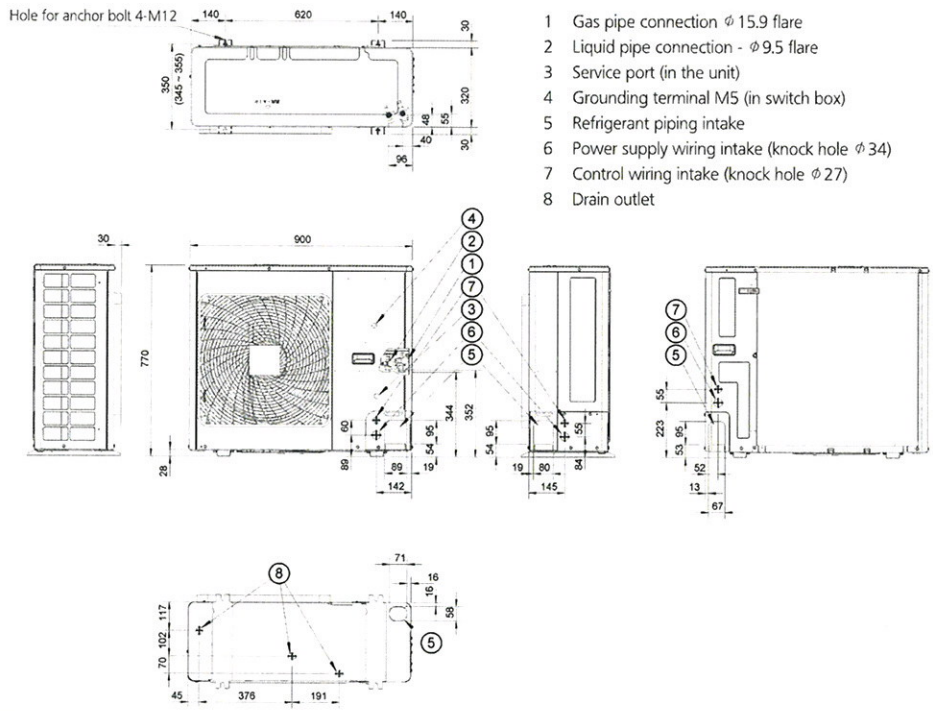
7 Dimensional drawings

7 - 1 Dimensional Drawings

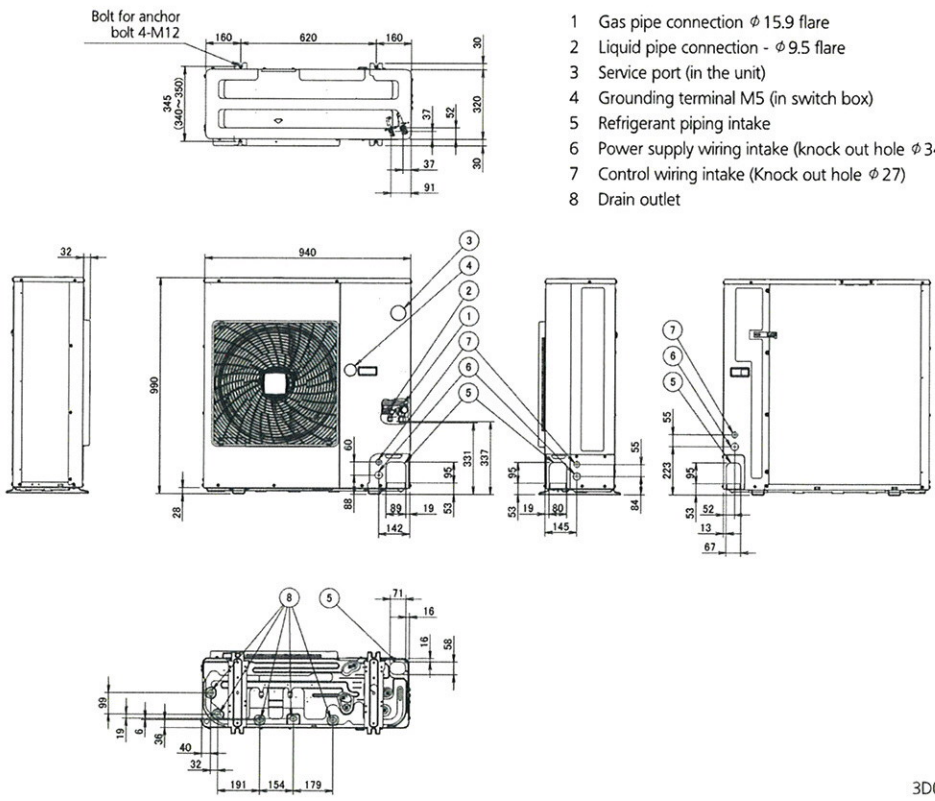
RZQSG71L3V1



1 Gas pipe connection Φ15.9 flare
2 Liquid pipe connection - Φ9.5 flare
3 Service port (in the unit)
4 Grounding terminal M5 (in switch box)
5 Refrigerant piping intake
6 Power supply wiring intake (knock hole Φ34)
7 Control wiring intake (knock hole Φ27)
8 Drain outlet

3D082346

RZQSG100-125L8V1



1 Gas pipe connection Φ15.9 flare
2 Liquid pipe connection - Φ9.5 flare
3 Service port (in the unit)
4 Grounding terminal M5 (in switch box)
5 Refrigerant piping intake
6 Power supply wiring intake (knock out hole Φ34)
7 Control wiring intake (Knock out hole Φ27)
8 Drain outlet

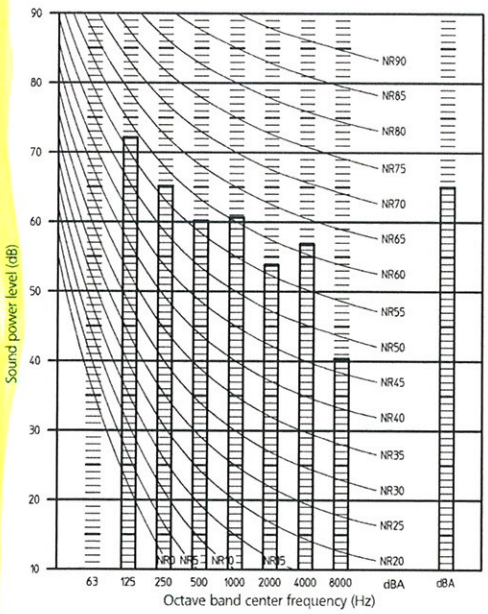
3D076345

11 Sound data

11 - 1 Sound Power Spectrum

11

RZQSG71L3V1

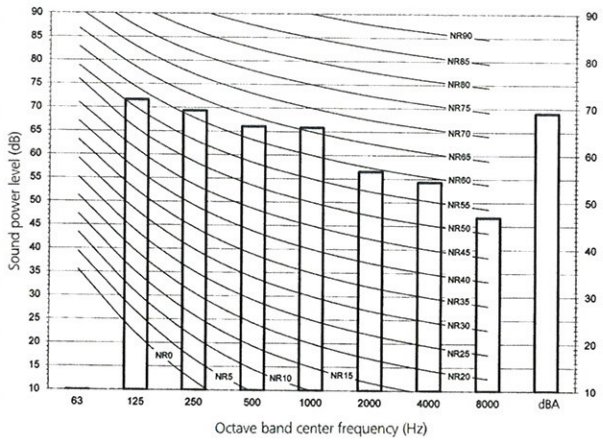


NOTES

1 dB(A) = A-weighted sound power level (A-scale according to IEC)
2 Reference acoustic intensity 0dB = 10E-6μW/m² 0
3 Measured according ISO3744

3TW30467-3

RZQSG100L8V1

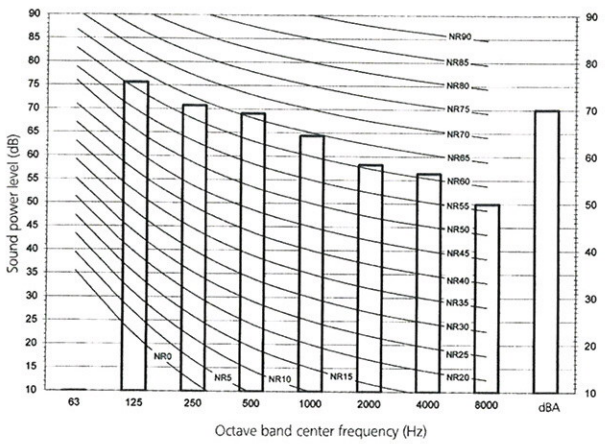


NOTES

1 dBA = A-weighted sound power level (A-scale according to IEC)
2 Reference acoustic intensity 0 dB = 10E-6μW/m²
3 Measured according to ISO 3744

3D076086

RZQSG125L8V1

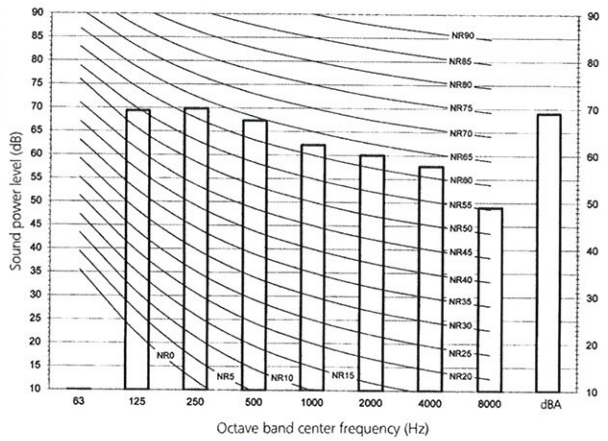


NOTES

1 dBA = A-weighted sound power level (A-scale according to IEC)
2 Reference acoustic intensity 0 dB = 10E-6μW/m²
3 Measured according to ISO 3744

3D076087

RZQSG140LV1



NOTES

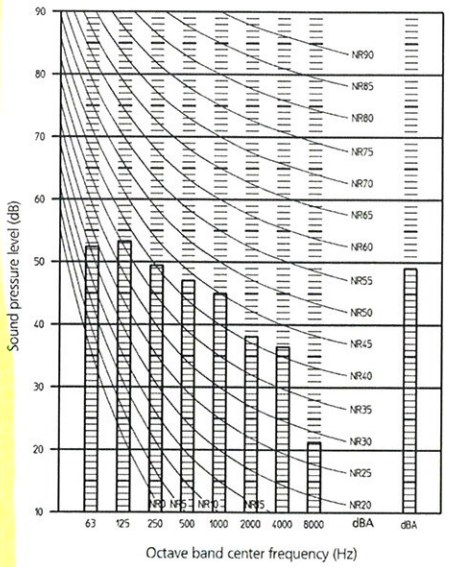
1 dBA = A-weighted sound power level (A-scale according to IEC)
2 Reference acoustic intensity 0 dB = 10E-6μW/m²
3 Measured according to ISO 3744

3D076088

11 Sound data

11 - 2 Sound Pressure Spectrum - Cooling

RZQSG71L3V1



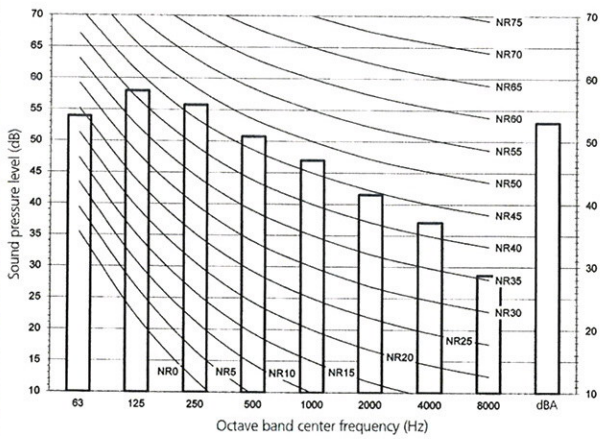
NOTES

1 Data is valid at free field condition
2 Data is valid at nominal operation condition
3 dBA = A-weighted sound pressure level (A-scale according to IEC)
4 Reference acoustic pressure 0dB = 20µPa

Measuring location (discharge side)

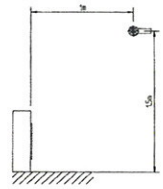
3TW30467-1

RZQSG100L8V1



NOTES

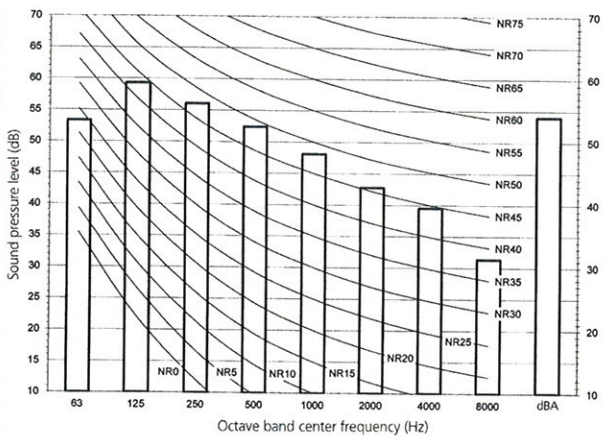
1 Data is valid at free field condition
2 Data is valid at nominal operation condition
3 dBA = A-weighted sound pressure level (A-scale according to IEC)
4 Reference acoustic pressure 0dB = 20µPa



Measuring location (discharge side)

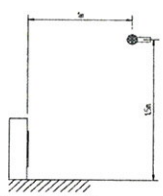
3D076098

RZQSG125L8V1



NOTES

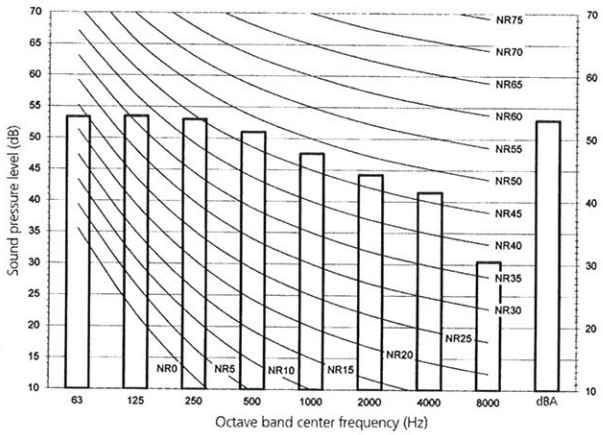
1 Data is valid at free field condition
2 Data is valid at nominal operation condition
3 dBA = A-weighted sound pressure level (A-scale according to IEC)
4 Reference acoustic pressure 0dB = 20µPa



Measuring location (discharge side)

3D076100

RZQSG140LV1



NOTES

1 Data is valid at free field condition
2 Data is valid at nominal operation condition
3 dBA = A-weighted sound pressure level (A-scale according to IEC)
4 Reference acoustic pressure 0dB = 20µPa

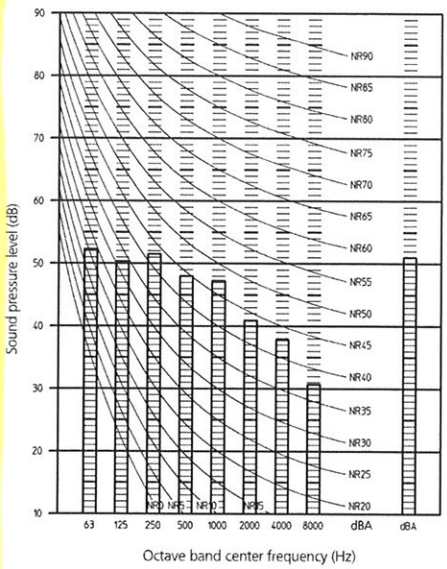
Measuring location (discharge side)

3D076102

11 Sound data

11 - 3 Sound Pressure Spectrum - Heating

RZQSG71L3V1



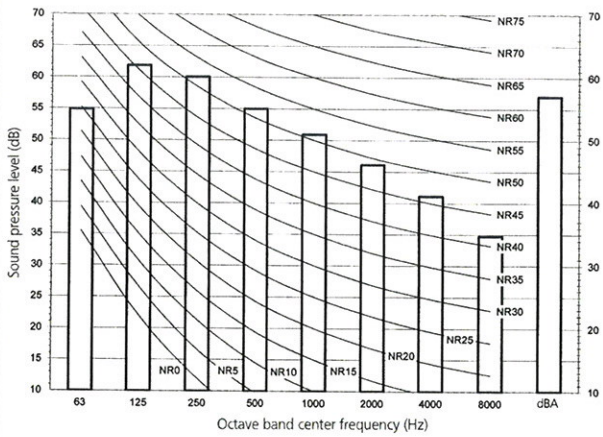
NOTES

1 Data is valid at free field condition
2 Data is valid at nominal operation condition
3 dBA = A-weighted sound pressure level (A-scale according to IEC)
4 Reference acoustic pressure 0dB = 20µPa

Measuring location (discharge side)

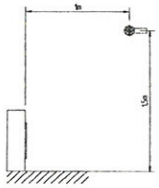
3TW30467-2

RZQSG100L8V1



NOTES

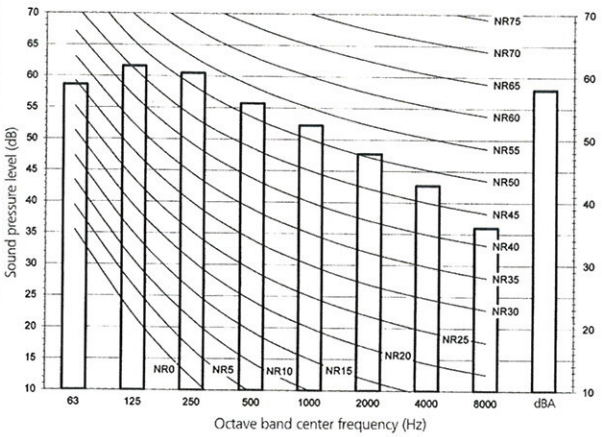
1 Data is valid at free field condition
2 Data is valid at nominal operation condition
3 dBA = A-weighted sound pressure level (A-scale according to IEC)
4 Reference acoustic pressure 0dB = 20µPa



Measuring location (discharge side)

3D076107

RZQSG125L8V1



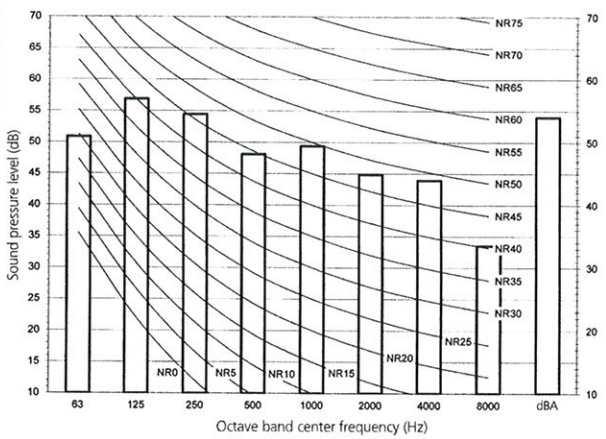
NOTES

1 Data is valid at free field condition
2 Data is valid at nominal operation condition
3 dBA = A-weighted sound pressure level (A-scale according to IEC)
4 Reference acoustic pressure 0dB = 20µPa

Measuring location (discharge side)

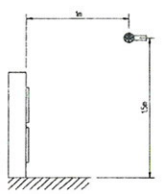
3D076108

RZQSG140LV1



NOTES

1 Data is valid at free field condition
2 Data is valid at nominal operation condition
3 dBA = A-weighted sound pressure level (A-scale according to IEC)
4 Reference acoustic pressure 0dB = 20µPa



Measuring location (discharge side)

3D076109

2 Specifications

2-1 Nominal Capacity And Nominal Input				FCQHG71F/ RZQSG71L3V1	FCQHG100F/ RZQSG100L8V1	FCQHG125F/ RZQSG125L8V1	FCQHG140F/ RZQSG140LV1
Cooling capacity	Nom.		kW	6.8	9.5	12.0	13.4
Heating capacity	Nom.		kW	7.5	10.8	13.5	15.5
Power input	Cooling	Nom.	kW	1.94	2.57	3.71	4.17
	Heating	Nom.	kW	1.83	2.51	3.60	4.29
Seasonal efficiency (according to EN14825)	Cooling	Energy label		A++		A	-
		Pdesign	kW	6.80	9.50	12.00	-
		SEER		6.50	6.70	5.40	-
		Annual energy consumption	kWh	366	496	778	-
	Heating (Average climate)	Energy label		A+			-
		Pdesign	kW	7.60	8.03		-
		SCOP		4.15	4.30	4.10	-
		Annual energy consumption	kWh	2,563	2,614	2,741	-
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER			3.50	3.70	3.23	3.21
	COP			4.10	4.30	3.75	3.61
	Annual energy consumption		kWh	970	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				FCQG71F/RZQSG71L3V1	FCQG100F/ RZQSG100L8V1	FCQG125F/ RZQSG125L8V1	FCQG140F/ RZQSG140LV1
Cooling capacity	Nom.		kW	6.8	9.5	12.0	13.4
Heating capacity	Nom.		kW	7.5	10.8	13.5	15.5
Power input	Cooling	Nom.	kW	2.12	2.88	3.74	4.45
	Heating	Nom.	kW	2.08	3.05	3.96	4.54
Seasonal efficiency (according to EN14825)	Cooling	Energy label		A++		A	-
		Pdesign	kW	6.80	9.50	12.00	-
		SEER		6.10	6.50	5.30	-
		Annual energy consumption	kWh	390	512	792	-
	Heating (Average climate)	Energy label		A+			-
		Pdesign	kW	6.33	7.60	8.03	-
		SCOP		4.10		4.01	-
		Annual energy consumption	kWh	2,162	2,595	2,803	-
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER			3.21	3.30	3.21	3.01
	COP			3.61	3.54	3.41	
	Annual energy consumption		kWh	1,060	1,440	1,870	2,225
	Energy label	Cooling		A			-
		Heating		A	B		-

Notes

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

2-3 Nominal Capacity And Nominal Input				FAQ71C/RZQSG71L3V1	FAQ100C/RZQSG100L8V1
Cooling capacity	Nom.		kW	6.8	9.5
Heating capacity	Nom.		kW	7.5	10.8
Power input	Cooling	Nom.	kW	2.12	3.16
	Heating	Nom.	kW	2.08	3.17

2 Specifications

2-3 Nominal Capacity And Nominal Input				FAQ71C/RZQSG71L3V1	FAQ100C/RZQSG100L8V1
Seasonal efficiency (according to EN14825)	Cooling	Energy label		A+	
		Pdesign	kW	6.80	9.50
		SEER		6.05	5.61
		Annual energy consumption	kWh	393	593
	Heating (Average climate)	Energy label		A	A+
		Pdesign	kW	6.00	6.81
		SCOP		3.90	4.01
		Annual energy consumption	kWh	2,155	2,378
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	1,060	1,580
	Energy label	Cooling		A	B
		Heating		A	B

Notes

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

2-4 Nominal Capacity And Nominal Input				FVQ71C/RZQSG71L3V1	FVQ100C/ RZQSG100L8V1	FVQ125C/ RZQSG125L8V1	FVQ140C/RZQSG140LV1
Cooling capacity	Nom.		kW	6.8	9.5	12.0	13.4
Heating capacity	Nom.		kW	7.5	10.8	13.5	15.5
Power input	Cooling	Nom.	kW	2.12	2.96	4.27	4.45
	Heating	Nom.	kW	2.08	2.99	3.96	4.54
Seasonal efficiency (according to EN14825)	Cooling	Energy label			A		-
		Pdesign	kW	6.80	9.50	12.00	-
		SEER			5.50		-
		Annual energy consumption	kWh	433	605	764	-
	Heating (Average climate)	Energy label		A	A+	A	-
		Pdesign	kW	6.33	7.60		-
		SCOP		3.86	4.01	3.85	-
		Annual energy consumption	kWh	2,296	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	1,060	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				FBQ71C8/RZQSG71L3V1	FBQ100C8/ RZQSG100L8V1	FBQ125C8/ RZQSG125L8V1	FBQ140C8/ RZQSG140LV1
Cooling capacity	Nom.		kW	6.8	9.5	12.0	13.4
Heating capacity	Nom.		kW	7.5	10.8	13.5	15.5
Power input	Cooling	Nom.	kW	2.07	2.87	3.74	4.44
	Heating	Nom.	kW	2.08	2.96	3.85	4.54

2 Specifications

2-5 Nominal Capacity And Nominal Input				FBQ71C8/RZQSG71L3V1	FBQ100C8/ RZQSG100L8V1	FBQ125C8/ RZQSG125L8V1	FBQ140C8/ RZQSG140LV1
Seasonal efficiency (according to EN14825)	Cooling	Energy label		A+	A		-
		Pdesign	kW	6.80	9.50	12.00	-
		SEER		5.81	5.50	5.20	-
		Annual energy consumption	kWh	410	605	808	-
	Heating (Average climate)	Energy label		A	A+	A	-
		Pdesign	kW	6.00	7.60		-
		SCOP		3.88	4.01	3.90	-
		Annual energy consumption	kWh	2,166	2,653	2,728	-
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER			3.28	3.31	3.21	3.02
	COP			3.61	3.65	3.51	3.41
	Annual energy consumption		kWh	1,035	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/RZQSG125L8V1
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				FHQ71C/RZQSG71L3V1	FHQ100C/ RZQSG100L8V1	FHQ125C/ RZQSG125L8V1	FHQ140C/RZQSG140LV1
Cooling capacity	Nom.		kW	6.8	9.5	12.0	13.4
Heating capacity	Nom.		kW	7.5	10.8	13.5	15.5
Power input	Cooling	Nom.	kW	1.97	2.96	4.15	4.45
	Heating	Nom.	kW	1.88	2.99	3.73	4.54

2 Specifications

2-7 Nominal Capacity And Nominal Input					FHQ71C/RZQSG71L3V1	FHQ100C/ RZQSG100L8V1	FHQ125C/ RZQSG125L8V1	FHQ140C/RZQSG140LV1
Seasonal efficiency (according to EN14825)	Cooling	Energy label				A+		-
		Pdesign	kW		6.80	9.50	12.00	-
		SEER				5.61		-
		Annual energy consumption	kWh		424	593	749	-
	Heating (Average climate)	Energy label				A	A+	-
		Pdesign	kW			7.60		-
		SCOP			3.90	3.91	4.01	-
		Annual energy consumption	kWh		2,727	2,721	2,653	-
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER				3.46	3.21	2.89	3.01
	COP				4.00	3.61	3.62	3.41
	Annual energy consumption		kWh		985	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

2-8 Technical Specifications						RZQSG71L3V1	RZQSG100L8V1	RZQSG125L8V1	RZQSG140LV1
Capacity control	Method					Inverter controlled			
Casing	Colour					Ivory white			
	Material					Painted galvanized steel plate			
Dimensions	Unit	Height		mm		770	990		1,430
		Width		mm		900	940		
		Depth		mm		320			
	Packed unit	Height		mm		900	1,170		1,610
		Width		mm		980	1,015		
		Depth		mm		420	422		
Weight	Unit			kg		67	81		102
	Packed unit			kg		71	92		115
Heat exchanger	Length			mm		857	-		
	Rows	Quantity				2	-		
	Fin pitch			mm		1.4	-		
	Passes	Quantity				8	-		
	Face area			m²		0.641	-		
	Stages	Quantity				34	-		
	Empty tubeplate hole	Quantity				0	-		
	Tube type					ø8 Hi-XSS	-		
	Fin	Type				WF fin			
		Treatment				Anti-corrosion treatment (PE)			
Compressor	Quantity					1			
	Model					2YC63DXD	-		
	Type					Hermetically sealed swing compressor			
	Output			W		1,700	-		
	Starting method					Inverter driven			
Fan	Type					Propeller fan			
	Discharge direction					Horizontal			
	Quantity					1			2
	Air flow rate	Cooling	Nom.	m³/min		52	76	77	83
			Super low	m³/min		-			
				cfm		-			
		Heating	Nom.	m³/min		48	83		62
			Super low	m³/min		-			
				cfm		-			

2 Specifications

2-8 Technical Specifications						RZQSG71L3V1	RZQSG100L8V1	RZQSG125L8V1	RZQSG140LV1
Fan motor	Quantity						1		2
	Model					KFD-325-70-8A	Brushless DC motor		
	Output				W	70	200		94
	Drive						Direct drive		
	Speed	Steps				8	-		
		Cooling	Nom.		rpm	800	-		
			Super low		rpm		-		
		Heating	Nom.		rpm	745	-		
			Super low		rpm		-		
Sound power level	Cooling				dBA	65	69	70	69
	Heating				dBA		-		
Sound pressure level	Cooling	Nom.			dBA	49	53	54	53
		Silent operation			dBA	47	49		
	Heating	Nom.			dBA	51	57	58	54
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	2.75	2.9		4.0
	Control					Expansion valve (electronic type)			
	GWP					1,975			
	Circuits	Quantity				1			
Refrigerant oil	Type					FVC50K			
	Charged volume				l	0.75	0.9		1.35
Piping connections	Liquid	Quantity				1			
		Type				Flare connection			
		OD			mm	9.52			
	Gas	Quantity				1			
		Type				Flare connection			
		OD			mm	15.9			
	Drain	Quantity				3	5		
		Type				Hole			
		ID			mm	-			
		OD			mm	26			
	Piping length	OU - IU	Min.		m	5			
			Max.		m	50			
		System	Equivalent		m	40	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						Pressure equalising	Reversed cycle		
Defrost control							Sensor for outdoor heat exchanger temperature		
Safety devices	Item	01					High pressure switch		
		02				Fan motor thermal protection	Fan driver overload protector		
		03					Fuse		

2 Specifications

2-9 Electrical Specifications				RZQSG71L3V1	RZQSG100L8V1	RZQSG125L8V1	RZQSG140LV1
Power supply	Name			V1			
	Phase			1~			
	Frequency		Hz	50			
	Voltage		V	220-240			
	Voltage range	Min.	%	10			
		Max.	%	10			
Current	Zmax	List		-	Complies to EN61000-3-11		
	Recommended fuses		A	25	40		
Current - 50Hz	Maximum fuse amps (MFA)		A	20	32		
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) See separate drawing for electrical data

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

(3) Short-circuit power

(4) Related to 3D076918

(5) PED: assembly = category I : excluded from scope of PED due to article 1, item 3.6 of 97/23/EC

(6) Equipment complying with EN/IEC 61000-3-12: European/international technical standard setting the limits for harmonic currents produced by equipment connected to public low-voltage system with input current \> 16A and ≤ 75A per phase

(7) See separate drawings for electrical data