3			
FFQ35BV1Bx4	RZQ125B7V3B	50-230	26.4		26.4	30	23.4	23.4	0.07+0.07	0.3+0.3	0.055x4	0.6x4			
FBQ60B7V1x2	RZQ125B7V3B	50-230	25.8		25.8	30	23.4	23.4	0.07+0.07	0.3+0.3	0.125x2	0.9x2			
FBQ50B7V1x3	RZQ125B7V3B	50-230	26.1		26.1	30	23.4	23.4	0.07+0.07	0.3+0.3	0.085x3	0.7x3			
FBQ35B7V1x4	RZQ125B7V3B	50-230	26.0		26.0	30	23.4	23.4	0.07+0.07	0.3+0.3	0.065x4	0.5x4			
FHQ60B7V1x2	RZQ125B7V3B	50-230	25.2		25.2	30	23.4	23.4	0.07+0.07	0.3+0.3	0.062x2	0.6x2			
FHQ50B7V1x3	RZQ125B7V3B	50-230	25.8		25.8	30	23.4	23.4	0.07+0.07	0.3+0.3	0.062x3	0.6x3			
FHQ35B7V1x4	RZQ125B7V3B	50-230	26.4		26.4	30	23.4	23.4	0.07+0.07	0.3+0.3	0.062x4	0.6x4			

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SYMBOLS

- MCA : Min. Circuit Amps (A)
- TOCA : Total Over Current Amps (A)
- MFA : Max. Fuse Amps (See note 7) (A)
- MSC : MSC means the max. current during the starting of compressor. (A)
- RLA : Rated Load Amps (A)
- OFM : Outdoor Fan Motor (A)
- IFM : Indoor Fan Motor
- FLA : Full Load Amps
- kW : Fan Motor Rated Output (kW)

NOTES

- 1 RLA is based on the following conditions:
Power supply: 50Hz 230V
Cooling
Indoor temperature 27°CDB/19°CWB
Outdoor temperature 35°CDB
Heating
Indoor temperature 20.0°CDB
Outdoor temperature 7.0°CDB/6.0°CWB
- 2 TOCA means the total value of each OC set
- 3 Voltage range
Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above listed operation range limits
- 4 Maximum allowable voltage unbalance between phases is 2%
- 5 MCA represents maximum input current.
MFA represents capacity which may accept MCA (next lower standard fuse rating, min.15A)
- 6 Select wire size based on the larger value of MCA or TOCA
- 7 MFA is used to select the circuit breaker and the ground fault circuit interrupter (earth leakage circuit breaker)
- 8 For more details concerning conditional connections, see <http://www.daikineurope.com/extranet>, select "Daikin Documentation" and select "conditional connection", "the requested product type" and "English" from the drop down lists, click the search button.
Finally, click on the document title of your choice.

3 Combination table



Possible combinations and standard capacity for twin, triple and double twin application

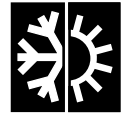
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Outdoor models	Possible indoor combination		
	Simultaneous operation		
	Twin	Triple	Double twin
RZQ71B7V3B	35-35 (KHRQ22M20TA7)		
RZQ100B7V3B	50-50 (KHRQ22M20TA7)	35-35-35 (KHRQ127H7)	
RZQ125B7V3B	60-60 (KHRQ22M20TA7)	50-50-50 (KHRQ127H7)	35-35-35-35 (3x KHRQ22M20TA7)

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NOTES

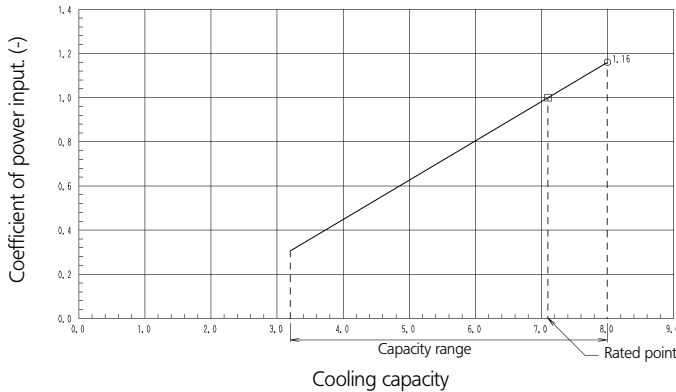
- Possible indoor units: FCQ35-60, FFQ35-60, FHQ35-60, FBQ35-60
- Individual indoor capacities are not given because the combinations are for simultaneous operation (=indoor units installed in same room).
- When different indoor models are used in combination, designate the infrared remote controller 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 FCQ, less functions are on FBQ).
- Between brackets are the required Refnet kits mentioned, that are necessary to install the combination.



4 Capacity tables

4 RZQ71B7V3B (Twin)

Cooling



Cooling capacity

230V [50Hz]

Indoor		Outdoor temp. (°CDB)											
EWB (°C)	EDB (°C)	25			30			35			40		
		TC (kW)	SHC (kW)	CPI (-)	TC (kW)	SHC (kW)	CPI (-)	TC (kW)	SHC (kW)	CPI (-)	TC (kW)	SHC (kW)	CPI (-)
16.0	22	6.47	4.39	0.76	6.46	4.43	0.89	6.66	4.62	0.99	6.39	4.49	1.09
18.0	25	7.43	4.82	0.83	7.20	4.72	0.91	6.95	4.61	1.00	6.67	4.47	1.10
19.0	27	7.58	4.80	0.84	7.35	4.71	0.91	7.10	4.60	1.00	6.82	4.46	1.10
19.5	27	7.66	4.79	0.84	7.43	4.70	0.91	7.17	4.59	1.00	6.89	4.46	1.10
22.0	30	8.05	4.73	0.85	7.81	4.64	0.92	7.55	4.54	1.01	7.26	4.41	1.11
24.0	32	8.37	4.66	0.85	8.12	4.58	0.93	7.85	4.48	1.02	7.55	4.35	1.12

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NOTES

- Ratings shown are net capacities which include a deduction for indoor fan motor heat
- On the figure the mark ○ show the max. at standard conditions.
On the figure the mark □ show rated capacity and rated coefficient of power input.
However the max. capacity is not guaranteed, except at standard condition.
- On the tables □ show rated capacity and rated coefficient of power input.
- SHC is based on each EWB and EDB
SHC* = SHC correction for other dry bulb
SHC* = 0.02 x AFR (m³/min.) x (1-BF) x (DB*-EDB)
Add SHC* to SHC.
- Capacities are based on following conditions:
Outdoor air : 85 % RH. however, the condition on nominal capacity is 7° CDB/6° CWB (heating)
Corresponding refrigerant piping length : 7.5 m
Level difference : 0 m
- Coefficient of power input is the percentage when the rated valve is defined as 1.00.
- The value contains less than 5% error according to indoor unit type.
- Heating capacity include the drop of frost formation.

9. Air flow rate and BF are tabulated below.

Twin

Model	FCQ35x2	FFQ35x2	FBQ35x2	FHQ35x2
AFR	14x2	10x2	11.5x2	13x2
BF	(0.16x2)	(0.25x2)	(0.15x2)	(0.2x2)

10. Rated power input of each model is tabulated below.

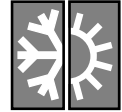
Twin

Model	FCQ35x2	FFQ35x2	FBQ35x2	FHQ35x2
Cooling	2.27	2.29	2.25	2.53
Heating	2.62	2.64	2.43	2.85

SYMBOLS

AFR:	Air flow rate	(m ³ /min)
BF:	Bypass factor	
EWB:	Entering wet bulb temp.	(°CWB)
EDB:	Entering dry bulb temp.	(°CDB)
TC:	Total cooling/heating capacity	(kW)
SHC:	Sensible heating capacity	(kW)
PI:	Power input	(kW)
	(comp.+indoor+outdoor fan motor)	
CPI:	Coefficient of power input.	(-)

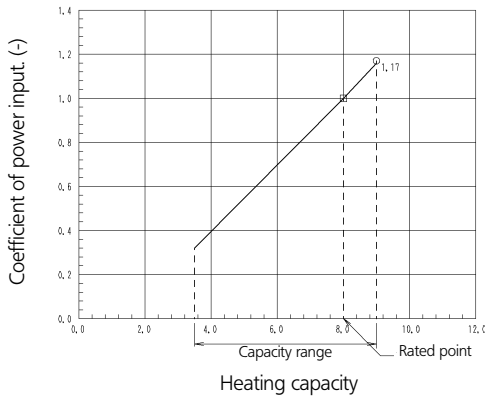
Caution:
TC and SHC are shown by kW



4 Capacity tables

RZQ71B7V3B (Twin)

Heating



Heating capacity

230V [50Hz]

Indoor EDB (°C)	Outdoor temp. (°CWB)											
	-15		-10		-5		0		6		10	
	TC (kW)	CPI (-)	TC (kW)	CPI (-)	TC (kW)	CPI (-)	TC (kW)	CPI (-)	TC (kW)	CPI (-)	TC (kW)	CPI (-)
16.0	5.14	1.06	5.68	1.12	6.22	1.17	6.75	1.23	8.02	0.92	8.64	0.97
18.0	5.14	1.10	5.67	1.16	6.21	1.22	6.74	1.28	8.01	0.96	8.62	1.01
20.0	5.13	1.15	5.67	1.21	6.20	1.27	6.74	1.33	8.00	1.00	8.61	1.05
21.0	5.13	1.17	5.66	1.23	6.20	1.29	6.73	1.35	8.00	1.02	8.61	1.07
22.0	5.12	1.19	5.66	1.25	6.19	1.32	6.73	1.38	7.99	1.04	8.60	1.09
24.0	5.12	1.23	5.65	1.30	6.19	1.36	6.72	1.43	7.98	1.08	8.59	1.13

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NOTES

- Ratings shown are net capacities which include a deduction for indoor fan motor heat
- On the figure the mark ○ show the max. at standard conditions.
On the figure the mark □ show rated capacity and rated coefficient of power input.
However the max. capacity is not guaranteed, except at standard condition.
- On the tables □ show rated capacity and rated coefficient of power input.
- SHC is based on each EWB and EDB
 $SHC^* = SHC \text{ correction for other dry bulb}$
 $SHC^* = 0.02 \times AFR (m^3/min.) \times (1 - BF) \times (DB^* - EDB)$
 Add SHC* to SHC.
- Capacities are based on following conditions:
 Outdoor air : 85 % RH. however, the condition on nominal capacity is 7° CDB/6° CWB (heating)
 Corresponding refrigerant piping length : 7.5 m
 Level difference : 0 m
- Coefficient of power input is the percentage when the rated valve is defined as 1.00.
- The value contains less than 5% error according to indoor unit type.
- Heating capacity include the drop of frost formation.

- Air flow rate and BF are tabulated below.
Twin

Model	FCQ35x2	FFQ35x2	FBQ35x2	FHQ35x2
AFR	14x2	10x2	11.5x2	13x2
(BF)	(0.16x2)	(0.25x2)	(0.15x2)	(0.2x2)

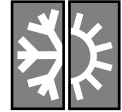
- Rated power input of each model is tabulated below.
Twin

Model	FCQ35x2	FFQ35x2	FBQ35x2	FHQ35x2
Cooling	2.27	2.29	2.25	2.53
Heating	2.62	2.64	2.43	2.85

SYMBOLS

AFR:	Air flow rate	(m ³ /min)
BF:	Bypass factor	
EWB:	Entering wet bulb temp.	(°CWB)
EDB:	Entering dry bulb temp.	(°CDB)
TC:	Total cooling/heating capacity	(kW)
SHC:	Sensible heating capacity	(kW)
PI:	Power input	(kW)
	(comp.+indoor+outdoor fan motor)	
CPI:	Coefficient of power input.	(-)

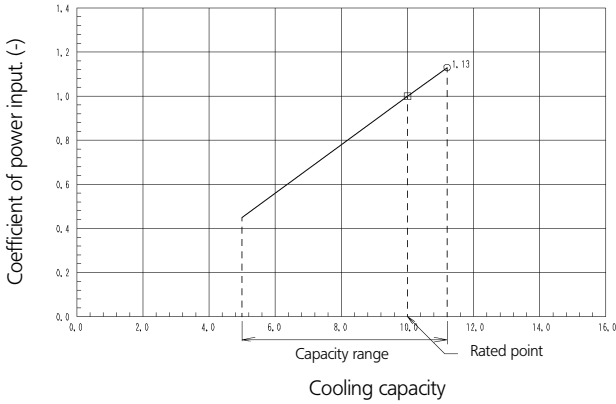
Caution:
TC and SHC are shown by kW



4 Capacity tables

4 RZQ100B7V3B (Twin/triple)

Cooling



Cooling capacity

230V [50Hz]

Indoor		Outdoor temp. (°CDB)											
EWB (°C)	EDB (°C)	25			30			35			40		
		TC (kW)	SHC (kW)	CPI (-)	TC (kW)	SHC (kW)	CPI (-)	TC (kW)	SHC (kW)	CPI (-)	TC (kW)	SHC (kW)	CPI (-)
16.0	22	9.12	6.19	0.76	9.10	6.25	0.89	9.38	6.51	0.99	9.00	6.32	1.09
18.0	25	10.5	6.78	0.83	10.1	6.65	0.91	9.79	6.49	1.00	9.40	6.30	1.10
19.0	27	10.7	6.76	0.84	10.4	6.63	0.91	10.0	6.48	1.00	9.60	6.29	1.10
19.5	27	10.8	6.75	0.84	10.5	6.62	0.91	10.1	6.47	1.00	9.71	6.28	1.10
22.0	30	11.3	6.66	0.85	11.0	6.54	0.92	10.6	6.39	1.01	10.2	6.21	1.11
24.0	32	11.8	6.57	0.85	11.4	6.45	0.93	11.1	6.30	1.02	10.6	6.13	1.12

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NOTES

- Ratings shown are net capacities which include a deduction for indoor fan motor heat
- On the figure the mark ○ show the max. at standard conditions.
On the figure the mark □ show rated capacity and rated coefficient of power input.
However the max. capacity is not guaranteed, except at standard condition.
- On the tables □ show rated capacity and rated coefficient of power input.
- SHC is based on each EWB and EDB
SHC* = SHC correction for other dry bulb
SHC* = 0.02 x AFR (m³/min.) x (1-BF) x (DB*-EDB)
Add SHC* to SHC.
- Capacities are based on following conditions:
Outdoor air : 85 % RH. however, the condition on nominal capacity is 7° CDB/6° CWB (heating)
Corresponding refrigerant piping length : 7.5 m
Level difference : 0 m
- Coefficient of power input is the percentage when the rated valve is defined as 1.00.
- The value contains less than 5% error according to indoor unit type.
- Heating capacity include the drop of frost formation.

9. Air flow rate and BF are tabulated below.

Twin

Model	FCQ50x2	FFQ50x2	FBQ50x2	FHQ50x2
AFR	15x2	12x2	14x2	13x2
(BF)	(0.16x2)	(0.16x2)	(0.15x2)	(0.1x2)

10. Rated power input of each model is tabulated below.

Twin

Model	FCQ50x2	FFQ50x2	FBQ50x2	FHQ50x2
Cooling	2.77	2.79	3.01	3.32
Heating	3.18	3.21	3.35	3.79

SYMBOLS

AFR:	Air flow rate	(m ³ /min)
BF:	Bypass factor	
EWB:	Entering wet bulb temp.	(°CWB)
EDB:	Entering dry bulb temp.	(°CDB)
TC:	Total cooling/heating capacity	(kW)
SHC:	Sensible heating capacity	(kW)
PI:	Power input	(kW)
	(comp.+indoor+outdoor fan motor)	
CPI:	Coefficient of power input.	(-)

Caution:

TC and SHC are shown by kW

Triple

Model	FCQ35x3	FFQ35x3	FBQ35x3	FHQ35x3
AFR	14x3	10x3	11.5x3	13x3
(BF)	(0.16x3)	(0.25x3)	(0.15x3)	(0.2x3)

Triple

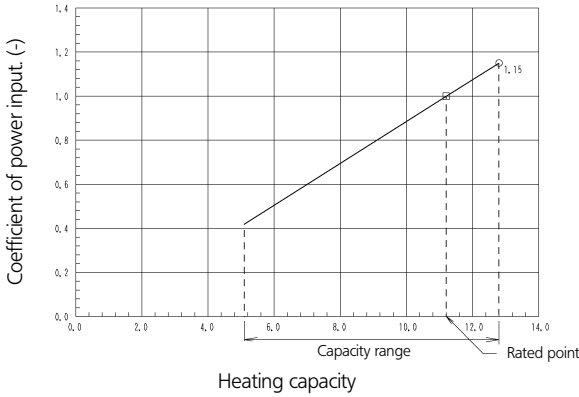
Model	FCQ35x3	FFQ35x3	FBQ35x3	FHQ35x3
Cooling	2.77	2.79	3.01	3.32
Heating	3.18	3.21	3.35	3.79



4 Capacity tables

RZQ100B7V3B (Twin/triple)

Heating



Heating capacity

230V [50Hz]

Indoor EDB (°C)	Outdoor temp. (°CWB)											
	-15		-10		-5		0		6		10	
	TC (kW)	CPI (-)	TC (kW)	CPI (-)	TC (kW)	CPI (-)	TC (kW)	CPI (-)	TC (kW)	CPI (-)	TC (kW)	CPI (-)
16.0	7.16	1.01	7.91	1.07	8.66	1.12	9.41	1.17	11.2	0.92	12.1	0.97
18.0	7.15	1.05	7.90	1.11	8.65	1.16	9.39	1.22	11.2	0.96	12.1	1.01
20.0	7.15	1.09	7.89	1.15	8.64	1.21	9.38	1.27	11.2	1.00	12.1	1.05
21.0	7.14	1.12	7.89	1.17	8.63	1.23	9.38	1.29	11.2	1.02	12.1	1.07
22.0	7.14	1.14	7.88	1.20	8.63	1.26	9.37	1.32	11.2	1.04	12.0	1.09
24.0	7.13	1.18	7.87	1.24	8.62	1.30	9.36	1.36	11.2	1.08	12.0	1.13

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NOTES

- Ratings shown are net capacities which include a deduction for indoor fan motor heat
- On the figure the mark ○ show the max. at standard conditions.
On the figure the mark □ show rated capacity and rated coefficient of power input.
However the max. capacity is not guaranteed, except at standard condition.
- On the tables □ show rated capacity and rated coefficient of power input.
- SHC is based on each EWB and EDB
SHC* = SHC correction for other dry bulb
SHC* = 0.02 x AFR (m³/min.) x (1-BF) x (DB*-EDB)
Add SHC* to SHC.
- Capacities are based on following conditions:
Outdoor air : 85 % RH. however, the condition on nominal capacity is 7° CDB/6° CWB (heating)
Corresponding refrigerant piping length : 7.5 m
Level difference : 0 m
- Coefficient of power input is the percentage when the rated valve is defined as 1.00.
- The value contains less than 5% error according to indoor unit type.
- Heating capacity include the drop of frost formation.

SYMBOLS

AFR:	Air flow rate	(m ³ /min)
BF:	Bypass factor	
EWB:	Entering wet bulb temp.	(°CWB)
EDB:	Entering dry bulb temp.	(°CDB)
TC:	Total cooling/heating capacity	(kW)
SHC:	Sensible heating capacity	(kW)
PI:	Power input (comp.+indoor+outdoor fan motor)	(kW)
CPI:	Coefficient of power input.	(-)

Caution:
TC and SHC are shown by kW

9. Air flow rate and BF are tabulated below.

Twin

Model	FCQ50x2	FFQ50x2	FBQ50x2	FHQ50x2
AFR	15x2	12x2	14x2	13x2
(BF)	(0.16x2)	(0.16x2)	(0.15x2)	(0.1x2)

Triple

Model	FCQ35x3	FFQ35x3	FBQ35x3	FHQ35x3
AFR	14x3	10x3	11.5x3	13x3
(BF)	(0.16x3)	(0.25x3)	(0.15x3)	(0.2x3)

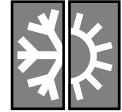
10. Rated power input of each model is tabulated below.

Twin

Model	FCQ50x2	FFQ50x2	FBQ50x2	FHQ50x2
Cooling	2.77	2.79	3.01	3.32
Heating	3.18	3.21	3.35	3.79

Triple

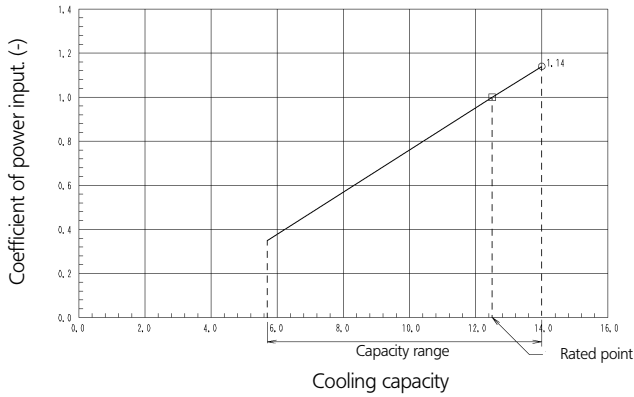
Model	FCQ35x3	FFQ35x3	FBQ35x3	FHQ35x3
Cooling	2.77	2.79	3.01	3.32
Heating	3.18	3.21	3.35	3.79



4 Capacity tables

4 RZQ125B7V3B (Twin / triple / double twin)

Cooling



Cooling capacity

230V [50Hz]

Indoor		Outdoor temp. (°CDB)											
EWB (°C)	EDB (°C)	25			30			35			40		
		TC (kW)	SHC (kW)	CPI (-)	TC (kW)	SHC (kW)	CPI (-)	TC (kW)	SHC (kW)	CPI (-)	TC (kW)	SHC (kW)	CPI (-)
16.0	22	11.4	7.73	0.76	11.4	7.81	0.89	11.7	8.14	0.99	11.3	7.90	1.09
18.0	25	13.1	8.48	0.83	12.7	8.32	0.91	12.2	8.12	1.00	11.8	7.88	1.10
19.0	27	13.3	8.45	0.84	12.9	8.29	0.91	12.5	8.09	1.00	12.0	7.86	1.10
19.5	27	13.5	8.44	0.84	13.1	8.28	0.91	12.6	8.08	1.00	12.1	7.85	1.10
22.0	30	14.2	8.33	0.85	13.8	8.18	0.92	13.3	7.99	1.01	12.8	7.76	1.11
24.0	32	14.7	8.21	0.85	14.3	8.06	0.93	13.8	7.88	1.02	13.3	7.67	1.12

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NOTES

- Ratings shown are net capacities which include a deduction for indoor fan motor heat
- On the figure the mark ○ show the max. at standard conditions.
On the figure the mark □ show rated capacity and rated coefficient of power input.
However the max. capacity is not guaranteed, except at standard condition.
- On the tables □ show rated capacity and rated coefficient of power input.
- SHC is based on each EWB and EDB
SHC* = SHC correction for other dry bulb
SHC* = 0.02 x AFR (m³/min.) x (1-BF) x (DB*-EDB)
Add SHC* to SHC.
- Capacities are based on following conditions:
Outdoor air : 85 % RH. however, the condition on nominal capacity is 7° CDB/6° CWB (heating)
Corresponding refrigerant piping length : 7.5 m
Level difference : 0 m
- Coefficient of power input is the percentage when the rated valve is defined as 1.00.
- The value contains less than 5% error according to indoor unit type.
- Heating capacity include the drop of frost formation.

SYMBOLS

AFR:	Air flow rate	(m ³ /min)
BF:	Bypass factor	
EWB:	Entering wet bulb temp.	(°CWB)
EDB:	Entering dry bulb temp.	(°CDB)
TC:	Total cooling/heating capacity	(kW)
SHC:	Sensible heating capacity	(kW)
PI:	Power input	(kW)
	(comp.+indoor+outdoor fan motor)	
CPI:	Coefficient of power input.	(-)

Caution:
TC and SHC are shown by kW

9. Air flow rate and BF are tabulated below.

Twin

Model	FCQ60x2	FFQ60x2	FBQ60x2	FHQ60x2
AFR	18x2	15x2	19x2	17x2
(BF)	(0.1x2)	(0.11x2)	(0.11x2)	(0.2x2)

Triple

Model	FCQ50x3	FFQ50x3	FBQ35x3	FHQ50x3
AFR	15x3	12x3	14x3	13x3
(BF)	(0.16x3)	(0.16x3)	(0.15x3)	(0.1x3)

Double twin

Model	FCQ35x4	FFQ35x4	FBQ35x4	FHQ35x4
AFR	14x4	10x4	11.5x4	13x4
(BF)	(0.16x4)	(0.25x4)	(0.15x4)	(0.2x4)

10. Rated power input of each model is tabulated below.

Twin

Model	FCQ60x2	FFQ60x2	FBQ60x2	FHQ60x2
Cooling	4.09	4.13	4.19	4.45
Heating	4.22	4.26	4.20	4.74

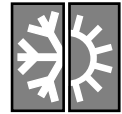
Triple

Model	FCQ50x3	FFQ50x3	FBQ50x3	FHQ50x3
Cooling	4.09	4.13	4.19	4.45
Heating	4.22	4.26	4.20	4.74

Double twin

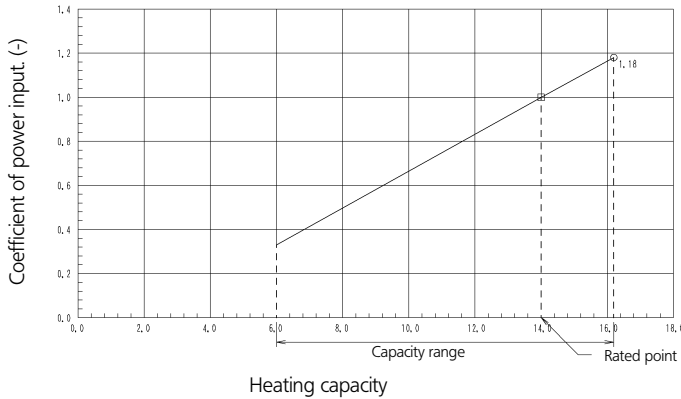
Model	FCQ35x4	FFQ35x4	FBQ35x4	FHQ35x4
Cooling	4.09	4.13	4.19	4.45
Heating	4.22	4.26	4.20	4.74

4 Capacity tables



RZQ125B7V3B (Twin / triple / double twin)

Heating



Heating capacity

230V [50Hz]

Indoor EDB (°C)	Outdoor temp. (°CWB)											
	-15		-10		-5		0		6		10	
	TC (kW)	CPI (-)	TC (kW)	CPI (-)	TC (kW)	CPI (-)	TC (kW)	CPI (-)	TC (kW)	CPI (-)	TC (kW)	CPI (-)
16.0	8.83	1.05	9.80	1.11	10.7	1.16	11.6	1.22	14.0	0.92	15.1	0.97
18.0	8.82	1.10	9.70	1.15	10.7	1.21	11.6	1.27	14.0	0.96	15.1	1.01
20.0	8.81	1.14	9.70	1.20	10.7	1.26	11.6	1.32	14.0	1.00	15.1	1.05
21.0	8.81	1.16	9.70	1.22	10.6	1.28	11.6	1.34	14.0	1.02	15.1	1.07
22.0	8.80	1.18	9.70	1.24	10.6	1.31	11.6	1.37	14.0	1.04	15.1	1.09
24.0	8.79	1.22	9.70	1.29	10.6	1.35	11.5	1.42	14.0	1.08	15.0	1.13

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NOTES

- Ratings shown are net capacities which include a deduction for indoor fan motor heat
- On the figure the mark ○ show the max. at standard conditions.
On the figure the mark □ show rated capacity and rated coefficient of power input.
However the max. capacity is not guaranteed, except at standard condition.
- On the tables □ show rated capacity and rated coefficient of power input.
- SHC is based on each EWB and EDB
SHC* = SHC correction for other dry bulb
SHC* = 0.02 x AFR (m³/min.) x (1-BF) x (DB*-EDB)
Add SHC* to SHC.
- Capacities are based on following conditions:
Outdoor air : 85 % RH. however, the condition on nominal capacity is 7° CDB/6° CWB (heating)
Corresponding refrigerant piping length : 7.5 m
Level difference : 0 m
- Coefficient of power input is the percentage when the rated valve is defined as 1.00.
- The value contains less than 5% error according to indoor unit type.
- Heating capacity include the drop of frost formation.

SYMBOLS

- AFR: Air flow rate (m³/min)
- BF: Bypass factor
- EWB: Entering wet bulb temp. (°CWB)
- EDB: Entering dry bulb temp. (°CDB)
- TC: Total cooling/heating capacity (kW)
- SHC: Sensible heating capacity (kW)
- PI: Power input (comp.+indoor+outdoor fan motor) (kW)
- CPI: Coefficient of power input (-)

Caution:
TC and SHC are shown by kW

- Air flow rate and BF are tabulated below.

Twin

Model	FCQ60x2	FFQ60x2	FBQ60x2	FHQ60x2
AFR (BF)	18x2 (0.1x2)	15x2 (0.11x2)	19x2 (0.11x2)	17x2 (0.2x2)

Triple

Model	FCQ50x3	FFQ50x3	FBQ35x3	FHQ50x3
AFR (BF)	15x3 (0.16x3)	12x3 (0.16x3)	14x3 (0.15x3)	13x3 (0.1x3)

Double twin

Model	FCQ35x4	FFQ35x4	FBQ35x4	FHQ35x4
AFR (BF)	14x4 (0.16x4)	10x4 (0.25x4)	11.5x4 (0.15x4)	13x4 (0.2x4)

- Rated power input of each model is tabulated below.

Twin

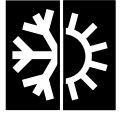
Model	FCQ60x2	FFQ60x2	FBQ60x2	FHQ60x2
Cooling	4.09	4.13	4.19	4.45
Heating	4.22	4.26	4.20	4.74

Triple

Model	FCQ50x3	FFQ50x3	FBQ50x3	FHQ50x3
Cooling	4.09	4.13	4.19	4.45
Heating	4.22	4.26	4.20	4.74

Double twin

Model	FCQ35x4	FFQ35x4	FBQ35x4	FHQ35x4
Cooling	4.09	4.13	4.19	4.45
Heating	4.22	4.26	4.20	4.74



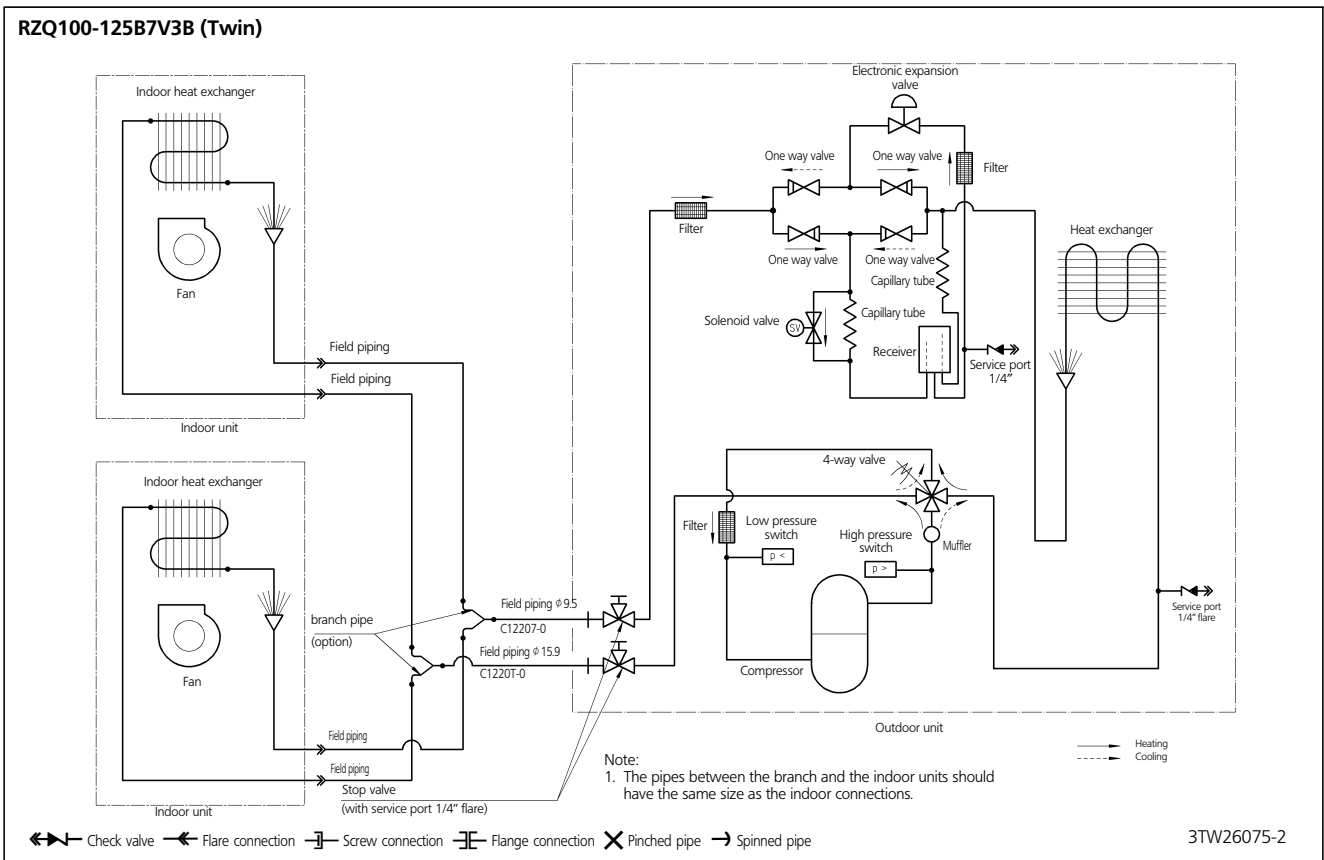
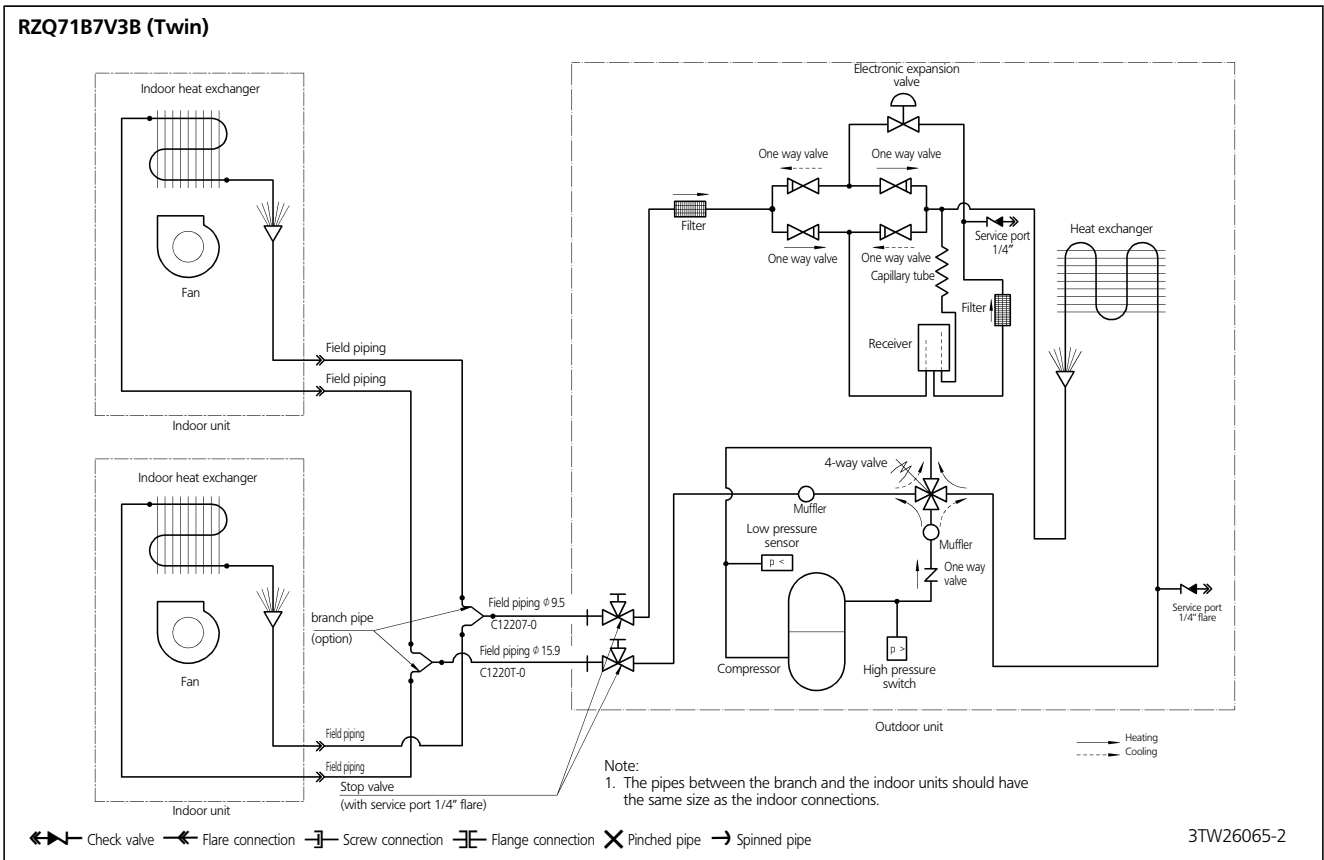
5 Dimensional drawings

See chapter RZQ-B7 (pair application) for the dimensional drawings of RZQ71-100-125B7

5 6 Operation range

See chapter RZQ-B7 (pair application) for the operation range of RZQ71-100-125B7

7 Piping diagrams

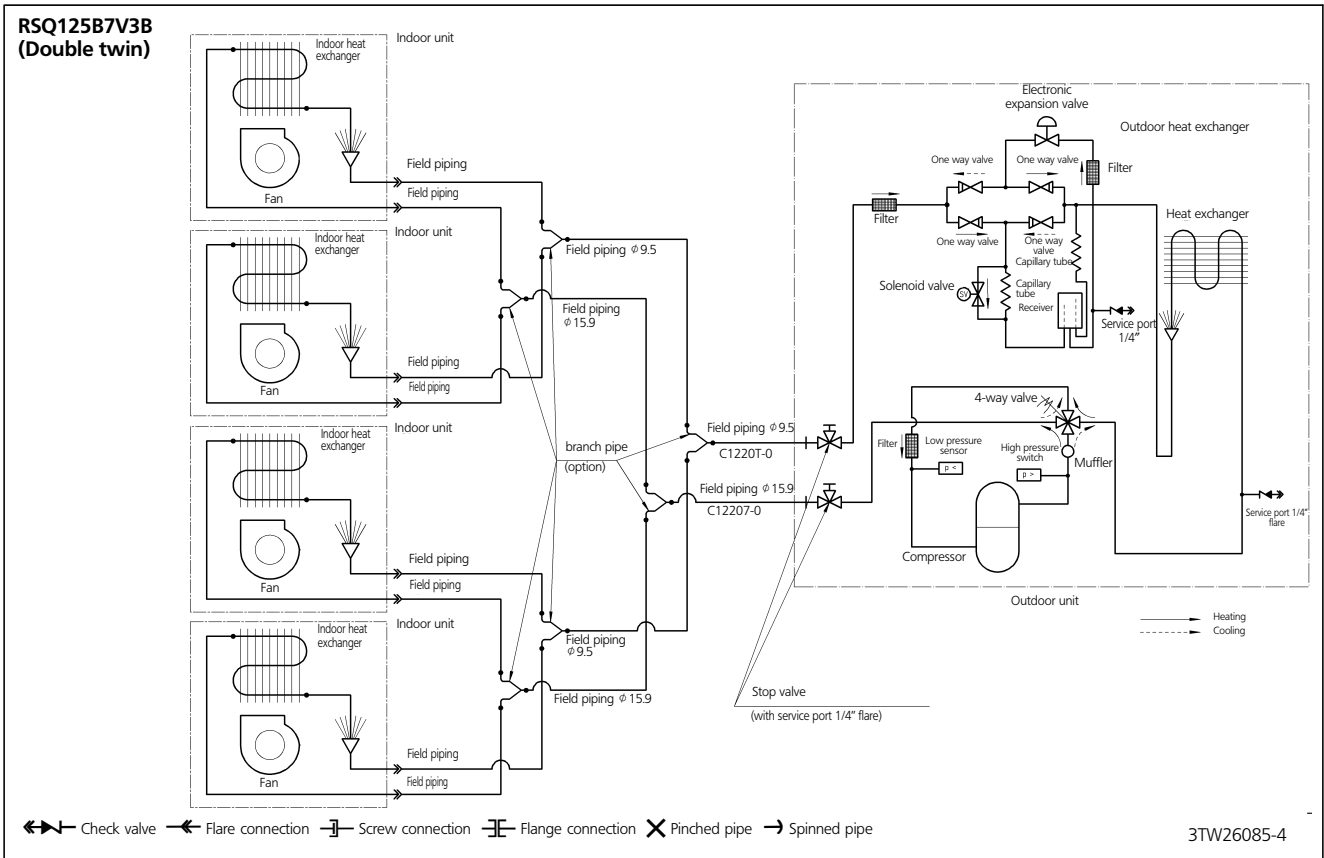
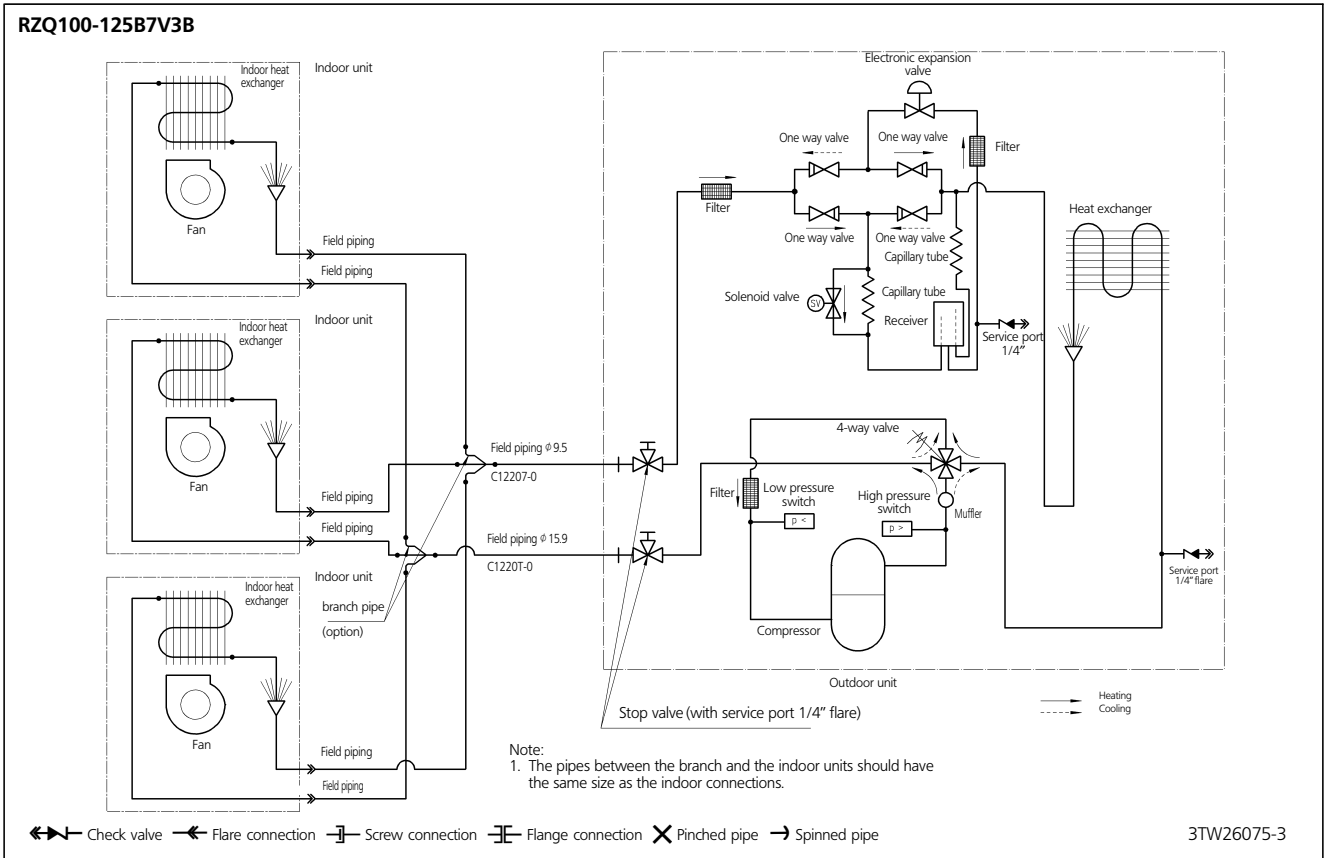


7 Piping diagrams

See chapter RZQ-B7 (pair application) for the dimensional drawings of RZQ71-100-125B7



7





8 Wiring diagrams

See chapter RZQ-B7 (pair application) for the wiring diagrams of RZQ71-100-125B7

9 Sound level

See chapter RZQ-B7 (pair application) for the sound levels of RZQ71-100-125B7

10 Accessories

See chapter RZQ-B7 (pair application) for the accessories of RZQ71-100-125B7

11 Center of gravity

See chapter RZQ-B7 (pair application) for the centre of gravity of RZQ71-100-125B7

12 Safety device settings

See chapter RZQ-B7 (pair application) for the safety device settings of RZQ71-100-125B7

9 Installation



9 RZQ71~125B7V3B

A. Non stacked installation

Legend

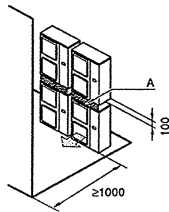
	←	→	↖	↗	A	B1	B2	C	D1	D2	E	L1/L2	
	✓					≥500(100)							
	✓		✓	✓		≥100	≥100		≥100				
	✓				✓	≥100				≤500	≥1000		
	✓		✓	✓	✓	≥150	≥150		≥150	≤500	≥1000		
		✓								≥500			
			✓							≥500		≥1000	
	✓	✓				L1<L2	≥500(100)			≥500			
					✓	L2<L1	≥500(100)			≥500			
					✓	L1<L2	L1≤H	≥150(250)	≤500		≥750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

- ← Suction side obstacle
- Discharge side obstacle
- ↖ Left side obstacle
- ↗ Right side obstacle
- ⬆ Top side obstacle
- ✓ Obstacle is present

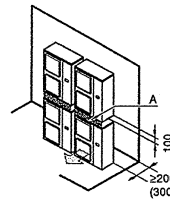
- 1** In these cases, close the bottom of the installation frame to prevent discharged air from being bypassed.
- 2** In these cases, only 2 units can be installed.
- This situation is not allowed for L-series.

B. Stacked installation

1. Obstacles exist in front of the outlet side



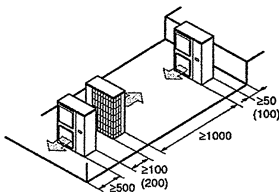
2. Obstacles exist in front of the air inlet



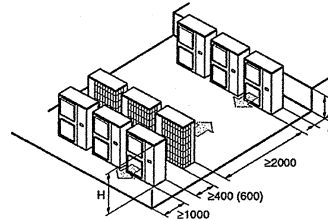
Do not stack more than one unit.
About 100mm is required as the dimension for laying the upper outdoor unit's drain pipe.
Get the portion A sealed so that air from the outlet does not bypass.

C. Multiple-row installation

1. Installation of one unit per row



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



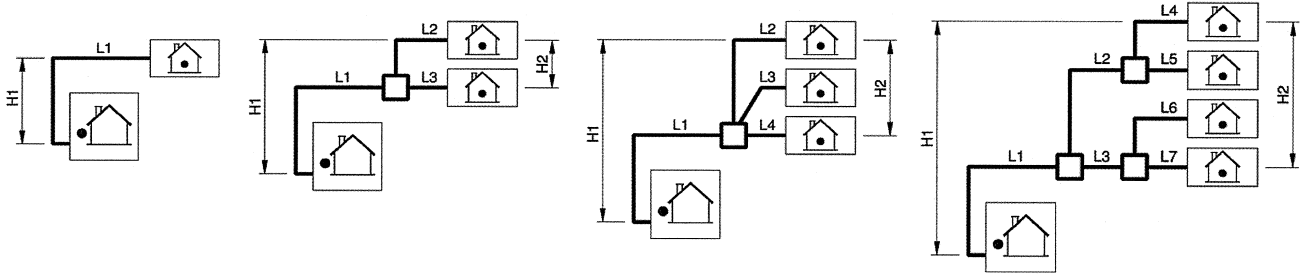
Relation of dimensions of H, A, and L are shown in the table below.

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

9 Installation



RZQ71~125B7V3B



Refrigerant pipe size

- Pair system (See figure 1)
- Simultaneous operation system (twin: see figure 2, triple: see figure 3, double twin: see figure 4)

Refrigerant pipe size (*)			
Gas pipe			
Model	size-down	standard	size-up
RZQ71	φ 12.7	φ 15.9	-
RZQ100+125	-		φ 12.7
Liquid pipe			
Model	size-down	standard	size-up
RZQ71~125	φ 6.4	φ 9.5	φ 12.7

* In case of twin and double twin applications, the listed refrigerant pipe sizes relate to the main pipes only. (L1 = the pipes between the outdoor unit and the branch in figures 2-4).

NOTE

Not using the standard pipe size may result in capacity decrease. It is up to the installer to judge on this phenomena carefully in function of the complete installation.

The pipes between the outdoor unit and the branch (L1) should have the same size as the outdoor connections. The pipes between the branch and the indoor units (L2-L5) should have the same size as the indoor connections. Branch: see marking "□" on figures 2, 3 and 4.

Allowable pipe length and height difference

See the table below concerning lengths and heights. Refer to figures 1, 2, 3 and 4. Assume that the longest line in the figure corresponds with the actual longest pipe, and the highest unit in the figure corresponds with the actual highest unit.

Allowable pipe length					
		Liquid pipe	Model RZQ		
			71	100	125
Maximum allowable piping length (*)					
Pair	L1	size-down	10 m (15 m)		
		standard	50 m (70 m)	75 m (95 m)	75 m (95 m)
		size-up	25 m (35 m)	35 m (45 m)	35 m (45 m)
• Twin - Triple • Double twin	• L1+L2 • L1+L2+L4	size-down	10 m (15 m)		
		standard	50 m (70 m)	75 m (95 m)	75 m (95 m)
		size-up	25 m (35 m)	35 m (45 m)	35 m (45 m)
Maximum total one-way piping length					
Twin	L1+L2+L3	-	60 m	75 m	75 m
Triple	L1+L2+L3+L4		-		
Double twin	L1+L2+L3+L4+L5+L6+L7		-	-	
Maximum branch piping length					
• Twin - Triple • Double twin	• L2 • L2+L4	-	20 m		
Maximum difference between branch lengths					
Twin	L2-L3	-	10 m	10 m	10 m
Triple	L2-L4		-		
Double twin	• L2-L3 • L4-L5 • L6-L7 • (L2+L4)-(L3+L7)		-	-	
Maximum height between indoor and outdoor					
All	H1	-	30 m		
Maximum height between indoors					
Twin, triple and double twin	H2	-	0.5 m		
Chargeless length					
All	L1+L2+L3+L4+L5+L6+L7	size-down	≥10 m		
		standard	≥30 m		
		size-up	≥15 m		

* Parenthesized figure represents the equivalent length.

9 Installation



9 Existing or pre-installed piping can be used

1. Piping must comply with the criteria below.
 - Pipe diameter must comply with the limitations as indicated in paragraph "Refrigerant pipe size".
 - Piping length must be within limits of the allowable piping length as in paragraph "Allowable pipe length and height difference".
 - Piping must be designed for R-410A. See paragraph "Selection of piping material".
2. Piping can be reused without cleaning when:
 - Total 1-way piping length: <50m.
 - No compressor breakdown has occurred in the history of the unit to be replaced.
 - A correct pump down operation can be executed:
 - Operate the unit continuously for 30 minutes in cooling mode.
 - Execute a pump down operation.
 - Remove the air-conditioning units to be replaced.
 - Check the contamination inside the existing piping.
If you cannot meet all these requirements, the existing pipes must be cleaned after removing the air-conditioning units to be replaced.
3. Prepare the flare connections for higher pressure.

Total charging weight of the refrigerant (after a leak, etc.)

The total charging amounts relate to the refrigerant piping length as in "Maximum allowable piping length" of the table in paragraph "Allowable pipe length and height difference" (E.G. twin: L1 = L2).

Total charging amount <unit: kg>

Refrigerant piping length									
Model	Liquid pipe size	3~5(*)m	5~10m	10~20m	20~30m	30~40m	40~50m	50~60m	60~75m
RZQ71	size-down	2.2	2.2	-					
	standard	2.2	2.2	2.7	3.2	3.7	4.2	-	
RZQ100+125	size-down	3.3	3.3	-					
	standard	3.3	3.3	3.8	4.3	4.8	5.3	5.8	6.3

Refrigerant piping length								
Model	Liquid pipe size	3~5(*)m	5~10m	10~15m	15~20m	20~25m	25~30m	30~35m
RZQ71	size-up	2.	2.7	3.2	3.7	4.2	-	
RZQ100+125		3.8	3.8	4.3	4.8	5.3	5.8	6.3

* When piping length is less than 5m, a complete recharging of the unit is required. Charge the unit with the refrigerant charge as indicated.