

technical data

RZQ100-125-140B8W1B

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.



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.



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1 Features

- Outdoor units for pair, twin, triple, double twin 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 starts to save energy.
- 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 either a swing or scroll compressor, renowned for 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

2-1 NOMINAL CAPACITY AND NOMINAL INPUT				RZQ100B8W1B	RZQ125B8W1B	RZQ140B8W1B
For combination indoor units + outdoor units	Indoor Units			FCQ100C7VEB	FCQ125C7VEB	FCQ140C7VEB
Cooling capacity	Standard	kW		10.0	12.50	14.00
Heating capacity	Standard	kW		11.20	14.00	16.00
Power Input	Cooling	Standard	kW	2.640	3.880	5.36
	Heating	Standard	kW	3.140	4.360	5.69
For combination indoor units + outdoor units	EER	Nominal		3.79	3.22	2.61
	COP	Nominal		3.57	3.21	2.81
	Energy Label	Cooling		A	A	D
		Heating		B	C	D
	Annual energy consumption		kWh	1320	1940	2680
	Indoor Units			FBQ100B8V3B	FBQ125B8V3B	FBQ140B8V3B
Cooling capacity	Standard	kW		10.00	12.50	13.40
Heating capacity	Standard	kW		11.20	14.00	15.50
Power Input	Cooling	Standard	kW	2.860	3.980	4.76
	Heating	Standard	kW	3.000	3.990	4.82
For combination indoor units + outdoor units	EER	Nominal		3.50	3.14	2.82
	COP	Nominal		3.73	3.51	3.21
	Energy Label	Cooling		A	B	C
		Heating		A	B	C
	Annual energy consumption		kWh	1430	1990	2380
	Indoor Units			FHQ100B8V1B	FHQ125B8V1B	FHQ140C7VEB
Cooling capacity	Standard	kW		10.00	12.50	14.00
Heating capacity	Standard	kW		11.20	14.00	16.00
Power Input	Cooling	Standard	kW	3.150	4.450	4.650
	Heating	Standard	kW	3.600	4.500	4.520
For combination indoor units + outdoor units	EER	Nominal		3.17	2.81	3.01
	COP	Nominal		3.11	3.11	3.54
	Energy Label	Cooling		B	C	B
		Heating		D	D	B
	Annual energy consumption		kWh	1575	2225	2325
	Indoor Units			FUQ100B8V1B	FUQ125B8V1B	
Cooling capacity	Standard	kW		10.00	12.50	
Heating capacity	Standard	kW		11.20	14.00	
Power Input	Cooling	Standard	kW	3.120	4.050	
	Heating	Standard	kW	3.280	4.360	
For combination indoor units + outdoor units	EER	Nominal		3.21	3.09	
	COP	Nominal		3.41	3.21	
	Energy Label	Cooling		A	B	
		Heating		B	C	
	Annual energy consumption		kWh	1560	2025	
	Indoor Units			FAQ100B8V1B	FDQ125B8V3B	
Cooling capacity	Standard	kW		10.00	12.50	
Heating capacity	Standard	kW		11.20	14.00	
Power Input	Cooling	Standard	kW	2.780	4.150	
	Heating	Standard	kW	3.390	3.690	

2 Specifications

2-1 NOMINAL CAPACITY AND NOMINAL INPUT				RZQ100B8W1B	RZQ125B8W1B	RZQ140B8W1B
For combination indoor units + outdoor units	EER	Nominal		3.60	3.01	
	COP	Nominal		3.30	3.79	
	Energy Label	Cooling		A	B	
		Heating		C	A	
	Annual energy consumption		kWh	1390	2075	
	Indoor Units			FCQH100C7VEB	FCQH125C7VEB	
Cooling capacity	Standard	kW		10.00	12.50	
Heating capacity	Standard	kW		11.20	14.00	
Power Input	Cooling	Standard	kW	2.440	3.540	
	Heating	Standard	kW	2.560	3.590	
For combination indoor units + outdoor units	EER	Nominal		4.10	3.53	
	COP	Nominal		4.38	3.90	
	Energy Label	Cooling		A	A	
		Heating		A	A	
	Annual energy consumption		kWh	1220	1770	

2-2 TECHNICAL SPECIFICATIONS				RZQ100B8W1B	RZQ125B8W1B	RZQ140B8W1B
Casing	Colour			Ivory White		
	Material			Painted galvanised steel		
Dimensions	Unit	Height	mm	1345	1345	1345
		Width	mm	900	900	900
		Depth	mm	320	320	320
	Packing	Height	mm	1524	1524	1524
		Width	mm	980	980	980
		Depth	mm	420	420	420
Weight	Unit		kg	106	106	106
	Packed Unit		kg	112	112	112
Heat Exchanger	Dimensions	Length	mm	857	857	857
		Nr of Rows		2	2	2
		Fin Pitch	mm	1.40	1.40	1.40
		Nr of Passes		5	5	5
		Face Area	m²	1.131	1.131	1.131
		Nr of Stages		60	60	60
	Tube type			Hi-XSS(8)		
	Fin	Type		WF fin		
Treatment		Anti-corrosion treatment (PE)				
Fan	Type			Propeller		
	Discharge direction			Horizontal		
	Quantity			2	2	2
	Air Flow Rate (nominal at 230V)	Cooling	m³/min	103.0	99.0	99.0
		Heating	m³/min	101.0	100.0	100.0
	Motor	Quantity		2	2	2
		Model		KFD-325-70-8A		
Motor	Speed (nominal)	Steps		8	8	8
		Cooling	rpm	789	782	782
		Heating	rpm	775	767	767
Fan	Motor	Output	W	70	70	70
Compressor	Quantity			1	1	1
	Motor	Model		JT1G-VDYR@T		
		Type		Hermetically sealed scroll compressor		
		Motor Output	W	2200	2200	2200
		Crankcase Heater	W	33	33	33

2 Specifications

2-2 TECHNICAL SPECIFICATIONS				RZQ100B8W1B	RZQ125B8W1B	RZQ140B8W1B
Operation Range	Cooling	Min	°CDB	-15.0	-15.0	-15.0
		Max	°CDB	50.0	50.0	50.0
	Heating	Min	°CWB	-20.0	-20.0	-20.0
		Max	°CWB	15.5	15.5	15.5
Sound Level (nominal)	Cooling	Sound Power	dBA	65.0	66.0	66.0
		Sound Pressure	dBA	49.0	50.0	50.0
	Heating	Sound Pressure	dBA	51.0	52.0	52.0
Sound Level (Night quiet)	Sound Pressure		dBA	45.0	45.0	45.0
Refrigerant	Type			R-410A		
	Charge		kg	4.30	4.30	4.30
	Control			Expansion valve (electronic type)		
	Nr of Circuits			1	1	1
Refrigerant Oil	Type			Daphne FVC68D		
	Charged Volume		l	1.0	1.0	1.0
Piping connections	Liquid (OD)	Quantity		1	1	1
		Type		Flare connection		
		Diameter (OD)	mm	9.52	9.52	9.52
	Gas	Quantity		1	1	1
		Type		Flare connection		
		Diameter (OD)	mm	15.9	15.9	15.9
	Drain	Quantity		3	3	3
		Type		Hole		
		Diameter (OD)	mm	26	26	26
	Piping Length	Minimum	m	5	5	5
		Maximum	m	75	75	75
		Equivalent	m	95	95	95
		Chargeless	m	30	30	30
	Additional Refrigerant Charge		kg/m	see installation manual 4PW21412-1		
	Installation height difference	Maximum	m	30.0	30.0	30.0
	Max. internunit level difference		m	0.5	0.5	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			
			Fan motor thermal protector			
			Fuse			
			Tie-wraps			
Standard Accessories	Item					
	Quantity		2	2	2	
	Item		Installation manual			
	Quantity		1	1	1	
Notes			Nominal cooling capacities are based on : indoor temperature : 270CDB, 190CWB, outdoor temperature : 350CDB, equivalent refrigerant piping : 7.5m, level difference : 0m.			
			Nominal heating capacities are based on : indoor temperature : 200CDB, outdoor temperature : 70CDB, 60CWB, equivalent refrigerant piping : 7.5m, level difference : 0m			

2 Specifications

2

2-3 ELECTRICAL SPECIFICATIONS				RZQ100B8W1B		RZQ125B8W1B		RZQ140B8W1B	
Power Supply	Name			W1B					
	Phase			3N					
	Frequency		Hz	50		50		50	
	Voltage		V	400		400		400	
	Voltage range	Minimum	V	-10%					
		Maximum	V	+10%					
Current	Recommended fuses		A	20		20		20	
Wiring connections	For Power Supply	Remark		see installation manual 4PW21412-1					
	For connection with indoor	Remark		see installation manual 4PW21412-1					
Power Supply Intake				Outdoor unit only					
Notes				See separate drawings for electrical data					

3 Electrical data

RZQ-BW1

Unit combination		Power supply						Comp.		OFM		IFM	
Indoor unit	Outdoor unit	Hz-volts	Voltage range	MCA	TOCA	MFA	MSC	RLA	kW	FLA	kW	FLA	
FCQH100C7VEB	RZQ100B8W1B	50-400	Max, 50Hz/440V Min, 50Hz/360V	14, 9	14, 9	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 120	1, 4	
FCQ100C7VEB	RZQ100B8W1B	50-400		14, 2	14, 2	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 120	0, 7	
FCQ50C7VEBx2	RZQ100B8W1B	50-400		14, 1	14, 1	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 056x2	0, 3x2	
FCQ35C7VEBx3	RZQ100B8W1B	50-400		14, 4	14, 4	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 056x3	0, 3x3	
FCQ100DV3B	RZQ100B7W1B	50-400		14, 2	14, 2	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 120	0, 7	
FCQ100B7V3B	RZQ100B7W1B	50-400		14, 5	14, 5	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 090	1, 0	
FCQ50B7V1x2	RZQ100B7W1B	50-400		14, 7	14, 7	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 045x2	0, 6x2	
FCQ35B7V1x3	RZQ100B7W1B	50-400		15, 3	15, 3	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 045x3	0, 6x3	
FFQ50BV1Bx2	RZQ100B7W1B	50-400		14, 9	14, 9	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 055x2	0, 7x2	
FFQ35BV1Bx3	RZQ100B7W1B	50-400		15, 3	15, 3	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 055x3	0, 6x3	
FBQ100B7V3B	RZQ100B7W1B	50-400		14, 5	14, 5	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 135	1, 0	
FBQ50B7V1x2	RZQ100B7W1B	50-400		14, 9	14, 9	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 085x2	0, 7x2	
FBQ35B7V1x3	RZQ100B7W1B	50-400		15, 0	15, 0	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 065x3	0, 5x3	
FHQ100BUV1B	RZQ100B7W1B	50-400		14, 2	14, 2	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 130	0, 7	
FHQ50BUV1Bx2	RZQ100B7W1B	50-400		14, 7	14, 7	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 062x2	0, 6x2	
FHQ35BUV1Bx3	RZQ100B7W1B	50-400		15, 3	15, 3	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 062x3	0, 6x3	
FAQ100BUV1B	RZQ100B7W1B	50-400		13, 9	13, 9	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 049	0, 4	
FUQ100BUV1B	RZQ100B7W1B	50-400		14, 6	14, 6	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 090	1, 1	
FCQH125C7VEB	RZQ125B8W1B	50-400	Max, 50Hz/440V Min, 50Hz/360V	14, 9	14, 9	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 120	1, 4	
FCQ125C7VEB	RZQ125B8W1B	50-400		14, 5	14, 5	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 120	1, 0	
FCQ60C7VEBx2	RZQ125B8W1B	50-400		14, 3	14, 3	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 056x2	0, 4x2	
FCQ50C7VEBx3	RZQ125B8W1B	50-400		14, 4	14, 4	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 056x3	0, 3x3	
FCQ35C7VEBx4	RZQ125B8W1B	50-400		14, 7	14, 7	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 056x4	0, 3x4	
FCQ125DV3B	RZQ125B7W1B	50-400		14, 2	14, 2	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 120	0, 7	
FCQ125B7V3B	RZQ125B7W1B	50-400		14, 5	14, 5	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 090	1, 0	
FCQ60B7V1x2	RZQ125B7W1B	50-400		14, 7	14, 7	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 045x2	0, 6x2	
FCQ50B7V1x3	RZQ125B7W1B	50-400		15, 3	15, 3	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 045x3	0, 6x3	
FCQ35B7V1x4	RZQ125B7W1B	50-400		15, 9	15, 9	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 045x4	0, 6x4	
FFQ60BV1Bx2	RZQ125B7W1B	50-400		14, 9	14, 9	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 055x2	0, 7x2	
FFQ50BV1Bx3	RZQ125B7W1B	50-400		15, 6	15, 6	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 055x3	0, 7x3	
FFQ35BV1Bx4	RZQ125B7W1B	50-400		15, 9	15, 9	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 055x4	0, 6x4	
FBQ125B7V3B	RZQ125B7W1B	50-400		14, 9	14, 9	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 225	1, 4	
FBQ60B7V1x2	RZQ125B7W1B	50-400		15, 3	15, 3	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 125x2	0, 9x2	
FBQ50B7V1x3	RZQ125B7W1B	50-400		15, 6	15, 6	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 085x3	0, 7x3	
FBQ35B7V1x4	RZQ125B7W1B	50-400		15, 5	15, 5	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 065x4	0, 5x4	
FHQ125BUV1B	RZQ125B7W1B	50-400		14, 2	14, 2	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 130	0, 7	
FHQ60BUV1Bx2	RZQ125B7W1B	50-400		14, 7	14, 7	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 062x2	0, 6x2	
FHQ50BUV1Bx3	RZQ125B7W1B	50-400		15, 3	15, 3	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 062x3	0, 6x3	
FHQ35BUV1Bx4	RZQ125B7W1B	50-400		15, 9	15, 9	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 062x4	0, 6x4	
FUQ125BUV1B	RZQ125B7W1B	50-400		14, 6	14, 6	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 090	1, 1	
FDQ125B7V3B	RZQ125B7W1B	50-400		17, 7	17, 7	20	12, 9	12, 9	0, 07+0, 07	0, 3+0, 3	0, 500	4, 2	

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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

- 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
- TOCA means the total value of each OC set
- 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
- Maximum allowable voltage unbalance between phases is 2%
- MCA represents maximum input current, MFA represents capacity which may accept MCA (next lower standard fuse rating, min.15A)
- Select wire size based on the larger value of MCA or TOCA
- MFA is used to select the circuit breaker and the ground fault circuit interrupter (earth leakage circuit breaker)
- For more details concerning conditional connections, see <http://extranet.daikin-europe.com>, select "E-Data Books". Finally, click on the document title of your choice.

3 Electrical data

RZQ-BW1

Unit combination		Power supply					Comp.		OFM		IFM	
Indoor unit	Outdoor unit	Hz-volts	Voltage range	MCA	TOCA	MFA	MSC	RLA	kW	FLA	kW	FLA
FCQH140C7VEB	RZQ140B8W1B	50-400	Max. 50Hz/440V Min. 50Hz/360V	14.9	14.9	20	12.9	12.9	0.07+0.07	0.3+0.3	0.120	1.4
FCQ140C7VEB	RZQ140B8W1B	50-400		14.5	14.5	20	12.9	12.9	0.07+0.07	0.3+0.3	0.120	1.0
FCQ71C7VEBx2	RZQ140B8W1B	50-400		14.5	14.5	20	12.9	12.9	0.07+0.07	0.3+0.3	0.056x2	0.5x2
FCQ50C7VEBx3	RZQ140B8W1B	50-400		14.4	14.4	20	12.9	12.9	0.07+0.07	0.3+0.3	0.056x3	0.3x3
FCQ35C7VEBx4	RZQ140B8W1B	50-400		14.7	14.7	20	12.9	12.9	0.07+0.07	0.3+0.3	0.056x4	0.3x4
FCQ140DV3B	RZQ140B7W1B	50-400		14.2	14.2	20	12.9	12.9	0.07+0.07	0.3+0.3	0.120	0.7
FCQ71B7V3Bx2	RZQ140B7W1B	50-400		14.7	14.7	20	12.9	12.9	0.07+0.07	0.3+0.3	0.045x2	0.6x2
FCQ50B7V1x3	RZQ140B7W1B	50-400		14.7	14.7	20	12.9	12.9	0.07+0.07	0.3+0.3	0.045x3	0.6x3
FCQ35B7V1x4	RZQ140B7W1B	50-400		15.9	15.9	20	12.9	12.9	0.07+0.07	0.3+0.3	0.045x4	0.6x4
FFQ50BV1Bx3	RZQ140B7W1B	50-400		15.6	15.6	20	12.9	12.9	0.07+0.07	0.3+0.3	0.055x3	0.7x3
FFQ35BV1Bx4	RZQ140B7W1B	50-400		15.9	15.9	20	12.9	12.9	0.07+0.07	0.3+0.3	0.055x4	0.6x4
FBQ71B7V3Bx2	RZQ140B7W1B	50-400		15.3	15.3	20	12.9	12.9	0.07+0.07	0.3+0.3	0.125x2	0.9x2
FBQ50B7V1x3	RZQ140B7W1B	50-400		15.6	15.6	20	12.9	12.9	0.07+0.07	0.3+0.3	0.085x3	0.7x3
FBQ35B7V1x4	RZQ140B7W1B	50-400		15.5	15.5	20	12.9	12.9	0.07+0.07	0.3+0.3	0.065x4	0.5x4
FHQ71B7V1Bx2	RZQ140B7W1B	50-400		14.7	14.7	20	12.9	12.9	0.07+0.07	0.3+0.3	0.062x2	0.6x2
FHQ50B7V1Bx3	RZQ140B7W1B	50-400		15.3	15.3	20	12.9	12.9	0.07+0.07	0.3+0.3	0.062x3	0.6x3
FHQ35B7V1Bx4	RZQ140B7W1B	50-400	15.9	15.9	20	12.9	12.9	0.07+0.07	0.3+0.3	0.062x4	0.6x4	
FAQ71B7V1Bx2	RZQ140B7W1B	50-400	14.1	14.1	20	12.9	12.9	0.07+0.07	0.3+0.3	0.043x2	0.3x2	
FUQ71B7V1Bx2	RZQ140B7W1B	50-400	14.9	14.9	20	12.9	12.9	0.07+0.07	0.3+0.3	0.045x2	0.7x2	

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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://extranet.daikin-europe.com>, select "E-Data Books". Finally, click on the document title of your choice.

4 Options

Available option for RZQ-BW1

Name of option		Kit name		
		RZQ100B8W1B	RZQ125B8W1B	RZQ140B8W1B
Central drain plug		KKPJ5F180		
Refrigerant branch piping	Twin	KHRQ22M20TA (KHRQ58T): See note		
	Triple	KHRQ127H (KHRQ58H): See note		
	Double twin	-	KHRQ22M20TA(KHRQ58T): See note (3x)	
Demand adapter kit		KRP58M51		

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NOTES

For RZQ100-140B8W1B in combination with FCQ35-71C or FCQH71C, use the refrigerant branch piping mentioned between brackets.

5 Capacity tables

5 - 1 Combination table

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

Outdoor models	Possible indoor combination		
	Simultaneous operation		
	Twin	Triple	Double twin
RZQ140B8W1B	71-71 (See note 5)	50-50-50 (See note 6)	35-35-35-35 (See note 7)
RZQ100B8W1B	50-50 (See note 5)	35-35-35 (See note 6)	
RZQ125B8W1B	60-60 (See note 5)	50-50-50 (See note 6)	35-35-35-35 (See note 7)

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NOTES

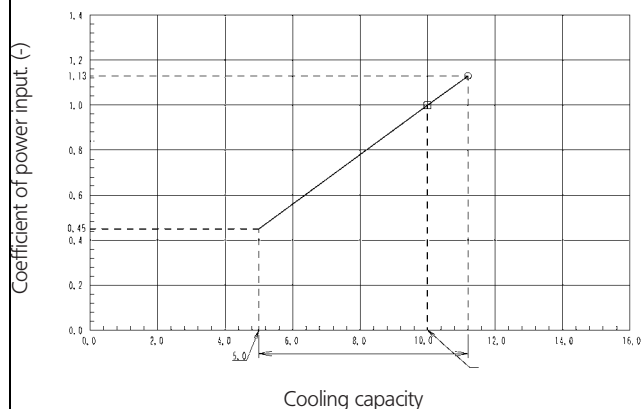
- Possible indoor units: FCQ35-71, FFQ35-60, FHQ35-71, FBQ35-71, FAQ71, FUQ71
- Individual indoor capacities are not given because the combinations are for simultaneous operation (=indoor units installed in same room).
- When different indoor models are used in combination, designate the infrared remote 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 FAQ).
- Between brackets are the required Refnet kits mentioned, that are necessary to install the combination.
- In case of FCQ50-71C or FCQH71C: use KHRQ58T7 otherwise, use KHRQ22M20TA8
- In case of FCQ35-50C: use KHRQ58H7 otherwise, use KHRQ127H8
- In case of FCQ35C: use 3x KHRQ58T7 otherwise, use 3x KHRQ22M20TA8

5 Capacity tables

5 - 2 Cooling capacity tables

RZQ100BW1(Pair + Twin/triple)

Cooling



Cooling capacity

400V [50Hz]

Indoor		Outdoor temp. (°CDB)											
EWB	EDB	25			30			35			40		
(°C)	(°C)	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* = $0.02 \times \text{AFR} (\text{m}^3/\text{min.}) \times (1 - \text{BF}) \times (\text{DB*} - \text{EDB})$
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.

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

Model	FCQH100C	FCQ100C	FCQ100D	FCQ100B	FBQ100	FHQ100	FAQ100	FUQ100
AFR	32.5	23.5	30	28	27	24	23	29
(BF)3	(0.17)	(0.16)	(0.11)	(0.16)	(0.20)	(0.14)	(0.10)	(0.07)

Twin

Model	FCQ50Cx2	FCQ50Bx2	FFQ50x2	FBQ50x2	FHQ50x2
AFR	12.5x2	15x2	12x2	14x2	13x2
(BF)	(0.21x2)	(0.16x2)	(0.16x2)	(0.15x2)	(0.1x2)

Triple

Model	FCQ35Cx3	FCQ35Bx3	FFQ35x3	FBQ35x3	FHQ35x3
AFR	10.5x3	14x3	10x3	11.5x3	13x3
(BF)	(0.28x3)	(0.16x3)	(0.25x3)	(0.15x3)	(0.2x3)

- Rated power input of each model is tabulated below.

Model	FCQH100C	FCQ100C	FCQ71D	FCQ71B	FBQ71	FHQ71	FAQ71	FUQ71
Cooling	2.44	2.64	2.44	2.64	2.86	3.15	2.78	3.12
Heating	2.56	3.14	2.56	3.14	3.00	3.60	3.39	3.28

(Twin)

Model	FCQ35Cx3	FCQ35Bx3	FFQ35Bx3	FBQ35Bx3	FHQ35Bx3
Cooling	2.78	2.78	2.79	3.01	3.32
Heating	3.31	3.31	3.21	3.16	3.79

(Twin)

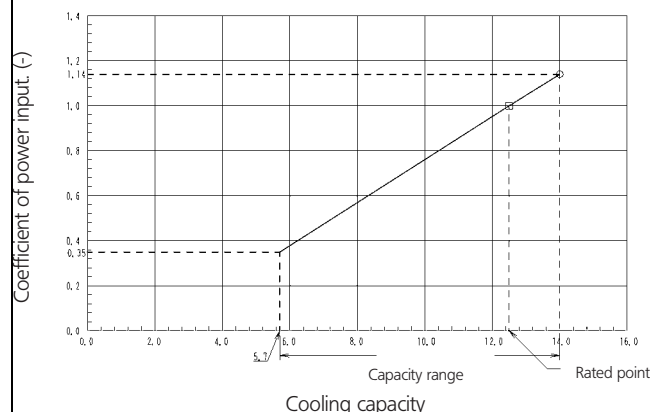
Model	FCQ50Cx2	FCQ50Bx2	FFQ50x2	FBQ50x2	FHQ50x2
Cooling	2.78	2.78	2.79	3.01	3.32
Heating	3.31	3.31	3.21	3.16	3.79

5 Capacity tables

5 - 2 Cooling capacity tables

RZQ125B8W1 (Pair + Twin / triple / double twin)

Cooling



Cooling capacity

400V [50Hz]

Indoor		Outdoor temp. (°CDB)											
EWB	EDB	25			30			35			40		
(°C)	(°C)	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 $\bigcirc$ show the max. at standard conditions.
On the figure the mark $\square$ show rated capacity and rated coefficient of power input.
However the max. capacity is not guaranteed, except at standard condition.
- On the tables $\square$ 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* = $0.02 \times \text{AFR} (\text{m}^3/\text{min.}) \times (1 - \text{BF}) \times (\text{DB*} - \text{EDB})$
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 : 5.0 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.

Pair

Model	FCQH125C	FCQ125C	FCQ125D	FCQ125B	FBQ125	FHQ125	FUQ125	FDQ125
AFR	32.5	27.5	30	31	35	30	32	45
(BF)	(0.19)	(0.19)	(0.13)	(0.07)	(0.14)	(0.13)	(0.07)	(0.25)

Twin

Model	FCQ60C2	FCQ60B2	FFQ60x2	FBQ60x2	FHQ60x2
AFR	13.5x2	18x2	15x2	19x2	17x2
(BF)	(0.21x2)	(0.1x2)	(0.11x2)	(0.11x2)	(0.2x2)

- Rated power input of each model is tabulated below.

Pair

Model	FCQH125C	FCQ125C	FCQ125D	FCQ125B	FBQ125	FHQ125	FUQ125	FDQ125
Cooling	3.54	3.88	3.54	3.88	3.98	4.45	4.05	4.15
Heating	3.59	4.36	3.59	4.36	3.99	4.50	4.36	3.69

Twin

Model	FCQ50C3	FCQ60B2	FFQ60x2	FBQ60x2	FHQ60x2
Cooling	4.08	4.08	4.13	4.19	4.45
Heating	4.59	4.59	4.26	4.20	4.74

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	FCQ50C3	FCQ50B3	FFQ50x3	FBQ35x3	FHQ50x3
AFR	12.5x3	15x3	12x3	14x3	13x3
(BF)	(0.21x3)	(0.16x3)	(0.16x3)	(0.15x3)	(0.1x3)

Double twin

Model	FCQ35C4	FCQ35B4	FFQ35x4	FBQ35x4	FHQ35x4
AFR	10.5x4	14x4	10x4	11.5x4	13x4
(BF)	(0.28x4)	(0.16x4)	(0.25x4)	(0.15x4)	(0.2x4)

Triple

Model	FCQ50C3	FCQ50B3	FFQ50x3	FBQ50x3	FHQ50x3
Cooling	4.08	4.08	4.13	4.19	4.45
Heating	4.59	4.59	4.26	4.20	4.74

Double twin

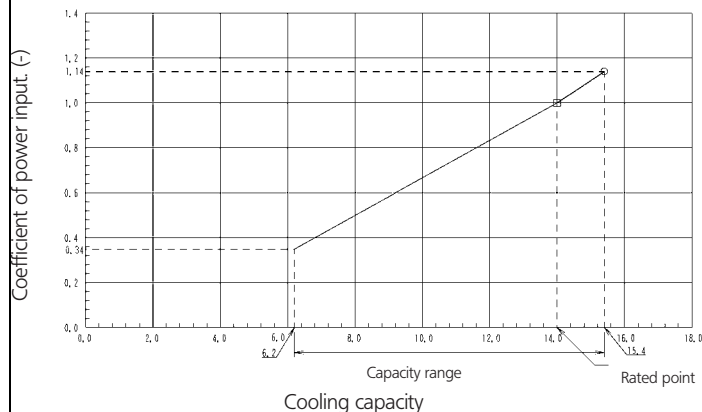
Model	FCQ35C4	FCQ35B4	FFQ35x4	FBQ35x4	FHQ35x4
Cooling	4.08	4.08	4.13	4.19	4.45
Heating	4.59	4.59	4.26	4.20	4.74

5 Capacity tables

5 - 2 Cooling capacity tables

RZQ140BW1 (Pair + Twin / triple / double twin)

Cooling



Cooling capacity

400V [50Hz]

Indoor		Outdoor temp. (°CDB)											
EWB	EDB	25			30			35			40		
(°C)	(°C)	TC (kW)	SHC (kW)	CPI (-)	TC (kW)	SHC (kW)	CPI (-)	TC (kW)	SHC (kW)	CPI (-)	TC (kW)	SHC (kW)	CPI (-)
16.0	22	12.8	8.66	0.76	12.7	8.74	0.89	13.1	9.12	0.99	12.6	8.84	1.09
18.0	25	14.6	9.50	0.83	14.2	9.31	0.91	13.7	9.09	1.00	13.2	8.82	1.10
19.0	27	15.0	9.47	0.84	14.5	9.29	0.91	14.0	9.07	1.00	13.4	8.80	1.10
19.5	27	15.1	9.45	0.84	14.7	9.27	0.91	14.1	9.05	1.00	13.6	8.79	1.10
22.0	30	15.9	9.33	0.85	15.4	9.16	0.92	14.9	8.95	1.01	14.3	8.69	1.11
24.0	32	16.5	9.20	0.85	16.0	9.03	0.93	15.5	8.83	1.02	14.9	8.59	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 $\square$ show the max. at standard conditions.
On the figure the mark $\square$ show rated capacity and rated coefficient of power input.
However the max. capacity is not guaranteed, except at standard condition.
- On the tables $\square$ 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* = $0.02 \times \text{AFR (m}^3/\text{min)} \times (1 - \text{BF}) \times (\text{DB*} - \text{EDB})$
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 : 5.0 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.

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	FCQ50C3	FCQ50B3	FFQ503	FBQ503	FHQ503
AFR	12.5x3	15x3	12x3	14x3	13x3
(BF)	(0.21x3)	(0.16x3)	(0.16x3)	(0.15x3)	(0.1x3)

Double twin

Model	FCQ35C4	FCQ35B4	FFQ354	FBQ354	FHQ354
AFR	10.5x4	14x4	10x4	11.5x4	13x4
(BF)	(0.28x4)	(0.16x4)	(0.25x4)	(0.15x4)	(0.2x4)

Triple

Model	FCQ50C3	FCQ50B3	FFQ503	FBQ503	FHQ503
Cooling	4.81	4.81	4.86	4.95	4.99
Heating	5.52	5.52	5.11	5.06	5.69

Double twin

Model	FCQ35C4	FCQ35B4	FFQ354	FBQ354	FHQ354
Cooling	4.81	4.81	4.86	4.95	4.99
Heating	5.52	5.52	5.11	5.06	5.69

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

Pair

Model	FCQH140C	FCQ140C	FCQ140D
Cooling	4.65	5.36	4.65
Heating	4.52	5.69	4.52

Twin

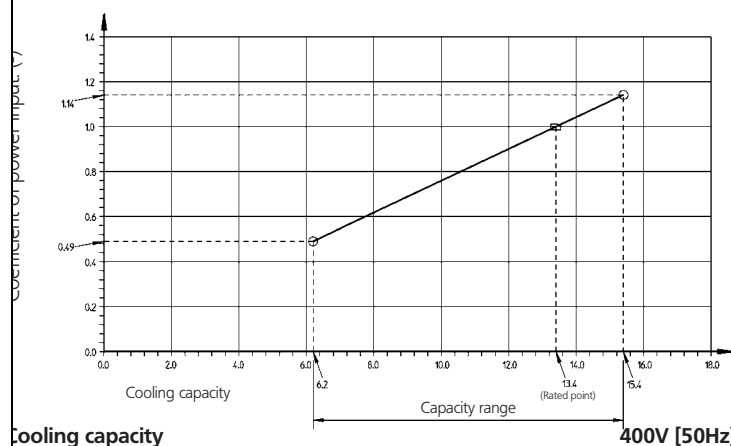
Model	FCQ71Cx2	FCQ71Bx2	FBQ71x2	FHQ71x2	FUQ71x2	FAQ71x2
Cooling	4.81	4.81	4.95	4.99	4.99	4.92
Heating	5.52	5.52	5.06	5.69	5.05	5.22

5 Capacity tables

5 - 2 Cooling capacity tables

RZQ140BW1 (Pair)

Cooling



Cooling capacity

400V [50Hz]

Indoor		Outdoor temp. (°CDB)											
EWB	EDB	25			30			35			40		
(°C)	(°C)	TC (kW)	SHC (kW)	CPI (-)	TC (kW)	SHC (kW)	CPI (-)	TC (kW)	SHC (kW)	CPI (-)	TC (kW)	SHC (kW)	CPI (-)
16.0	22	12.3	8.29	0.76	12.2	8.37	0.89	12.5	8.73	0.99	12.1	8.46	1.09
18.0	25	14.0	9.09	0.83	13.5	8.91	0.91	13.1	8.70	1.00	12.6	8.44	1.10
19.0	27	14.4	9.06	0.84	13.9	8.89	0.91	13.4	8.68	1.00	12.8	8.42	1.10
19.5	27	14.5	9.05	0.84	14.1	8.87	0.91	13.5	8.66	1.00	13.0	8.41	1.10
22.0	30	15.2	8.93	0.85	14.7	8.77	0.92	14.3	8.57	1.01	13.7	8.32	1.11
24.0	32	15.8	8.81	0.85	15.3	8.64	0.93	14.8	8.45	1.02	14.3	8.22	1.12

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NOTES

- This capacity table is only valid for pair combination with FBQ140
- 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* = $0.02 \times \text{AFR} (\text{m}^3/\text{min}) \times (1 - \text{BF}) \times (\text{DB*} - \text{EDB})$
- 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.

Model	FBQ140
AFR	35
(BF)	(0.14)

- Rated power input of each model is tabulated below.

Outdoor	RZQ140C7
Indoor	RZQ140C7
Cooling	4.76kW
Heating	4.82kW

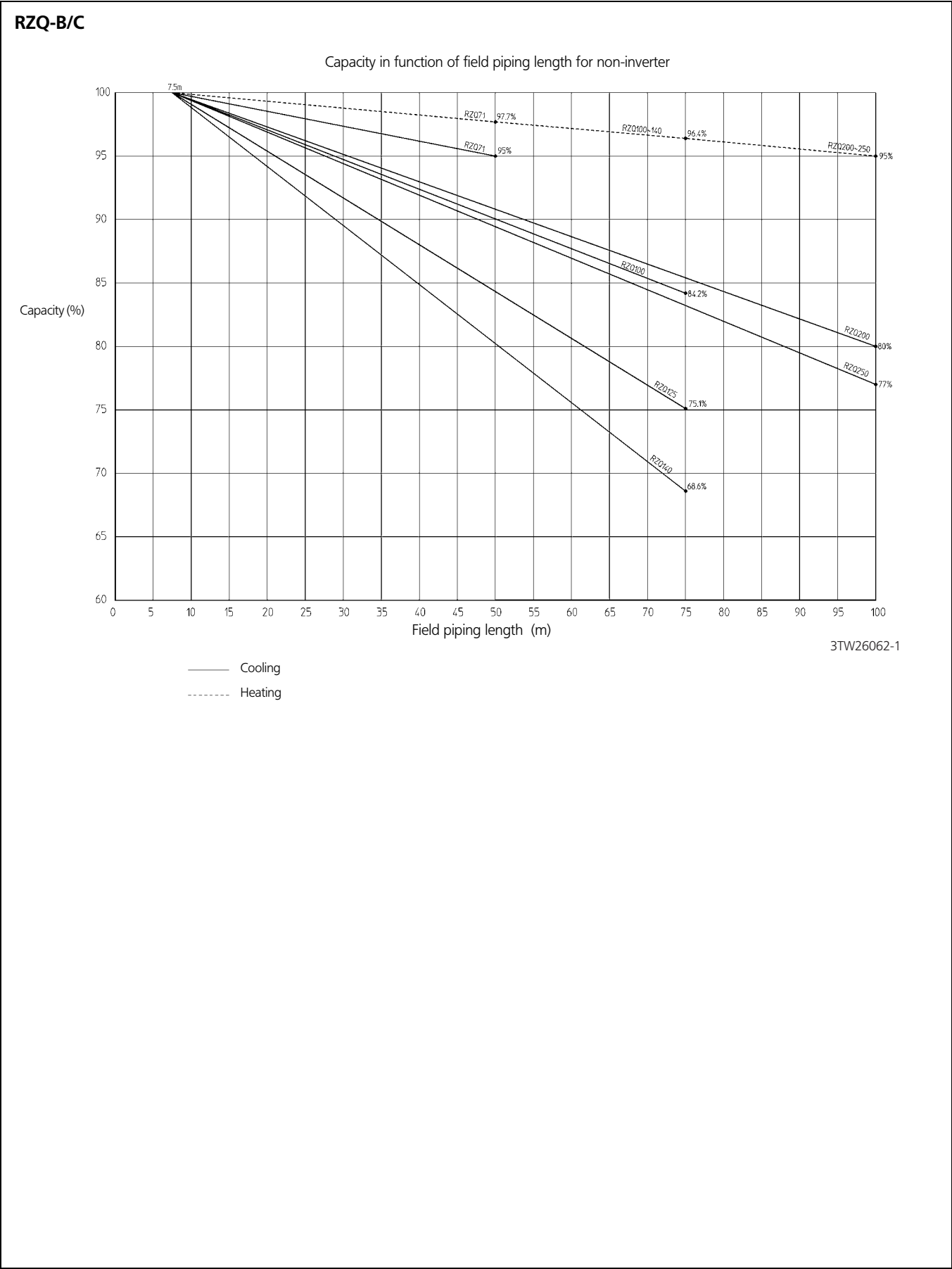
SYMBOLS

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

5 Capacity tables

5 - 2 Cooling capacity tables

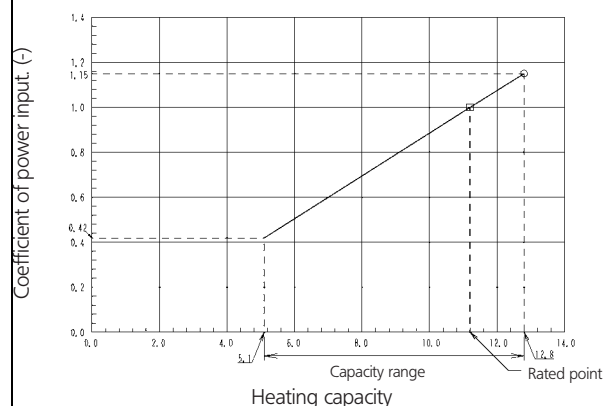


5 Capacity tables

5 - 3 Heating capacity tables

RZQ100BW1 (Pair + Twin/triple)

Heating



Heating capacity

400V [50Hz]

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* = $0.02 \times \text{AFR} (\text{m}^3/\text{min}) \times (1 - \text{BF}) \times (\text{DB}^* - \text{EDB})$
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 : 5.0 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.

Pair

Model	FCQH100C	FCQ100C	FCQ100D	FCQ100B	FBQ100	FHQ100	FAQ100	FUQ100
AFR	2.5	23.5	30	28	27	24	23	29
(BF)33	(0.17)	(0.16)	(0.11)	(0.16)	(0.20)	(0.14)	(0.10)	(0.07)

Twin

Model	FCQ50Cx2	FCQ50Bx2	FFQ50x2	FBQ50x2	FHQ50x2
AFR	12.5x2	15x2	12x2	14x2	13x2
(BF)	(0.21x2)	(0.16x2)	(0.16x2)	(0.15x2)	(0.1x2)

- Rated power input of each model is tabulated below.

Pair

Model	FCQH100C	FCQ100C	FCQ71D	FCQ71B	FBQ71	FHQ71	FAQ71	FUQ71
Cooling	2.44	2.64	2.44	2.64	2.86	3.15	2.78	3.12
Heating	2.56	3.14	2.56	3.14	3.00	3.60	3.39	3.28

(Twin)

Model	FCQ35Cx3	FCQ35Bx3	FFQ35Bx3	FBQ35Bx3	FHQ35Bx3
Cooling	2.78	2.78	2.79	3.01	3.32
Heating	3.31	3.31	3.21	3.16	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	FCQ35Cx3	FCQ35Bx3	FFQ35x3	FBQ35x3	FHQ35x3
AFR	10.5x3	14x3	10x3	11.5x3	13x3
(BF)	(0.28x3)	(0.16x3)	(0.25x3)	(0.15x3)	(0.2x3)

(Twin)

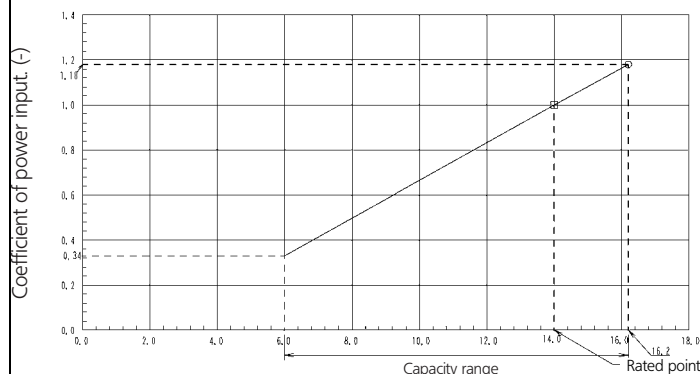
Model	FCQ50Cx2	FCQ50Bx2	FFQ50x2	FBQ50x2	FHQ50x2
Cooling	2.78	2.78	2.79	3.01	3.32
Heating	3.31	3.31	3.21	3.16	3.79

5 Capacity tables

5 - 3 Heating capacity tables

RZQ125BW1 (Pair + Twin / triple / double twin)

Heating



Heating capacity

Heating capacity

400V [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	9.76	1.11	10.7	1.16	11.6	1.22	14.0	0.92	15.1	0.97
18.0	8.82	1.10	9.74	1.15	10.7	1.21	11.6	1.27	14.0	0.96	15.1	1.01
20.0	8.81	1.14	9.73	1.20	10.7	1.26	11.6	1.32	14.0	1.00	15.1	1.05
21.0	8.81	1.16	9.73	1.22	10.6	1.28	11.6	1.34	14.0	1.02	15.1	1.07
22.0	8.80	1.18	9.72	1.24	10.6	1.31	11.6	1.37	14.0	1.04	15.1	1.09
24.0	8.79	1.22	9.71	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 : 5.0 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.

Pair

Model	FCQH125C	FCQ125C	FCQ125D	FCQ125B	FBQ125	FHQ125	FUQ125	FDQ125
AFR	32.5	27.5	30	31	35	30	32	45
(BF)	(0.19)	(0.19)	(0.13)	(0.07)	(0.14)	(0.13)	(0.07)	(0.25)

Twin

Model	FCQ60Cx2	FCQ60Bx2	FFQ60x2	FBQ60x2	FHQ60x2
AFR	13.5x2	18x2	15x2	19x2	17x2
(BF)	(0.21x2)	(0.1x2)	(0.11x2)	(0.11x2)	(0.2x2)

- Rated power input of each model is tabulated below.

Pair

Model	FCQH125C	FCQ125C	FCQ125D	FCQ125B	FBQ125	FHQ125	FUQ125	FDQ125
Cooling	3.54	3.88	3.54	3.88	3.98	4.45	4.05	4.15
Heating	3.59	4.36	3.59	4.36	3.99	4.50	4.36	3.69

Twin

Model	FCQ50Cx3	FCQ60Bx2	FFQ60x2	FBQ60x2	FHQ60x2
Cooling	4.08	4.08	4.13	4.19	4.45
Heating	4.59	4.59	4.26	4.20	4.74

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	FCQ50Cx3	FCQ50Bx3	FFQ50x3	FBQ35x3	FHQ50x3
AFR	12.5x3	15x3	12x3	14x3	13x3
(BF)	(0.21x3)	(0.16x3)	(0.16x3)	(0.15x3)	(0.1x3)

Double twin

Model	FCQ35Cx4	FCQ35Bx4	FFQ35x4	FBQ35x4	FHQ35x4
AFR	10.5x4	14x4	10x4	11.5x4	13x4
(BF)	(0.28x4)	(0.16x4)	(0.25x4)	(0.15x4)	(0.2x4)

Triple

Model	FCQ50Cx3	FCQ50Bx3	FFQ50x3	FBQ50x3	FHQ50x3
Cooling	4.08	4.08	4.13	4.19	4.45
Heating	4.59	4.59	4.26	4.20	4.74

Double twin

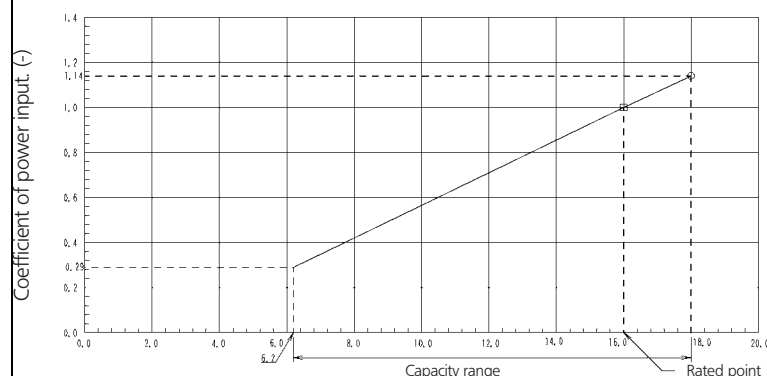
Model	FCQ35Cx4	FCQ35Bx4	FFQ35x4	FBQ35x4	FHQ35x4
Cooling	4.08	4.08	4.13	4.19	4.45
Heating	4.59	4.59	4.26	4.20	4.74

Capacity tables

5 - 3 Heating capacity tables

RZQ140B8W1 (Pair + Twin / triple / double twin)

Heating



Heating capacity

Heating capacity

400V [50Hz]

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	9.82	1.05	9.80	1.11	11.9	1.16	12.9	1.22	16.0	0.92	17.3	0.97
18.0	9.80	1.10	10.8	1.15	11.8	1.21	12.9	1.27	16.0	0.96	17.2	1.01
20.0	9.79	1.14	10.8	1.20	11.8	1.26	12.9	1.32	16.0	1.00	17.2	1.05
21.0	9.79	1.16	10.8	1.22	11.8	1.28	12.8	1.34	16.0	1.02	17.2	1.07
22.0	9.78	1.18	10.8	1.24	11.8	1.31	12.8	1.37	16.0	1.04	17.2	1.09
24.0	9.77	1.22	10.8	1.29	11.8	1.35	12.8	1.42	16.0	1.08	17.2	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 $\bigcirc$ show the max. at standard conditions.
On the figure the mark $\square$ show rated capacity and rated coefficient of power input.
However the max. capacity is not guaranteed, except at standard condition.
- On the tables $\square$ 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* = $0.02 \times \text{AFR} (\text{m}^3/\text{min.}) \times (1 - \text{BF}) \times (\text{DB*} - \text{EDB})$
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 : 5.0 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.

Pair

Model	FCQ140C	FCQ140C	FCQ140D
AFR	32.5	27.5	30
(BF)	(0.20)	(0.22)	(0.07)

Twin

Model	FCQ71Cx2	FCQ71Bx2	FBQ71x2	FHQ71x2	FUQ71x2	FAQ71x2
AFR	15.5x2	18x2	19x2	17x2	19x2	19x2
(BF)	(0.19x2)	(0.1x2)	(0.11x2)	(0.1x2)	(0.07x2)	(0.08x2)

- Rated power input of each model is tabulated below.

Pair

Model	FCQ140C	FCQ140C	FCQ140D
Cooling	4.65	5.36	4.65
Heating	4.52	5.69	4.52

Twin

Model	FCQ71Cx2	FCQ71Bx2	FBQ71x2	FHQ71x2	FUQ71x2	FAQ71x2
Cooling	4.81	4.81	4.95	4.99	4.99	4.92
Heating	5.52	5.52	5.06	5.69	5.05	5.22

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	FCQ50Cx3	FCQ50Bx3	FFQ50x3	FBQ50x3	FHQ50x3
AFR	12.5x3	15x3	12x3	14x3	13x3
(BF)	(0.21x3)	(0.16x3)	(0.16x3)	(0.15x3)	(0.1x3)

Double twin

Model	FCQ35Cx4	FCQ35Bx4	FFQ35x4	FBQ35x4	FHQ35x4
AFR	10.5x4	14x4	10x4	11.5x4	13x4
(BF)	(0.28x4)	(0.16x4)	(0.25x4)	(0.15x4)	(0.2x4)

Triple

Model	FCQ50Cx3	FCQ50Bx3	FFQ50x3	FBQ50x3	FHQ50x3
Cooling	4.81	4.81	4.86	4.95	4.99
Heating	5.52	5.52	5.11	5.06	5.69

Double twin

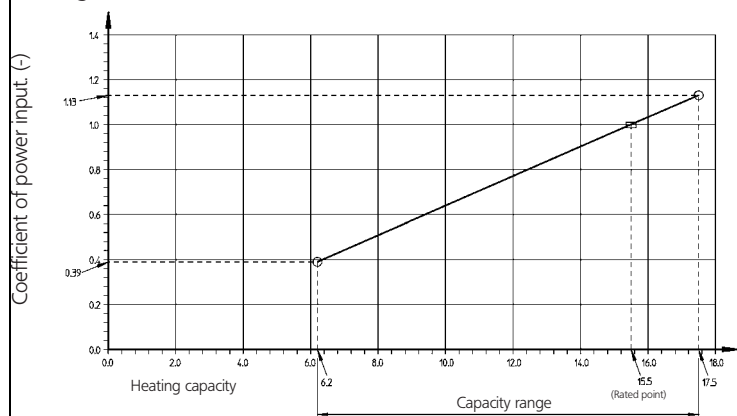
Model	FCQ35Cx4	FCQ35Bx4	FFQ35x4	FBQ35x4	FHQ35x4
Cooling	4.81	4.81	4.86	4.95	4.99
Heating	5.52	5.52	5.11	5.06	5.69

5 Capacity tables

5 - 3 Heating capacity tables

RZQ140B8W1 (Pair)

Heating



Heating capacity 400V [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	9.51	1.05	10.5	1.11	11.5	1.16	12.5	1.22	15.5	0.92	16.8	0.97
18.0	9.49	1.10	10.5	1.15	11.4	1.21	12.5	1.27	15.5	0.96	16.7	1.01
20.0	9.48	1.14	10.5	1.20	11.4	1.26	12.5	1.32	15.5	1.00	16.7	1.05
21.0	9.48	1.16	10.5	1.22	11.4	1.28	12.4	1.34	15.5	1.02	16.7	1.07
22.0	9.47	1.18	10.5	1.24	11.4	1.31	12.4	1.37	15.5	1.04	16.7	1.09
24.0	9.46	1.22	10.5	1.29	11.4	1.35	12.4	1.42	15.5	1.08	16.7	1.13

3TW28149-1

NOTES

- This capacity table is only valid for pair combination with FBQ140
- 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.

Pair	
Model	FBQ140
AFR	35
(BF)	(0.14)

- Rated power input of each model is tabulated below.

Pair	
Outdoor	RZQ140C7
Indoor	RZQ140C7
Cooling	4.76kW
Heating	4.82kW

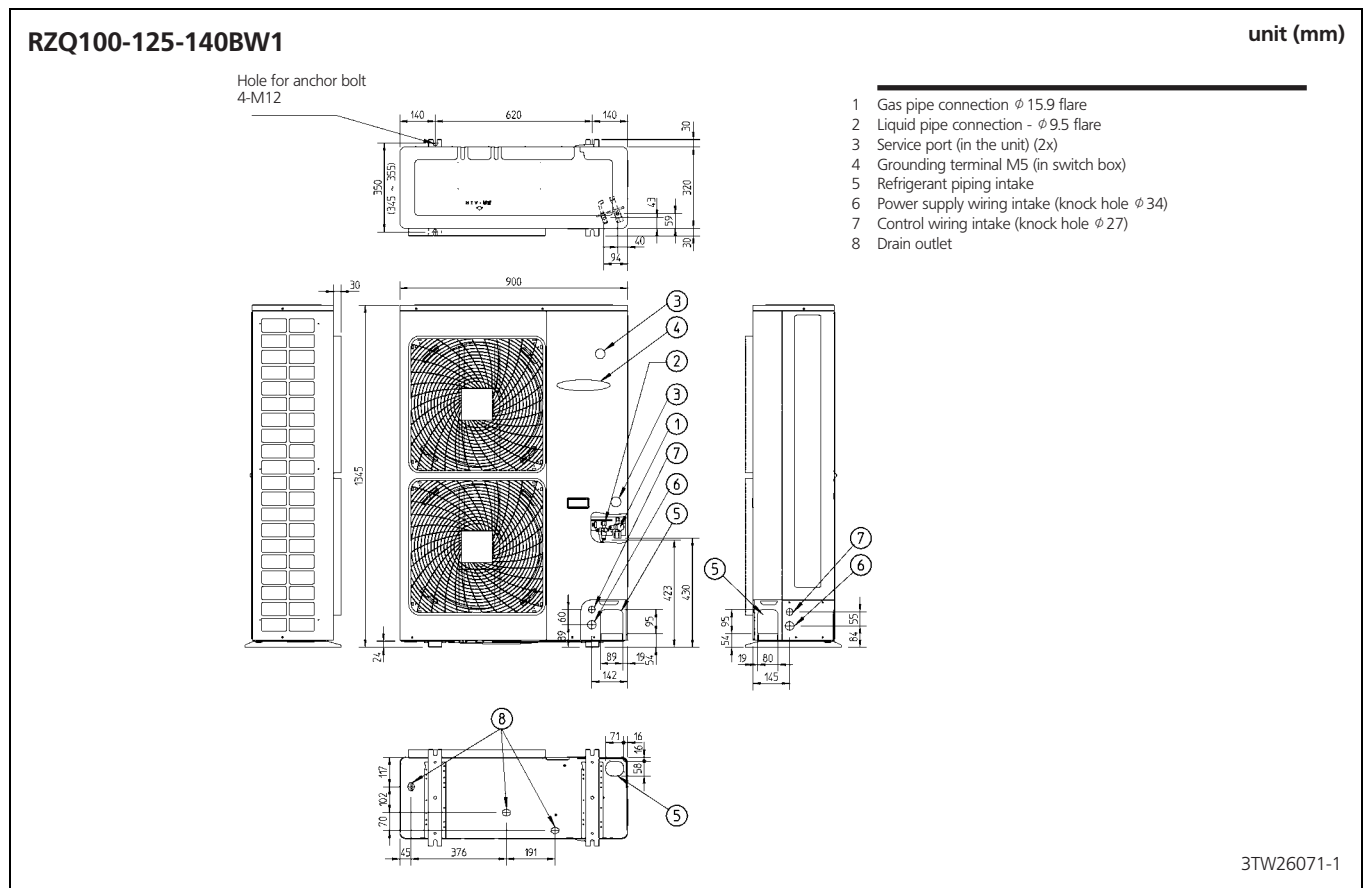
SYMBOLS

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

6 Dimensional drawing & centre of gravity

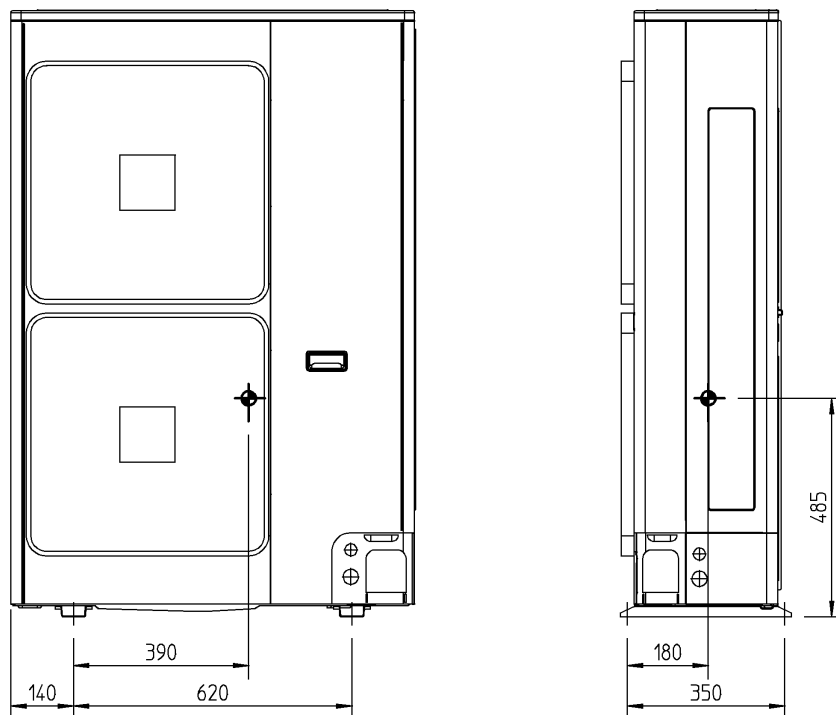
6 - 1 Dimensional drawing



6 Dimensional drawing & centre of gravity

6 - 2 Centre of gravity

RZQ-BW1

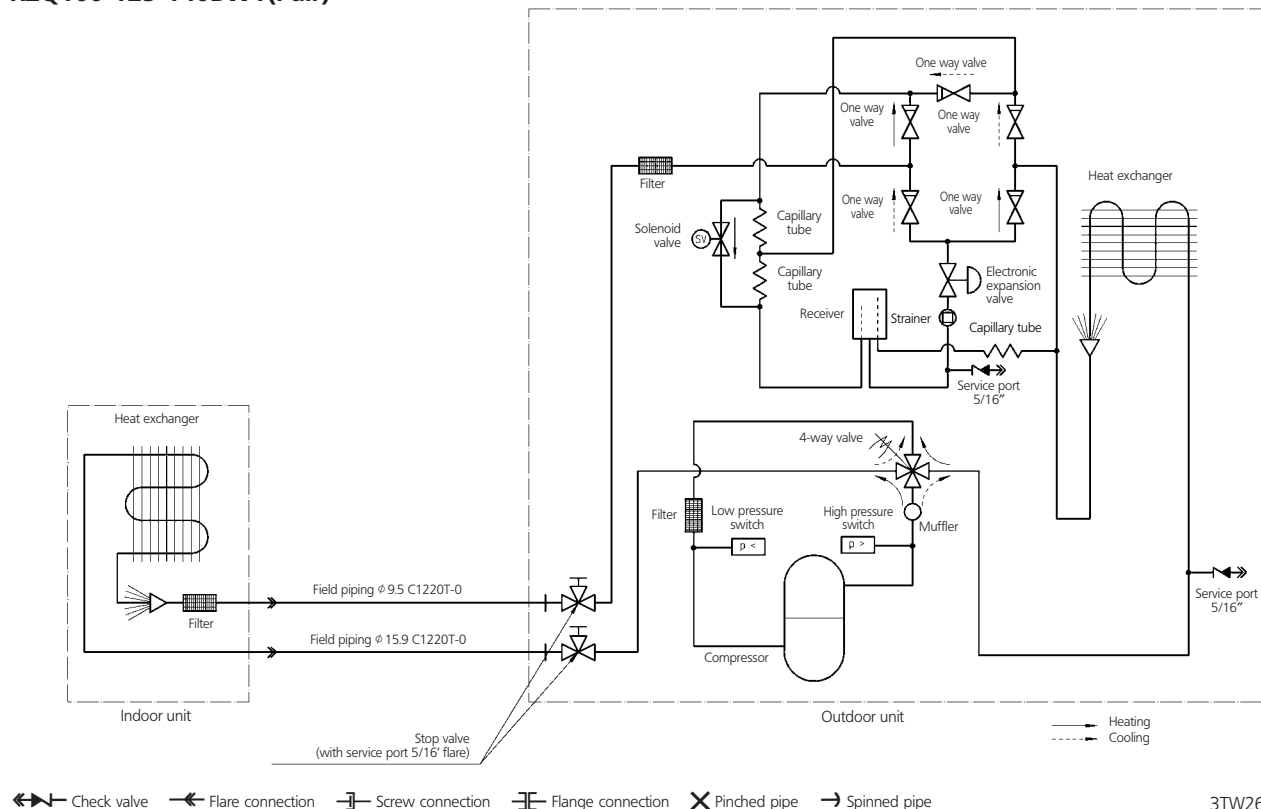


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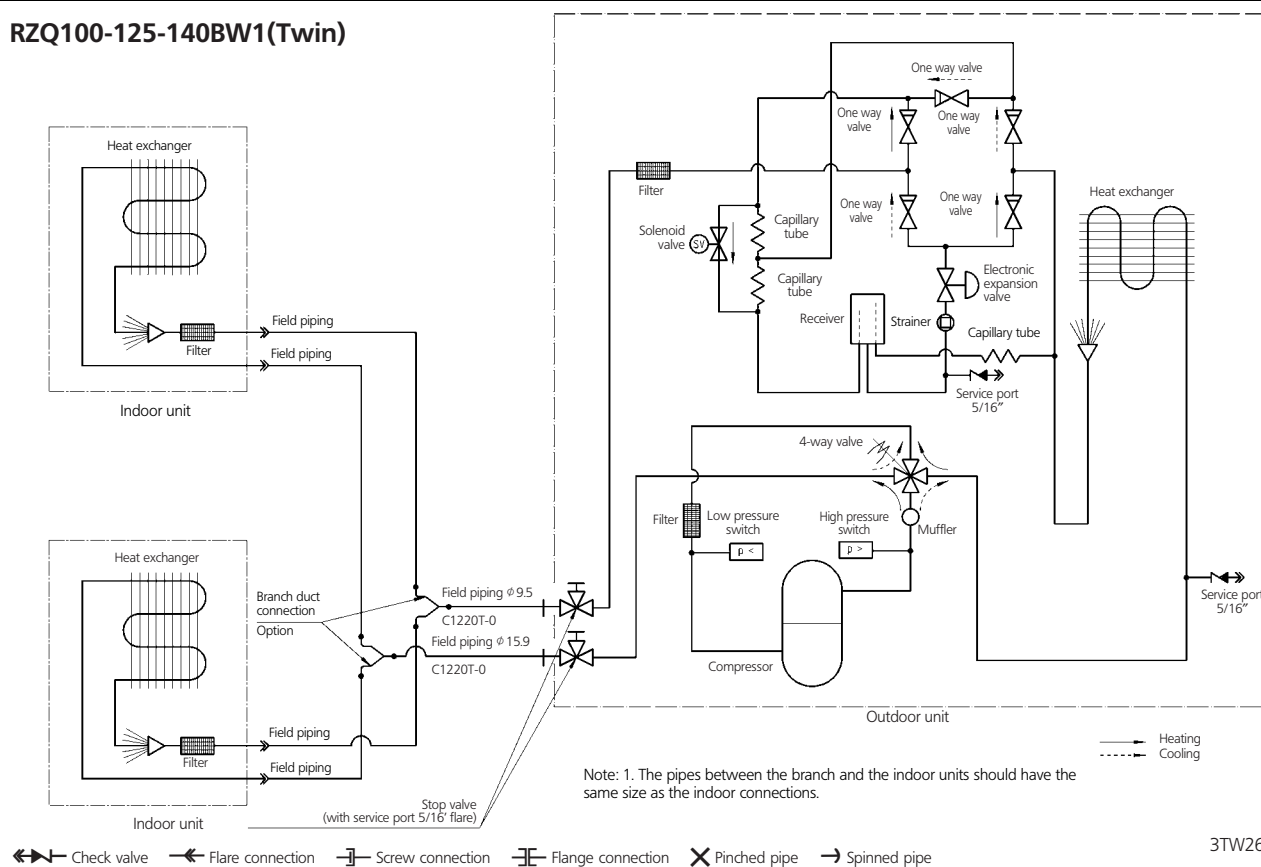
7 Piping diagram

7

RZQ100-125-140BW1(Pair)

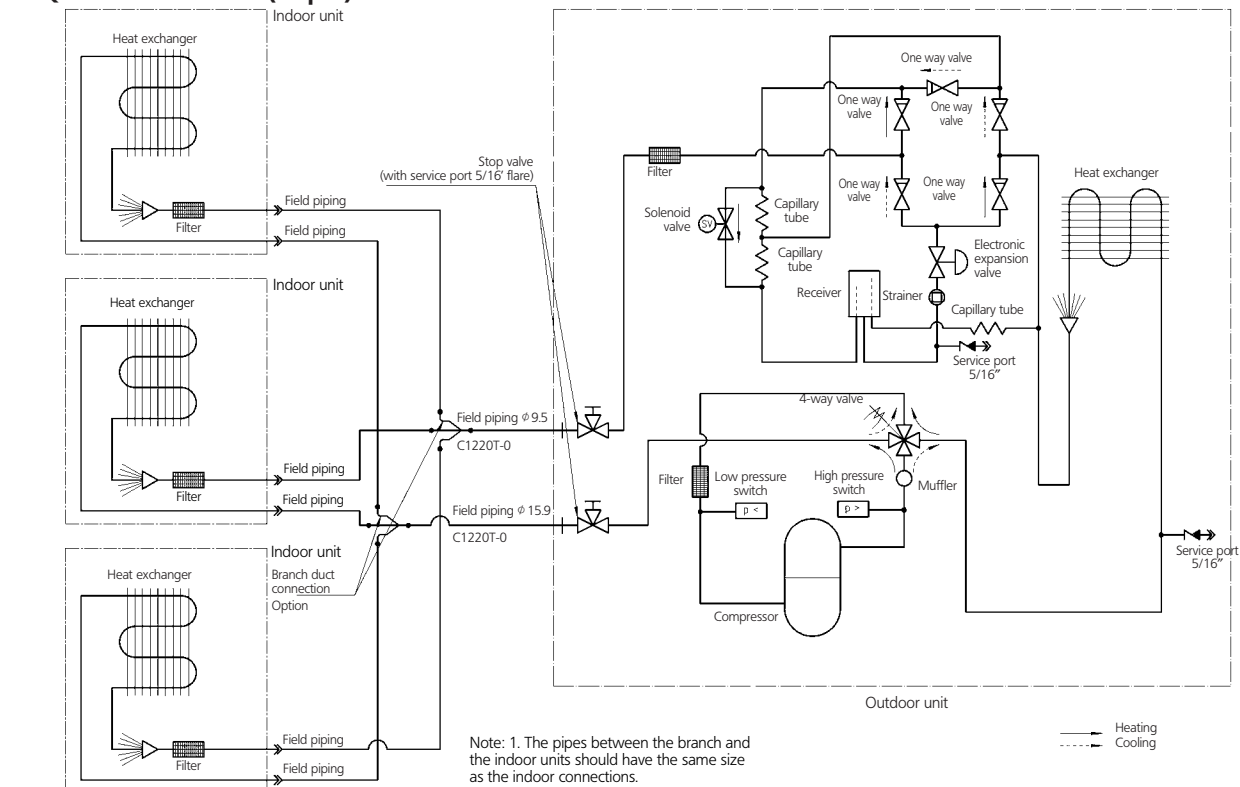


RZQ100-125-140BW1(Twin)



7 Piping diagram

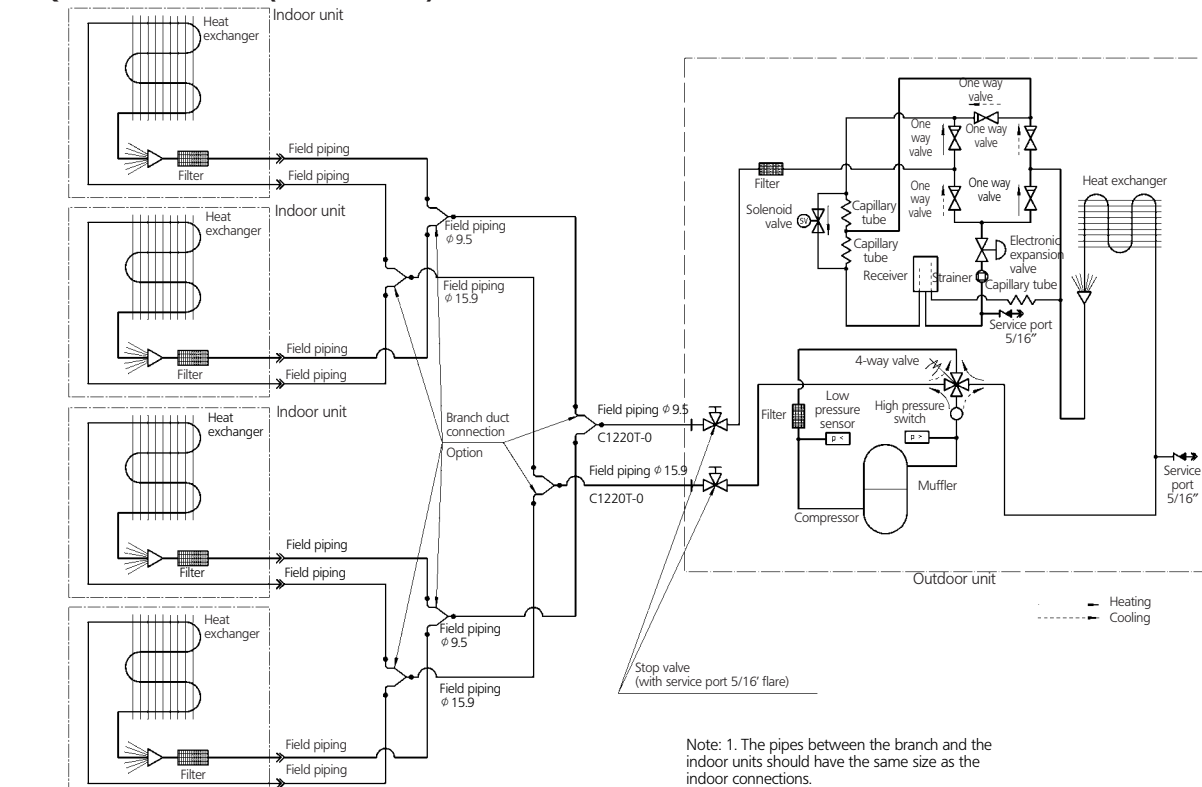
RZQ100-125-140BW1(Triple)



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

3TW26745-3

RZQ100-125-140BW1(Double twin)



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

3TW26755-4

8 Wiring diagram

8 - 1 Wiring diagram

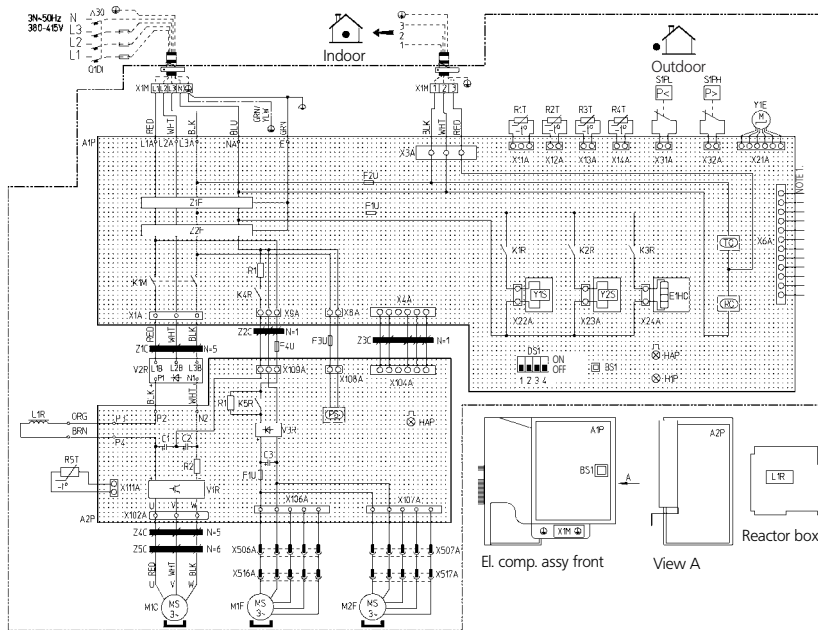
RZQ100-125-140BW1

- L : Live
N : Neutral
- - - : Field wiring
⊕ : Protective earth (screw)
—•— : Wire clamp
□ : Terminal
⊞ : Connector
↑ : Relay connector

Colours
BLK: Black / ORG: Orange / BLU: Blue /
WHT: White / RED: Red / YLW: Yellow /
BRN: Brown / GRN: Green

NOTES:

1. Refer to the optional manual, for connection wiring to X6A.
2. Confirm the method of setting the selector switches (DS1) by service manual. When the unit is shipped by factory all switches are set to be off.

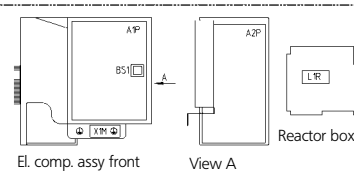


A1P	Printed circuit board
A2P	Printed circuit board (INV)
BS1	Push button switch (forced defrost / pump down)
C1-C2-C3	Capacitor
DS1	Dip switch
F1U (A2P)	Fuse (T 6.3A/250V)
F2U	Fuse (T 6.3A/250V)
F3U	Fuse (B 10A/250V)
F4U	Fuse (B 10A/250V)
HAP (A1P)	Light emitting diode (service monitor green)
HAP (A2P)	Light emitting diode (service monitor green)
H1P (A1P)	Light emitting diode (service monitor red)

X1M(A2P)	Magnetic contactor
K1R(A1P)	Magnetic relay (Y1S)
K2R(A1P)	Magnetic relay (Y2S)
K3R(A1P)	Magnetic relay (E1HC)
K4R, K5R	Magnetic relay
L1R	Reactor
M1C	Motor compressor
M1F	Motor fan
PS	Power circuit
Q1DI	Earth leakage breaker (30mA)
R1-R2	Resistor

R1T	Thermistor (air)
R2T	Thermistor (coil)
R3T	Thermistor (discharge pipe)
R4T	Thermistor (suction pipe)
R5T	Thermistor (power module)
S1PH	Pressure switch (high)
S1NPL	Pressure sensor (low)
RC	Signal receiver circuit
TC	Signal transmission circuit
V1R	Power module

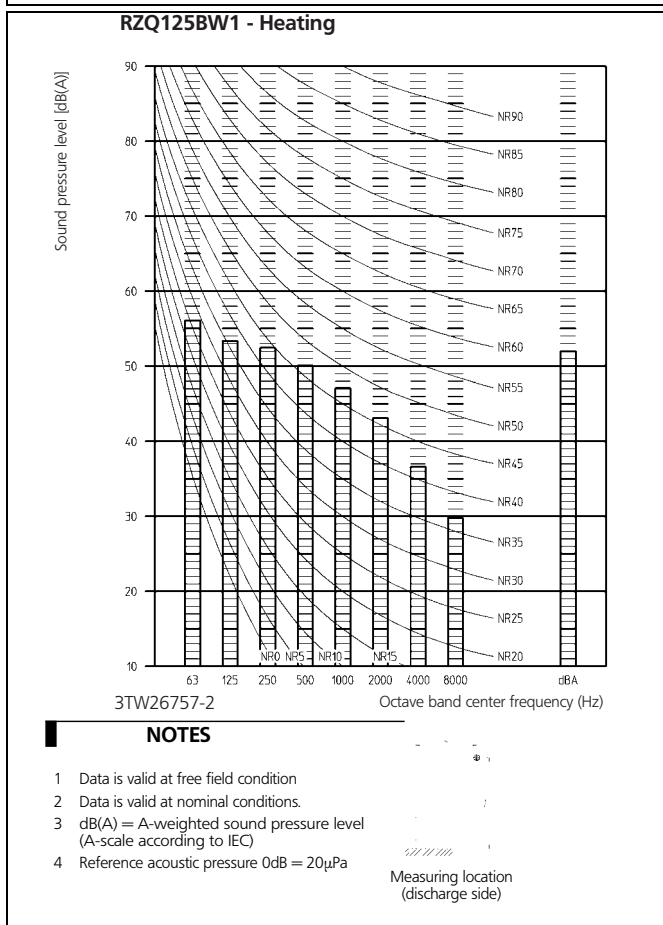
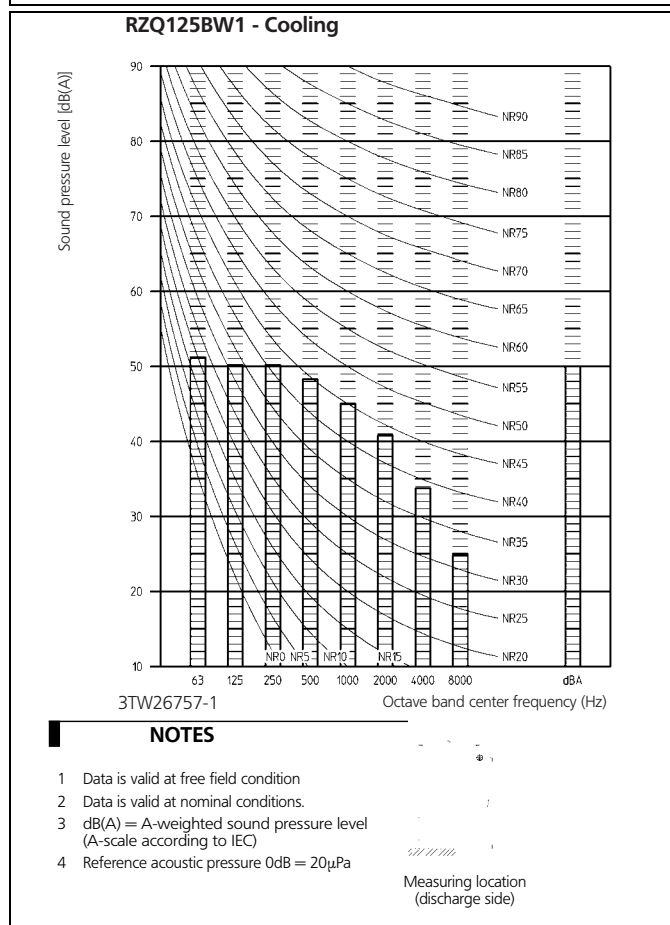
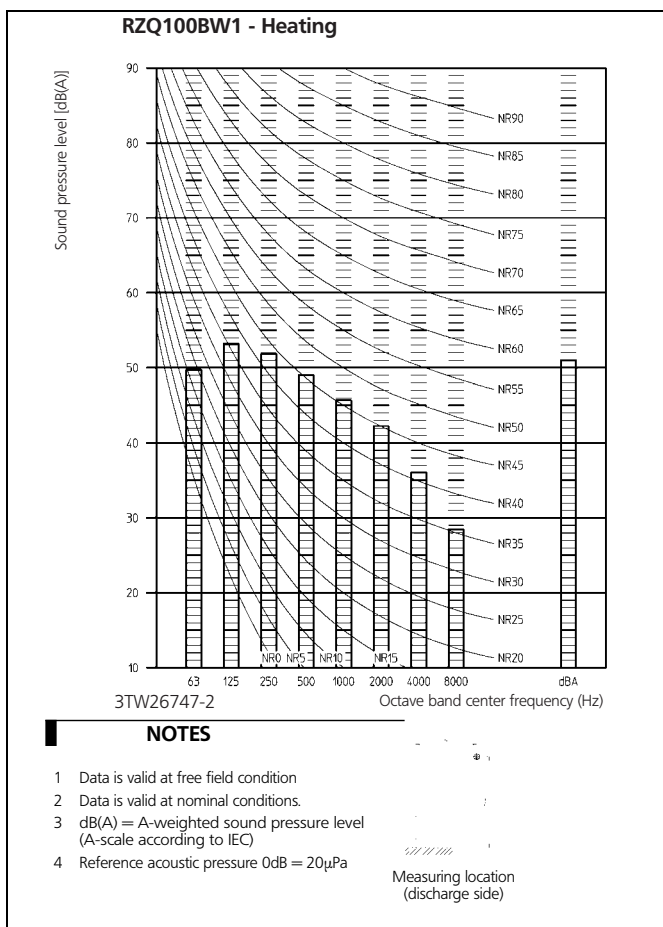
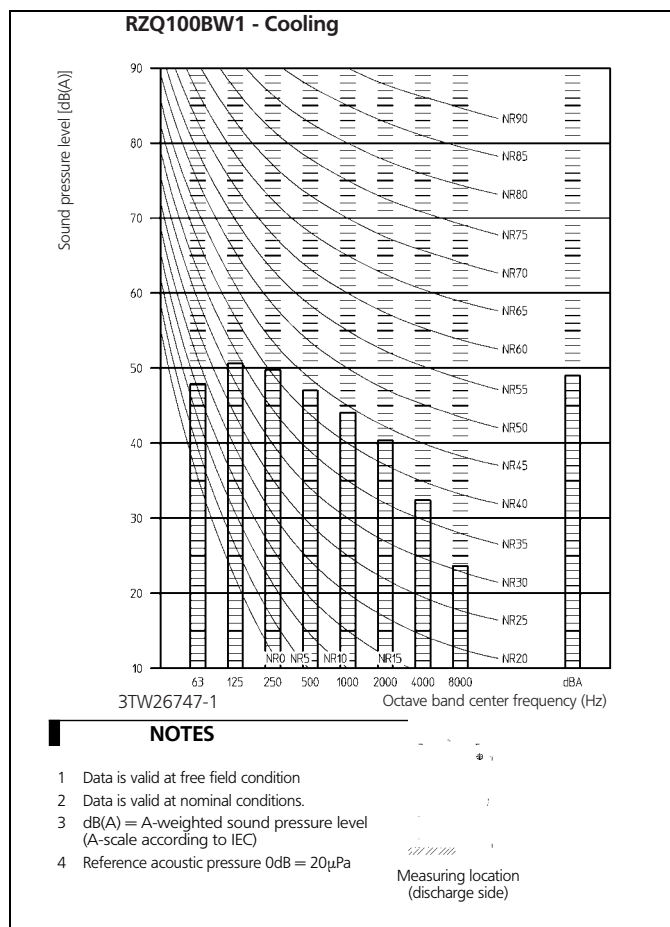
V2R-V3R	Diode module
V4R	IGBT
X6A	Connector (Option)
X1M	Terminal strip
Y1E	Expansion valve
Y2S	4-way valve
Y2S	Solenoid valve
Z1C, Z2C	Noise filter
Z3C, Z4C	Noise filter
Z1F	Noise filter (with surge absorber)
Z1F	Noise filter (with surge absorber)



2TW26766-1

9 Sound data

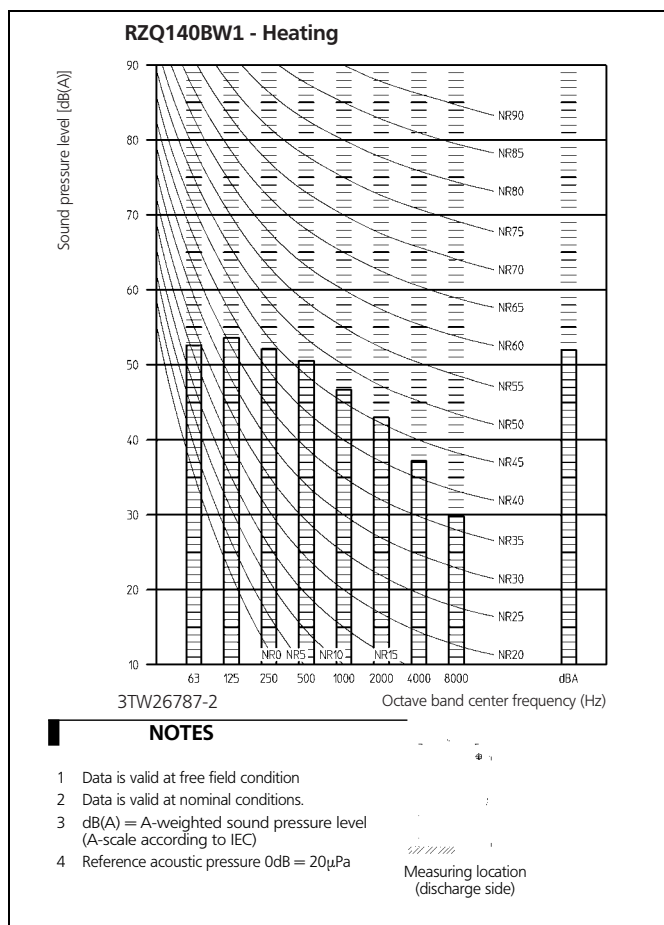
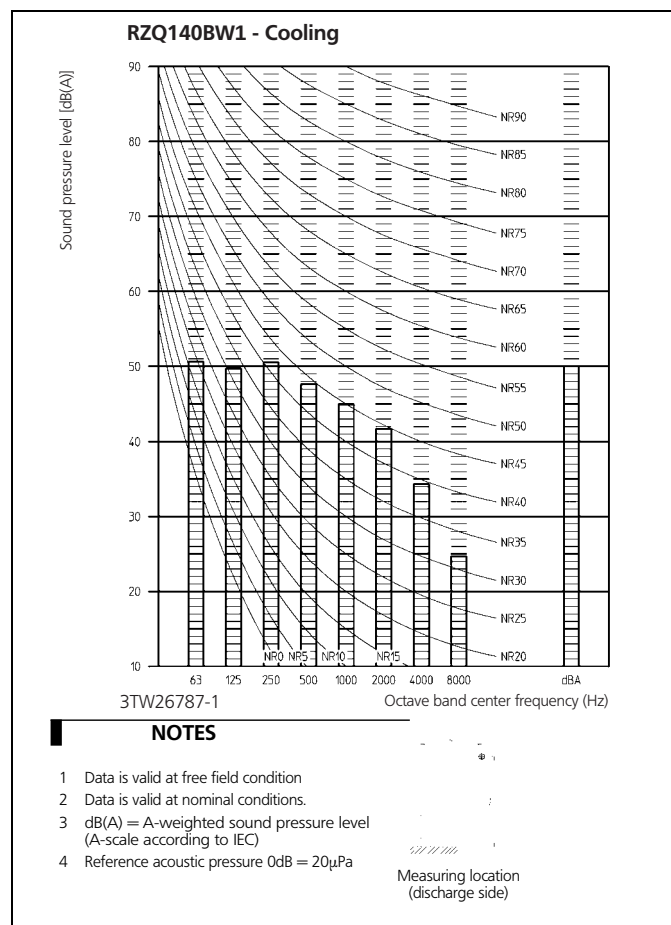
9 - 1 Sound pressure spectrum



9 Sound data

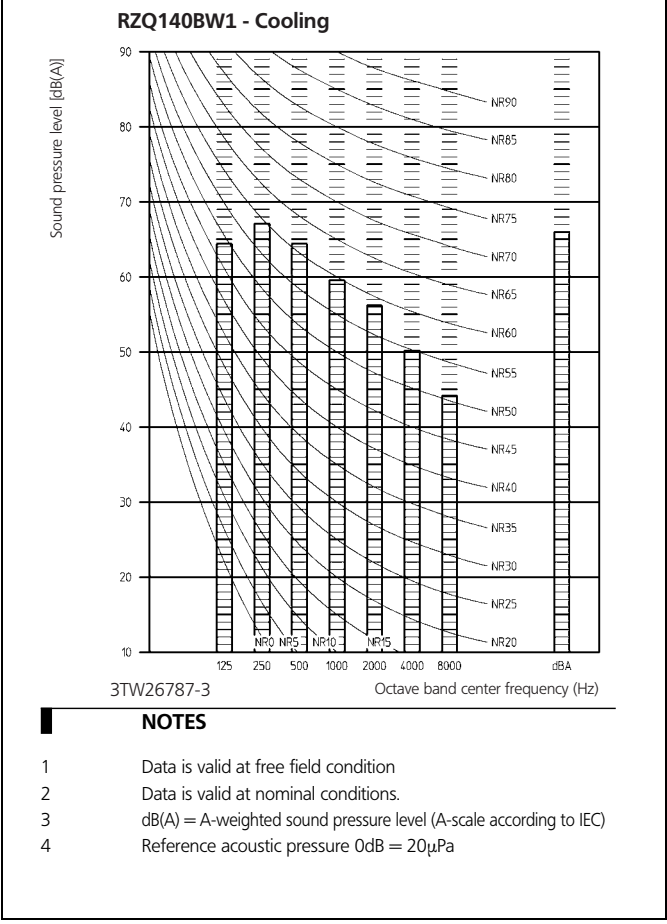
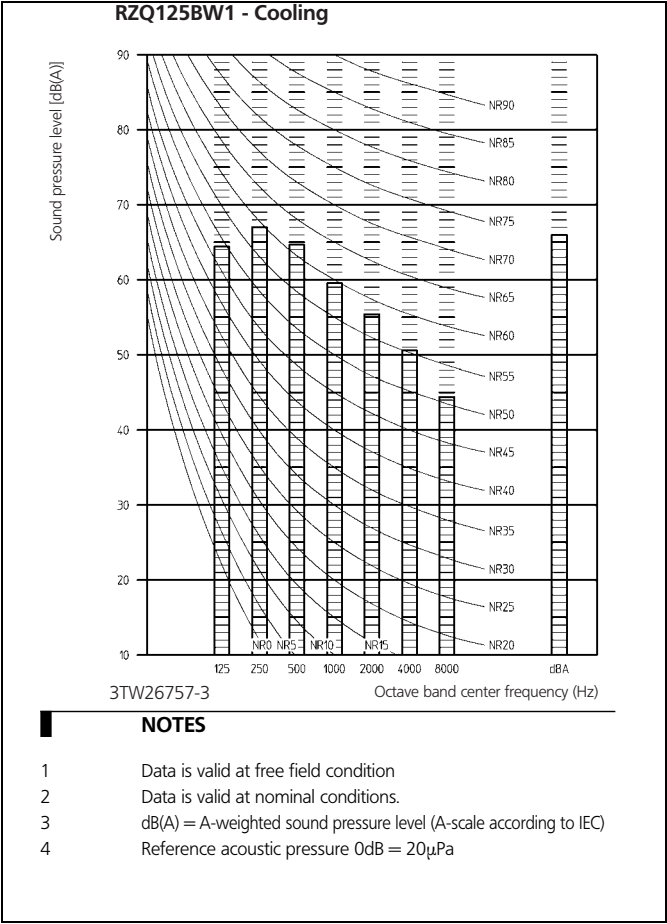
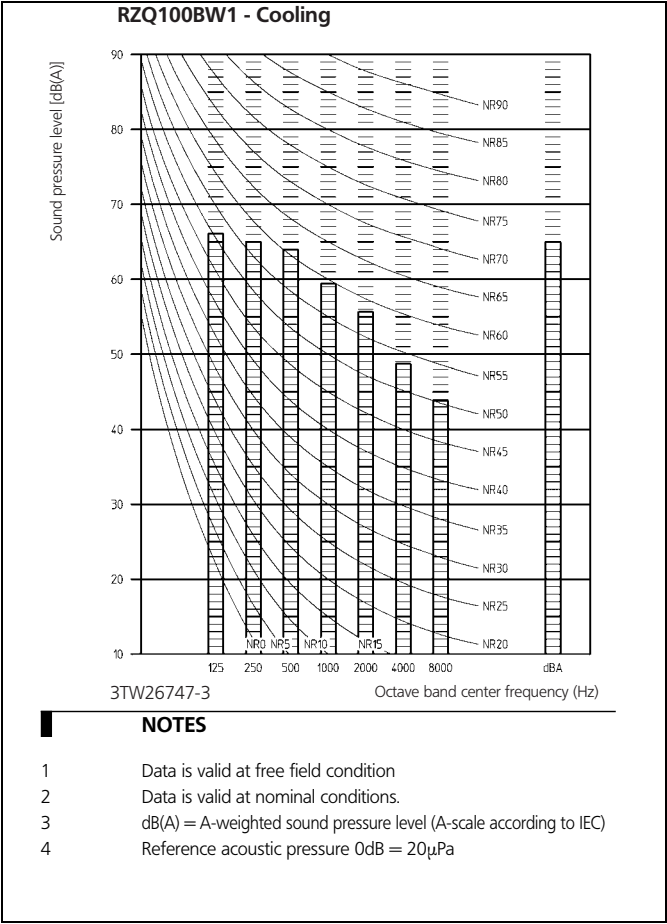
9 - 1 Sound pressure spectrum

9



9 Sound data

9 - 2 Sound power spectrum



10 Installation

10 - 1 Installation method

RZQ100-125-140BW1

A. Non stacked installation

Legend

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

✓			✓	✓		≥200	≥200(300)		≥1000					
✓			✓	✓	✓	≥200	≥200(300)		≥1000		≤500	≥1000		
	✓										≥1000			
	✓										≥1000	≥1000		
				✓				≤500						
✓	✓					L1<L2	≥200(300)		≥1000					
				✓		L2<L1	≥150(250) ≥200(300)				≥1000(1500)		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) ≥200(300)			≥1000(1500)	≤500	≥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

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

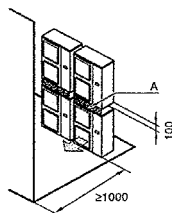
In these cases, only 2 units can be installed.

This situation is not allowed.

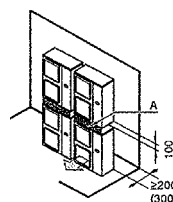
Figures between () indicate the dimensions only for the 100-125-140 class models.

B. Stacked installation

1. Obstacles exist in front of the outlet side



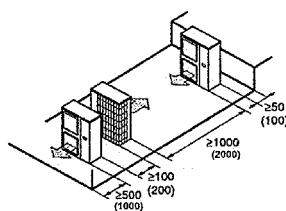
2. Obstacles exist in front of the air inlet



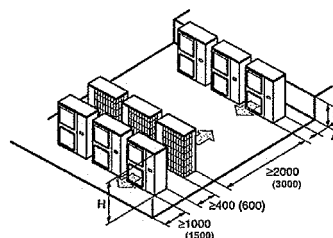
Do not stack more than one unit.
About 100mm is required as the dimension for laying the upper outdoor unit's drain pipe.
Get the portion A sealed so that air from the outlet does not bypass.

C. Multiple-row installation

1. Installation of one unit per row



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



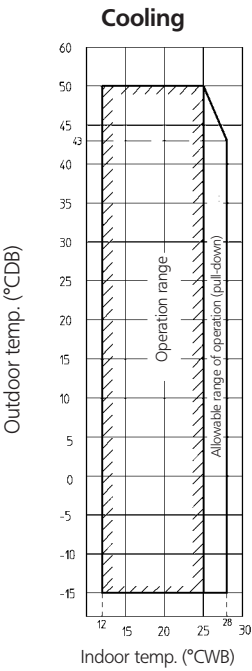
Relation of dimensions of H, A, and L are shown in the table below.

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

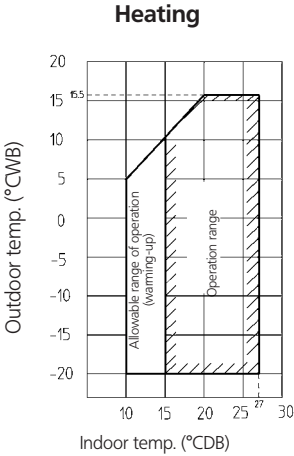
3TW26739-4

11 Operation range

RZQ-BW1



Model name
RZQ100B7W1B
RZQ125B7W1B
RZQ140B7W1B



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.

3TW26733-1A