



Air Conditioning Technical Data



EEEN14-100

RZQSG-L(8)Y1

TABLE OF CONTENTS

RZQSG-L(8)Y1

1	Features	2
2	Specifications	3
	Nominal Capacity And Nominal Input	3
	Nominal Capacity And Nominal Input	3
	Nominal Capacity And Nominal Input	3
	Nominal Capacity And Nominal Input	4
	Nominal Capacity And Nominal Input	4
	Nominal Capacity And Nominal Input	5
	Nominal Capacity And Nominal Input	5
	Technical Specifications	6
	Electrical Specifications	7
3	Electrical data	8
4	Options	11
5	Combination table	12
6	Capacity tables	13
	Cooling Capacity Tables	13
	Heating Capacity Tables	16
	Capacity Correction Factor	19
7	Dimensional drawings	20
8	Centre of gravity	21
9	Piping diagrams	22
	Piping Diagrams	22
	Piping Diagram Twin Application	23
	Piping Diagram Triple Application	24
	Piping Diagram Double Twin Application	25
10	Wiring diagrams	26
	Wiring Diagrams - Three Phase	26
11	Sound data	27
	Sound Power Spectrum	27
	Sound Pressure Spectrum - Cooling	28
	Sound Pressure Spectrum - Heating	29
	Sound Pressure Spectrum Quiet Mode	30
12	Installation	31
	Installation Method	31
13	Operation range	33

1 Features

- Seasonal classic series already comply with EU's 2014 Eco-Design requirements
- Top efficiency: - new compressor that offers substantial efficiency improvements - new control logic that optimises efficiency at the most frequently encountered operating conditions and that optimises the auxiliary modes (when the unit is not active) - newly designed heat exchangers that optimise the refrigerant flow at the most frequent operating conditions (temperature and load) - via improved nominal performances
- Re-use of existing R-22 or R-407C technology
- Guarantees operation in heating mode down to -15°C
- Maximum piping length up to 50m, minimum piping length is 5m.
- Daikin outdoor units are neat, sturdy and can easily be mounted on a roof or terrace or simply placed against an outside wall
- Seasonal efficiency, optimized for all seasons.
- Seasonal efficiency gives an indication on how efficient an air conditioner operates over an entire heating or cooling season.
- Compatibility with D-BACS



Inverter

2 Specifications

2-1 Nominal Capacity And Nominal Input				FCQHG100F/RZQSG100L8Y1	FCQHG125F/RZQSG125L8Y1	FCQHG140F/RZQSG140LY1	
Cooling capacity	Nom.		kW	9.5	12.0	13.4	
Heating capacity	Nom.		kW	10.8	13.5	15.5	
Power input	Cooling	Nom.	kW	2.57	3.71	4.17	
	Heating	Nom.	kW	2.51	3.60	4.29	
Seasonal efficiency (according to EN14825)	Cooling	Energy label		A++		A	-
		Pdesign	kW	9.50	12.00	-	-
		SEER		6.70	5.40	-	-
		Annual energy consumption	kWh	496	778	-	-
	Heating (Average climate)	Energy label		A+		-	-
		Pdesign	kW	8.03		-	-
		SCOP		4.30	4.10	-	-
		Annual energy consumption	kWh	2,614	2,741	-	-
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER		3.70	3.23	3.21		
	COP		4.30	3.75	3.61		
	Annual energy consumption		kWh	1,285	1,855	2,085	
	Energy label	Cooling	A		-		
		Heating	A		-		

Notes

(1) EER/COP according to Eurovent 2012, for use outside EU only

2-2 Nominal Capacity And Nominal Input				FCQG100F/RZQSG100L8Y1	FCQG125F/RZQSG125L8Y1	FCQG140F/RZQSG140LY1	
Cooling capacity	Nom.		kW	9.5	12.0	13.4	
Heating capacity	Nom.		kW	10.8	13.5	15.5	
Power input	Cooling	Nom.	kW	2.88	3.74	4.45	
	Heating	Nom.	kW	3.05	3.96	4.54	
Seasonal efficiency (according to EN14825)	Cooling	Energy label		A++		A	-
		Pdesign	kW	9.50	12.00	-	-
		SEER		6.50	5.30	-	-
		Annual energy consumption	kWh	512	792	-	-
	Heating (Average climate)	Energy label		A+		-	-
		Pdesign	kW	7.60	8.03	-	-
		SCOP		4.10	4.01	-	-
		Annual energy consumption	kWh	2,595	2,803	-	-
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER		3.30	3.21	3.01		
	COP		3.54	3.41	-		
	Annual energy consumption		kWh	1,440	1,870	2,225	
	Energy label	Cooling	A		-		
		Heating	B		-		

Notes

(1) EER/COP according to Eurovent 2012, for use outside EU only

2-3 Nominal Capacity And Nominal Input				FAQ100C/RZQSG100L8Y1
Cooling capacity	Nom.		kW	9.5
Heating capacity	Nom.		kW	10.8
Power input	Cooling	Nom.	kW	3.16
	Heating	Nom.	kW	3.17

2 Specifications

2

2-3 Nominal Capacity And Nominal Input			FAQ100C/RZQSG100L8Y1	
Seasonal efficiency (according to EN14825)	Cooling	Energy label		A+
		Pdesign	kW	9.50
		SEER		5.61
		Annual energy consumption	kWh	593
	Heating (Average climate)	Energy label		A+
		Pdesign	kW	6.81
		SCOP		4.01
		Annual energy consumption	kWh	2,378
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER		3.01	
	COP		3.41	
	Annual energy consumption		kWh	1,580
	Energy label	Cooling	B	
		Heating	B	

Notes

(1) EER/COP according to Eurovent 2012, for use outside EU only

2-4 Nominal Capacity And Nominal Input			FVQ100C/RZQSG100L8Y1	FVQ125C/RZQSG125L8Y1	FVQ140C/RZQSG140LY1	
Cooling capacity	Nom.	kW	9.5	12.0	13.4	
Heating capacity	Nom.	kW	10.8	13.5	15.5	
Power input	Cooling	Nom.	kW	2.96	4.27	4.45
	Heating	Nom.	kW	2.99	3.96	4.54
Seasonal efficiency (according to EN14825)	Cooling	Energy label		A		
		Pdesign	kW	9.50	12.00	-
		SEER		5.50		-
		Annual energy consumption	kWh	605	764	-
	Heating (Average climate)	Energy label		A+	A	-
		Pdesign	kW	7.60		-
		SCOP		4.01	3.85	-
		Annual energy consumption	kWh	2,653	2,764	-
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER		3.21	2.81	3.01	
	COP		3.61	3.41		
	Annual energy consumption		kWh	1,480	2,135	2,225
	Energy label	Cooling	A		C	-
		Heating	A		B	-

Notes

(1) EER/COP according to Eurovent 2012, for use outside EU only

2-5 Nominal Capacity And Nominal Input			FBO100C8/RZQSG100L8Y1	FBO125C8/RZQSG125L8Y1	FBO140C8/RZQSG140LY1	
Cooling capacity	Nom.	kW	9.5	12.0	13.4	
Heating capacity	Nom.	kW	10.8	13.5	15.5	
Power input	Cooling	Nom.	kW	2.87	3.74	4.44
	Heating	Nom.	kW	2.96	3.85	4.54
Seasonal efficiency (according to EN14825)	Cooling	Energy label		A		
		Pdesign	kW	9.50	12.00	-
		SEER		5.50	5.20	-
		Annual energy consumption	kWh	605	808	-
	Heating (Average climate)	Energy label		A+	A	-
		Pdesign	kW	7.60		-
		SCOP		4.01	3.90	-
		Annual energy consumption	kWh	2,653	2,728	-

4

2 Specifications

2-5 Nominal Capacity And Nominal Input			FBQ100C8/RZQSG100L8Y1	FBQ125C8/RZQSG125L8Y1	FBQ140C8/RZQSG140LY1	
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER		3.31	3.21	3.02	
	COP		3.65	3.51	3.41	
	Annual energy consumption		kWh	1,435	1,870	2,220
	Energy label	Cooling	A			-
Heating		A	B	-		

Notes

(1) EER/COP according to Eurovent 2012, for use outside EU only

2-6 Nominal Capacity And Nominal Input				FDQ125C/RZQSG125L8Y1	
Cooling capacity	Nom.		kW	12.0	
Heating capacity	Nom.		kW	13.5	
Power input	Cooling	Nom.	kW	3.74	
	Heating	Nom.	kW	3.85	
Seasonal efficiency (according to EN14825)	Cooling	Energy label		A	
		Pdesign	kW	12.00	
		SEER		5.20	
		Annual energy consumption	kWh	808	
	Heating (Average climate)	Energy label		A	
		Pdesign	kW	7.60	
		SCOP		3.90	
		Annual energy consumption	kWh	2,728	
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER		3.21		
	COP		3.51		
	Annual energy consumption		kWh	1,870	
	Energy label	Cooling	A		
		Heating	B		

Notes

(1) EER/COP according to Eurovent 2012, for use outside EU only

2-7 Nominal Capacity And Nominal Input				FHQ100C/RZQSG100L8Y1	FHQ125C/RZQSG125L8Y1	FHQ140C/RZQSG140LY1
Cooling capacity	Nom.		kW	9.5	12.0	13.4
Heating capacity	Nom.		kW	10.8	13.5	15.5
Power input	Cooling	Nom.	kW	2.96	4.15	4.45
	Heating	Nom.	kW	2.99	3.73	4.54
Seasonal efficiency (according to EN14825)	Cooling	Energy label		A+		-
		Pdesign	kW	9.50	12.00	-
		SEER		5.61		-
		Annual energy consumption	kWh	593	749	-
	Heating (Average climate)	Energy label		A	A+	-
		Pdesign	kW	7.60		-
		SCOP		3.91	4.01	-
		Annual energy consumption	kWh	2,721	2,653	-
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER		3.21			3.01
	COP		3.61			3.41
	Annual energy consumption		kWh	1,480	2,075	2,225
	Energy label	Cooling	A			C
		Heating	A			-

Notes

(1) EER/COP according to Eurovent 2012, for use outside EU only

2 Specifications

2

2-8 Technical Specifications					RZQSG100L8Y1	RZQSG125L8Y1	RZQSG140LY1
Capacity control	Method				Inverter controlled		
Casing	Colour				Ivory white		
	Material				Painted galvanized steel plate		
Dimensions	Unit	Height	mm		990		1,430
		Width	mm		940		
		Depth	mm		320		
	Packed unit	Height	mm		1,170		1,610
		Width	mm		1,015		
		Depth	mm		422		
Weight	Unit		kg	82		101	
	Packed unit		kg	94		114	
Heat exchanger	Fin	Type			WF fin		
		Treatment			Anti-corrosion treatment (PE)		
Compressor	Quantity				1		
	Type				Hermetically sealed swing compressor		
	Starting method				Inverter driven		
Fan	Type				Propeller fan		
	Discharge direction				Horizontal		
	Quantity				1		2
	Air flow rate	Cooling	Nom.	m ³ /min	76	77	83
			Super low	m ³ /min cfm	-		
		Heating	Nom.	m ³ /min	83		62
			Super low	m ³ /min cfm	-		
Fan motor	Quantity				1		2
	Model				Brushless DC motor		
	Output			W	200		94
	Drive				Direct drive		
	Speed	Cooling	Super low	rpm	-		
			Heating	Super low	rpm	-	
Sound power level	Cooling			dBA	69	70	69
	Heating			dBA	-		
Sound pressure level	Cooling	Nom.	dBA	53	54	53	
	Heating	Nom.	dBA	57	58	54	
	Night quiet mode	Level 1	dBA	49			
Operation range	Cooling	Ambient	Min.	°CDB	-15		
			Max.	°CDB	46		
	Heating	Ambient	Min.	°CWB	-15		
			Max.	°CWB	15.5		
Refrigerant	Type				R-410A		
	Charge			kg	2.9		4.0
	Control				Expansion valve (electronic type)		
	GWP				1,975		
	Circuits	Quantity			1		
Refrigerant oil	Type				FVC50K		
	Charged volume			l	0.9		1.35

2 Specifications

2-8 Technical Specifications				RZQSG100L8Y1	RZQSG125L8Y1	RZQSG140LY1	
Piping connections	Liquid	Quantity		1			
		Type		Flare connection			
		OD	mm	9.52			
	Gas	Quantity		1			
		Type		Flare connection			
		OD	mm	15.9			
	Drain	Quantity		5			
		Type		Hole			
		ID	mm	-			
		OD	mm	26			
	Piping length	OU - IU	Min.	m	5		
			Max.	m	50		
		System	Equivalent	m	70		
			Chargeless	m	30		
Additional refrigerant charge			kg/m	See installation manual			
Level difference	IU - OU	Max.	m	30			
	IU - IU	Max.	m	0.5			
Heat insulation				Both liquid and gas pipes			
Defrost method				Reversed cycle			
Defrost control				Sensor for outdoor heat exchanger temperature			
Safety devices	Item	01		High pressure switch			
		02		Fan driver overload protector			
		03		Fuse			

2-9 Electrical Specifications				RZQSG100L8Y1	RZQSG125L8Y1	RZQSG140LY1
Power supply	Name			Y1		
	Phase			3N~		
	Frequency		Hz	50		
	Voltage		V	380-415		
	Voltage range	Min.	%	10		
		Max.	%	10		
Current	Zmax	List	Complies to EN61000-3-11			
	Recommended fuses		A	20		25
Current - 50Hz	Maximum fuse amps (MFA)		A	20		
Current - 60Hz	Maximum fuse amps (MFA)		A	-		
Wiring connections	For power supply	Remark		See installation manual outdoor unit		
	For connection with indoor	Remark		See installation manual outdoor unit		
Power supply intake				Outdoor unit only		

Notes

- (1) PED: assembly = category I : excluded from scope of PED due to article 1, item 3.6 of 97/23/EC
- (2) See separate drawing for electrical data

3 Electrical data

3 - 1 Electrical Data

3

RZQSG100L8Y1

Indoor	Outdoor	Hz-Power supply	Voltage range	MCA	TOCA	MFA	Comp		OFM		IFM	
							MSC	RLA	kW	FLA	kW	FLA
FCQG100EVEB	RZQSG100L8Y1	3N-50Hz 220-240V	Min. 342V Max. 456V	14,5	—	20	—	11,4	0,2	0,6	0,106	1,0
FCQHG100FVEB				14,8	—	20	—	11,4	0,2	0,6	0,221	1,3
FCQG35FVEB x3				14,3	—	20	—	11,4	0,2	0,6	0,044x3	0,3x3
FCQG50FVEB x2				14,0	—	20	—	11,4	0,2	0,6	0,039x2	0,3x2
FCQG100FVEB				14,1	—	20	—	11,4	0,2	0,6	0,117	0,7
FFQ35B9V1B x3				14,7	—	20	—	11,4	0,2	0,6	0,055x3	0,4x3
FFQ50B9V1B x2				15,0	—	20	—	11,4	0,2	0,6	0,055x2	0,7x2
FBQ35C8VEB x3				17,7	—	20	—	11,4	0,2	0,6	0,140x3	1,2x3
FBQ50C8VEB x2				16,2	—	20	—	11,4	0,2	0,6	0,140x2	1,2x2
FBQ100C8VEB				15,2	—	20	—	11,4	0,2	0,6	0,350	1,6
FHQ35BWV1B x3				15,5	—	20	—	11,4	0,2	0,6	0,062x3	0,6x3
FHQ50BWV1B x2				14,7	—	20	—	11,4	0,2	0,6	0,062x2	0,6x2
FHQG100CVEB				14,7	—	20	—	11,4	0,2	0,6	0,150	1,2
FAQ100CVEB				13,7	—	20	—	11,4	0,2	0,6	0,064	0,4
FVQ100CVEB				14,7	—	20	—	11,4	0,2	0,6	0,238	1,2
FHQ35CAVEB x3				15,5	—	20	—	11,4	0,2	0,6	0,060 x 3	0,6 x 3
FHQ50CAVEB x2				14,7	—	20	—	11,4	0,2	0,6	0,060 x 2	0,6 x 2
FHQ100CAVEB				14,8	—	20	—	11,4	0,2	0,6	0,150	1,3

SYMBOLS

MCA	: Min. Circuit Amps. (A)
TOCA	: Total Over-Current Amps. (A)
MFA	: Max. Fuse Amps. (See note 7) (A)
MSC	: Max. current during the starting 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 27,0°CDB/19,0°CWB
Outdoor temperature 35,0°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 range limits.
- 4 Maximum allowable voltage variation 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)

3D077811A

3 Electrical data

3 - 1 Electrical Data

RZQSG125-140L(8)Y1

Indoor	Outdoor	Hz-Power supply	Voltage range	Comp					OFM		IFM				
				MCA	TOCA	MFA	MSC	RLA	kW	FLA	kW	FLA			
FCQG125EVEB	RZQSG125L8Y1	3N-50Hz 220-240V	Min. 342V Max. 456V	14,6	—	20	—	11,4	0,2	0,6	0,106	1,1			
FCQH125FVEB				15,0	—	20	—	11,4	0,2	0,6	0,244	1,4			
FCQG35FVEB x4				14,7	—	20	—	11,4	0,2	0,6	0,044x4	0,3x4			
FCQG50FVEB x3				14,3	—	20	—	11,4	0,2	0,6	0,039x3	0,3x3			
FCQG60FVEB x2				14,0	—	20	—	11,4	0,2	0,6	0,044x2	0,3x2			
FCQG125FVEB				14,5	—	20	—	11,4	0,2	0,6	0,168	1,0			
FFQ35B9V1B x4				15,2	—	20	—	11,4	0,2	0,6	0,055x4	0,4x4			
FFQ50B9V1B x3				15,8	—	20	—	11,4	0,2	0,6	0,055x3	0,7x3			
FFQ60B9V1B x2				15,0	—	20	—	11,4	0,2	0,6	0,055x2	0,7x2			
FBQ35C8VEB x4				19,2	—	20	—	11,4	0,2	0,6	0,140x4	1,2x4			
FBQ50C8VEB x3				17,7	—	20	—	11,4	0,2	0,6	0,140x3	1,2x3			
FBQ60C8VEB x2				16,0	—	20	—	11,4	0,2	0,6	0,350x2	1,1x2			
FBQ125C8VEB				15,8	—	20	—	11,4	0,2	0,6	0,350	2,1			
FHQ35BWV1B x4				16,2	—	20	—	11,4	0,2	0,6	0,062x4	0,6x4			
FHQ50BWV1B x3				15,5	—	20	—	11,4	0,2	0,6	0,062x3	0,6x3			
FHQ60BWV1B x2				14,7	—	20	—	11,4	0,2	0,6	0,062x2	0,6x2			
FHQG125CVEB				15,2	—	20	—	11,4	0,2	0,6	0,150	1,6			
FDQ125C7VEB				15,8	—	20	—	11,4	0,2	0,6	0,350	2,1			
FVQ125CVEB				14,7	—	20	—	11,4	0,2	0,6	0,238	1,2			
FHQ35CAVEB x4				16,2	—	20	—	11,4	0,2	0,6	0,060x4	0,6 x 4			
FHQ50CAVEB x3				15,5	—	20	—	11,4	0,2	0,6	0,060x3	0,6 x 3			
FHQ60CAVEB x2				14,7	—	20	—	11,4	0,2	0,6	0,091x2	0,8 x 2			
FHQ125CAVEB				15,1	—	20	—	11,4	0,2	0,6	0,150	1,5			
FCQG71EVEB x2				RZQSG140LY1	3N-50Hz 220-240V	Min. 342V Max. 456V	17,5	—	20	—	14,2	0.094+0.094	0.4+0.4	0.048x2	0.4x2
FCQG140EVEB							17,9	—	20	—	14,2	0.094+0.094	0.4+0.4	0,106	1,1
FCQH140FVEB x2							17,8	—	20	—	14,2	0.094+0.094	0.4+0.4	0,091x2	0,5x2
FCQH140FVEB							18,3	—	20	—	14,2	0.094+0.094	0.4+0.4	0,244	1,4
FCQG35FVEB x4							18,0	—	20	—	14,2	0.094+0.094	0.4+0.4	0,044x4	0,3x4
FCQG50FVEB x3							17,6	—	20	—	14,2	0.094+0.094	0.4+0.4	0,039x3	0,3x3
FCQG71FVEB x2							17,5	—	20	—	14,2	0.094+0.094	0.4+0.4	0,054x2	0,4x2
FCQG140FVEB	17,8	—	20				—	14,2	0.094+0.094	0.4+0.4	0,168	1,0			
FFQ35B9V1B x4	18,5	—	20				—	14,2	0.094+0.094	0.4+0.4	0,055x4	0,4x4			
FFQ50B9V1B x3	19,1	—	20				—	14,2	0.094+0.094	0.4+0.4	0,055x3	0,7x3			
FBQ35C8VEB x4	22,5	—	25				—	14,2	0.094+0.094	0.4+0.4	0,140x4	1,2x4			
FBQ50C8VEB x3	21,0	—	25				—	14,2	0.094+0.094	0.4+0.4	0,140x3	1,2x3			
FBQ71C8VEB x2	19,3	—	20				—	14,2	0.094+0.094	0.4+0.4	0,350x2	1,1x2			
FBQ140C8VEB	19,1	—	20				—	14,2	0.094+0.094	0.4+0.4	0,350	2,1			
FHQ35BWV1B x4	19,5	—	20				—	14,2	0.094+0.094	0.4+0.4	0,062x4	0,6x4			
FHQ50BWV1B x3	18,8	—	20				—	14,2	0.094+0.094	0.4+0.4	0,062x3	0,6x3			
FHQG71CVEB x2	18,5	—	20				—	14,2	0.094+0.094	0.4+0.4	0,091x2	0,8x2			
FHQG140CVEB	18,8	—	20				—	14,2	0.094+0.094	0.4+0.4	0,150	1,8			
FAQ71CVEB x2	17,5	—	20				—	14,2	0.094+0.094	0.4+0.4	0,048x2	0,4x2			
FVQ140CVEB	18,3	—	20				—	14,2	0.094+0.094	0.4+0.4	0,276	1,4			
FHQ35CAVEB x4	19,5	—	20				—	14,2	0.094+0.094	0.4+0.4	0,060 x 4	0,6 x 4			
FHQ50CAVEB x3	18,8	—	20				—	14,2	0.094+0.094	0.4+0.4	0,060 x 3	0,6 x 3			
FHQ71CAVEB x2	18,5	—	20				—	14,2	0.094+0.094	0.4+0.4	0,091 x 2	0,8 x 2			
FHQ140CAVEB	18,8	—	20				—	14,2	0.094+0.094	0.4+0.4	0,150	1,8			

SYMBOLS

MCA	: Min. Circuit Amps. (A)
TOCA	: Total Over-Current Amps. (A)
MFA	: Max. Fuse Amps. (See note 7) (A)
MSC	: Max. current during the starting 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 27.0°CDB/19.0°CWB
Outdoor temperature 35.0°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 range limits.
- Maximum allowable voltage variation 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)

3D077811A

3 Electrical data

3 - 1 Electrical Data

RZQSG-L(8)Y1

Unit combination		Minimum Ssc value (kVA)
FFQ35B9V1B	x3	936
FFQ50B9V1B	x2	951
FHQ35BWW1B	x3	977
FHQ50BWW1B	x2	936
FBQ35C8VEB	x3	1092
FBQ50C8VEB	x2	1014
FCQG35FVEB	x3	915
FCQG50FVEB	x2	899
FBQ100C8VEB	x1	962
FCQG100FVEB	x1	905
FCQHG100FVEB	x1	941
FAQ100CVEB	x1	884
FVQ100CVEB	x1	936
FHQG100CVEB	x1	936
FUQ100BWW1B	x1	925
FFQ35B9V1B	x4	962
FFQ50B9V1B	x3	993
FFQ60B9V1B	x2	951
FHQ35BWW1B	x4	1014
FHQ50BWW1B	x3	977
FHQ60BWW1B	x2	936
FBQ35C8VEB	x4	1170
FBQ50C8VEB	x3	1092
FBQ60C8VEB	x2	1003
FCQG35FVEB	x4	936
FCQG50FVEB	x3	915
FCQG60FVEB	x2	899
FBQ125C8VEB	x1	993
FCQG125FVEB	x1	925
FCQHG125FVEB	x1	951
FVQ125CVEB	x1	936
FHQG125CVEB	x1	962
FUQ125BWW1B	x1	925
FDQ125C7VEB	x1	993

Unit combination		Minimum Ssc value (kVA)
FFQ35B9V1B	x4	962
FFQ50B9V1B	x3	993
FHQ35BWW1B	x4	1014
FHQ50BWW1B	x3	977
FBQ35C8VEB	x4	1170
FBQ50C8VEB	x3	1092
FCQG35FVEB	x4	936
FCQG50FVEB	x3	915
FCQG71FVEB	x2	910
FCQHG71FVEB	x2	925
FAQ71CVEB	x2	910
FHQG71CVEB	x2	962
FBQ71C8VEB	x2	1003
FUQ71BWW1B	x2	936
FBQ140C8VEB	x1	993
FCQG140FVEB	x1	925
FCQHG140FVEB	x1	951
FVQ140CVEB	x1	951
FHQG140CVEB	x1	977
FFQ35B9V1B	x4	962
FFQ50B9V1B	x3	993
FHQ35BWW1B	x4	1014
FHQ50BWW1B	x3	977
FBQ35C8VEB	x4	1170
FBQ50C8VEB	x3	1092
FCQG35FVEB	x4	936
FCQG50FVEB	x3	915
FCQG71FVEB	x2	910
FCQHG71FVEB	x2	925
FAQ71CVEB	x2	910
FHQG71CVEB	x2	962
FBQ71C8VEB	x2	1003
FBQ140C8VEB	x1	993
FCQG140FVEB	x1	925
FCQHG140FVEB	x1	951
FVQ140CVEB	x1	951
FHQG140CVEB	x1	977

3D079056

NOTES

- In accordance with EN/IEC 61000-3-12⁽¹⁾, it may be necessary to consult the distribution network operator to ensure that the equipment is connected only to a supply with $S_{sc}^{(2)} \geq$ minimum Ssc value.

- ⁽¹⁾ European/international technical standard setting the limits for harmonic currents produced by equipment connected to public low-voltage system with input current > 16A and \leq 75A per phase.

⁽²⁾ Short-circuit power

4 Options

4 - 1 Options

RZQSG-L(8)Y1

Available options for RZQSG models:

Name of option	Kit name		
	RZQSG100L8Y1	RZQSG125L8Y1	RZQSG140LY1
Bottom plate heater	-		
Refrigerant branch piping	Twin	KHRQ22M20TA (KHRQ58T); See note 1	
	Triple	KHRQ127H (KHRQ58H); See note 1	
	Double twin	-	KHRQ22M20TA (KHRQ58T); See note 1
Demand adapter kit	KRP58M51		

3D076079

NOTES

- For RZQSG71-140L(8)Y1 in combination with FCQG35-71F or FCQH71F use the refrigerant branch piping mentioned between brackets.

5 Combination table

5 - 1 Combination Table

5

RZQSG-L(8)Y1

Multi Combination Possibilities:

P = Pair	71	100	125	140
2 = Twin	35+35	50+50	60+60	71+71
3 = Triple		35+35+35	50+50+50 (*)	50+50+50 (*)
4 = Double twin			35+35+35+35 (*)	35+35+35+35

(*): Max capacity depend on outdoor unit

Model name	Hi cassette				Thin cassette								3-in cassette				Duct (medium ESP)				Ceiling suspended				Recessed ceiling		Wall mounted		R32/Plus		Roof standing						
	FCQH71FVEB	FCQHG10MFVEB	FCQH612BFVEB	FCQH614BFVEB	FCQG34FVEB	FCQG66FVEB	FCQG66PFVEB	FCQG71FVEB	FCQG100FVEB	FCQG125FVEB	FCQG144FVEB	FCQ388BV1B	FCQ668BV1B	FCQ668BV1B	FCQ388BV1B	FCQ388BV1B	FCQ388BV1B	FCQ125BV1B	FCQ125BV1B	FCQ125BV1B	FCQ125BV1B	FCQ125BV1B	FCQ125BV1B	FCQ125BV1B	FCQ125BV1B	FAC710VEB	FAC710VEB	FAC710VEB	FAC710VEB	FQD125C7VEB	FVQ125C7VEB	FVQ125C7VEB	FVQ125C7VEB	FVQ125C7VEB	FVQ125C7VEB		
RZQSG100L8Y1		P			3	2			P					3	2																						
RZQSG125L8Y1			P		4	3	2				P			4	3	2																					
RZQSG140LY1	2			P	4	3		2			P			4	3		2									2											

NOTES

- 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 remote controller that is equipped with the most functions as the main unit.
- See the option list for the selection of the refnet kits that are necessary to install the combinations:
 Twin: KHRQ22M20TA or KHRQ58T
 Triple: KHRQ127H or KHRQ58H
 Double twin: KHRQ22M20TA or KHRQ58T

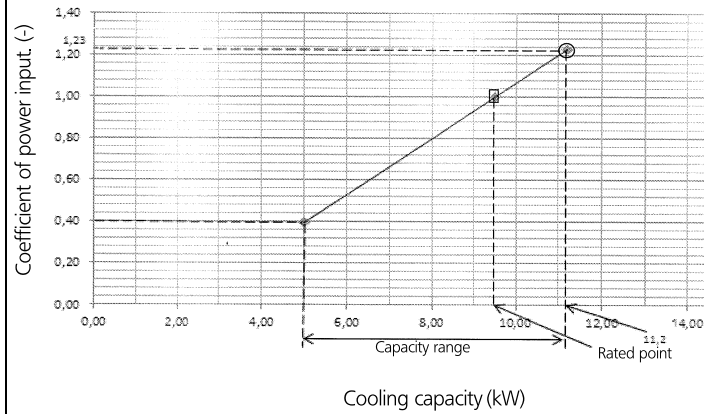
3D076080B

6 Capacity tables

6 - 1 Cooling Capacity Tables

RZQSG100L8Y1

Cooling



Cooling

Indoor		Outdoor temperature (°CDB)											
		25			30			35			40		
°CWB	°CDB	TC kW	SHC kW	CPI -	TC kW	SHC kW	CPI -	TC kW	SHC kW	CPI -	TC kW	SHC kW	CPI -
16,0	22	11,2	7,61	1,01	10,8	7,44	1,11	10,5	7,29	1,22	10,1	7,09	1,32
18,0	25	11,8	7,59	1,01	11,4	7,49	1,12	11,0	7,27	1,23	10,5	7,09	1,33
19,0	27	12,0	7,57	1,02	11,6	7,44	1,12	11,2	7,26	1,23	10,8	7,04	1,33
19,5	27	12,1	7,59	1,02	11,7	7,37	1,13	11,4	7,34	1,23	10,9	7,04	1,34
22,0	30	12,8	7,52	1,02	12,4	7,36	1,13	11,9	7,16	1,24	11,5	7,03	1,35
24,0	32	13,3	7,42	1,03	12,9	7,27	1,14	12,4	7,06	1,25	12,0	6,91	1,36

NOTES

- Ratings shown are net capacities which include a deduction for indoor fan motor heat.
- On the figure the mark with ○ show the max. at standard conditions.
On the figure the mark with □ show the rated capacity and rated coefficient of power input.
However the max. capacity is not guaranteed, except at standard condition.
- SHC is based on indoor EWB and EDB.
SHC for other dry bulb temp. = SHC + SHC*.
SHC* = SHC correction for other dry bulb.
= 0.02 x AFR (m³/min.) x (1-BF) x (DB*-EDB).
- Capacities are based on the following conditions:
Outdoor air: 85% RH.
However, the condition rated capacity in heating is 7° CDB / 6° CWB.
Corresponding refrigerant piping length: 5.0 m.
Level difference: 0 m.
- Coefficient of power input is the percentage when the rated value is defined as 1.00.
- The value contains less than 5% error according to indoor unit type.
- Heating performance include the drop of frost formation.
- Air flow rate and (BF) are given in table below:

(Pair)

	FCQHG100F	FCQG100F	FBQ100C	FHQG100C	FAQ100C	FVQ100C	FHQ100CA
AFR (BF)	32.3 (0.17)	32.0 (0.17)	32.0 (0.13)	20.0 (0.09)	26.0 (0.10)	28.0 (0.20)	28.0 (0.09)

(Triple)

	FCQG35F3	FFQ35B9x3	FBQ35C3	FHQ35BWx3	FHQ35CAx3
AFR (BF)	12.5x3 (0.4x3)	10.0x3 (0.25x3)	16.0x3 (0.15x3)	13.0x3 (0.20x3)	14.0x3 (0.17x3)

- Rated power input of each model is given in tables below:

(Pair)

	FCQHG100F	FCQG100F	FBQ100C	FHQG100C	FAQ100C	FVQ100C	FHQ100CA
Cooling	2.57	2.88	2.87	2.96	3.16	2.96	2.96

(Triple)

	FCQG35F3	FFQ35B9x3	FBQ35C3	FHQ35BWx3	FHQ35CAx3
Cooling	2.82	2.86	2.93	3.39	3.33

SYMBOLS

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

Caution:
TC and SHC are shown by kW.

(Twin)

	FCQG50F2	FFQ50B9x2	FBQ50C2	FHQ50BWx2	FHQ50CAx2
AFR (BF)	12.6x2 (0.22x2)	12.0x2 (0.16x2)	16.0x2 (0.16x2)	13.0x2 (0.10x2)	15.0x2 (0.18x2)

(Twin)

	FCQG50F2	FFQ50B9x2	FBQ50C2	FHQ50BWx2	FHQ50CAx2
Cooling	2.76	2.86	2.93	3.39	3.35

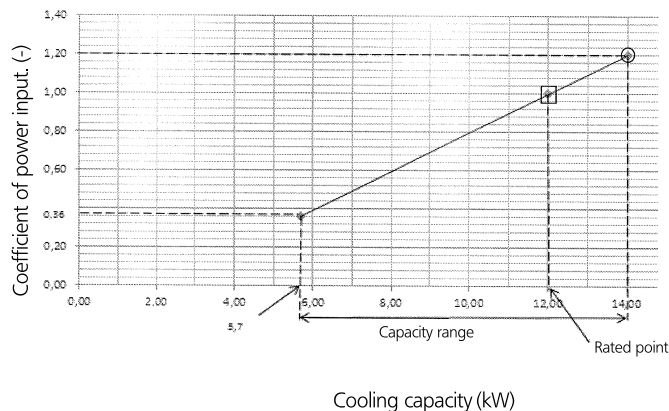
3D076753A

6 Capacity tables

6 - 1 Cooling Capacity Tables

RZQSG125L8Y1

Cooling



Cooling

Indoor		Outdoor temperature (°CDB)											
		25			30			35			40		
°CWB	°CDB	TC kW	SHC kW	CPI -	TC kW	SHC kW	CPI -	TC kW	SHC kW	CPI -	TC kW	SHC kW	CPI -
16.0	22	14.1	9.54	0.99	13.6	9.30	1.09	13.1	9.12	1.19	12.6	8.78	1.29
18.0	25	14.7	9.50	0.99	14.2	9.32	1.09	13.7	9.09	1.20	13.2	8.83	1.31
19.0	27	15.0	9.52	1.00	14.5	9.34	1.10	14.0	9.06	1.20	13.5	8.87	1.31
19.5	27	15.2	9.52	1.00	14.7	9.26	1.11	14.2	9.08	1.20	13.6	8.81	1.31
22.0	30	16.0	9.39	1.00	15.5	9.14	1.11	14.9	8.95	1.21	14.4	8.74	1.32
24.0	32	16.7	9.31	1.01	16.1	9.09	1.12	15.5	8.83	1.23	15.0	8.63	1.33

NOTES

- Ratings shown are net capacities which include a deduction for indoor fan motor heat.
- On the figure the mark with ○ show the max. at standard conditions.
On the figure the mark with □ show the rated capacity and rated coefficient of power input.
However the max. capacity is not guaranteed, except at standard condition.
- SHC is based on indoor EWB and EDB.
SHC for other dry bulb temp. = SHC + SHC*.
SHC* = SHC correction for other dry bulb.
= 0.02 x AFR (m³/min.) x (1-BF) x (DB*-EDB).
- Capacities are based on the following conditions:
Outdoor air: 85% RH.
However, the condition rated capacity in heating is 7° CDB / 6° CWB.
Corresponding refrigerant piping length: 5.0 m.
Level difference: 0 m.
- Coefficient of power input is the percentage when the rated value is defined as 1.00.
- The value contains less than 5% error according to indoor unit type.
- Heating performance include the drop of frost formation.
- Air flow rate and (BF) are given in table below:

(Pair)

	FCQH125F	FCQG125F	FBQ125C	FHQG125C	FDQ125C	FWQ125C	FHQ125CA
AFR	33.5	33.0	39.0	31.0	39.0	28.0	31.0
(BF)	(0.19)	(0.21)	(0.16)	(0.134)	(0.16)	(0.16)	(0.14)

(Triple)

	FCQG50Fx3	FFQ50B9x3	FBQ50Cx3	FHQ50B9x3	FHQ50CAx3
AFR	12.6x3	12.0x3	16.0x3	13.0x3	15.0x3
(BF)	(0.22x3)	(0.16x3)	(0.16x3)	(0.10x3)	(0.18x3)

- Rated power input of each model is given in tables below:

(Pair)

	FCQH125F	FCQG125F	FBQ125C	FHQG125C	FDQ125C	FWQ125C	FHQ125CA
Cooling	3.71	3.74	3.74	4.15	3.74	4.27	4.15

(Triple)

	FCQG50Fx3	FFQ50B9x3	FBQ50Cx3	FHQ50B9x3	FHQ50CAx3
Cooling	3.69	4.08	3.95	4.39	4.33

SYMBOLS

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

Caution:
TC and SHC are shown by kW.

(Twin)

	FCQG60Fx2	FFQ60B9x2	FBQ60Cx2	FHQ60B9x2	FHQ60CAx2
AFR	13.6x2	15.0x2	18.0x2	17.0x2	19.5x2
(BF)	(0.2x2)	(0.11x2)	(0.15x2)	(0.20x2)	(0.20x2)

(Double twin)

	FCQG35Fx4	FFQ35B9x4	FBQ35Cx4	FHQ35B9x4	FHQ35CAx4
AFR	12.5x4	10x4	16x4	13x4	14x4
(BF)	(0.4x4)	(0.25x4)	(0.15x4)	(0.20x4)	(0.17x4)

(Twin)

	FCQG60Fx2	FFQ60B9x2	FBQ60Cx2	FHQ60B9x2	FHQ60CAx2
Cooling	3.66	4.08	3.95	4.39	4.34

(Double twin)

	FCQG35Fx4	FFQ35B9x4	FBQ35Cx4	FHQ35B9x4	FHQ35CAx4
Cooling	3.75	4.08	3.95	4.39	4.31

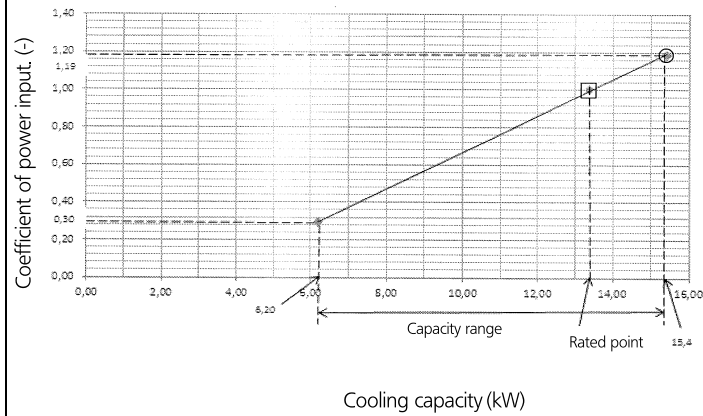
3D07654A

6 Capacity tables

6 - 1 Cooling Capacity Tables

RZQSG140LY1

Cooling



Cooling

Indoor		Outdoor temperature (°CDB)											
		25			30			35			40		
°CWB	°CDB	TC kW	SHC kW	CPI -	TC kW	SHC kW	CPI -	TC kW	SHC kW	CPI -	TC kW	SHC kW	CPI -
16.0	22	15.5	10.47	0.98	14.9	10.25	1.08	14.4	10.03	1.18	13.9	9.69	1.28
18.0	25	16.2	10.55	0.98	15.6	10.21	1.09	15.1	10.01	1.19	14.5	9.71	1.30
19.0	27	16.6	10.43	0.99	16.0	10.18	1.09	15.4	9.98	1.19	14.8	9.76	1.30
19.5	27	16.7	10.49	0.99	16.1	10.16	1.10	15.6	10.00	1.19	15.0	9.66	1.30
22.0	30	17.6	10.37	0.99	17.0	10.16	1.10	16.4	9.83	1.21	15.8	9.60	1.31
24.0	32	18.4	10.20	1.00	17.7	10.00	1.11	17.0	9.67	1.22	16.4	9.47	1.32

NOTES

- Ratings shown are net capacities which include a deduction for indoor fan motor heat.
- On the figure the mark with ○ show the max. at standard conditions.
On the figure the mark with □ show the rated capacity and rated coefficient of power input.
However the max. capacity is not guaranteed, except at standard condition.
- SHC is based on indoor EWB and EDB.
SHC for other dry bulb temp. = SHC + SHC*.
SHC* = SHC correction for other dry bulb.
= 0.02 x AFR (m³/min.) x (1-BF) x (DB* - EDB).
- Capacities are based on the following conditions:
Outdoor air: 85% RH.
However, the condition rated capacity in heating is 7° CDB / 6° CWB.
Corresponding refrigerant piping length: 5.0 m.
Level difference: 0 m.
- Coefficient of power input is the percentage when the rated value is defined as 1.00.
- The value contains less than 5% error according to indoor unit type.
- Heating performance include the drop of frost formation.
- Air flow rate and (BF) are given in table below:

(Pair)

	FCQH6140F	FCQG140F	FBQ140C	FHQG140C	FVQ140C	FHQ140CA
AFR	33.5	33.0	39	34.0	30.0	34.0
(BF)	(0.15)	(0.23)	(0.14)	(0.17)	(0.18)	(0.17)

(Triple)

	FCQG50Fk3	FFQ35B9k3	FBQ35Ck3	FHQ35B9k3	FHQ35CAk3
AFR	12.6k3	12.0k3	16.0k3	13.0k3	15.0k3
(BF)	(0.22k3)	(0.16k3)	(0.16k3)	(0.10k3)	(0.18k3)

- Rated power input of each model is given in tables below:

(Pair)

	FCQH6140F	FCQG140F	FBQ140C	FHQG140C	FVQ140C	FHQ140CA
Cooling	4.17	4.45	4.44	4.45	4.45	4.45

(Triple)

	FCQG50Fk3	FFQ35B9k3	FBQ35Ck3	FHQ35B9k3	FHQ35CAk3
Cooling	4.40	4.62	4.17	4.73	4.67

SYMBOLS

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

Caution:
TC and SHC are shown by kW.

(Twin)

	FCQH71Fk2	FCQG71Fk2	FBQ71Ck2	FHQG71Ck2	FAQ71Ck2	FHQ71CAk2
AFR	21.2x2	21.5x2	18.0x2	20.5x2	18.0x2	20.5x2
(BF)	(0.2x2)	(0.14x2)	(0.08x2)	(0.13x2)	(0.16x2)	(0.13x2)

(Double twin)

	FCQG35Fk4	FFQ35B9k4	FBQ35Ck4	FHQ35B9k4	FHQ35CAk4
AFR	12.5x4	10.0x4	16.0x4	13.0x4	14.0x4
(BF)	(0.4x4)	(0.25x4)	(0.15x4)	(0.20x4)	(0.20x4)

(Twin)

	FCQH71Fk2	FCQG71Fk2	FBQ71Ck2	FHQG71Ck2	FAQ71Ck2	FHQ71CAk2
Cooling	4.11	4.39	4.17	4.01	4.23	4.01

(Double twin)

	FCQG35Fk4	FFQ35B9k4	FBQ35Ck4	FHQ35B9k4	FHQ35CAk4
Cooling	4.46	4.62	4.17	4.73	4.65

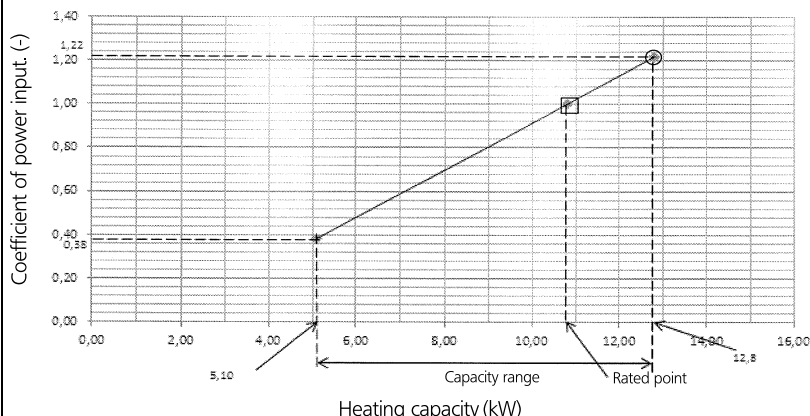
3D076755A

6 Capacity tables

6 - 2 Heating Capacity Tables

RZQSG100L8Y1

Heating



Heating

Indoor °CDB	Outdoor temperature (°CWB)											
	-15.0		-10.0		-5.0		0.0		6.0		10.0	
	TC kW	CPI	TC kW	CPI	TC kW	CPI	TC kW	CPI	TC kW	CPI	TC kW	CPI
16	8.58	0.93	9.45	0.99	10.1	1.02	10.4	1.05	12.8	1.12	13.8	1.18
18	8.57	0.97	9.44	1.02	10.0	1.07	10.3	1.10	12.8	1.17	13.8	1.23
20	8.56	1.01	9.43	1.07	10.0	1.11	10.3	1.14	12.8	1.22	13.8	1.28
21	8.56	1.03	9.42	1.09	10.0	1.13	10.3	1.16	12.8	1.24	13.8	1.30
22	8.55	1.04	9.42	1.10	10.0	1.14	10.3	1.18	12.8	1.26	13.8	1.33
24	8.54	1.09	9.41	1.15	10.0	1.19	10.3	1.23	12.8	1.31	13.8	1.38

NOTES

- Ratings shown are net capacities which include a deduction for indoor fan motor heat.
- On the figure the mark with ○ show the max. at standard conditions.
On the figure the mark with □ show the rated capacity and rated coefficient of power input.
However the max. capacity is not guaranteed, except at standard condition.
- SHC is based on indoor EWB and EDB.
SHC for other dry bulb temp. = SHC + SHC*.
SHC* = SHC correction for other dry bulb.
= 0.02 x AFR (m³/min.) x (1-BF) x (DB*-EDB).
- Capacities are based on the following conditions:
Outdoor air: 85% RH.
However, the condition rated capacity in heating is 7° CDB / 6° CWB.
Corresponding refrigerant piping length: 5.0 m.
Level difference: 0 m.
- Coefficient of power input is the percentage when the rated value is defined as 1.00.
- The value contains less than 5% error according to indoor unit type.
- Heating performance include the drop of frost formation.
- Air flow rate and (BF) are given in table below:

(Pair)

	FCQH100F	FCQG100F	FBQ100C	FHQG100C	FAQ100C	FVQ100C	FHQ100CA
AFR (BF)	32.3 (0.17)	32.0 (0.17)	32.0 (0.13)	20.0 (0.09)	26.0 (0.10)	28.0 (0.20)	28.0 (0.09)

(Triple)

	FCQG35Fx3	FFQ35B9x3	FBQ35Cx3	FHQ35B1Vx3	FHQ35CAx3
AFR (BF)	12.5x3 (0.4x3)	10.0x3 (0.25x3)	16.0x3 (0.15x3)	13.0x3 (0.20x3)	14.0x3 (0.17x3)

- Rated power input of each model is given in tables below:

(Pair)

	FCQH100F	FCQG100F	FBQ100C	FHQG100C	FAQ100C	FVQ100C	FHQ100CA
Heating	2.51	3.05	2.96	2.99	3.17	2.99	2.99

(Triple)

	FCQG35Fx3	FFQ35B9x3	FBQ35Cx3	FHQ35B1Vx3	FHQ35CAx3
Heating	2.66	2.79	2.86	3.32	3.26

SYMBOLS

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

Caution:
 TC and SHC are shown by kW.

(Twin)

	FCQ50Fx2	FFQ50B9x2	FBQ50Cx2	FHQ50B1Vx2	FHQ50CAx2
AFR (BF)	12.6x2 (0.22x2)	12.0x2 (0.16x2)	16.0x2 (0.16x2)	13.0x2 (0.10x2)	15.0x2 (0.18x2)

(Twin)

	FCQ50Fx2	FFQ50B9x2	FBQ50Cx2	FHQ50B1Vx2	FHQ50CAx2
Heating	2.61	2.79	2.86	3.32	3.28

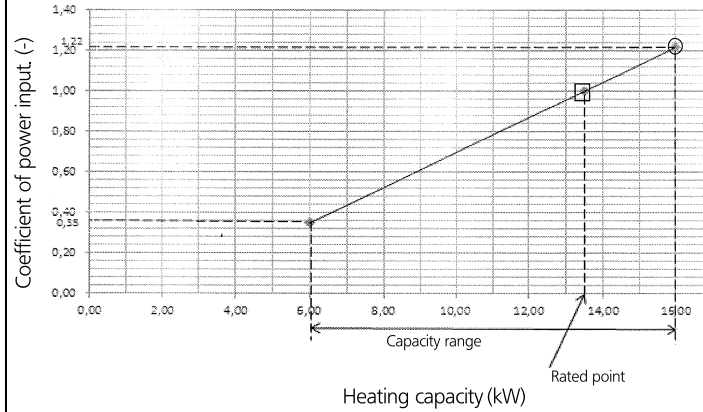
3D076753A

6 Capacity tables

6 - 2 Heating Capacity Tables

RZQSG125L8Y1

Heating



Heating

Indoor	Outdoor temperature (°CWB)											
	-15.0		-10.0		-5.0		0.0		6.0		10.0	
	TC	CPI	TC	CPI	TC	CPI	TC	CPI	TC	CPI	TC	CPI
°CDB	kW											
16	10.7	0.93	11.8	0.99	12.6	1.02	13.0	1.05	16.0	1.12	17.3	1.18
18	10.7	0.97	11.8	1.02	12.5	1.07	12.9	1.10	16.0	1.17	17.3	1.23
20	10.7	1.01	11.8	1.07	12.5	1.11	12.9	1.14	16.0	1.22	17.3	1.28
21	10.7	1.03	11.8	1.09	12.5	1.13	12.9	1.16	16.0	1.24	17.3	1.31
22	10.7	1.04	11.8	1.10	12.5	1.14	12.9	1.18	16.0	1.27	17.3	1.33
24	10.7	1.09	11.8	1.15	12.5	1.19	12.9	1.23	16.0	1.31	17.3	1.38

NOTES

- Ratings shown are net capacities which include a deduction for indoor fan motor heat.
- On the figure the mark with ○ show the max. at standard conditions.
On the figure the mark with □ show the rated capacity and rated coefficient of power input.
However the max. capacity is not guaranteed, except at standard condition.
- SHC is based on indoor EWB and EDB.
SHC for other dry bulb temp. = SHC + SHC*.
SHC* = SHC correction for other dry bulb.
= 0.02 x AFR (m³/min.) x (1-BF) x (DB*-EDB).
- Capacities are based on the following conditions:
Outdoor air: 85% RH.
However, the condition rated capacity in heating is 7° CDB / 6° CWB.
Corresponding refrigerant piping length: 5.0 m.
Level difference: 0 m.
- Coefficient of power input is the percentage when the rated value is defined as 1.00.
- The value contains less than 5% error according to indoor unit type.
- Heating performance include the drop of frost formation.
- Air flow rate and (BF) are given in table below:

SYMBOLS

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

Caution:
TC and SHC are shown by kW.

(Pair)

	FCQH125F	FCQG125F	FBQ125C	FHQ125C	FDQ125C	FVQ125C	FHQ125CA
AFR	33.5	33.0	39.0	31.0	39.0	28.0	31.0
(BF)	(0.19)	(0.21)	(0.16)	(0.134)	(0.16)	(0.16)	(0.14)

(Triple)

	FCQG50F3	FFQ50B9x3	FBQ50C3	FHQ50BWX3	FHQ50CAx3
AFR	12.6x3	12.0x3	16.0x3	13.0x3	15.0x3
(BF)	(0.22x3)	(0.16x3)	(0.16x3)	(0.10x3)	(0.18x3)

- Rated power input of each model is given in tables below:

(Pair)

	FCQH125F	FCQG125F	FBQ125C	FHQ125C	FDQ125C	FVQ125C	FHQ125CA
Heating	3.60	3.96	3.85	3.73	3.85	3.96	3.73

(Triple)

	FCQG50F3	FFQ50B9x3	FBQ50C3	FHQ50BWX3	FHQ50CAx3
Heating	3.90	4.15	4.06	4.48	4.42

(Twin)

	FCQG60F2	FFQ60B9x2	FBQ60C2	FHQ60BWX2	FHQ60CAx2
AFR	13.6x2	15.0x2	18.0x2	17.0x2	19.5x2
(BF)	(0.2x2)	(0.11x2)	(0.15x2)	(0.20x2)	(0.20x2)

(Double twin)

	FCQG35F4	FFQ35B9x4	FBQ35C4	FHQ35BWX4	FHQ35CAx4
AFR	12.5x4	10x4	16x4	13x4	14x4
(BF)	(0.4x4)	(0.25x4)	(0.15x4)	(0.20x4)	(0.17x4)

(Twin)

	FCQG60F2	FFQ60B9x2	FBQ60C2	FHQ60BWX2	FHQ60CAx2
Heating	3.88	4.15	4.06	4.48	4.43

(Double twin)

	FCQG35F4	FFQ35B9x4	FBQ35C4	FHQ35BWX4	FHQ35CAx4
Heating	3.96	4.15	4.06	4.48	4.32

3D076754A

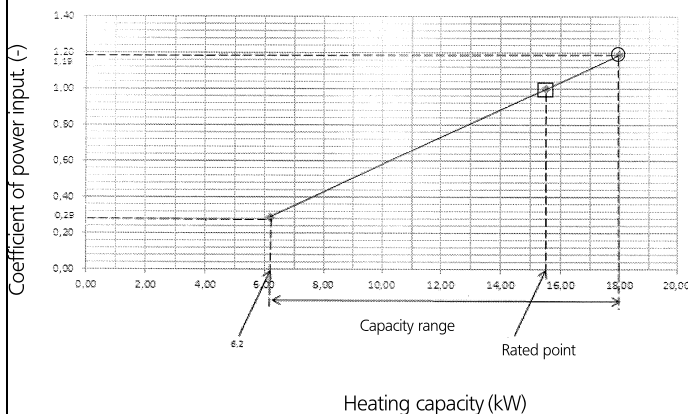
6 Capacity tables

6 - 2 Heating Capacity Tables

6

RZQSG140LY1

Heating



Heating

Indoor °CDB	Outdoor temperature (°CWB)											
	-15.0		-10.0		-5.0		0.0		6.0		10.0	
	TC kW	CPI	TC kW	CPI	TC kW	CPI	TC kW	CPI	TC kW	CPI	TC kW	CPI
16	11.6	0.91	12.7	0.97	13.6	1.00	13.9	1.03	18.0	1.09	19.4	1.16
18	11.6	0.95	12.7	1.00	13.6	1.04	13.9	1.07	18.0	1.14	19.4	1.21
20	11.6	0.99	12.7	1.05	13.5	1.09	13.9	1.11	18.0	1.19	19.4	1.25
21	11.5	1.00	12.7	1.06	13.5	1.11	13.9	1.13	18.0	1.21	19.4	1.28
22	11.5	1.02	12.7	1.08	13.5	1.12	13.9	1.16	18.0	1.24	19.4	1.30
24	11.5	1.07	12.6	1.12	13.5	1.17	13.9	1.20	18.0	1.29	19.4	1.35

NOTES

- Ratings shown are net capacities which include a deduction for indoor fan motor heat.
- On the figure the mark with ○ show the max. at standard conditions.
On the figure the mark with □ show the rated capacity and rated coefficient of power input.
However the max. capacity is not guaranteed, except at standard condition.
- SHC is based on indoor EWB and EDB.
SHC for other dry bulb temp. = SHC + SHC*.
SHC* = SHC correction for other dry bulb,
= 0.02 x AFR (m³/min.) x (1-BF) x (DB*-EDB).
- Capacities are based on the following conditions:
Outdoor air: 85% RH.
However, the condition rated capacity in heating is 7° CDB / 6° CWB.
Corresponding refrigerant piping length: 5.0 m.
Level difference: 0 m.
- Coefficient of power input is the percentage when the rated value is defined as 1.00.
- The value contains less than 5% error according to indoor unit type.
- Heating performance include the drop of frost formation.
- Air flow rate and (BF) are given in table below:

(Pair)

	FCQH140F	FCQ140F	FBQ140C	FHQ140C	FVQ140C	FHQ140CA
AFR	33.5	33.0	41	34.0	30.0	34.0
(BF)	(0.15)	(0.23)	(0.14)	(0.17)	(0.18)	(0.17)

(Triple)

	FCQG50F3	FFQ50B9x3	FBQ50C3	FHQ50BWX3	FHQ50CAx3
AFR	12.6x3	12.0x3	16.0x3	13.0x3	15.0x3
(BF)	(0.22x3)	(0.16x3)	(0.16x3)	(0.10x3)	(0.18x3)

- Rated power input of each model is given in tables below:

(Pair)

	FCQH140F	FCQ140F	FBQ140C	FHQ140C	FVQ140C	FHQ140CA
Heating	4.29	4.54	4.54	4.54	4.54	4.54

(Triple)

	FCQG50F3	FFQ50B9x3	FBQ50C3	FHQ50BWX3	FHQ50CAx3
Heating	4.48	5.16	4.94	5.73	5.67

SYMBOLS

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

Caution:
TC and SHC are shown by kW.

(Twin)

	FCQH140F	FCQ140F	FBQ140C	FHQ140C	FAQ140C	FHQ140CA
AFR	21.2x2	21.5x2	18.0x2	20.5x2	18.0x2	20.5x2
(BF)	(0.2x2)	(0.14x2)	(0.08x2)	(0.13x2)	(0.16x2)	(0.13x2)

(Double twin)

	FCQG35F4	FFQ35B9x4	FBQ35C4	FHQ35BWX4	FHQ35CAx4
AFR	12.5x4	10.0x4	16.0x4	13.0x4	14.0x4
(BF)	(0.4x4)	(0.25x4)	(0.15x4)	(0.20x4)	(0.20x4)

(Twin)

	FCQH140F	FCQ140F	FBQ140C	FHQ140C	FAQ140C	FHQ140CA
Heating	4.23	4.48	4.94	4.71	4.92	4.71

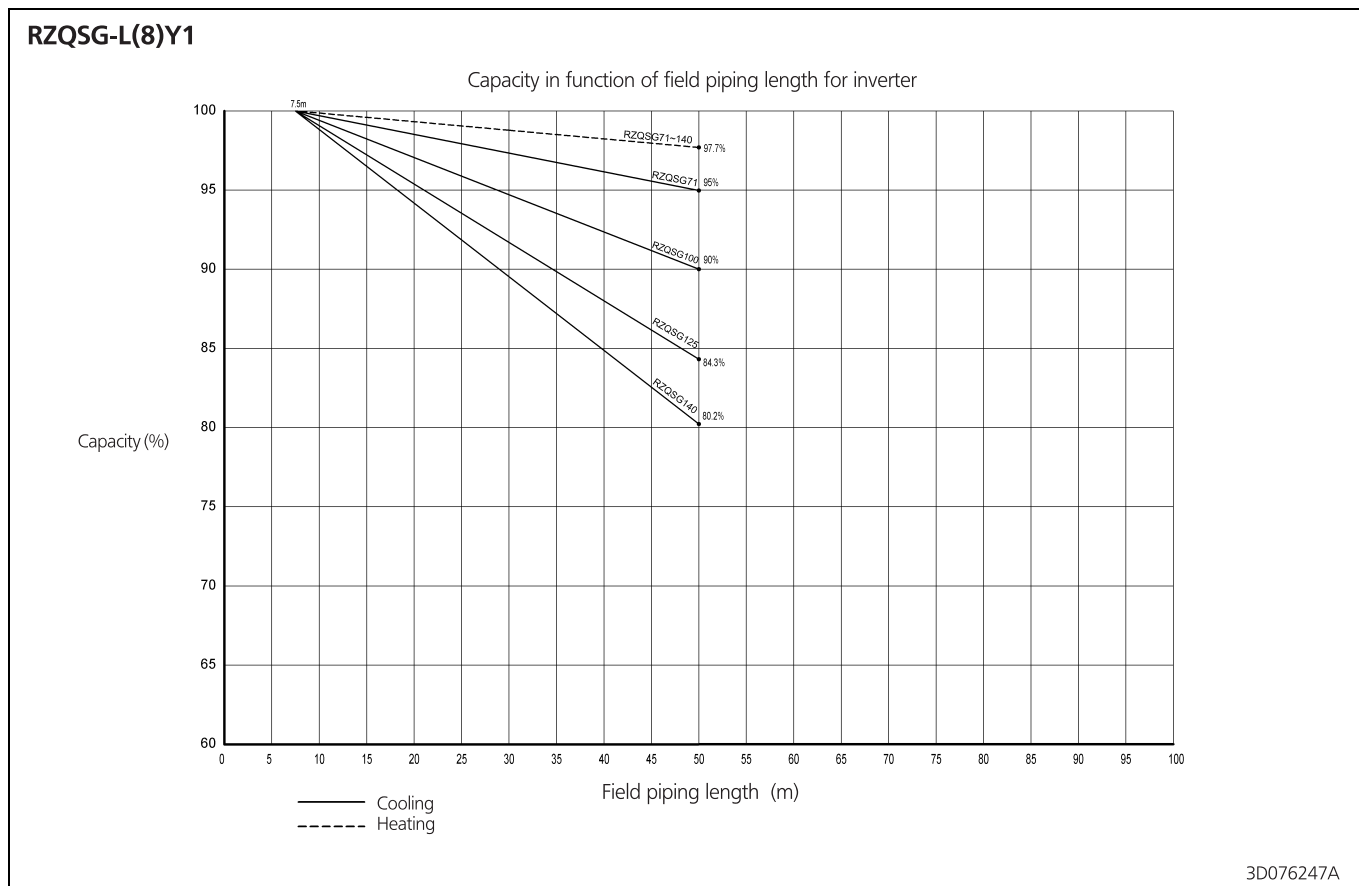
(Double twin)

	FCQG35F4	FFQ35B9x4	FBQ35C4	FHQ35BWX4	FHQ35CAx4
Heating	4.54	5.16	4.94	5.73	5.57

3D076755A

6 Capacity tables

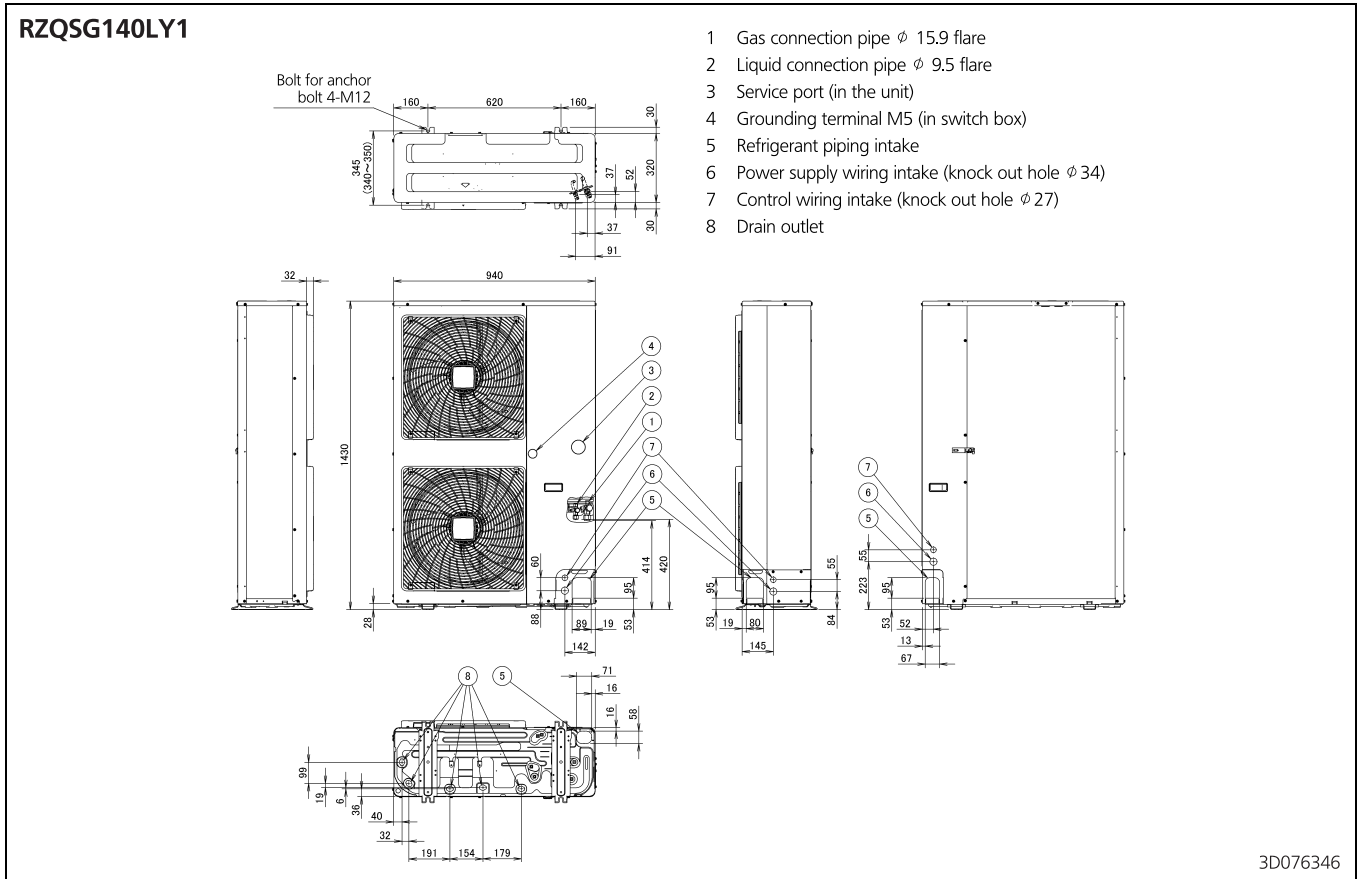
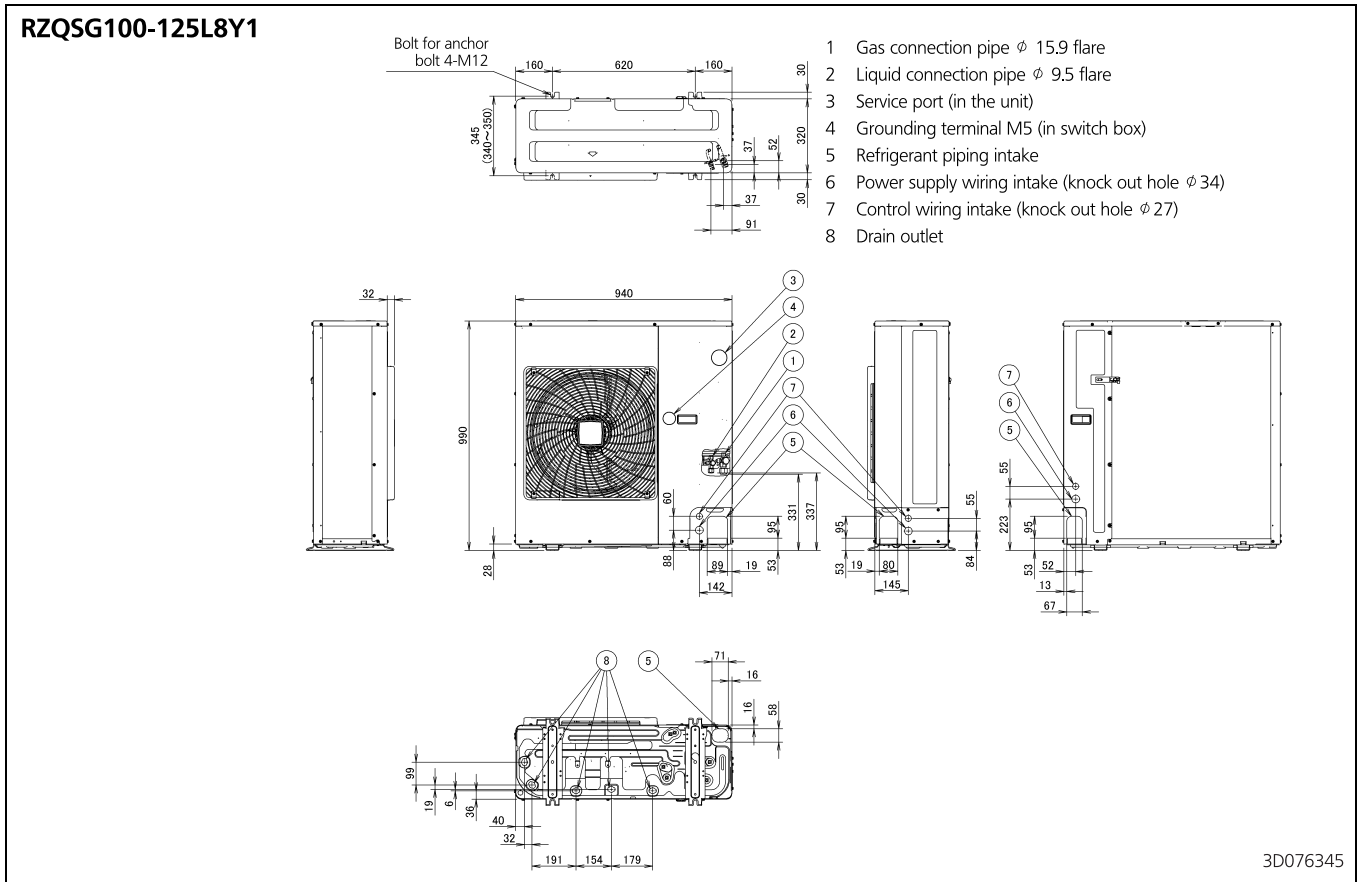
6 - 3 Capacity Correction Factor



7 Dimensional drawings

7 - 1 Dimensional Drawings

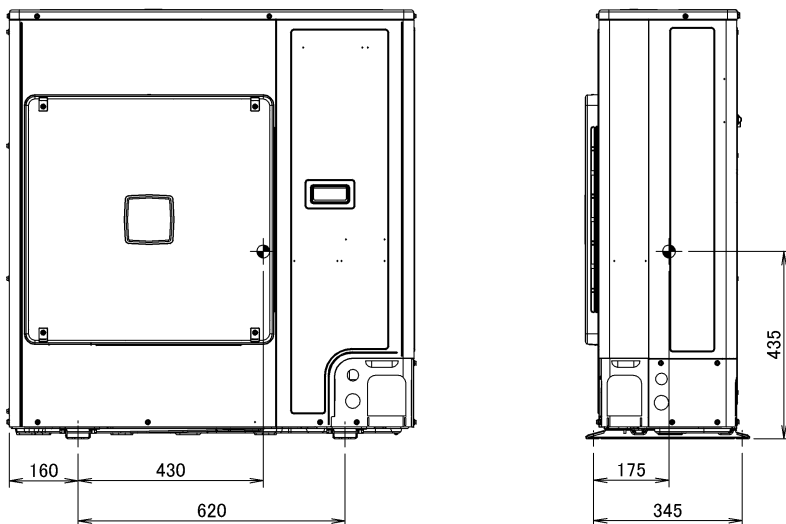
7



8 Centre of gravity

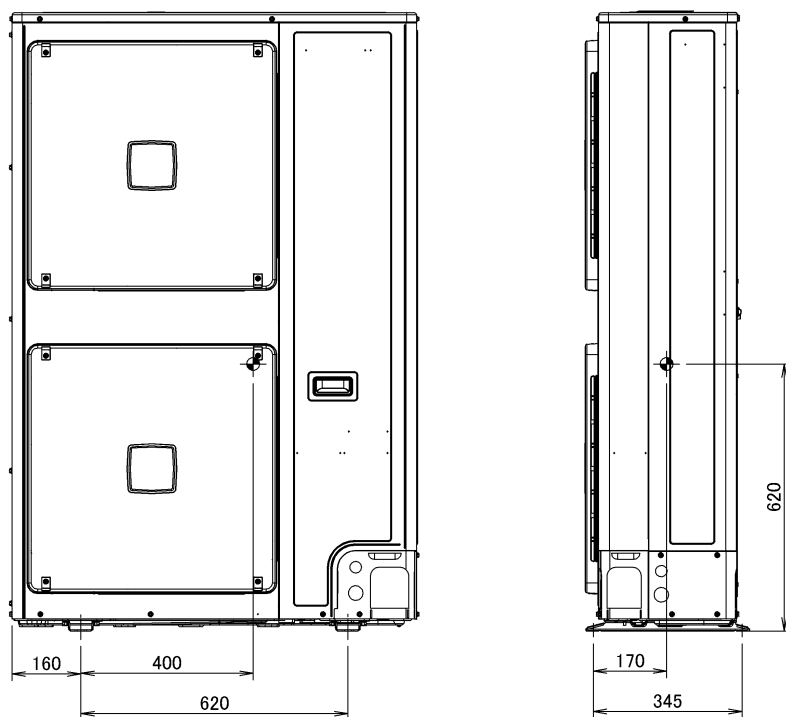
8 - 1 Centre of Gravity

RZQSG100-125L8Y1



4D077809

RZQSG140LY1

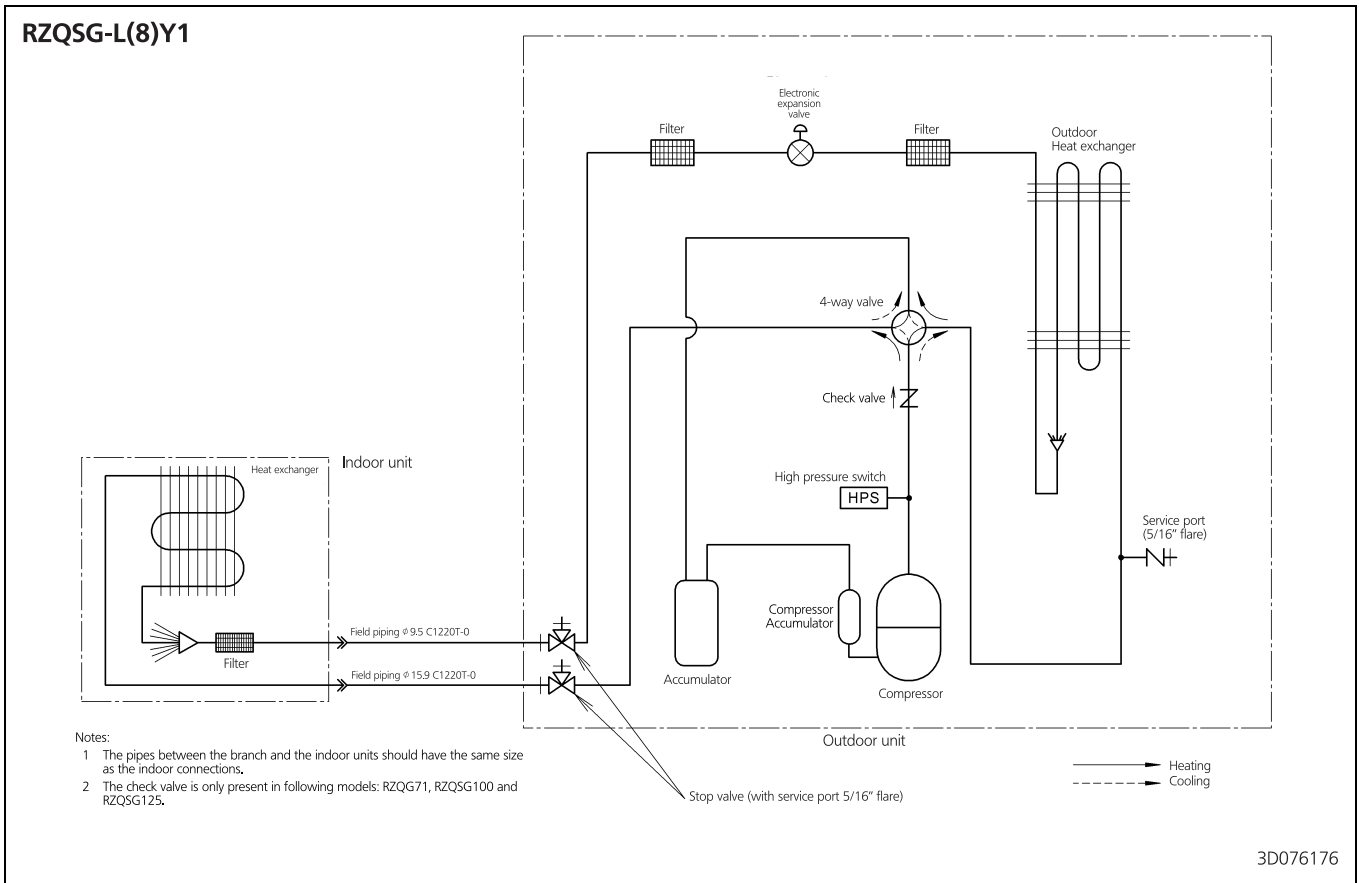


4D077808

9 Piping diagrams

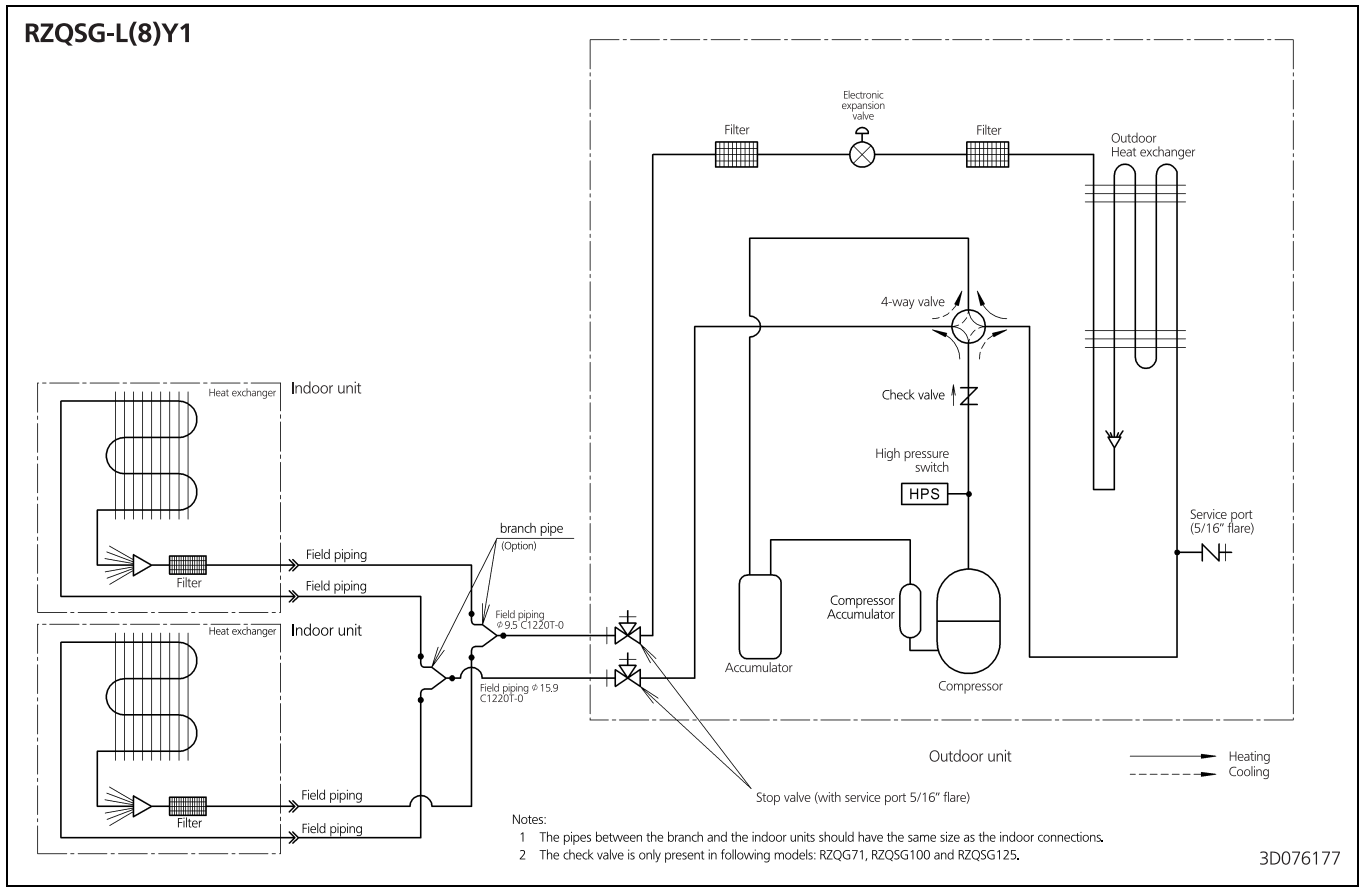
9 - 1 Piping Diagrams

9



9 Piping diagrams

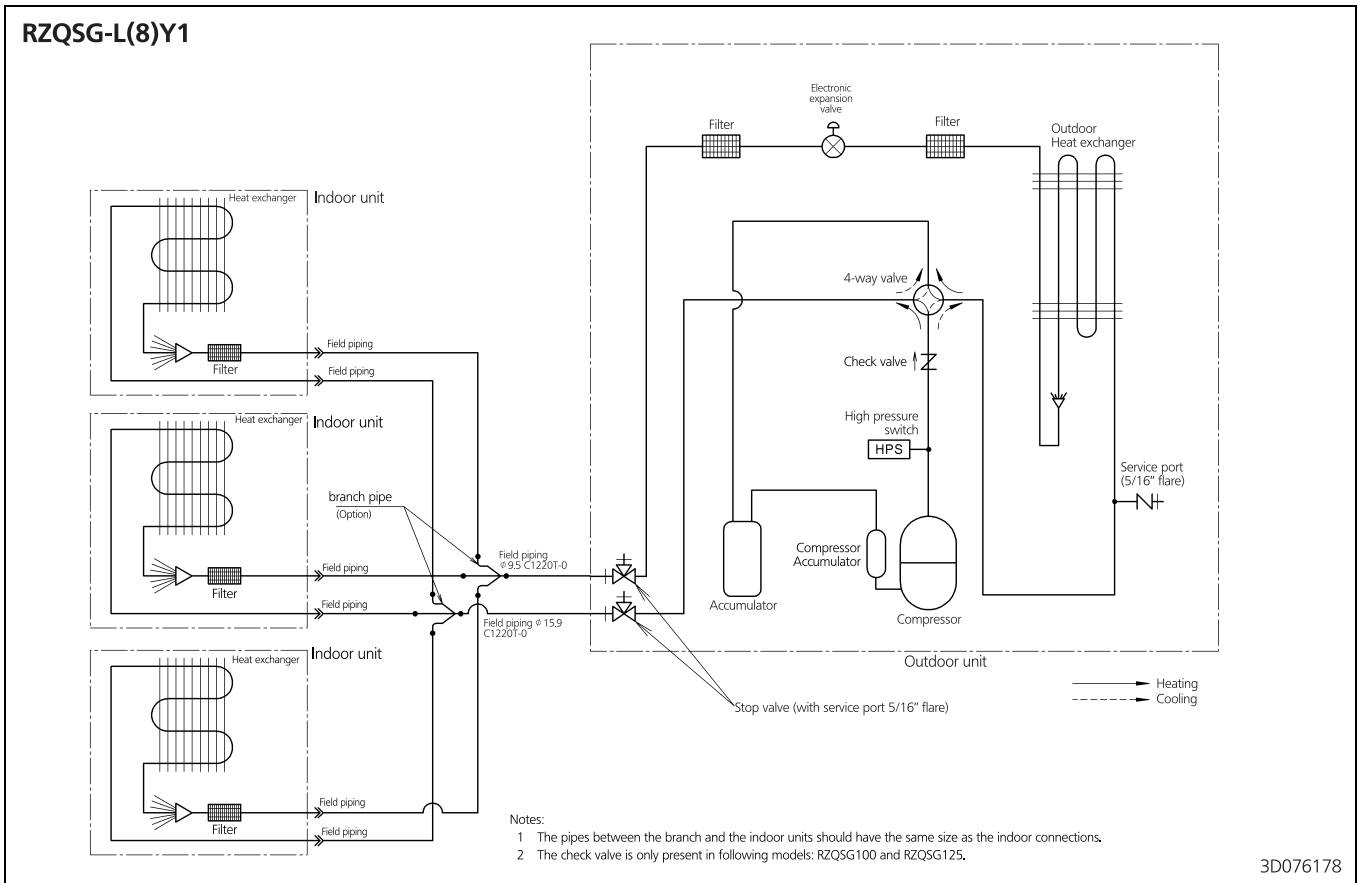
9 - 2 Piping Diagram Twin Application



9 Piping diagrams

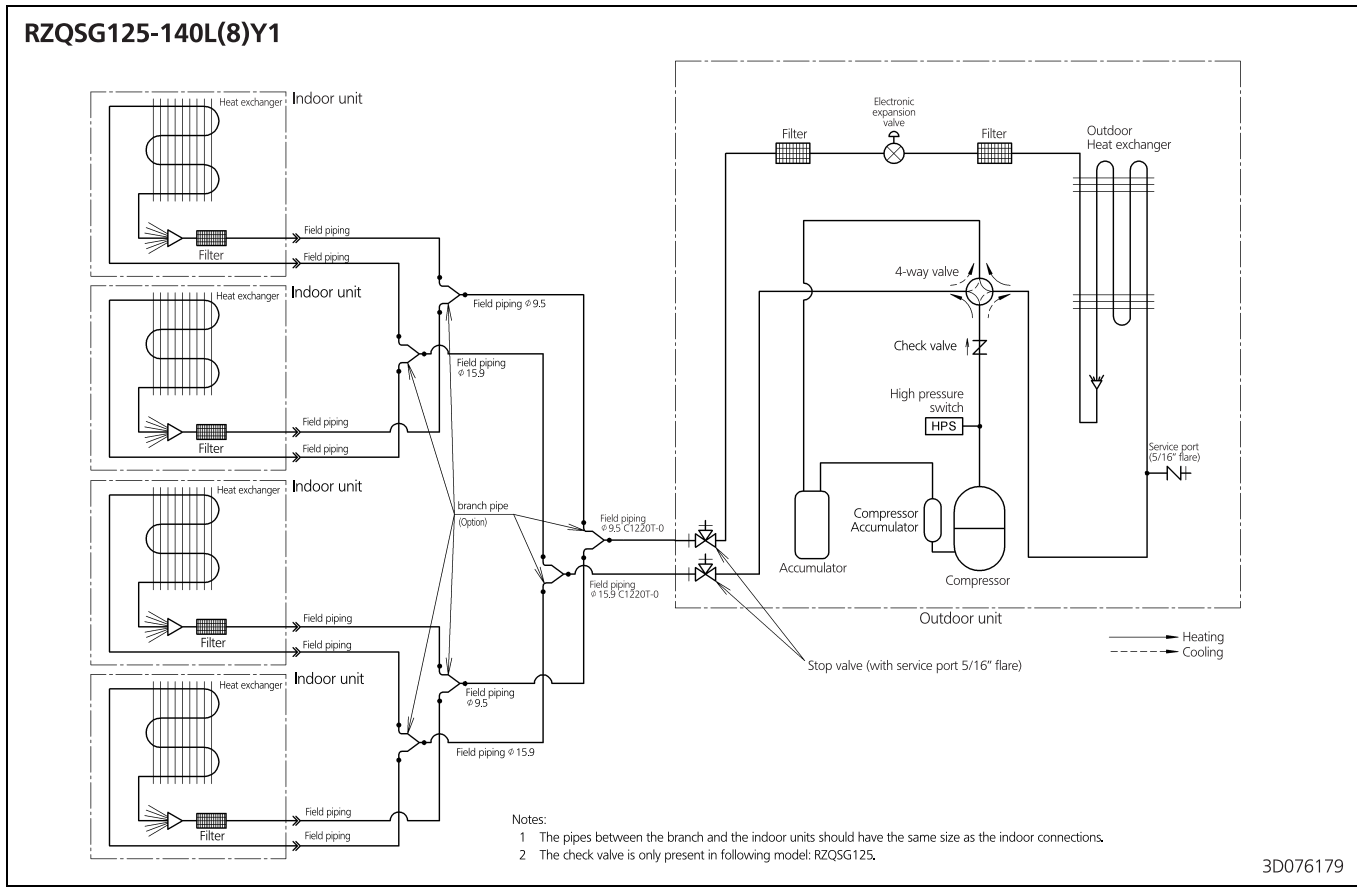
9 - 3 Piping Diagram Triple Application

9



9 Piping diagrams

9 - 4 Piping Diagram Double Twin Application

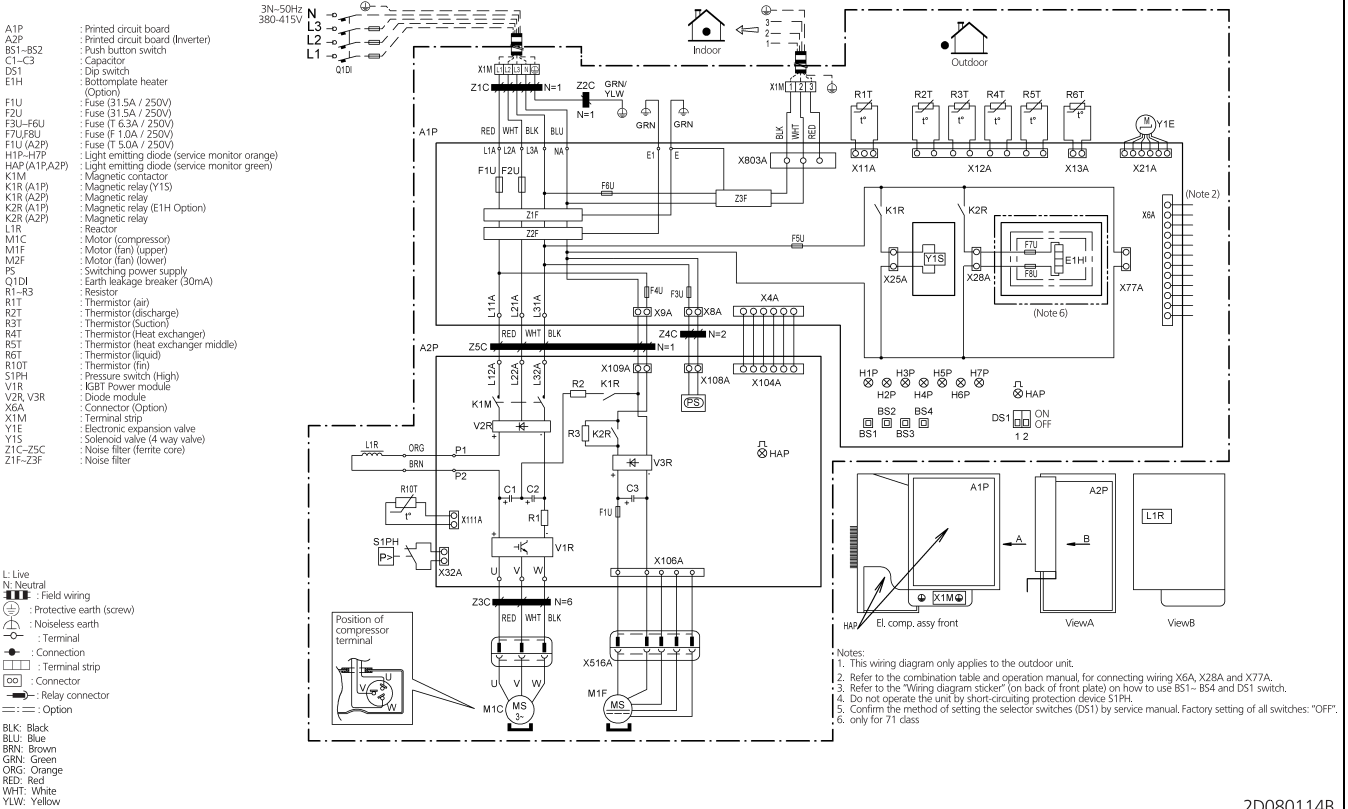


10 Wiring diagrams

10 - 1 Wiring Diagrams - Three Phase

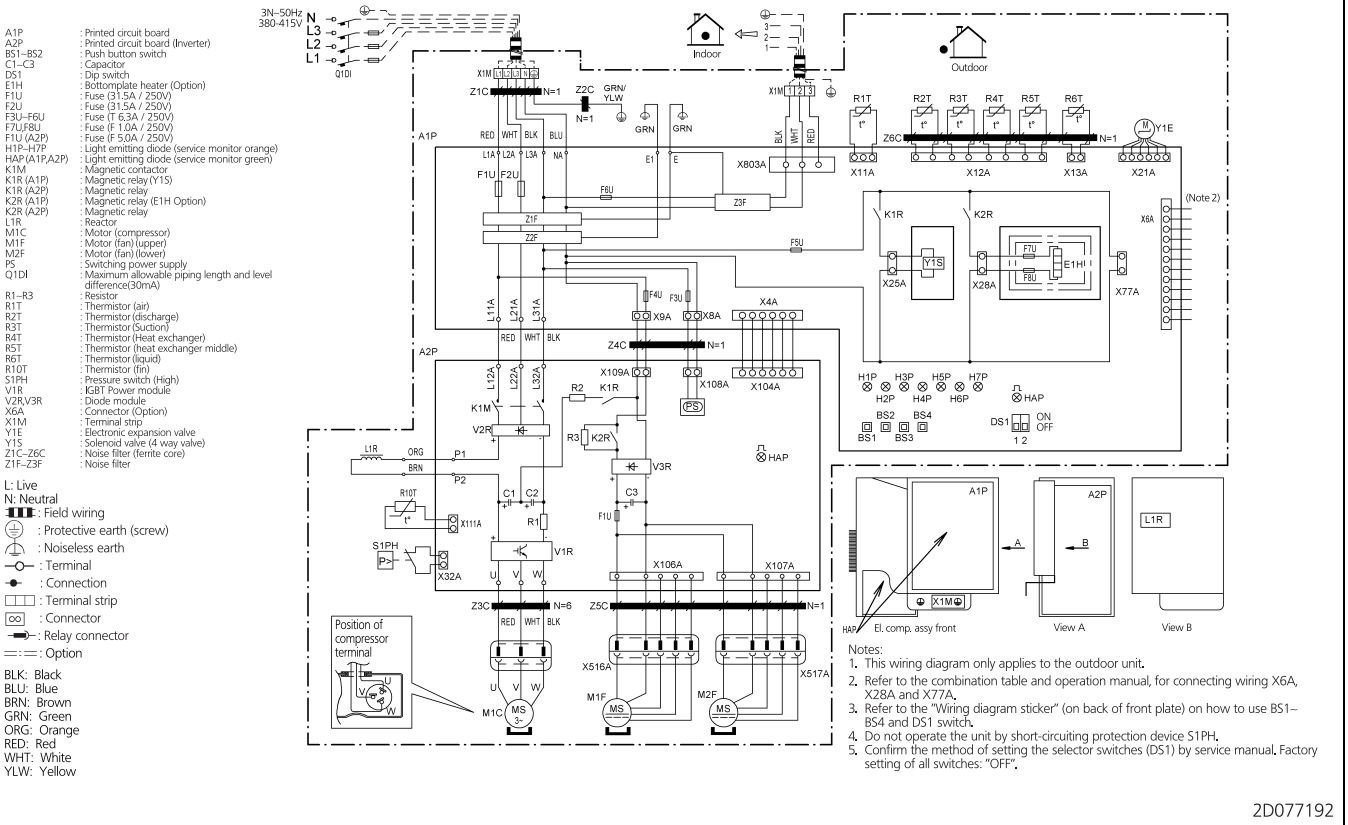
10

RZQSG100-125L8Y1



2D080114B

RZQSG140LY1

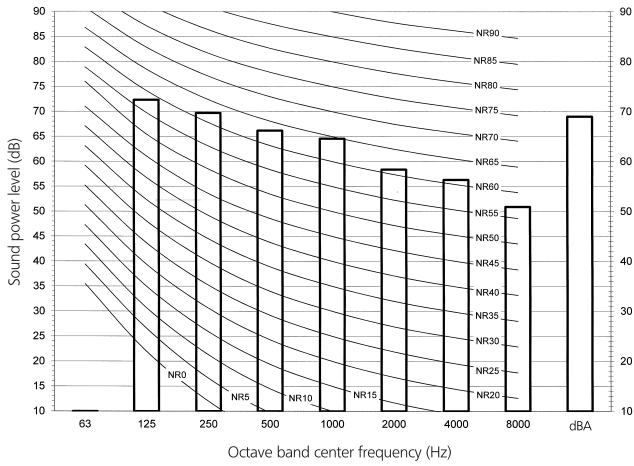


2D077192

11 Sound data

11 - 1 Sound Power Spectrum

RZQSG100L8Y1

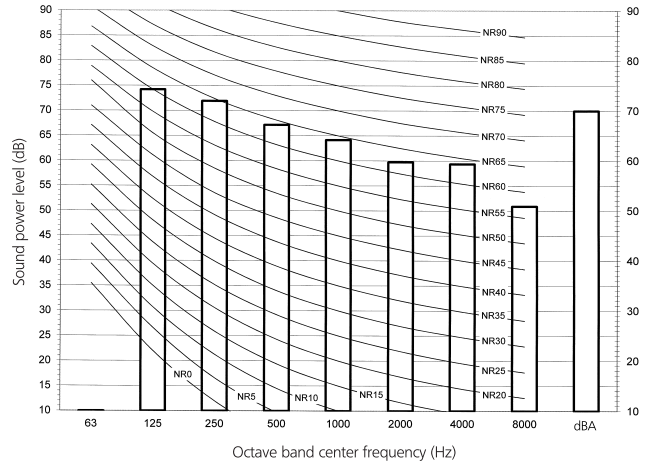


NOTES

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

3D077783

RZQSG125L8Y1

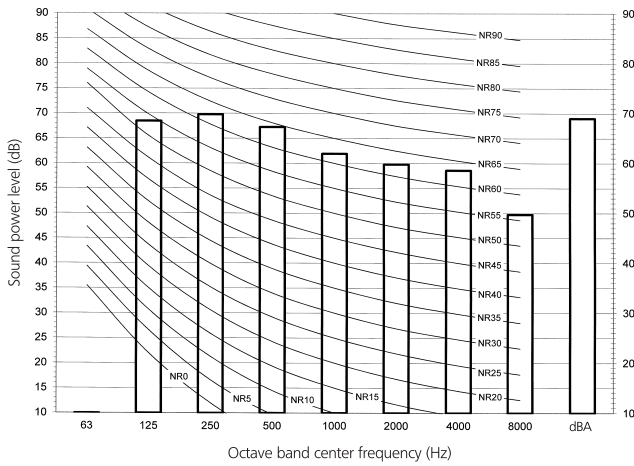


NOTES

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

3D077784

RZQSG140LY1



NOTES

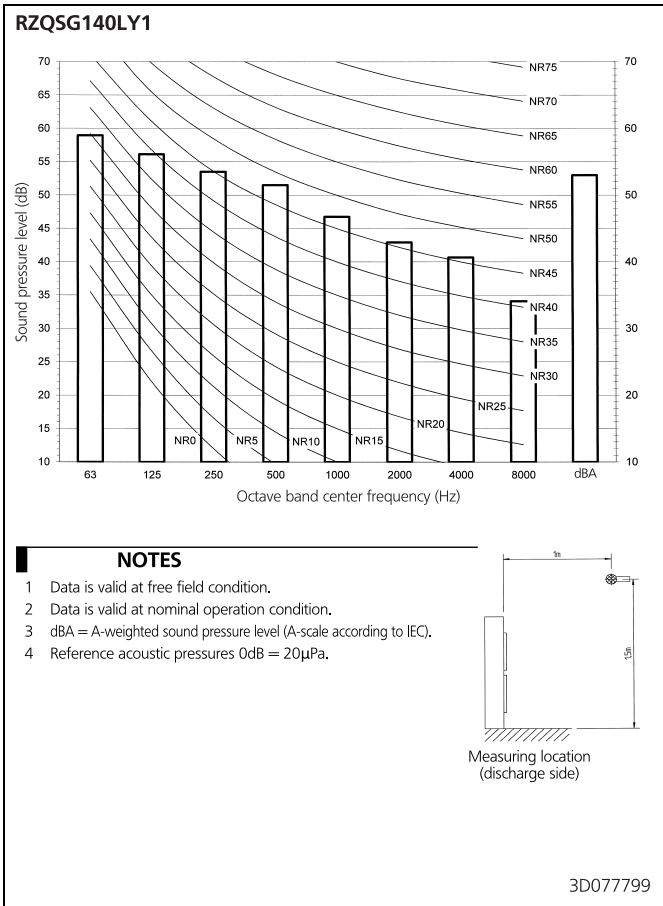
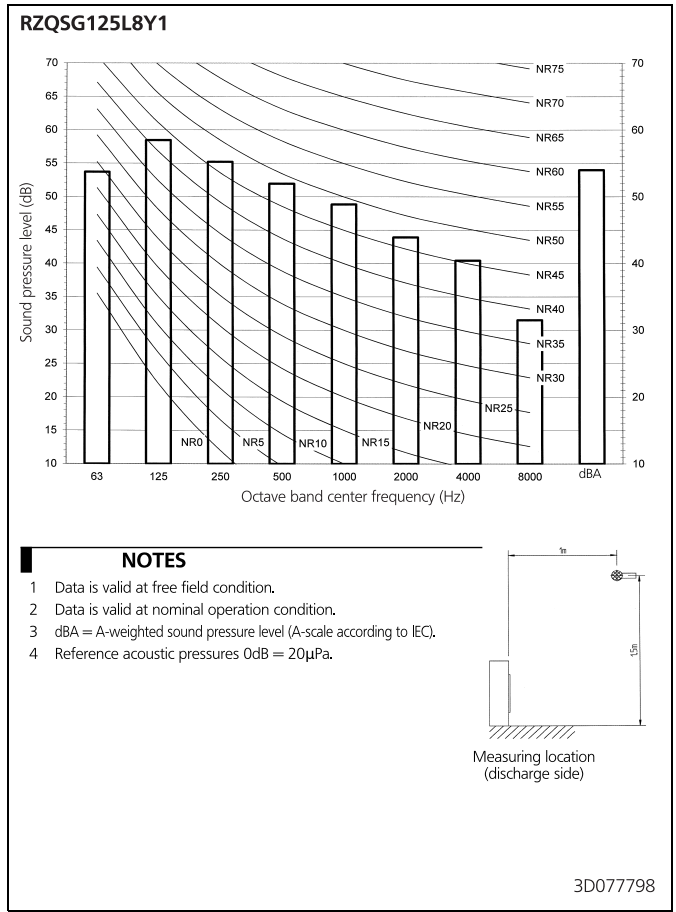
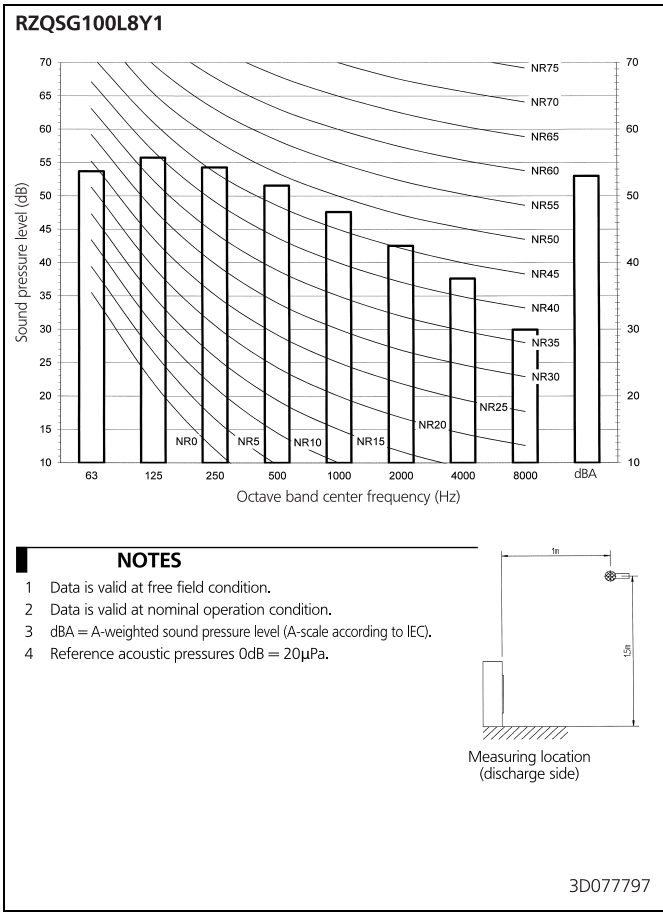
- 1 dBA = A-weighted sound power level (A-scale according to IEC)
- 2 Reference acoustic intensity 0 dB = $10E-6\mu W/m^2$
- 3 Measured according to ISO 3744

3D077785

11 Sound data

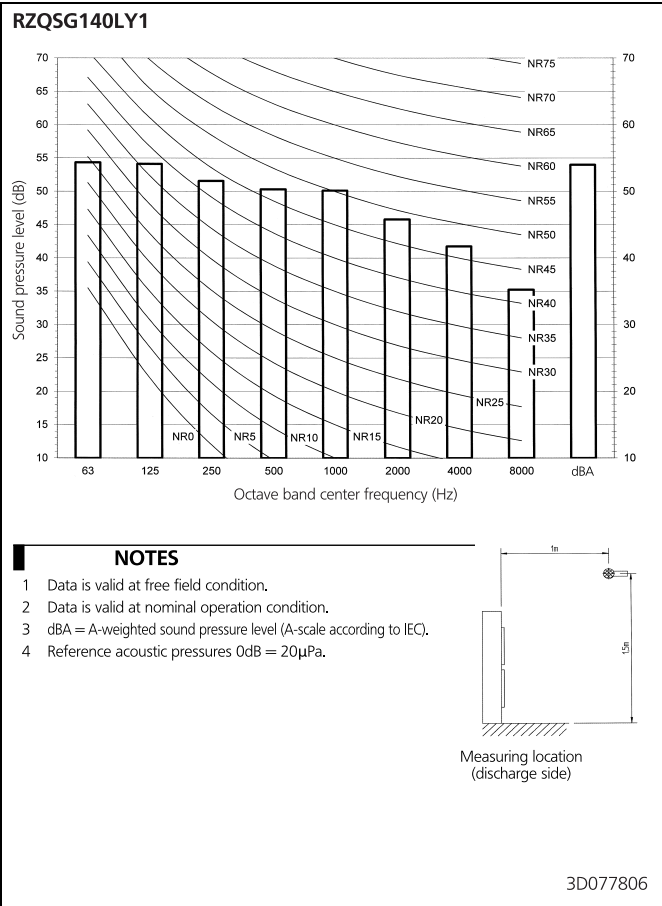
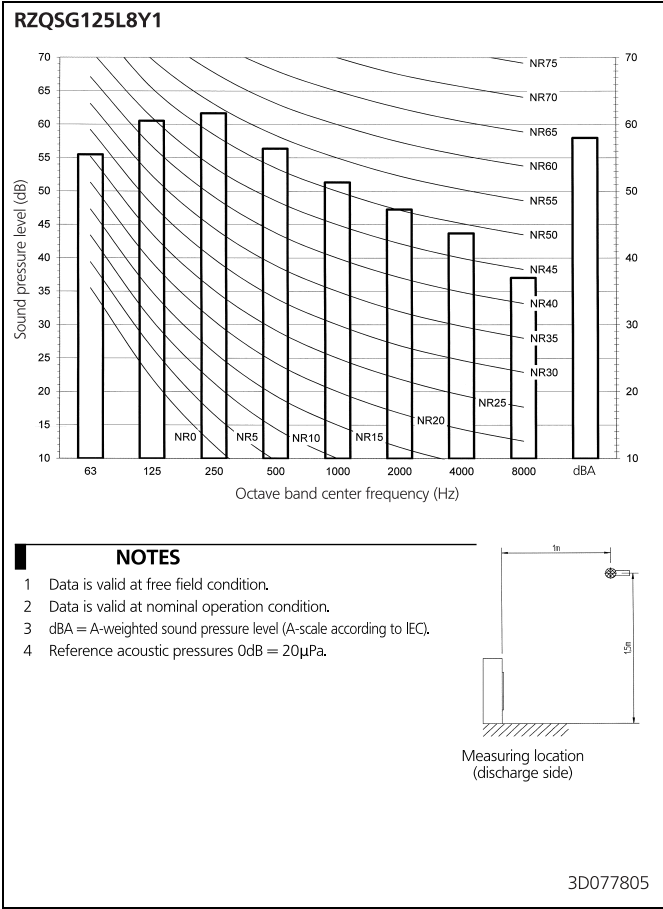
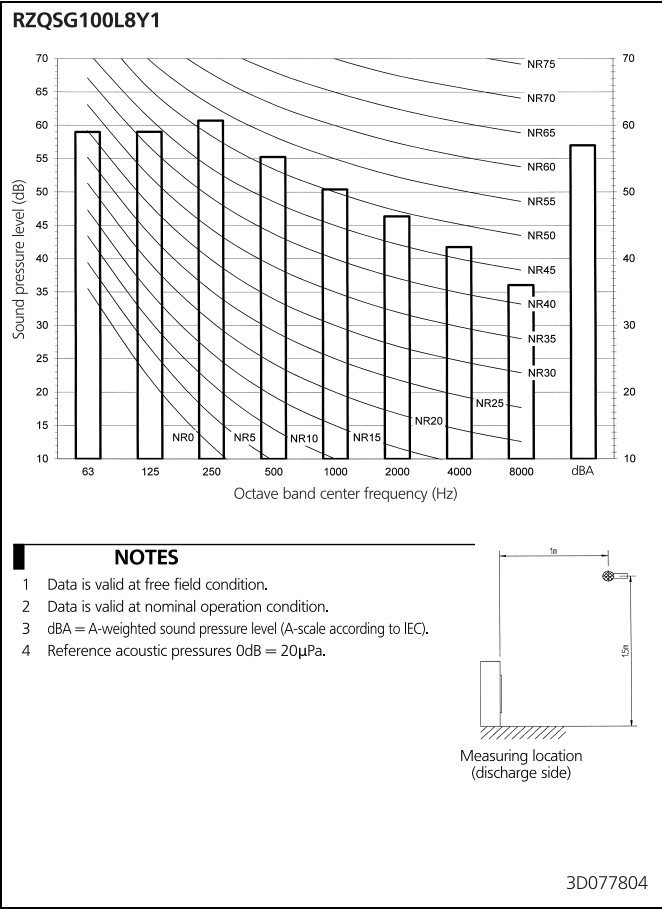
11 - 2 Sound Pressure Spectrum - Cooling

11



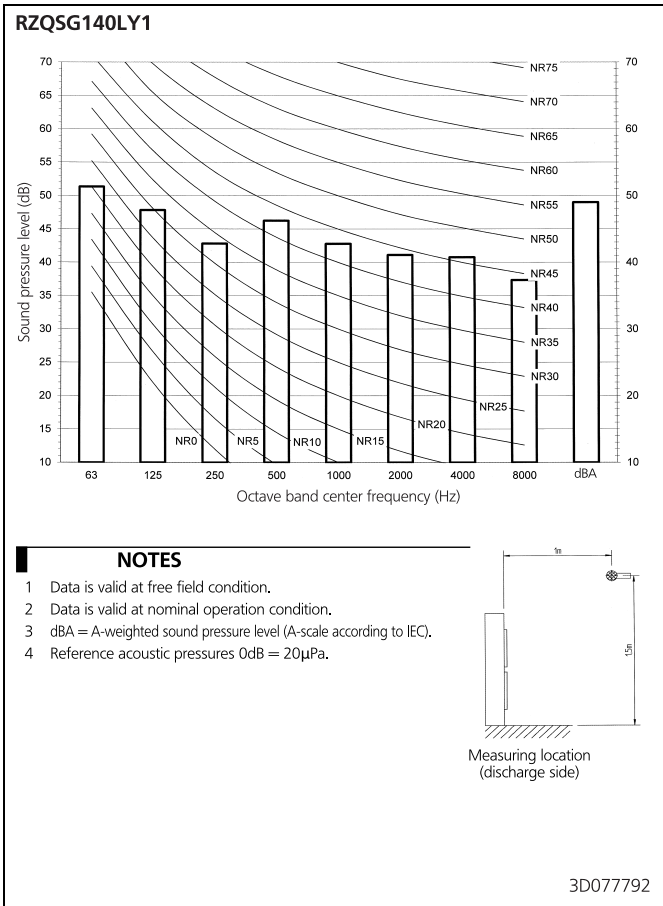
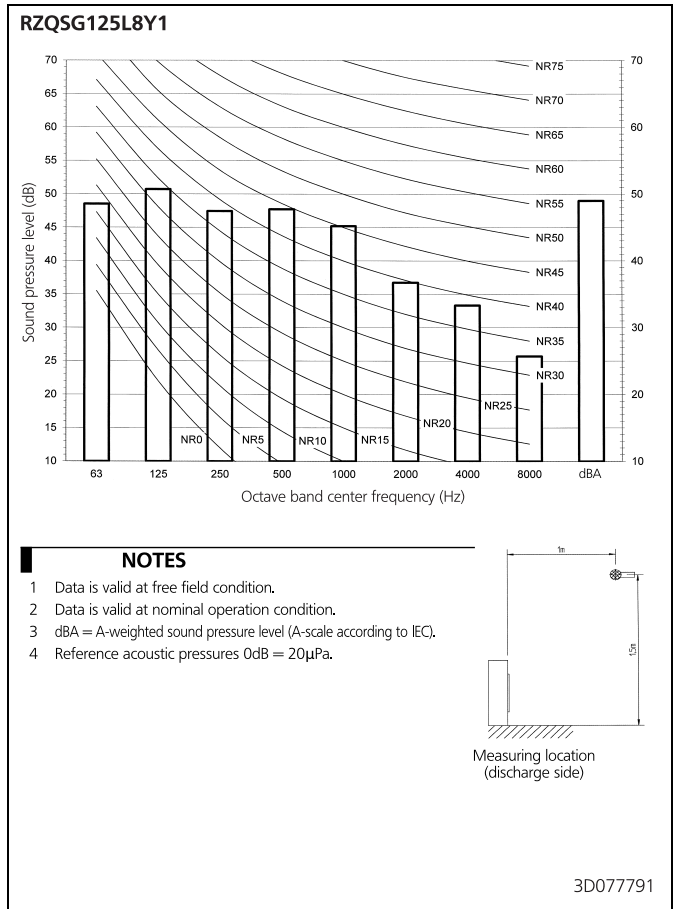
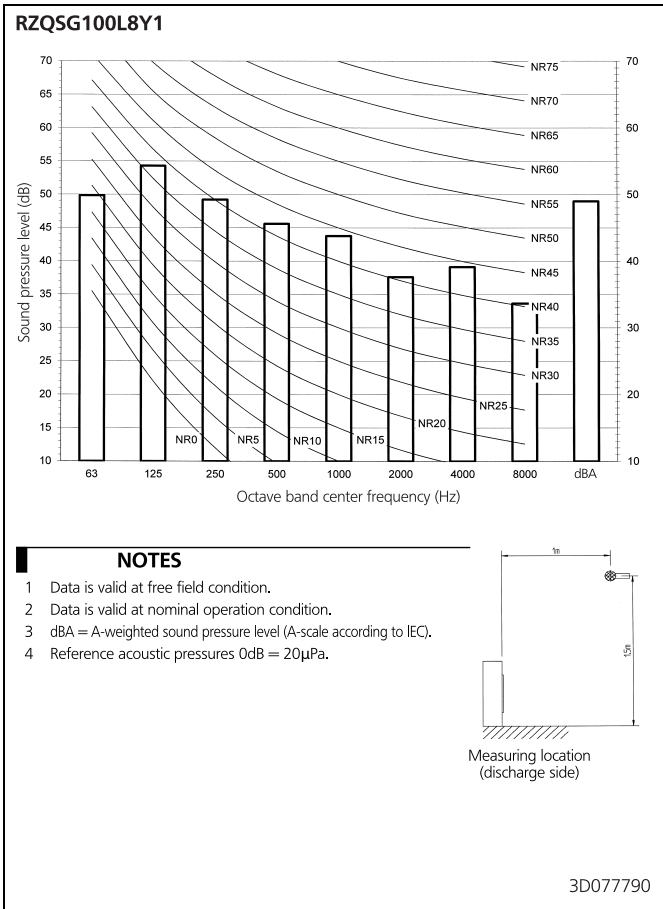
11 Sound data

11 - 3 Sound Pressure Spectrum - Heating



11 Sound data

11 - 4 Sound Pressure Spectrum Quiet Mode



12 Installation

12 - 1 Installation Method

RZQSG-L(8)Y1

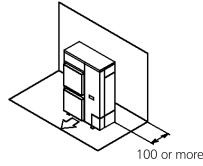
Installation service space

The measure of these values is "mm".

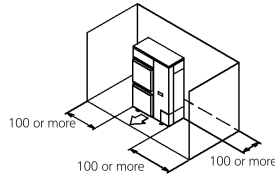
(A) When there are obstacles on suction sides.

• No obstacle above

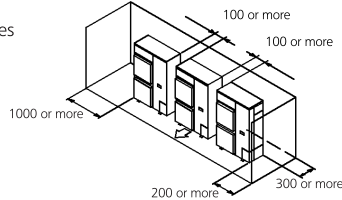
- ① Stand-alone installation
 - Obstacle on the suction side only



- Obstacle on both sides and suction side, too

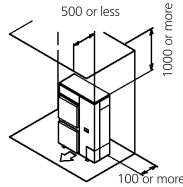


- ② Series installation (2 or more) (Note 1)
 - Obstacle on the suction side and both sides

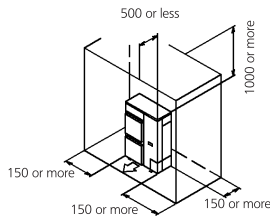


• Obstacle above, too.

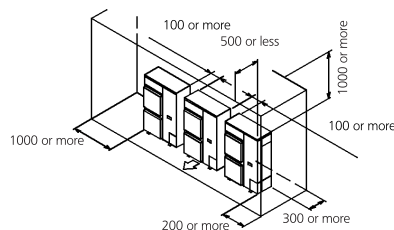
- ① Stand-alone installation
 - Obstacle on the suction side, too



- Obstacle on both sides and suction side, too



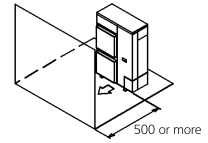
- ② Series installation (2 or more) (Note 1)
 - Obstacle on the suction side and both sides



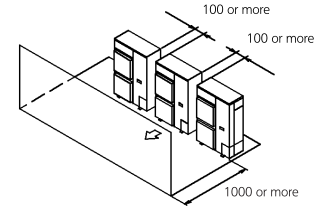
(B) When there are obstacles on discharge sides.

• No obstacle above

- ① Stand-alone installation
 - Obstacle on the discharge side only

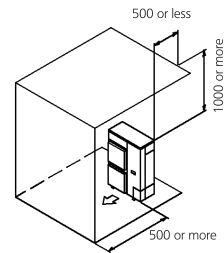


- ② Series installation (2 or more) (Note 1)
 - Obstacle on the discharge side only

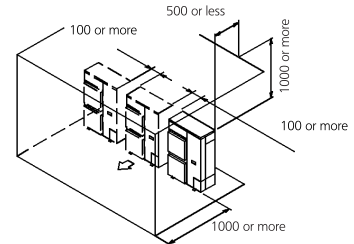


• Obstacle above, too

- ① Stand-alone installation
 - Obstacle on the discharge side only, too



- ② Series installation (2 or more) (Note 1)
 - Obstacle on the discharge side



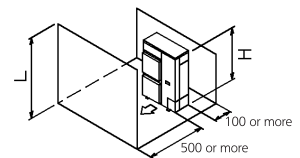
(C) When there are obstacles on both suction and discharge sides.:

Pattern 1

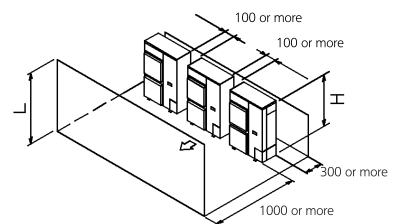
When the obstacles on the discharge side is higher than the unit. (L>H)
(There is no limit for the height of obstructions on the suction side.)

• No obstacle above

- ① Stand-alone installation
 - No obstacle above



- ② Series installation (2 or more) (Note 1)
 - No obstacle above



3D069554

12 Installation

12 - 1 Installation Method

12

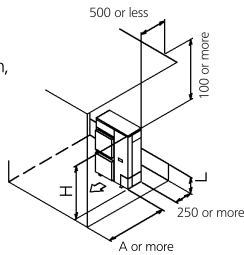
RZQSG-L(8)Y1

● Obstacle above, too

- ① Stand-alone installation (Note 2)
 - When there are obstacles on suction, discharge and top sides.

The relations between H, A and L are as follows.

	L	A
$L \leq H$	$L \leq 1/2 H$ 750 or more	250 or more
	$1/2 H < L \leq H$	1000 or more
$L > H$	Set the stand as : $L \leq H$ Refer to the column of $L \leq H$ for A	



- ② Series installation (2 or more) (Note 1, 2)
 - When there are obstacles on suction, discharge and top sides.

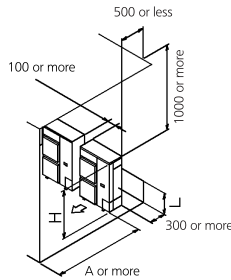
The relations between H, A and L are as follows.

	L	A
$L \leq H$	$L \leq 1/2 H$ 1000 or more	250 or more
	$1/2 H < L \leq H$	1250 or more
$L > H$	Set the stand as : $L \leq H$ Refer to the column of $L \leq H$ for A	

Limit of series installation is 2 units.

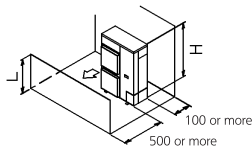
Pattern 2

When the obstacle on the discharge side is lower than the unit ($L \leq H$)
(There is no limit for the height of obstructions on the suction side.)



● No obstacle above

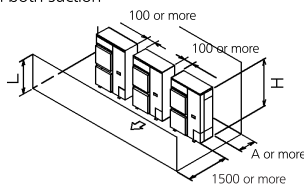
- ① Stand-alone installation
 - No obstacle above



- ② Series installation (2 or more) (Note 1)
 - When there are obstacles on both suction and discharge sides.

The relations between H, A and L are as follows.

	L	A
$L \leq H$	$L \leq 1/2 H$ 250 or more	300 or more
	$1/2 H < L \leq H$	300 or more

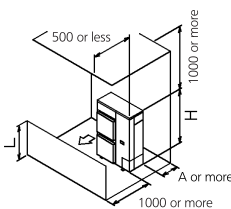


● Obstacle above, too

- ① Stand-alone installation (Note 2)
 - When there are obstacles on suction, discharge and top sides.

The relations between H, A and L are as follows.

	L	A
$L \leq H$	$L \leq 1/2 H$ 100 or more	200 or more
	$1/2 H < L \leq H$	200 or more
$L > H$	Set the stand as : $L \leq H$ Refer to the column of $L \leq H$ for A	

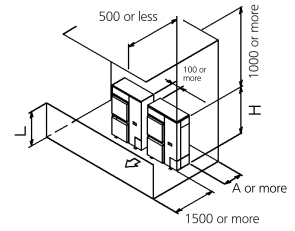


- ② Series installation (2 or more) (Note 1, 2)
 - When there are obstacles on suction, discharge and top sides.

The relations between H, A and L are as follows.

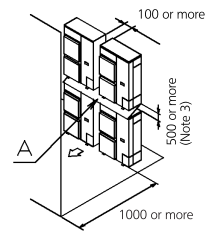
	L	A
$L \leq H$	$L \leq 1/2 H$ 250 or more	300 or more
	$1/2 H < L \leq H$	300 or more
$L > H$	Set the stand as : $L \leq H$ Refer to the column of $L \leq H$ for A	

Limit of series installation is 2 units.

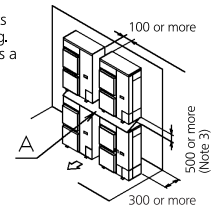


(D) Double-decker installation

- ① Obstacle on the discharge side. (Note 1)
 - Do not exceed two levels for stacked installation.
 - Install a roof cover similar to A (field supply), as outdoor units with downward drainage are prone to dripping and freezing.
 - Install the upper-level outdoor unit so that its bottom plate is a sufficient height above the roof cover. This is to prevent the buildup of ice on the underside of the bottom plate.

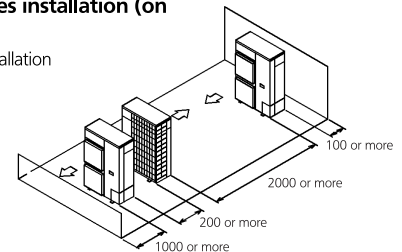


- ② Obstacle on the suction side. (Note 1)
 - Do not exceed two levels for stacked installation.
 - Install a roof cover similar to A (field supply), as outdoor units with downward drainage are prone to dripping and freezing.
 - Install the upper-level outdoor unit so that its bottom plate is a sufficient height above the roof cover. This is to prevent the buildup of ice on the underside of the bottom plate.



(E) Multiple rows of series installation (on the rooftop, etc.)

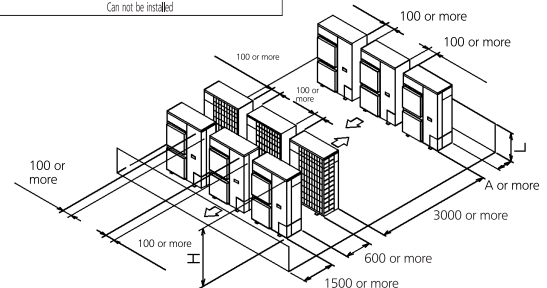
- ① One row of stand-alone installation



- ② Rows of series installation (2 or more)

The relations between H, A and L are as follows.

	L	A
$L \leq H$	$L \leq 1/2 H$ 250 or more	300 or more
	$1/2 H < L \leq H$	300 or more
$L > H$	Can not be installed	



NOTES

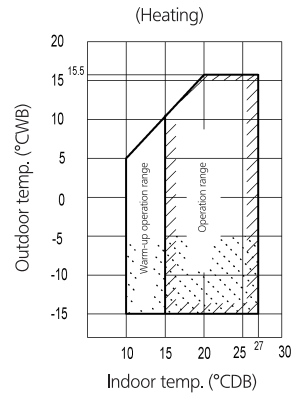
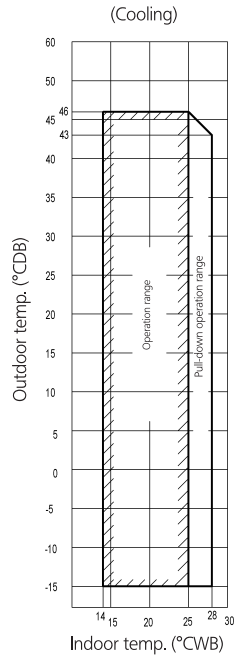
- 1 In case of the sideways's piping, make a 100mm gap between the unit above.
- 2 Close the bottom of the installation frame to prevent the discharged air from being bypassed.
- 3 It is not necessary to install a roof cover if there is no danger of drainage dripping and freezing. In this case, the space between the upper and lower outdoor units should be at least 100mm. (Close off the gap between the upper and lower units so there is no reintake of discharged air.)

3D069554


13 Operation range

13 - 1 Operation Range

RZQSG-L(8)Y1



Notes:

- 1 Depending on operation and installation conditions, the outdoor unit can change over to defrost operation (anti freeze-up).
- 2 To reduce the defrost operation (anti freeze-up) frequency it is recommended to install the outdoor unit in a location not exposed to wind.
- 3 In case of high humidity conditions (>92%) in this  operation area, an RZQG model should be used instead of an RZQSG model. This to avoid freeze-up of the outdoor unit.

3D086703



Daikin Europe N.V. participates in the Eurovent Certification programme for Liquid Chilling Packages (LCP), Air handling units (AHU) and Fan coil units (FCU). Check on-going validity of certificate online: www.eurovent-certification.com or using: www.certiflash.com

The present leaflet is drawn up by way of information only and does not constitute an offer binding upon Daikin Europe N.V.. Daikin Europe N.V. has compiled the content of this leaflet to the best of its knowledge. No express or implied warranty is given for the completeness, accuracy, reliability or fitness for particular purpose of its content and the products and services presented therein. Specifications are subject to change without prior notice. Daikin Europe N.V. explicitly rejects any liability for any direct or indirect damage, in the broadest sense, arising from or related to the use and/or interpretation of this leaflet. All content is copyrighted by Daikin Europe N.V.

BARCODE

Daikin products are distributed by: