Air Conditioning

Technical Data

Pair, Twin, Triple, double twin



EEDEN15-100

RZQSG-L3/9V1

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1 Features

Technology and comfort combined for commercial applications

- Top efficiency: - compressor that offers substantial efficiency improvements - control logic that optimises efficiency at the most frequently encountered operating conditions and that optimises the auxiliary modes (when the unit is not active) - 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
- With gas cooled PCB reliable cooling is guaranteed as it is not influenced by ambient temperature (1~)
- Maximum piping length up to 50m, minimum piping length is 5m.
- Outdoor units for pair, twin, triple, double twin application
- Daikin outdoor units are neat, sturdy and can easily be mounted on a roof or terrace or simply placed against an outside wall
- Compatibility with D-BACS
- Units optimized for seasonal efficiency give an indication on how efficient an air conditioner operates over an entire heating or cooling season.





Inverter



Auto cooling-heating changeover

2 Specifications

2-1 Capacity and Power input				FVQ71C/RZQSG71L3V1	FVQ100C/ RZQSG100L9V1	FVQ125C/ RZQSG125L9V1	FVQ140C/ RZQSG140L9V1
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	2,654	2,764	-
Nominal efficiency	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			-
		Heating		A		B	-

Notes

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

Nominal efficiency: cooling at 35°/27° nominal load, heating at 7°/20° nominal load

2-2 Capacity and Power input				FHQ71C/RZQSG71L3V1	FHQ100C/ RZQSG100L9V1	FHQ125C/ RZQSG125L9V1	FHQ140C/ RZQSG140L9V1
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
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	2,722	2,654	-
Nominal efficiency	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

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

Nominal efficiency: cooling at 35°/27° nominal load, heating at 7°/20° nominal load

2-3 Capacity and Power input				FAQ71C/RZQSG71L3V1	FAQ100C/RZQSG100L9V1
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 Capacity and Power input				FAQ71C/RZQSG71L3V1	FAQ100C/RZQSG100L9V1
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	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

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

Nominal efficiency: cooling at 35°/27° nominal load, heating at 7°/20° nominal load

2-4 Capacity and Power input				FCQG71F/RZQSG71L3V1	FCQG100F/ RZQSG100L9V1	FCQG125F/ RZQSG125L9V1	FCQG140F/ RZQSG140L9V1
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	793	-
	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	2,596	2,804	-
Nominal efficiency	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

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

Nominal efficiency: cooling at 35°/27° nominal load, heating at 7°/20° nominal load

2-5 Capacity and Power input				FDQ125C/RZQSG125L9V1
Cooling capacity	Nom.		kW	12.0
Heating capacity	Nom.		kW	13.5
Power input	Cooling	Nom.	kW	3.74
	Heating	Nom.	kW	3.85

2 Specifications

2-5 Capacity and Power input				FDQ125C/RZQSG125L9V1
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	2,729
Nominal efficiency	EER			3.21
	COP			3.51
	Annual energy consumption		kWh	1,870
	Energy label	Cooling		A
		Heating		B

Notes

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

Nominal efficiency: cooling at 35°/27° nominal load, heating at 7°/20° nominal load

2-6 Capacity and Power input				FCQHG71F/ RZQSG71L3V1	FCQHG100F/ RZQSG100L9V1	FCQHG125F/ RZQSG125L9V1	FCQHG140F/ RZQSG140L9V1
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	497	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	2,615	2,742	-
Nominal efficiency	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

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

Nominal efficiency: cooling at 35°/27° nominal load, heating at 7°/20° nominal load

2-7 Capacity and Power input				*FBQ71D/RZQSG71L3V1	*FBQ100D/ RZQSG100L9V1	*FBQ125D/ RZQSG125L9V1	*FBQ140D/ RZQSG140L9V1
Indoor unit				FBQ71D	FBQ100D	FBQ125D	FBQ140D
Outdoor unit				RZQSG71L3V1	RZQSG100L9V1	RZQSG125L9V1	RZQSG140L9V1
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	2.06	2.84	3.72	4.38
	Heating	Nom.	kW	1.97	2.94	3.85	4.55

2 Specifications

2-7 Capacity and Power input					*FBQ71D/RZQSG71L3V1	*FBQ100D/ RZQSG100L9V1	*FBQ125D/ RZQSG125L9V1	*FBQ140D/ RZQSG140L9V1
Seasonal efficiency (according to EN14825)	Cooling	Energy label			A+	A		-
		Pdesign	kW		6.80	9.50	12.00	-
		SEER			5.84	5.57	5.22	-
		Annual energy consumption	kWh		408	597	805	-
	Heating (Average climate)	Energy label			A+		A	-
		Pdesign	kW		6.00	11.30	12.70	-
		SCOP			4.10	4.15	4.05	-
		Annual energy consumption	kWh		2,049	3,812	4,390	-
Nominal efficiency	EER				3.30	3.35	3.23	3.06
	COP				3.81	3.67	3.51	3.41
	Annual energy consumption			kWh	1,030	1,418	1,858	2,190
	Energy label	Cooling			A			B
		Heating			A		B	

Notes

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

Nominal efficiency: cooling at 35°/27° nominal load, heating at 7°/20° nominal load

2-8 Technical Specifications					RZQSG71L3V1	RZQSG100L9V1	RZQSG125L9V1	RZQSG140L9V1
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	77		99
	Packed unit			kg	71	-		
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.	m³/min	52	76	77.0	83
			Super low	m³/min	-			
				cfm	-			
		Heating	Nom.	m³/min	48	83		62
			Super low	m³/min	-			
				cfm	-			
Fan motor	Quantity				1			2
	Model				KFD-325-70-8A	Brushless DC motor		
	Output			W	70	200		94
	Drive				Direct drive			
	Speed	Cooling	Super low	rpm	-			
		Heating	Super low	rpm	-			
Sound power level	Cooling			dBA	65	70		69
	Heating			dBA	-			

2 Specifications

2-8 Technical Specifications					RZQSG71L3V1	RZQSG100L9V1	RZQSG125L9V1	RZQSG140L9V1
Sound pressure level	Cooling	Nom.		dBA	49	53	54	53
		Silent operation		dBA	47	-		
	Heating	Nom.		dBA	51	57	58	54
	Night quiet mode	Level 1		dBA	-	49		
Operation range	Cooling	Ambient	Min.	°CDB	-15.0			
			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	70			
			Chargeless	m	30			
	Additional refrigerant charge			kg/m	See installation manual			
	Level difference	IU - OU	Max.	m	15	30.0		
		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	Low pressure switch		
		03			Fuse	Fan driver overload protector		
		04			-	Fuse		

2-9 Electrical Specifications				RZQSG71L3V1	RZQSG100L9V1	RZQSG125L9V1	RZQSG140L9V1
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	-		
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			

2 Specifications

Notes

See separate drawing for electrical data

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.

Short-circuit power

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

Minimum Ssc (=Short-circuit power) value: 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 systems with input current \>16A and ≤ 75A per phase

3 Electrical data

3 - 1 Electrical Data

RZQSG-L3/9V1

	FBQ35C8	FBQ50C8	FBQ60C8	FBQ71C8	FBQ100C8	FBQ125C8	FBQ140C8
RZQSG71L3V1	2 (77.1)			P (89.7)			
RZQSG100L9V1	3 (97.3)	2 (77.1)			P (89.7)		
RZQSG125L9V1	3/4 (116.2)	3 (97.3)	2 (138.1)			P (89.7)	
RZQSG140L9V1	4 (116.2)	3 (97.3)		2 (138.1)			P (89.7)

P = Pair
2 = Twin
3 = Triple
4 = Double twin

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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 Ssc[(2)] ≧ 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 ≦ 75A per phase.
[(2)] Short-circuit power

3 Electrical data

3 - 1 Electrical Data

RZQSG71-100L3/9V1

Indoor		Outdoor	Hz-Power supply	Voltage range	MCA	TOCA	MFA	Comp MSC	Comp RLA	OFM kW	OFM FLA	IFM kW	IFM FLA
FCQHG71FVEB		RZQSG71L3V1	50Hz 220-240V	Min. 198V Max. 264V	18.8	—	20	—	16.2	0.07	0.3	0.091	0.5
FCQG35FVEB	×2				18.9	—	20	—	16.2	0.07	0.3	0.044×2	0.3×2
FCQG71FVEB					18.7	—	20	—	16.2	0.07	0.3	0.054	0.4
FFQ35C2VEB	×2				19.2	—	20	—	16.2	0.07	0.3	0.050×2	0.4×2
FDXS35F2VEB	×2				18.9	—	20	—	16.2	0.07	0.3	0.034×2	0.3×2
FBQ35C8VEB	×2				21.2	—	25	—	16.2	0.07	0.3	0.140×2	1.2×2
FBQ71C8VEB					19.5	—	20	—	16.2	0.07	0.3	0.350	1.1
FAQ71CVEB					18.7	—	20	—	16.2	0.07	0.3	0.048	0.4
FVQ71CVEB					18.9	—	20	—	16.2	0.07	0.3	0.117	0.6
FHQ35CAVEB	x2				19.1	—	20	—	15.7	0.07	0.3	0,060 x 2	0,6 x 2
FHQ71CAVEB					18.6	—	20	—	15.7	0.07	0.3	0.091	0.8
FCQHG100FVEB		RZQSG100L9V1	50Hz 220-240V	Min. 198V Max. 264V	29.1	—	32	—	24.4	0.2	0.6	0.221	1.3
FCQG35FVEB	×3				28.6	—	32	—	24.4	0.2	0.6	0.044×3	0.3×3
FCQG50FVEB	×2				28.3	—	32	—	24.4	0.2	0.6	0.039×2	0.3×2
FCQG100FVEB					28.4	—	32	—	24.4	0.2	0.6	0.117	0.7
FFQ35C2VEB	×3				29.0	—	32	—	24.4	0.2	0.6	0.05×3	0.4×3
FFQ50C2VEB	×2				28.5	—	32	—	24.4	0.2	0.6	0.05×2	0.4×2
FDXS35F2VEB	×3				28.6	—	32	—	24.4	0.2	0.6	0.034×3	0.3×3
FDXS50F2VEB9	×2				28.8	—	32	—	24.4	0.2	0.6	0.06x2	0.5x2
FBQ35C8VEB	×3				32.0	—	40	—	24.4	0.2	0.6	0.140×3	1.2×3
FBQ50C8VEB	×2				30.5	—	32	—	24.4	0.2	0.6	0.140×2	1.2×2
FBQ100C8VEB					29.5	—	32	—	24.4	0.2	0.6	0.350	1.6
FAQ100CVEB					28.0	—	32	—	24.4	0.2	0.6	0.064	0.4
FVQ100CVEB					29.0	—	32	—	24.4	0.2	0.6	0.238	1.2
FHQ35CAVEB	x3				29.8	—	32	—	24.4	0.2	0.6	0,060 x 3	0,6 x 3
FHQ50CAVEB	x2				29.0	—	32	—	24.4	0.2	0.6	0,060 x 2	0,6 x 2
FHQ100CAVEB					29.1	—	32	—	24.4	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 orabove 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)

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3 Electrical data

3 - 1 Electrical Data

RZQSG125-140L9V1

Indoor		Outdoor	Hz-Power supply	Voltage range	MCA	TOCA	MFA	Comp MSC	Comp RLA	OFM kW	OFM FLA	IFM kW	IFM FLA
FCQHG125FVEB		RZQSG125L9V1	50Hz 220-240V	Min. 198V Max. 264V	29.3	—	32	—	24.4	0.2	0.6	0.244	1.4
FCQG35FVEB	×4				29.0	—	32	—	24.4	0.2	0.6	0.044×4	0.3×4
FCQG50FVEB	×3				28.6	—	32	—	24.4	0.2	0.6	0.039×3	0.3×3
FCQG60FVEB	×2				28.3	—	32	—	24.4	0.2	0.6	0.044×2	0.3×2
FCQG125FVEB					28.8	—	32	—	24.4	0.2	0.6	0.168	1.0
FFQ35C2VEB	×4				29.5	—	32	—	24.4	0.2	0.6	0.05×4	0.4×4
FFQ50C2VEB	×3				29.0	—	32	—	24.4	0.2	0.6	0.05×3	0.4×3
FFQ60C2VEB	×2				29.0	—	32	—	24.4	0.2	0.6	0.05×2	0.6×2
FDXS35F2VEB	×4				29.0	—	32	—	24.4	0.2	0.6	0.034×4	0.3×4
FDXS50F2VEB9	×3				29.4	—	32	—	24.4	0.2	0.6	0.06x3	0.5x3
FDXS60F2VEB	×2				28.8	—	32	—	24.4	0.2	0.6	0.060×2	0.5×2
FBQ35C8VEB	×4				33.5	—	40	—	24.4	0.2	0.6	0.140×4	1.2×4
FBQ50C8VEB	×3				32.0	—	40	—	24.4	0.2	0.6	0.140×3	1.2×3
FBQ60C8VEB	×2				30.3	—	32	—	24.4	0.2	0.6	0.350×2	1.1×2
FBQ125C8VEB					30.1	—	32	—	24.4	0.2	0.6	0.350	2.1
FDQ125C7VEB					30.1	—	32	—	24.4	0.2	0.6	0.350	2.1
FVQ125CVEB					29.0	—	32	—	24.4	0.2	0.6	0.238	1.2
FHQ35CAVEB	x4				30.5	—	32	—	24.4	0.2	0.6	0,060x4	0,6 x 4
FHQ50CAVEB	x3				29.8	—	32	—	24.4	0.2	0.6	0,060x3	0,6 x 3
FHQ60CAVEB	x2				29.0	—	32	—	24.4	0.2	0.6	0,091x2	0,6 x 2
FHQ125CAVEB					29.4	—	32	—	24.4	0.2	0.6	0.150	1.5
FCQHG71FVEB	×2	RZQSG140L9V1	50Hz 220-240V	Min. 198V Max. 264V	28.8	—	32	—	24.2	0.094+0.094	0.4+0.4	0.091×2	0.5×2
FCQHG140FVEB					29.3	—	32	—	24.2	0.094+0.094	0.4+0.4	0.244	1.4
FCQG35FVEB	×4				29.0	—	32	—	24.2	0.094+0.094	0.4+0.4	0.044×4	0.3×4
FCQG50FVEB	×3				28.6	—	32	—	24.2	0.094+0.094	0.4+0.4	0.039×3	0.3×3
FCQG71FVEB	×2				28.5	—	32	—	24.2	0.094+0.094	0.4+0.4	0.054×2	0.4×2
FCQG140FVEB					28.8	—	32	—	24.2	0.094+0.094	0.4+0.4	0.168	1.0
FFQ35C2VEB	×4				29.5	—	32	—	24.2	0.094+0.094	0.4+0.4	0.05×4	0.4×4
FFQ50C2VEB	×3				29.0	—	32	—	24.2	0.094+0.094	0.4+0.4	0.05×3	0.4×3
FDXS35F2VEB	×4				29.0	—	32	—	24.2	0.094+0.094	0.4+0.4	0.034×4	0.3×4
FDXS50F2VEB9	×3				29.4	—	32	—	24.2	0.094+0.094	0.4+0.4	0.06x3	0.5x3
FBQ35C8VEB	×4				33.5	—	40	—	24.2	0.094+0.094	0.4+0.4	0.140×4	1.2×4
FBQ50C8VEB	×3				32.0	—	40	—	24.2	0.094+0.094	0.4+0.4	0.140×3	1.2×3
FBQ71C8VEB	×2				30.3	—	32	—	24.2	0.094+0.094	0.4+0.4	0.350×2	1.1×2
FBQ140C8VEB					30.1	—	32	—	24.2	0.094+0.094	0.4+0.4	0.350	2.1
FAQ71CVEB	×2				28.5	—	32	—	24.2	0.094+0.094	0.4+0.4	0.048×2	0.4×2
FVQ140CVEB					29.3	—	32	—	24.2	0.094+0.094	0.4+0.4	0.276	1.4
FHQ35CAVEB	x4				30.5	—	32	—	24.2	0.094+0.094	0.4+0.4	0,060 x 4	0,6 x 4
FHQ50CAVEB	x3				29.8	—	32	—	24.2	0.094+0.094	0.4+0.4	0,060 x 3	0,6 x 3
FHQ71CAVEB	x2				29.5	—	32	—	24.2	0.094+0.094	0.4+0.4	0,091 x 2	0,8 x 2
FHQ140CAVEB					29.8	—	32	—	24.2	0.094+0.094	0.4+0.4	0.15	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

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 orabove 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)

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3 Electrical data

3 - 1 Electrical Data

RZQSG71L3V1

							Comp		OFM		IFM	
Indoor		Outdoor	Hz-Power supply	Voltage range	MCA	TOCA	MFA	MSC	RLA	kW	FLA	kW	FLA
FCQHG71FVEB		RZQSG71L3V1	50Hz 220-240V	Min. 198V Max. 264V	18.8	—	20	—	16.2	0.07	0.3	0.091	0.5
FCQG35FVEB	×2				18.9	—	20	—	16.2	0.07	0.3	0.044×2	0.3×2
FCQG71FVEB					18.7	—	20	—	16.2	0.07	0.3	0.054	0.4
FFQ35B9V1B	×2				19.2	—	20	—	16.2	0.07	0.3	0.055×2	0.4×2
FFQ35C2VEB	x2				18.9	—	20	—	16.2	0.07	0.3	0.050x2	0.3x2
FBQ35C8VEB	×2				21.2	—	25	—	16.2	0.07	0.3	0.140×2	1.2×2
FBQ71C8VEB					19.5	—	20	—	16.2	0.07	0.3	0.350	1.1
FHQ35BVW1B	×2				19.7	—	20	—	16.2	0.07	0.3	0.062×2	0.6×2
FHQG71CVEB					19.2	—	20	—	16.2	0.07	0.3	0.091	0.8
FAQ71CVEB					18.7	—	20	—	16.2	0.07	0.3	0.048	0.4
FVQ71CVEB					18.9	—	20	—	16.2	0.07	0.3	0.117	0.6
FFQ35C2VEB	x2				19.2	—	20	—	16.2	0.07	0.3	0.050x2	0.4x2
FDXS35F2VEB	x2				18.9	—	20	—	16.2	0.07	0.3	0.034x2	0.3x2

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 orabove 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)

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4 Options

4 - 1 Options

RZQSG71L3V1

Available options for RZQSG models:

Name of option		Kit name
		RZQSG71L3V1
Bottom plate heater		-
Refrigerant branch piping	Twin	KHRQ22M20TA (KHRQ58T): See note 2
Demand adapter kit		KRP58M51

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RZQSG100-140L9V1

Available options for RZQG models

Option		Option kit			
		RZQG71L9V1B	RZQG100L9V1B	RZQG125L9V1B	RZQG140L9V1B
Bottom plate heater		EKBPH140L7			
Refrigerant branch piping	Twin	KHRQ22M20TA			
	Triple	-	KHRQ127H		
	Double twin	-	-	KHRQ22M20TA (3x)	
Demand adaptor kit		KRP58M51MK			

Available options for RZQSG models

Option		Option kit			
		RZQSG71L3V1B	RZQSG100L9V1B	RZQSG125L9V1B	RZQSG140L9V1B
Bottom plate heater		-			
Refrigerant branch piping	Twin	KHRQ22M20TA			
	Triple	-	KHRQ127H		
	Double twin	-	-	KHRQ22M20TA (3x)	
Demand adaptor kit		KRP58M51	KRP58M51MK		

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5 Combination table

5 - 1 Combination Table

5

RZQSG100-140L9V1

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

(*): Maximum capacity of outdoor units

Sky Air		High Cassette				Thin cassette						2x2 cassette			Duct (medium ESP)						Ceiling-suspended					Ceiling-mounted - 4-way blow			Wall mounted type		Duct (high ESP)	Floor standing type				Slim duct		
Model		FCQHG71FVEB	FCQHG100FVEB	FCQHG125FVEB	FCQHG140FVEB	FCQG35FVEB	FCQG50FVEB	FCQG60FVEB	FCQG71FVEB	FCQG100FVEB	FCQG125FVEB	FCQG140FVEB	FFQ35C2VEB	FFQ50C2VEB	FFQ60C2VEB	FBQ35C8VEB	FBQ50C8VEB	FBQ60C8VEB	FBQ71C8VEB	FBQ100C8VEB	FBQ125C8VEB	FBQ140C8VEB	FHQ35BVV1B8	FHQ50BVV1B8	FHQ60BVV1B8	FHQG71CVEB	FHQG100CVEB	FHQG125CVEB	FHQG140CVEB	FUQ71CVEB	FUQ100CVEB	FUQ125CVEB	FAQ71CVEB	FAQ100CVEB	FDQ125C7VEB	FVQ71CVEB	FVQ100CVEB	FVQ125CVEB	FVQ140CVEB	FDXS35F2VEB	FDXS50F2VEB	FDXS60F2VEB
RZQG71L9V1B	RZQG71L8Y1B	P				2			P				2			2			P				2			P				P			P			P			2		
RZQG100L9V1B	RZQG100L8Y1B		P			3	2			P			3	2		3	2			P			3	2			P				P			P			P		3	2	
RZQG125L9V1B	RZQG125L8Y1B			P		4	3	2			P		4	3	2	4	3	2			P		4	3	2			P				P				P			4	3	2
RZQG140L9V1B	RZQG140L7Y1B	2			P	4	3		2			P	4	3		4	3		2			P	4	3		2			P	2			2						4	3	

Sky Air		High Cassette				Thin cassette						2x2 cassette			Duct (medium ESP)						Ceiling-suspended					Ceiling-mounted - 4-way blow			Wall mounted type		Duct (high ESP)	Floor standing type				Slim duct		
Model		FCQHG71FVEB	FCQHG100FVEB	FCQHG125FVEB	FCQHG140FVEB	FCQG35FVEB	FCQG50FVEB	FCQG60FVEB	FCQG71FVEB	FCQG100FVEB	FCQG125FVEB	FCQG140FVEB	FFQ35C2VEB	FFQ50C2VEB	FFQ60C2VEB	FBQ35C8VEB	FBQ50C8VEB	FBQ60C8VEB	FBQ71C8VEB	FBQ100C8VEB	FBQ125C8VEB	FBQ140C8VEB	FHQ35BVV1B8	FHQ50BVV1B8	FHQ60BVV1B8	FHQG71CVEB	FHQG100CVEB	FHQG125CVEB	FHQG140CVEB	FUQ71CVEB	FUQ100CVEB	FUQ125CVEB	FAQ71CVEB	FAQ100CVEB	FDQ125C7VEB	FVQ71CVEB	FVQ100CVEB	FVQ125CVEB	FVQ140CVEB	FDXS35F2VEB	FDXS50F2VEB	FDXS60F2VEB
RZQSG71L3V1B		P				2			P				2			2			P				2			P				P			P			P			2		
RZQSG100L9V1B	RZQSG100L8Y1B		P			3	2			P			3	2		3	2			P			3	2			P				P			P			P		3	2	
RZQSG125L9V1B	RZQSG125L8Y1B			P		4	3	2			P		4	3	2	4	3	2			P		4	3	2			P				P				P			4	3	2
RZQSG140L9V1B	RZQSG140L7Y1B	2			P	4	3		2			P	4	3		4	3		2			P	4	3		2			P	2			2						4	3	

Notes

1. The capacities in the table are combined capacities (multiple units operating simultaneously) and not individual indoor unit capacities.
2. When combining multiple indoor units, designate the unit whose remote controller is equipped with the most functions as the master unit.
3. For the selection of the correct refnet kit, required to install a multi-combination, refer to the option list.

Twin : KHRQ22M20TA or KHRQ58T
Triple : KHRQ127H or KHRQ58H
Double twin : KHRQ22M20TA or KHRQ58T

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RZQSG71L3V1

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

SKY-AIR	Hi cassette				Thin cassette						2x2 cassette				Duct (medium ESP)						Away ceiling			Wall mounted		High ESP duct	Floor standing				Ceiling suspended						Slim Duct			
Model name	FCQHG71FVEB	FCQHG100FVEB	FCQHG125FVEB	FCQHG140FVEB	FCQG35FVEB	FCQG50FVEB	FCQG60FVEB	FCQG71FVEB	FCQG100FVEB	FCQG125FVEB	FCQG140FVEB	FFQ35B9V1B	FFQ60B9V1B	FFQ25C2VEB	FFQ35C2VEB	FFQ60C2VEB	FBQ35C8VEB	FBQ50C8VEB	FBQ60C8VEB	FBQ71C8VEB	FBQ100C8VEB	FBQ125C8VEB	FBQ140C8VEB	FUQ71CVEB	FUQ100CVEB	FUQ125CVEB	FAQ71CVEB	FAQ100CVEB	FDQ125C7VEB	FVQ71CVEB	FVQ100CVEB	FVQ125CVEB	FVQ140CVEB	FHQ25CAVEB	FHQ35CAVEB	FHQ50CAVEB	FHQ71CAVEB	FHQ100CAVEB	FHQ125CAVEB	FHQ140CAVEB	FDXS25F2VEB	FDXS35F2VEB	FDXS50F2VEB	FDXS60F2VEB
RZQSG71L3V1B	P				2			P				2			2			2			P				P			P			P			P				2			

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NOTES

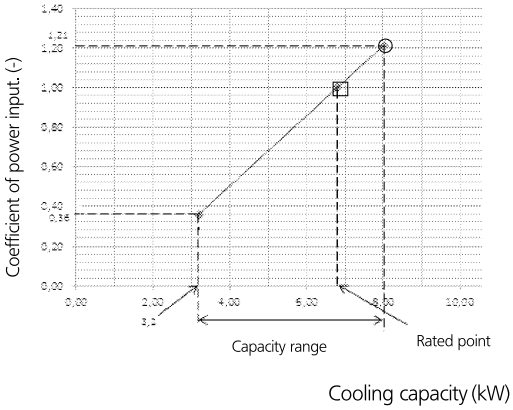
1 Individual indoor capacities are not given because the combinations are for simultaneous operation (=indoor units installed in same room).
2 When different indoor models are used in combination, designate the remote controller that is equipped with the most functions as the main unit.
3 See the option list for the selection of the refnet kits that are necessary to install the combinations:
Twin: KHRQ22M20TA orKHRQ58T
Triple: KHRQ127H orKHRQ58H
Double twin: KHRQ22M20TA orKHRQ58T

6 Capacity tables

6 - 1 Cooling Capacity Tables

RZQSG71L3V1

Cooling



Cooling

Indoor		Outdoor temperature (°CDB)											
		25			30			35			40		
		TC	SHC	CPI	TC	SHC	CPI	TC	SHC	CPI	TC	SHC	CPI
°CWB	°CDB	kW	kW	-	kW	kW	-	kW	kW	-	kW	kW	-
16,0	22	7,29	4,95	0,92	7,28	4,99	1,08	7,50	5,21	1,20	7,20	5,06	1,32
18,0	25	8,37	5,43	1,00	8,11	5,32	1,11	7,83	5,19	1,21	7,52	5,04	1,34
19,0	27	8,54	5,41	1,01	8,28	5,31	1,11	**8,00**	**5,18**	**1,21**	7,68	5,03	1,34
19,5	27	8,63	5,40	1,01	8,37	5,30	1,11	8,08	5,17	1,21	7,76	5,03	1,34
22,0	30	9,07	5,33	1,03	8,80	5,23	1,12	8,51	5,12	1,22	8,18	4,97	1,35
24,0	32	9,43	5,25	1,03	9,15	5,16	1,13	8,85	5,05	1,23	8,51	4,90	1,36

NOTES

1. Ratings shown are net capacities which include a deduction for indoor fan motor heat.
2. 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.
3. 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 (m^3/min) x (1–BF) x (DB*–EDB).
4. 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.
5. Coefficient of power input is the percentage when the rated value is defined as 1.00.
6. The value contains less than 5% error acording to indoor unit type.
7. Heating performance include the drop of frost formation.
8. Air flow rate and (BF) are given in table below:

(Pair)

	FCQHG71F	FCQG71F	FBQ71C	FHQG71C	FAQ71C	FVQ71C	FHQ71CA
AFR (BF)	21.2 (0.2)	21.5 (0.14)	18 (0.08)	20.5 (0.13)	18 (0.16)	18 (0.16)	20.5 (0.13)

(Twin)

	FCQG35Fx2	FFQ35x2	FBQ35Cx2	FHQ35BWx2	FHQ35CAx2	FFQ35C2x2	FDXS35F2x2
AFR (BF)	12.5x2 (0.4x2)	10x2 (0.25x2)	16x2 (0.15x2)	13x2 (0.20x2)	14x2 (0.17x2)	10x2 (0.25x2)	8.7x2 (0.17x2)

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

(Pair)

	FCQHG71F	FCQG71F	FBQ71C	FHQG71C	FAQ71C	FVQ71C	FHQ71CA
Cooling	1.94	2.12	2.07	1.97	2.12	2.12	1.97

(Twin)

	FCQG35Fx2	FFQ35x2	FBQ35Cx2	FHQ35BWx2	FHQ35CAx2	FFQ35C2x2	FDXS35F2x2
Cooling	2.28	2.30	2.11	2.51	2.47	2.29	2.31

SYMBOLS

AFR: Air flow rate(m^3/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.

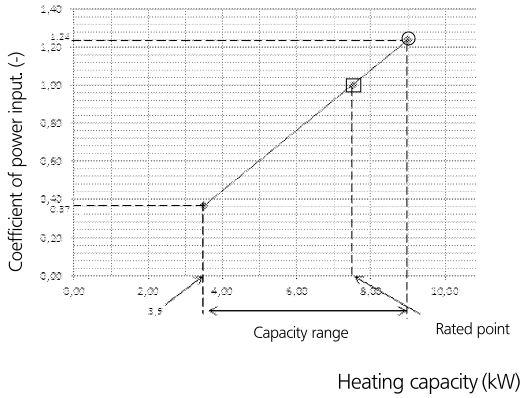
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6 Capacity tables

6 - 2 Heating Capacity Tables

RZQSG71L3V1

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	-	kW	-	kW	-	kW	-	kW	-	kW	-
16	5.14	0.89	5.68	0.94	6.22	0.98	6.75	1.03	9.02	1.08	9.72	1.13
18	5.14	0.92	5.67	0.97	6.21	1.02	6.74	1.07	9.01	1.12	9.70	1.18
20	5.13	0.96	5.67	1.01	6.20	1.06	6.73	1.11	**9.00**	**1.17**	9.69	1.23
21	5.13	0.98	5.66	1.03	6.20	1.08	6.73	1.13	9.00	1.19	9.69	1.25
22	5.12	0.99	5.66	1.04	6.19	1.10	6.73	1.15	8.99	1.22	9.68	1.28
24	5.12	1.03	5.65	1.09	6.19	1.14	6.72	1.20	8.98	1.26	9.66	1.32

NOTES

1. Ratings shown are net capacities which include a deduction for indoor fan motor heat.
2. 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.
3. 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 (m^3/min) x (1–BF) x (DB*–EDB).
4. 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.
5. Coefficient of power input is the percentage when the rated value is defined as 1.00.
6. The value contains less than 5% error acording to indoor unit type.
7. Heating performance include the drop of frost formation.
8. Air flow rate and (BF) are given in table below:

(Pair)

	FCQHG71F	FCQG71F	FBQ71C	FHQG71C	FAQ71C	FVQ71C	FHQ71CA
AFR (BF)	21.2 (0.2)	21.5 (0.14)	18 (0.08)	20.5 (0.13)	18 (0.16)	18 (0.16)	20.5 (0.13)

(Twin)

	FCQG35Fx2	FFQ35x2	FBQ35Cx2	FHQ35BWx2	FHQ35CAx2	FFQ35C2x2	FDXS35F2x2
AFR (BF)	12.5x2 (0.4x2)	10x2 (0.25x2)	16x2 (0.15x2)	13x2 (0.20x2)	14x2 (0.17x2)	10x2 (0.25x2)	8.7x2 (0.17x2)

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

(Pair)

	FCQHG71F	FCQG71F	FBQ71C	FHQG71C	FAQ71C	FVQ71C	FHQ71CA
Heating	1.83	2.08	2.08	1.88	2.08	2.08	1.88

(Twin)

	FCQG35Fx2	FFQ35x2	FBQ35Cx2	FHQ35BWx2	FHQ35CAx2	FFQ35C2x2	FDXS35F2x2
Heating	2.37	2.32	2.16	2.78	2.70	2.31	2.39

SYMBOLS

AFR:	Air flow rate(m^3/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.

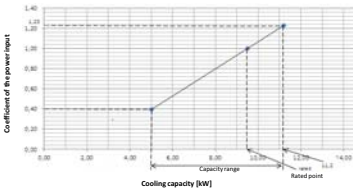
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6 Capacity tables

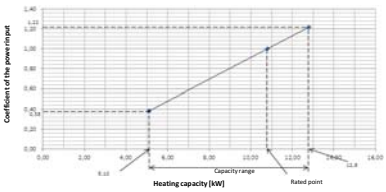
6 - 3 Cooling/Heating Capacity Tables

RZQSG100L9V1

Cooling



Heating



Symbols
AFR: Air flow rate [m³/min]
BF: Bypass factor
EWB: Entering wet-bulb temperature (°C WB)
EDB: Entering dry-bulb temperature (°C DB)
TC: Maximum total cooling/heating capacity [kW]
SHC: Sensible heat capacity [kW]
CPI: Coefficient of the power input
PI: Power input [kW]
compressor + indoor and outdoor fan motors

Cooling

Indoor		Outdoor temperature [°C DB]											
		25			30			35			40		
		TC	SHC	CPI	TC	SHC	CPI	TC	SHC	CPI	TC	SHC	CPI
°CWB	°CDB	kW	kW	–	kW	kW	–	kW	kW	–	kW	kW	–
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	12,9	7,52	1,02	12,4	7,36	1,13	11,9	7,16	1,24	11,5	7,00	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

Heating

Indoor	Outdoor temperature [°C WB]											
	-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	–	kW	–	kW	–	kW	–	kW	–	kW	–
16	8,58	0,92	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	8,56	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
1. The ratings shown are net capacities which include a deduction for indoor fan motor heat.
2. = Maximum at standard conditions
= Rated capacity and rated coefficient of the power input
The maximum capacity is not guaranteed except at standard conditions.
3. SHC is based on indoor units EWB & EDB.
SHC for other dry-bulb temperatures = SHC + SHC*
SHC* = SHC correction for other dry-bulb temperatures
= 0.02 x AFR (m³/min) x (1-BF) x (DB* - EDB)
4. The capacities are based on the following conditions:
Outdoor air: 85% RH
However, the outdoor ambient condition of the rated capacity during heating operation is 7°C DB / 6°C WB.
Corresponding refrigerant piping length: 5.0 m
Level difference: 0m
5. CPI is a percentage value compared to the rated value which is 1.00.
6. The error rate for this value is less than 5% and depends on the indoor unit type.
7. The heating performance takes into account the drop that occurs during defrost operation.
8. The air flow rate and bypass factor are mentioned in the table.

B

Pair

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

B

Twin

	FCQG50F X 2	FBQ50C X 2	FHQ50CA X 2	FFQ50C X 2	FDXS50F X 2
AFR	12.6 x 2	16 x2	15 x 2	12 x 2	12:C/16:H
(BF)	(0.22 x 2)	(0.16 x 2)	(0.18 x 2)	(0.16 x 2)	(0.11 x 2)

B

Triple

	FCQG35F X 3	FBQ35C X 3	FHQ35CA X 3	FFQ35C X 3	FDXS35F X 3
AFR	12.5 x 3	16 x3	14 x 3	10 x 3	8.7 x 3
(BF)	(0.4 x 3)	(0.15 x 3)	(0.17 x 3)	(0.25 x 3)	(0.17 x 3)

9. The rated power input for each model is mentioned in the table below.

B

Pair

	FCQG100F	FCQG100F	FBQ100C	FHQG100C	FAQ100C	FVQ100C	FHQ100CA
Cooling	2,57	2,88	2,87	2,96	3,16	2,96	2,96
Heating	2,51	3,05	2,96	2,99	3,17	2,99	2,99

B

Twin

	FCQG50F X 2	FBQ50C X 2	FHQ50CA X 2	FFQ50C X 2	FDXS50F X 2
Cooling	2,76	2,93	3,35	3,13	3,15
Heating	2,61	2,86	3,28	3,34	3,31

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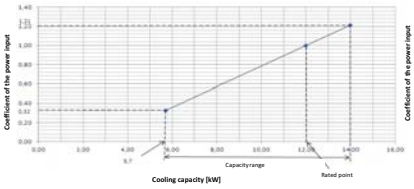
Triple

	FCQG35F X 3	FBQ35C X 3	FHQ35CA X 3	FFQ35C X 3	FDXS35F X 3
Cooling	2,82	2,93	3,33	2,88	3,71
Heating	2,66	2,86	3,26	3,04	4,06

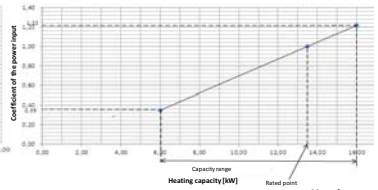
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RZQSG125L9V1

Cooling



Heating



Symbols
AFR: Air flow rate [m³/min]
BF: Bypass factor
EWB: Entering wet-bulb temperature (°C WB)
EDB: Entering dry-bulb temperature (°C DB)
TC: Maximum total cooling/heating capacity [kW]
SHC: Sensible heat capacity [kW]
CPI: Coefficient of the power input
PI: Power input [kW]
compressor + indoor and outdoor fan motors

Cooling

Indoor		Outdoor temperature [°C DB]											
		25			30			35			40		
		TC	SHC	CPI	TC	SHC	CPI	TC	SHC	CPI	TC	SHC	CPI
°CWB	°CDB	kW	kW	–	kW	kW	–	kW	kW	–	kW	kW	–
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

Heating

Indoor	Outdoor temperature [°C WB]											
	-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	–	kW	–	kW	–	kW	–	kW	–	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
1. The ratings shown are net capacities which include a deduction for indoor fan motor heat.
2. = Maximum at standard conditions
= Rated capacity and rated coefficient of the power input
The maximum capacity is not guaranteed except at standard conditions.
3. SHC is based on indoor units EWB & EDB.
SHC for other dry-bulb temperatures = SHC + SHC*
SHC* = SHC correction for other dry-bulb temperatures
= 0.02 x AFR (m³/min) x (1-BF) x (DB* - EDB)
4. The capacities are based on the following conditions:
Outdoor air: 85% RH
However, the outdoor ambient condition of the rated capacity during heating operation is 7°C DB / 6°C WB.
Corresponding refrigerant piping length: 5.0 m
Level difference: 0m
5. CPI is a percentage value compared to the rated value which is 1.00.
6. The error rate for this value is less than 5% and depends on the indoor unit type.
7. The heating performance takes into account the drop that occurs during defrost operation.
8. The air flow rate and bypass factor are mentioned in the table.

Pair

	FCQH125F	FCQG125F	FBQ125C	FHQG125C	FAQ125C	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)

Twin

	FCQG60F X 2	FBQ60C X 2	FHQ60CA X 2	FFQ60C X 2	FDXS60F X 2
AFR	13.6 x 2	18 x 2	19.5 x 2	14.5 x 2	16 x 2
(BF)	(0.2 x 2)	(0.15 x 2)	(0.20 x 2)	(0.11 x 2)	(0.12 x 2)

Triple

	FCQG50F X 3	FBQ50C X 3	FHQ50CA X 3	FFQ50C X 3	FDXS50F X 3
AFR	12.6 x 3	16 x3	15 x 3	12 x 3	12:C/16:H
(BF)	(0.22 x 3)	(0.16 x 3)	(0.18 x 3)	(0.16 x 3)	(0.11 x 3)

Double twin

	FCQG35F X 4	FBQ35C X 4	FHQ35CA X 4	FFQ35C X 4	FDXS35F X 4
AFR	12.5 x 4	16 x4	14 x 4	10 x 4	8.7 x 4
(BF)	(0.4 x 4)	(0.15 x 4)	(0.17 x 4)	(0.25 x 4)	(0.17 x 4)

9. The rated power input for each model is mentioned in the table below.

Pair

	FCQH125F	FCQG125F	FBQ125C	FHQG125C	FAQ125C	FVQ125C	FHQ125CA
Cooling	3,71	3,74	3,74	4,15	3,74	4,27	4,15
Heating	3,60	3,96	3,85	3,73	3,85	3,96	3,73

Twin

	FCQG60F X 2	FBQ60C X 2	FHQ60CA X 2	FFQ60C X 2	FDXS60F X 2
Cooling	3,66	3,95	4,34	4,75	4,88
Heating	3,88	4,06	4,43	4,33	4,38

Triple

	FCQG50F X 3	FBQ50C X 3	FHQ50CA X 3	FFQ50C X 3	FDXS50F X 3
Cooling	3,69	3,95	4,33	4,14	4,07
Heating	3,90	4,06	4,42	3,87	3,92

Double twin

	FCQG35F X 4	FBQ35C X 4	FHQ35CA X 4	FFQ35C X 4	FDXS35F X 4
Cooling	3,75	3,95	4,31	3,99	4,67
Heating	3,96	4,06	4,32	3,59	4,66

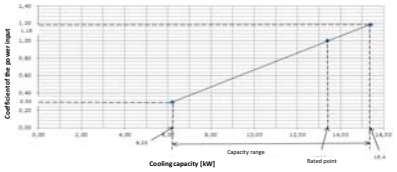
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6 Capacity tables

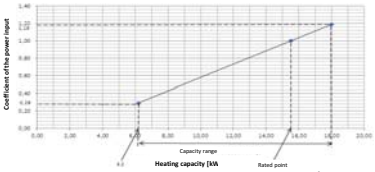
6 - 3 Cooling/Heating Capacity Tables

RZQSG140L9V1

Cooling



Heating



Symbols
- AFR: Air flow rate [m³/min]
- BF: Bypass factor
- EWB: Entering wet-bulb temperature (°C WB)
- EDB: Entering dry-bulb temperature (°C DB)
- TC: Maximum total cooling/heating capacity [kW]
- SHC: Sensible heat capacity [kW]
- CPI: Coefficient of the power input
- PI: Power input [kW]
  compressor + indoor and outdoor fan motors

Cooling

Indoor		Outdoor temperature [°C DB] 25			30			35			40		
		TC	SHC	CPI	TC	SHC	CPI	TC	SHC	CPI	TC	SHC	CPI
°CWB	°CDB	kW	kW	–	kW	kW	–	kW	kW	–	kW	kW	–
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	1,08	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

Heating

Indoor	Outdoor temperature [°C WB] −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	–	kW	–	kW	–	kW	–	kW	–	kW	–
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
1. The ratings shown are net capacities which include a deduction for indoor fan motor heat.
2. = Maximum at standard conditions
   = Rated capacity and rated coefficient of the power input
   The maximum capacity is not guaranteed except at standard conditions.
3. SHC is based on indoor units EWB & EDB.
   SHC for other dry-bulb temperatures = SHC + SHC*
   SHC* = SHC correction for other dry-bulb temperatures
   = 0.02 x AFR (m³/min) x (1-BF) x (DB* - EDB)
4. The capacities are based on the following conditions:
   Outdoor air: 85% RH
   However, the outdoor ambient condition of the rated capacity during heating operation is 7°C DB / 6°C WB.
   Corresponding refrigerant piping length: 5.0 m
   Level difference: 0m
5. CPI is a percentage value compared to the rated value which is 1.00.
6. The error rate for this value is less than 5% and depends on the indoor unit type.
7. The heating performance takes into account the drop that occurs during defrost operation.
8. The air flow rate and bypass factor are mentioned in the table.
9. The rated power input for each model is mentioned in the table below.

B

Pair

	FCQHG140F	FCQG140F	FBQ140C	FHQG140C	FVQ140C	FHQ140CA
AFR	33.5	33.0	39.C/41.H	34.0	30.0	34.0
(BF)	(0.15)	(0.23)	(0.14)	(0.17)	(0.18)	(0.17)

Twin

	FCQHG71F X 2	FCQG71F X 2	FBQ71C X 2	FHQG71C X 2	FAQ71C X 2	FHQ71CA X 2
AFR	21.2 x 2	21.5 x 2	18.0 x 2	20.5 x 2	18.0 x 2	20.5 x 2
(BF)	(0.2 x2)	(0.14 x 2)	(0.08 x 2)	(0.13 x 2)	(0.16 x 2)	(0.13 x 2)

Triple

	FCQG50F X 3	FBQ50C X 3	FHQ50CA X 3	FFQ50C X 3	FDK50F X 3
AFR	12.6 x 3	16 x3	15 x 3	12 x 3	12.C/16.H
(BF)	(0.22 x 3)	(0.16 x 3)	(0.18 x 3)	(0.16 x 3)	(0.11 x 3)

Double twin

	FCQG35F X 4	FBQ35C X 4	FHQ35CA X 4	FFQ35C X 4	FDK35F X 4
AFR	12.5 x 4	16 x4	14 x 4	10 x 4	8.7 x 4
(BF)	(0.4 x 4)	(0.15 x 4)	(0.20 x 4)	(0.25 x 4)	(0.17 x 4)

B

Pair

	FCQHG140F	FCQG140F	FBQ140C	FHQG140C	FVQ140C	FHQ140CA
Cooling	4,17	4,45	4,44	4,45	4,45	4,45
Heating	4,29	4,54	4,54	4,54	4,54	4,54

Twin

	FCQHG71F X 2	FCQG71F X 2	FBQ71C X 2	FHQG71C X 2	FAQ71C X 2	FHQ71CA X 2
Cooling	4,11	4,39	4,17	4,01	4,23	4,01
Heating	4,23	4,48	4,94	4,71	4,92	4,71

Triple

	FCQG50F X 3	FBQ50C X 3	FHQ50CA X 3	FFQ50C X 3	FDK50F X 3
Cooling	4,40	4,17	4,67	4,43	4,68
Heating	4,48	4,94	5,67	4,39	4,61

Double twin

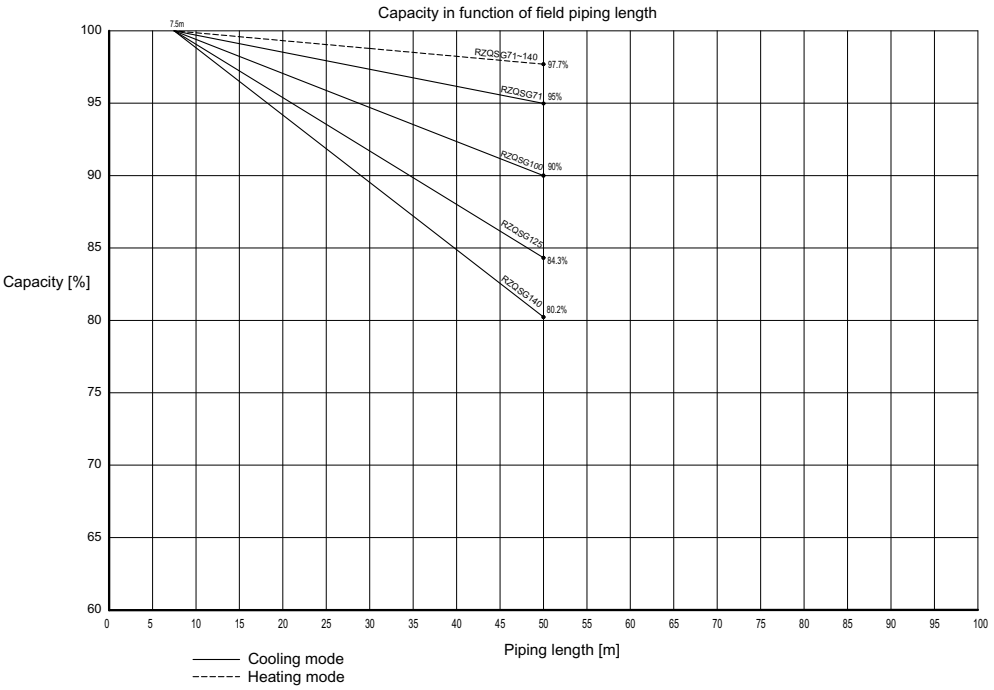
	FCQG35F X 4	FBQ35C X 4	FHQ35CA X 4	FFQ35C X 4	FDK35F X 4
Cooling	4,56	4,17	4,65	4,11	5,80
Heating	4,54	4,94	5,57	4,05	6,09

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6 Capacity tables

6 - 4 Capacity Correction Factor

RZQSG100-140L9V1

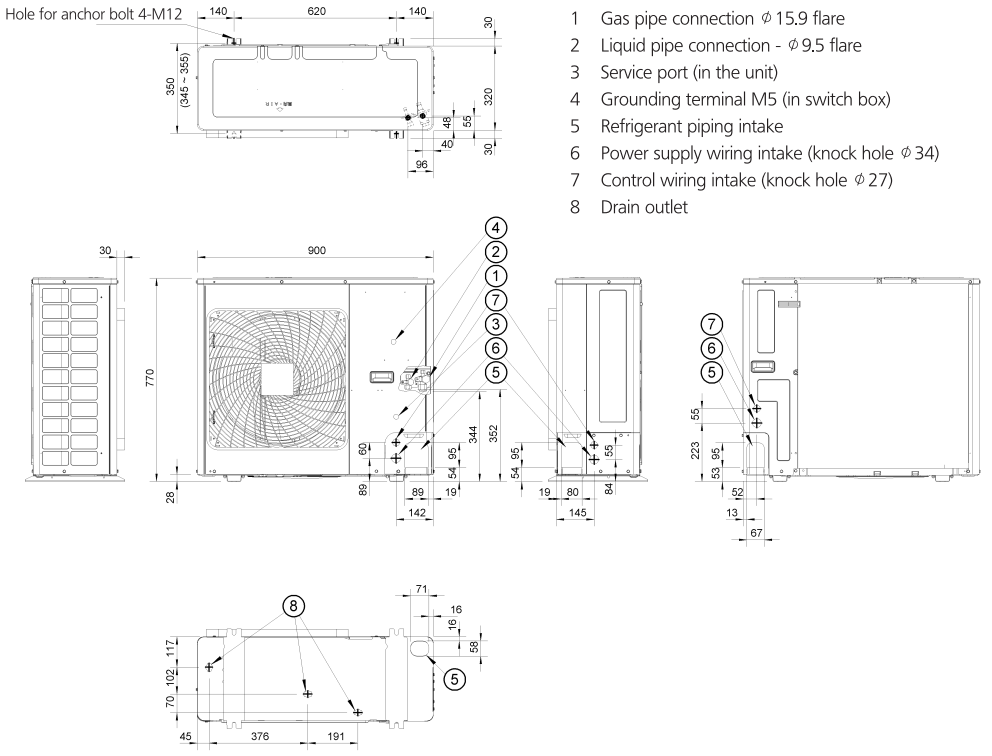


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7 Dimensional drawings

7 - 1 Dimensional Drawings

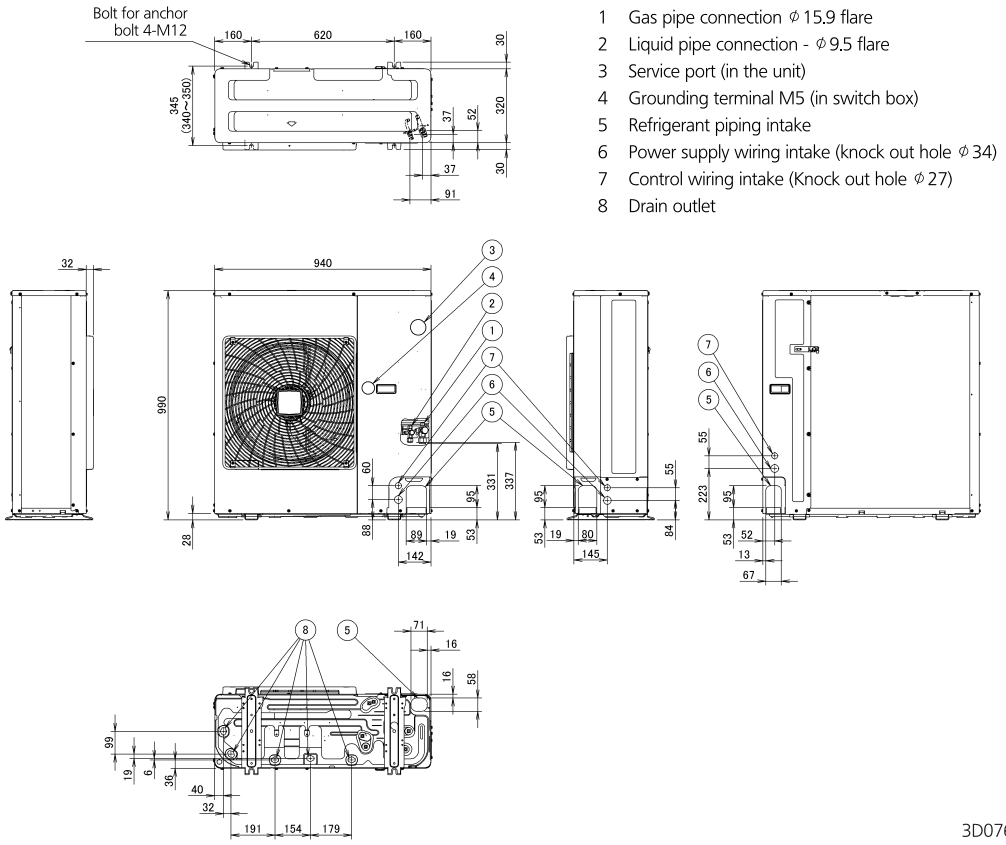
RZQSG71L3V1



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

RZQSG100-125L9V1



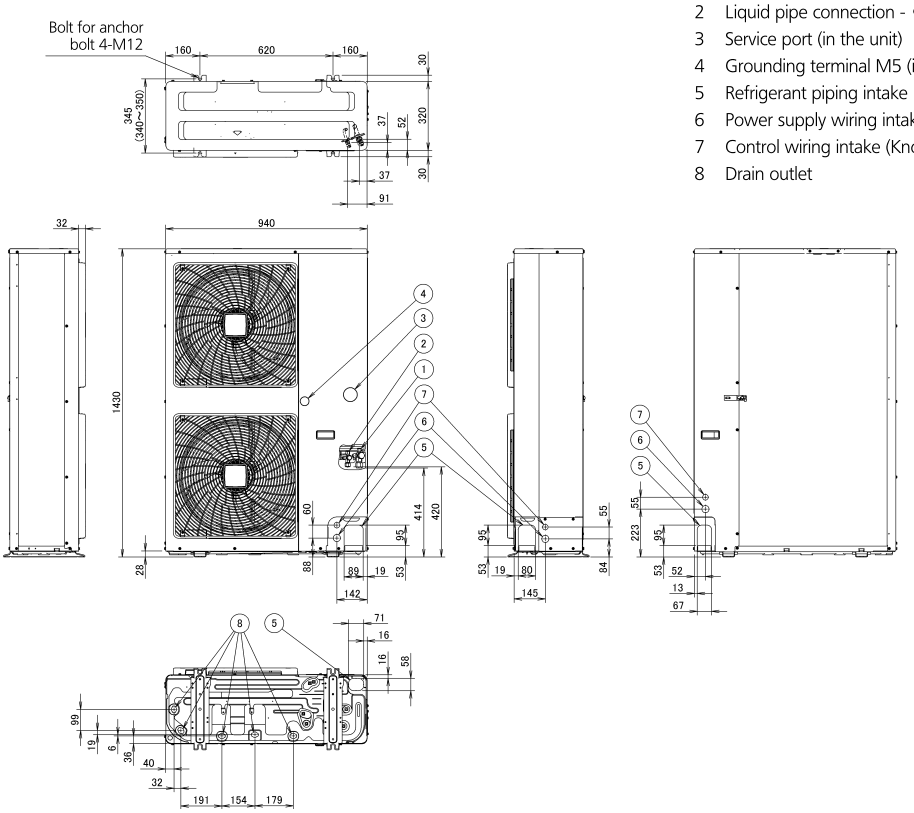
1 Gas pipe connection ϕ15.9 flare
2 Liquid pipe connection - ϕ9.5 flare
3 Service port (in the unit)
4 Grounding terminal M5 (in switch box)
5 Refrigerant piping intake
6 Power supply wiring intake (knock out hole ϕ34)
7 Control wiring intake (Knock out hole ϕ27)
8 Drain outlet

3D076345

7 Dimensional drawings

7 - 1 Dimensional Drawings

RZQSG140L9V1



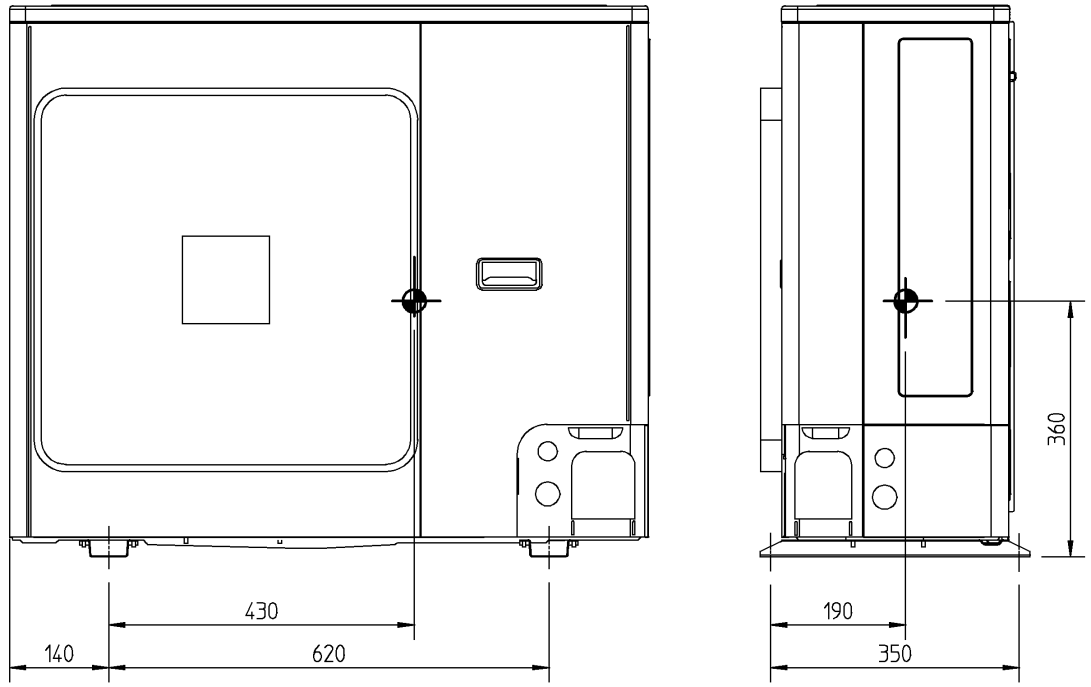
1 Gas pipe connection ϕ15.9 flare
2 Liquid pipe connection - ϕ9.5 flare
3 Service port (in the unit)
4 Grounding terminal M5 (in switch box)
5 Refrigerant piping intake
6 Power supply wiring intake (knock out hole ϕ34)
7 Control wiring intake (Knock out hole ϕ27)
8 Drain outlet

3D076346

8 Centre of gravity

8 - 1 Centre of Gravity

RZQSG71L3V1

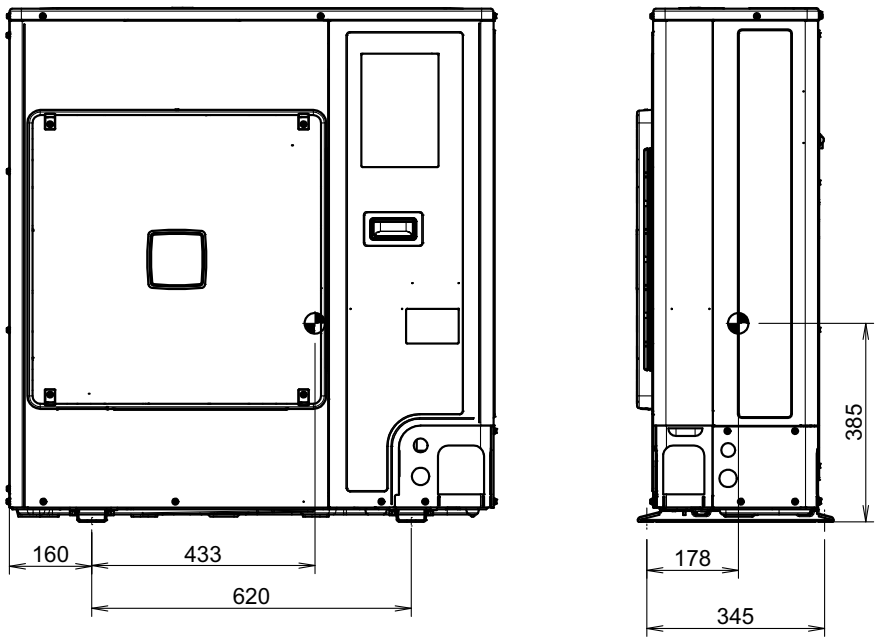


4TW30469-3

8 Centre of gravity

8 - 1 Centre of Gravity

RZQSG100L9V1

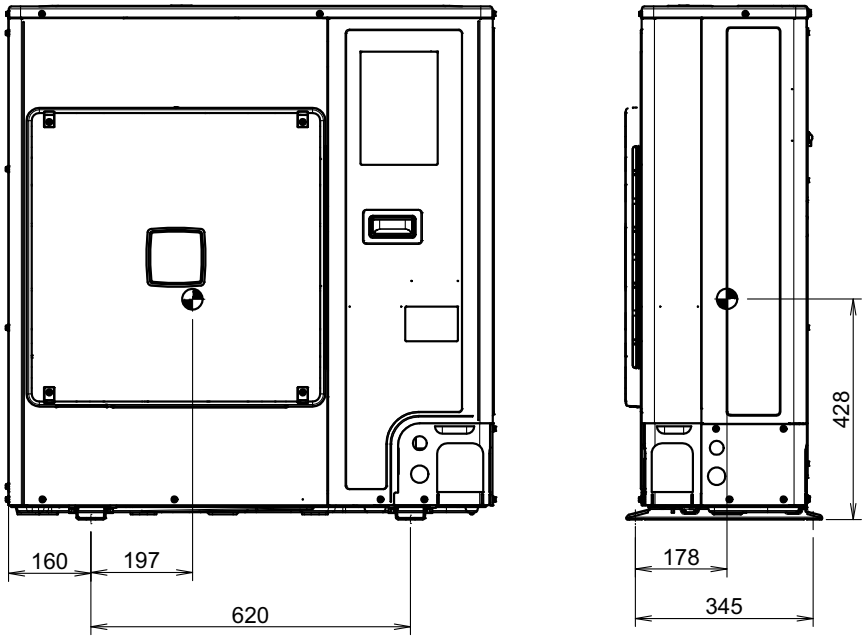


4D090895

8 Centre of gravity

8 - 1 Centre of Gravity

RZQSG125L9V1

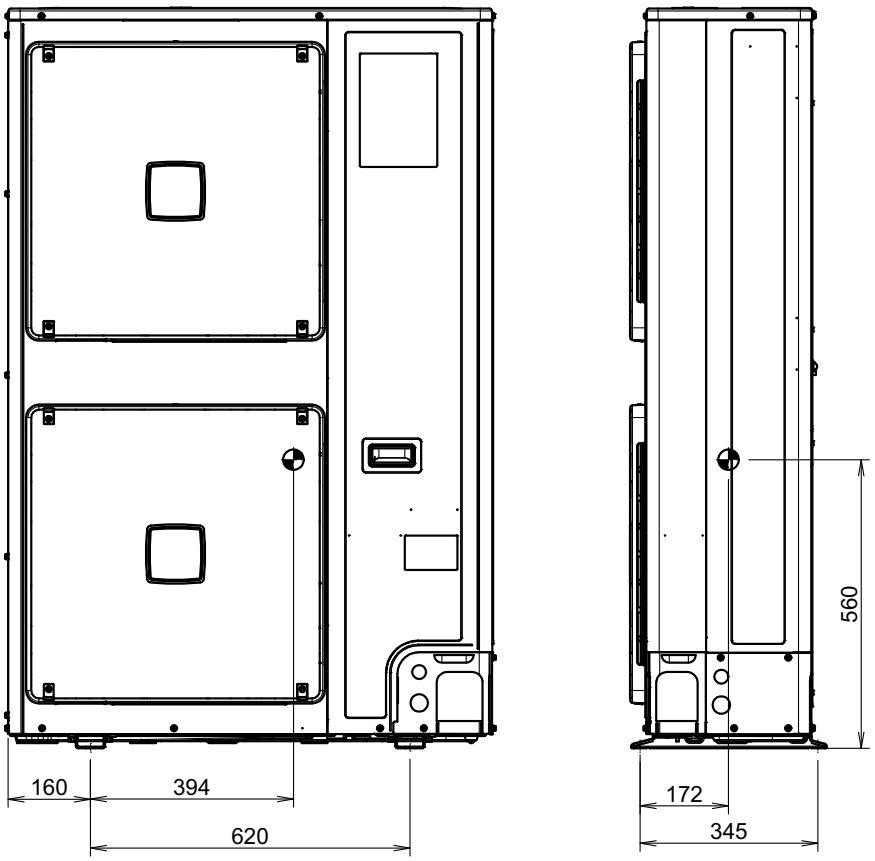


4D090896

8 Centre of gravity

8 - 1 Centre of Gravity

RZQSG140L9V1

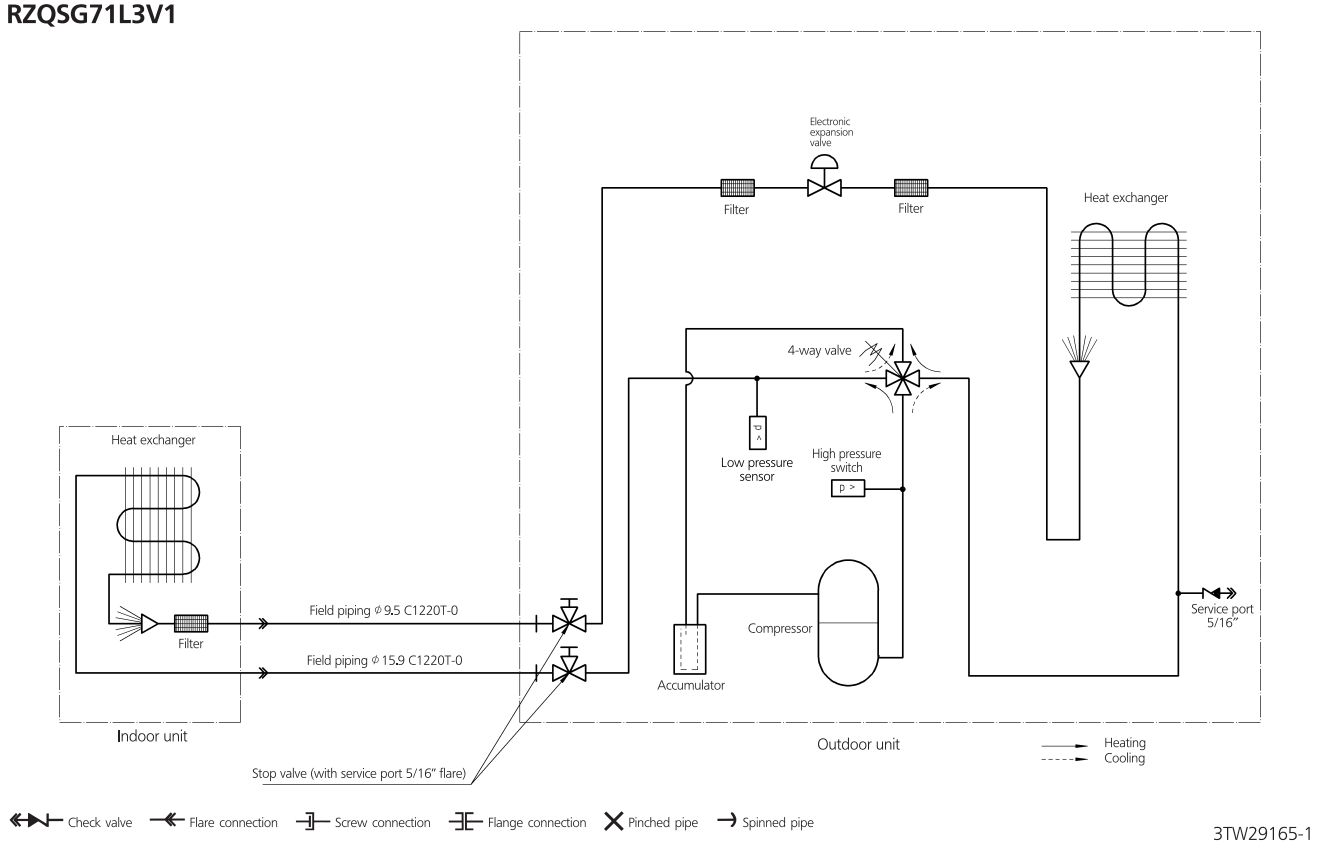


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9 Piping diagrams

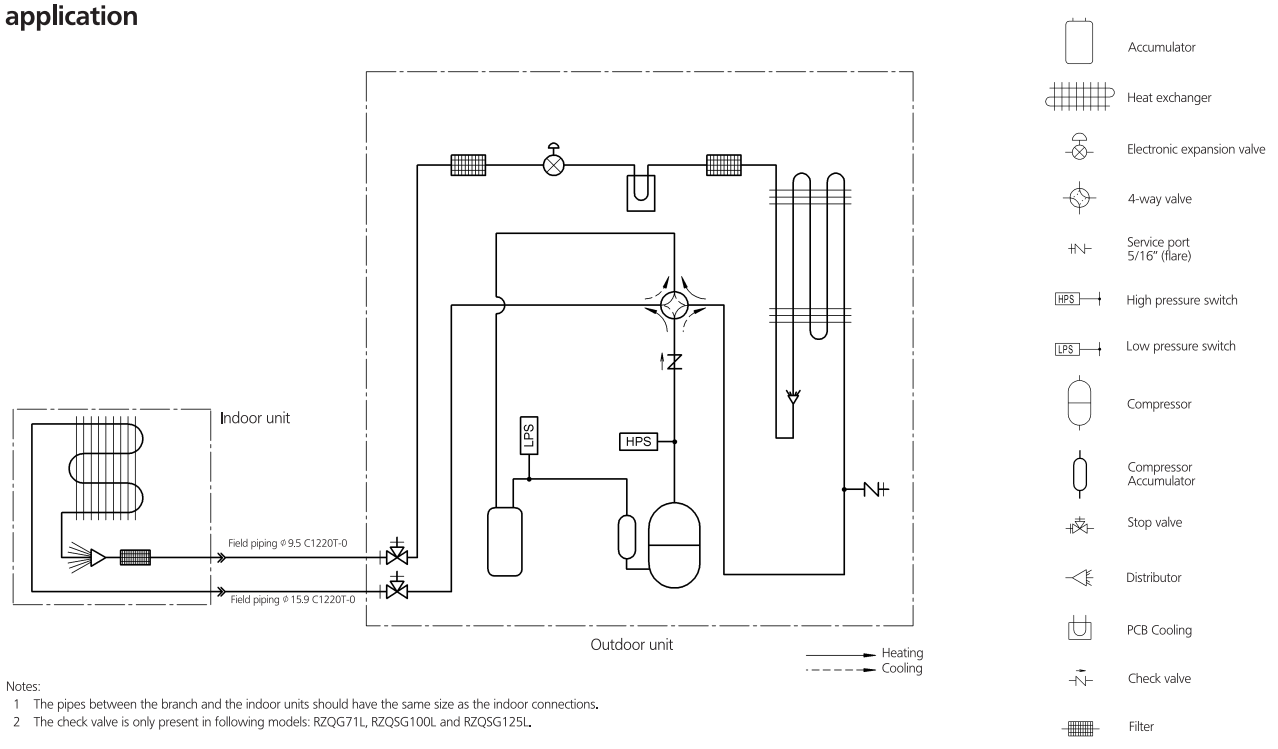
9 - 1 Piping Diagrams

RZQSG71L3V1



3TW29165-1

RZQSG100-140L9V1
Pair application

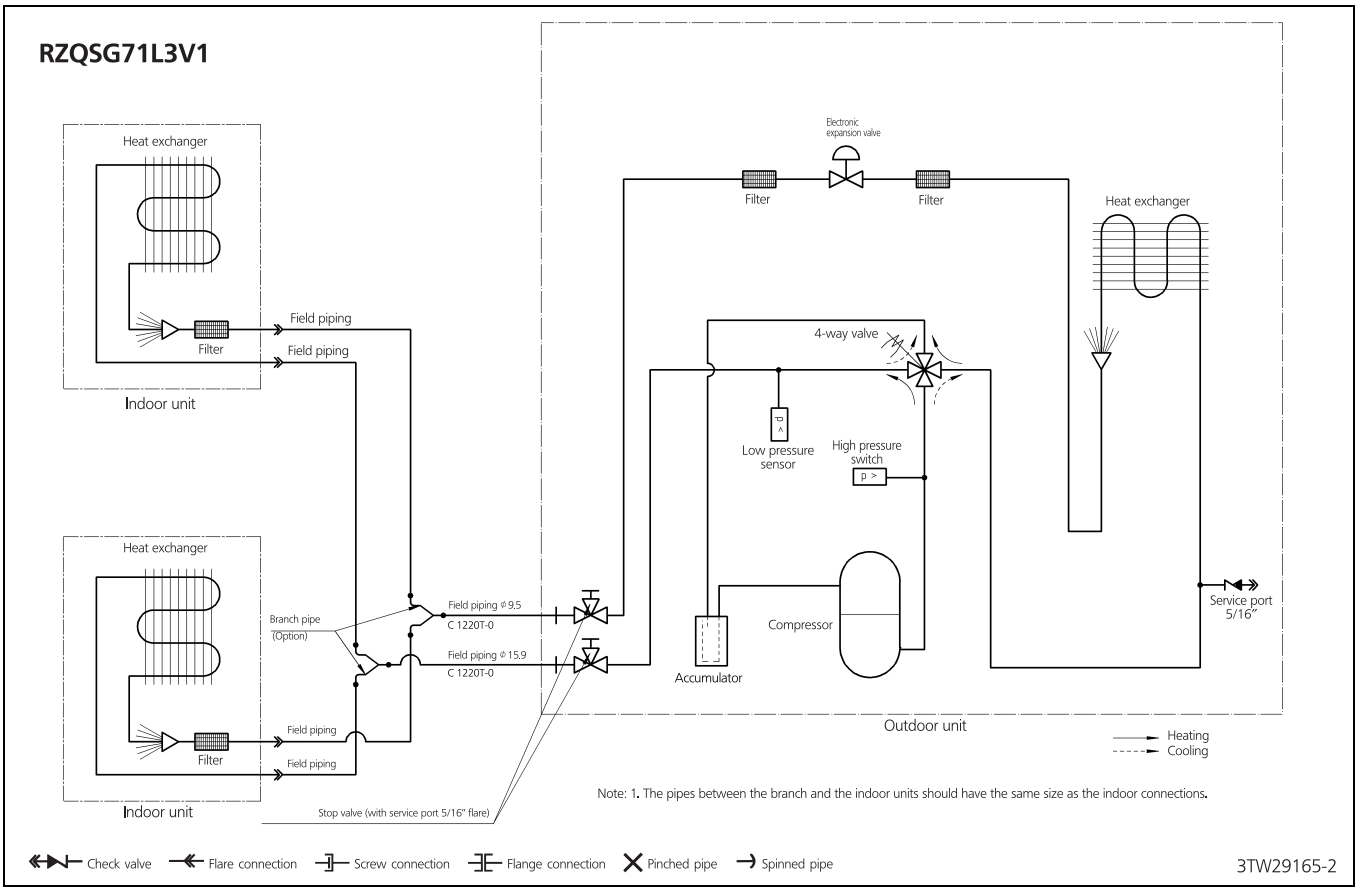


Notes:
1 The pipes between the branch and the indoor units should have the same size as the indoor connections.
2 The check valve is only present in following models: RZQG71L, RZQSG100L and RZQSG125L.

3D090340

9 Piping diagrams

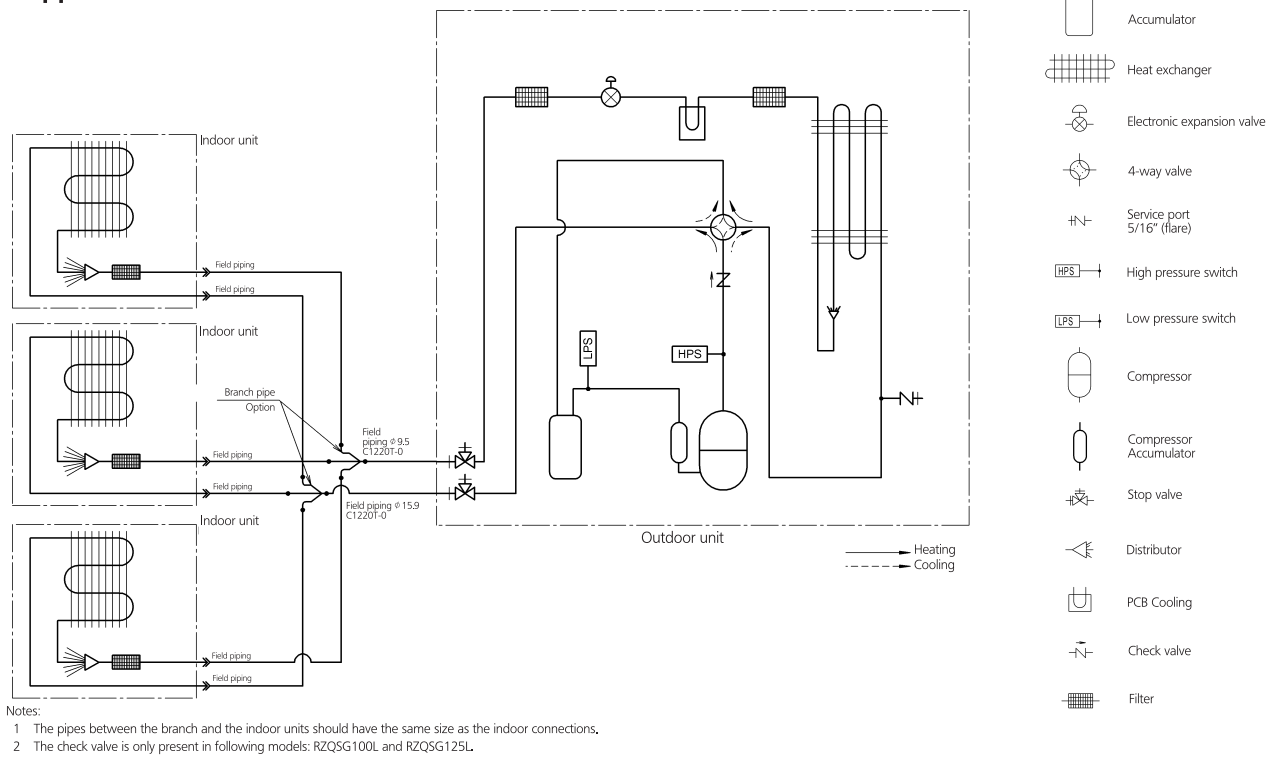
9 - 2 Piping Diagram Twin Application



9 Piping diagrams

9 - 3 Piping Diagram Triple Application

RZQSG100-140L9V1
Triple application



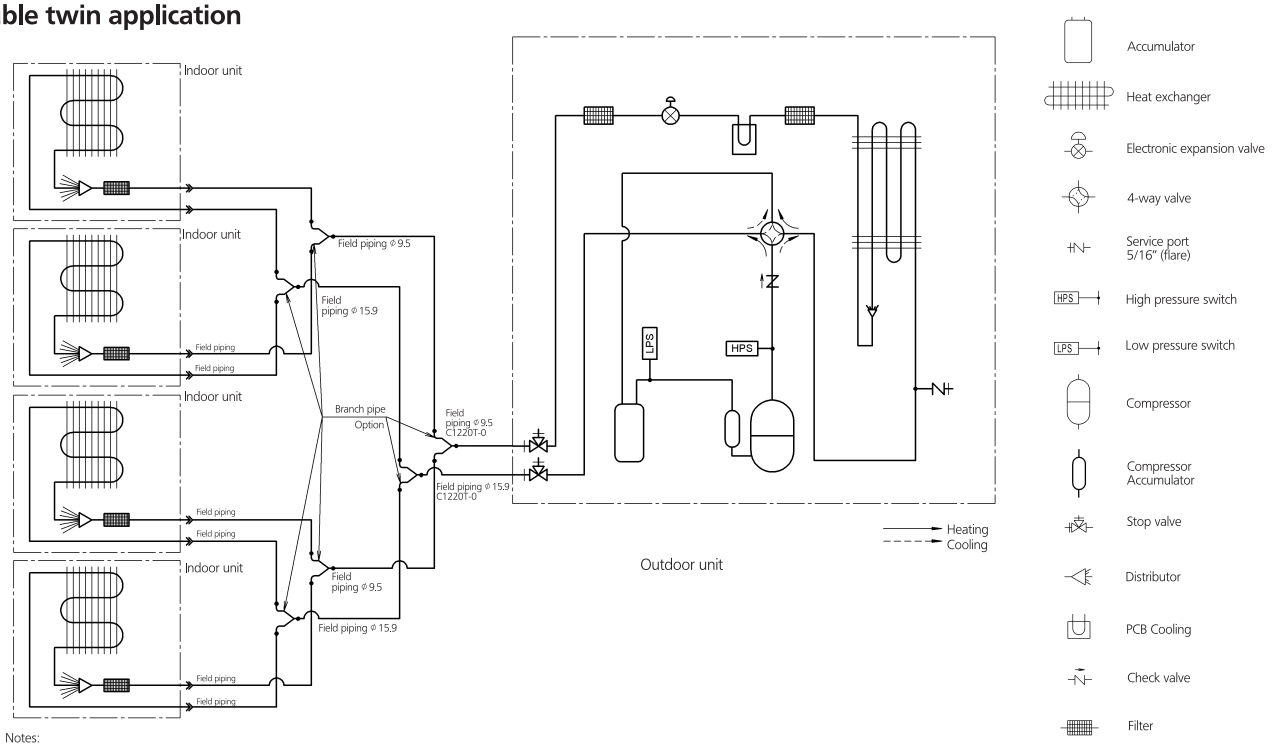
Notes:
1 The pipes between the branch and the indoor units should have the same size as the indoor connections.
2 The check valve is only present in following models: RZQSG100L and RZQSG125L.

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9 Piping diagrams

9 - 4 Piping Diagram Double Twin Application

RZQSG125-140L9V1
Double twin application



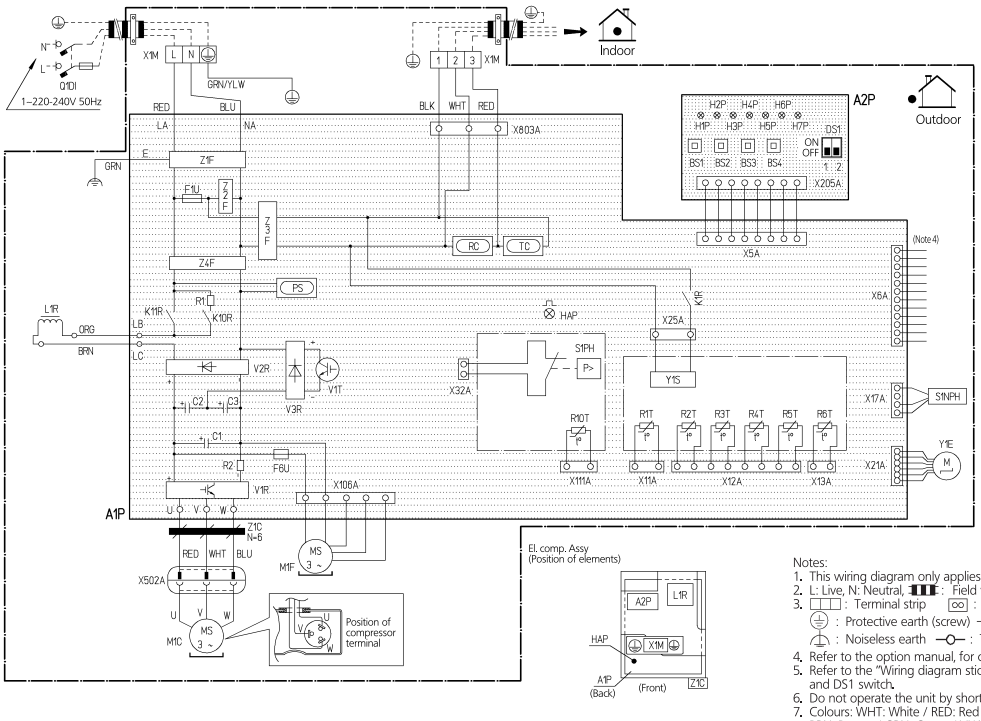
Notes:
1 The pipes between the branch and the indoor units should have the same size as the indoor connections.
2 The check valve is only present in following models: RZQSG100L and RZQSG125L.

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10 Wiring diagrams

10 - 1 Wiring Diagrams - Single Phase

RZQSG71L3V1

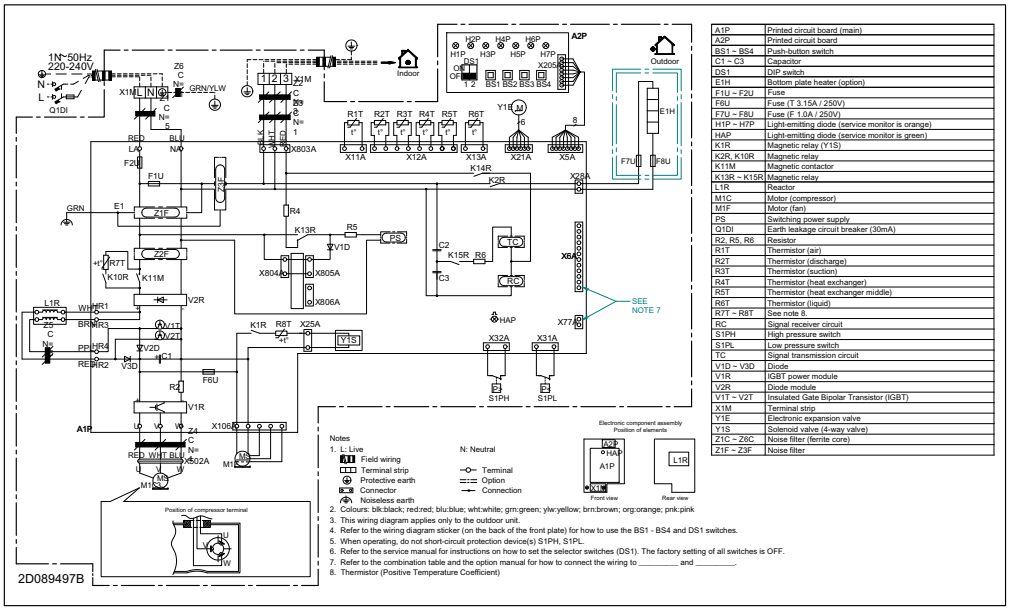


A1P	: Printed circuit board (Main)
A2P	: Printed circuit board (Inverter)
BS1–BS4	: Push button switch
C1–C3	: Capacitor
DS1	: Dip switch
F1U	: Fuse (T 6.3A / 250V)
F6U	: Fuse (T 3.15A / 250V)
H1P~7P (A2P)	: Light emitting diode (service monitor orange)
HAP (A1P)	: Light emitting diode (service monitor green)
K1R	: Magnetic relay (Y1S)
K10R	: Magnetic relay
K11R	: Magnetic relay
L1R	: Reactor
M1C	: Motor (compressor)
M1F	: Motor (fan)
PS	: Switching power supply
Q1DI	: Field earth leakage breaker (30mA)
R1	: Resistor
R2	: Resistor
R1T	: Thermistor (air)
R2T	: Thermistor (discharge)
R3T	: Thermistor (Suction)
R4T	: Thermistor (Heat exchanger)
R5T	: Thermistor (heat exchanger middle)
R6T	: Thermistor (liquid)
R10T	: Thermistor (fin)
RC	: Signal receiver circuit
S1NPH	: Pressure sensor
S1PH	: Pressure switch (High)
TC	: Signal transmission circuit
V1R	: Power module
V2R,V3R	: Diode module
V1T	: IGBT
X1M	: Terminal strip (Power supply)
Y1E	: Electronic expansion valve
Y1S	: Solenoid valve (4 way valve)
Z1C	: Noise filter (ferrite core)
Z1F–Z4F	: Noise filter

Notes:
1. This wiring diagram only applies to the outdoor unit..
2. L: Live, N: Neutral, ▮▮▮: Field wiring
3. □□□: Terminal strip ⊙⊙: Connector —●—: Connection
   ⏚: Protective earth (screw) —⊃: Relay connector
   ⏚: Noiseless earth —○—: Terminal
4. Refer to the option manual, for connecting wiring to X6A.
5. Refer to the "Wiring diagram sticker" (on back of front plate) on how to use BS1~ BS4 and DS1 switch.
6. Do not operate the unit by short-circuiting protection device S1PH..
7. Colours: WHT: White / RED: Red / BLU: Blue / ORG: Orange
   BRN: Brown / GRN: Green / YLW: Yellow / BLK: Black
8. Confirm the method of setting the selector switches (DS1) by service manual.
   Factory setting of all switches: "OFF".

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RZQSG100L9V1



A1P	Printed circuit board (main)
A2P	Printed circuit board
BS1 ~ BS4	Push-button switch
C1 ~ C3	Capacitor
DS1	DIP switch
E1H	Bottom plate heater (option)
F1U ~ F2U	Fuse
F6U	Fuse (T 3.15A / 250V)
F7U ~ F8U	Fuse (F 1.0A / 250V)
H1P ~ H7P	Light-emitting diode (service monitor is orange)
HAP	Light-emitting diode (service monitor is green)
K1R	Magnetic relay (Y1S)
K2R, K10R	Magnetic relay
K11M	Magnetic contactor
K13R ~ K15R	Magnetic relay
L1R	Reactor
M1C	Motor (compressor)
M1F	Motor (fan)
PS	Switching power supply
Q1DI	Earth leakage circuit breaker (30mA)
R2, R5, R6	Resistor
R1T	Thermistor (air)
R2T	Thermistor (discharge)
R3T	Thermistor (suction)
R4T	Thermistor (heat exchanger)
R5T	Thermistor (heat exchanger middle)
R6T	Thermistor (liquid)
R7T ~ R8T	See note 8.
RC	Signal receiver circuit
S1PH	High pressure switch
S1PL	Low pressure switch
TC	Signal transmission circuit
V1D ~ V3D	Diode
V1R	IGBT power module
V2R	Diode module
V1T ~ V2T	Insulated Gate Bipolar Transistor (IGBT)
X1M	Terminal strip
Y1E	Electronic expansion valve
Y1S	Solenoid valve (4-way valve)
Z1C ~ Z6C	Noise filter (ferrite core)
Z1F ~ Z3F	Noise filter

Notes
1. L: Live N: Neutral
   Field wiring — Terminal
   Terminal strip — Option
   Protective earth — Connection
   Connector
   Noiseless earth
2. Colours: blk:black; red:red; blu:blue; wht:white; grn:green; ylw:yellow; brn:brown; org:orange; pnk:pink
3. This wiring diagram applies only to the outdoor unit.
4. Refer to the wiring diagram sticker (on the back of the front plate) for how to use the BS1 - BS4 and DS1 switches.
5. When operating, do not short-circuit protection device(s) S1PH, S1PL.
6. Refer to the service manual for instructions on how to set the selector switches (DS1). The factory setting of all switches is OFF.
7. Refer to the combination table and the option manual for how to connect the wiring to _____ and _____.
8. Thermistor (Positive Temperature Coefficient)

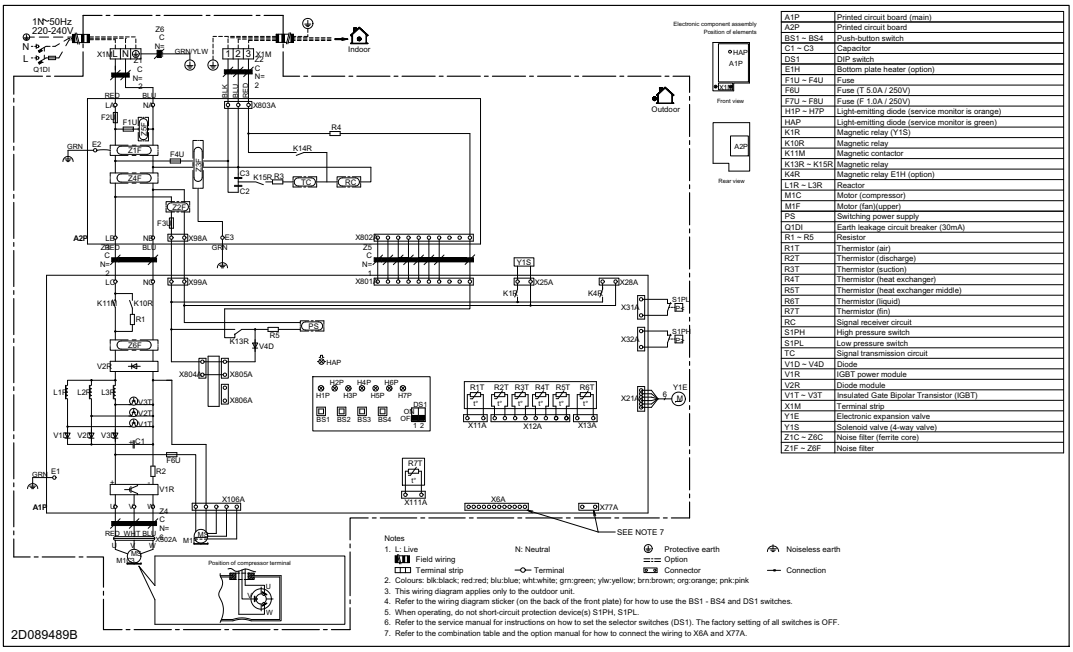
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10 Wiring diagrams

10 - 1 Wiring Diagrams - Single Phase

RZQSG125L9V1

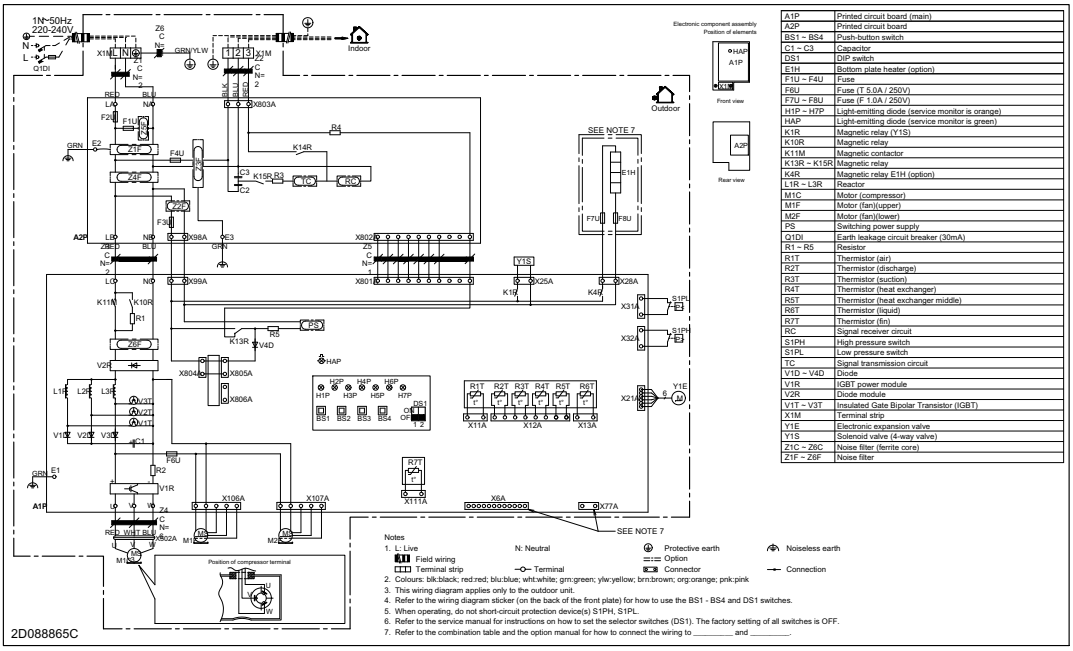


A1P	Printed circuit board (main)
A2P	Printed circuit board
BS1 ~ BS4	Push-button switch
C1 ~ C3	Capacitor
DS1	DIP switch
E1H	Bottom plate heater (option)
F1U ~ F4U	Fuse
F6U	Fuse (T 5.0A / 250V)
F7U ~ F8U	Fuse (F 1.0A / 250V)
H1P ~ H7P	Light-emitting diode (service monitor is orange)
HAP	Light-emitting diode (service monitor is green)
K1R	Magnetic relay (Y1S)
K10R	Magnetic relay
K11M	Magnetic contactor
K13R ~ K15R	Magnetic relay
K4R	Magnetic relay E1H (option)
L1R ~ L3R	Reactor
M1C	Motor (compressor)
M1F	Motor (fan)(upper)
PS	Switching power supply
Q1DI	Earth leakage circuit breaker (30mA)
R1 ~ R5	Resistor
R1T	Thermistor (air)
R2T	Thermistor (discharge)
R3T	Thermistor (suction)
R4T	Thermistor (heat exchanger)
R5T	Thermistor (heat exchanger middle)
R6T	Thermistor (liquid)
R7T	Thermistor (fin)
RC	Signal receiver circuit
S1PH	High pressure switch
S1PL	Low pressure switch
TC	Signal transmission circuit
V1D ~ V4D	Diode
V1R	IGBT power module
V2R	Diode module
V1T ~ V3T	Insulated Gate Bipolar Transistor (IGBT)
X1M	Terminal strip
Y1E	Electronic expansion valve
Y1S	Solenoid valve (4-way valve)
Z1C ~ Z6C	Noise filter (ferrite core)
Z1F ~ Z6F	Noise filter

Notes
1. L: Live N: Neutral
Field wiring
Terminal strip
Terminal
Protective earth
Option
Connector
Noiseless earth
Connection
2. Colours: blk:black; red:red; blu:blue; wht:white; grn:green; ylw:yellow; brn:brown; org:orange; pnk:pink
3. This wiring diagram applies only to the outdoor unit.
4. Refer to the wiring diagram sticker (on the back of the front plate) for how to use the BS1 - BS4 and DS1 switches.
5. When operating, do not short-circuit protection device(s) S1PH, S1PL.
6. Refer to the service manual for instructions on how to set the selector switches (DS1). The factory setting of all switches is OFF.
7. Refer to the combination table and the option manual for how to connect the wiring to X6A and X77A.

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RZQSG140L9V1



A1P	Printed circuit board (main)
A2P	Printed circuit board
BS1 ~ BS4	Push-button switch
C1 ~ C3	Capacitor
DS1	DIP switch
E1H	Bottom plate heater (option)
F1U ~ F4U	Fuse
F6U	Fuse (T 5.0A / 250V)
F7U ~ F8U	Fuse (F 1.0A / 250V)
H1P ~ H7P	Light-emitting diode (service monitor is orange)
HAP	Light-emitting diode (service monitor is green)
K1R	Magnetic relay (Y1S)
K10R	Magnetic relay
K11M	Magnetic contactor
K13R ~ K15R	Magnetic relay
K4R	Magnetic relay E1H (option)
L1R ~ L3R	Reactor
M1C	Motor (compressor)
M1F	Motor (fan)(upper)
M2F	Motor (fan)(lower)
PS	Switching power supply
Q1DI	Earth leakage circuit breaker (30mA)
R1 ~ R5	Resistor
R1T	Thermistor (air)
R2T	Thermistor (discharge)
R3T	Thermistor (suction)
R4T	Thermistor (heat exchanger)
R5T	Thermistor (heat exchanger middle)
R6T	Thermistor (liquid)
R7T	Thermistor (fin)
RC	Signal receiver circuit
S1PH	High pressure switch
S1PL	Low pressure switch
TC	Signal transmission circuit
V1D ~ V4D	Diode
V1R	IGBT power module
V2R	Diode module
V1T ~ V3T	Insulated Gate Bipolar Transistor (IGBT)
X1M	Terminal strip
Y1E	Electronic expansion valve
Y1S	Solenoid valve (4-way valve)
Z1C ~ Z6C	Noise filter (ferrite core)
Z1F ~ Z6F	Noise filter

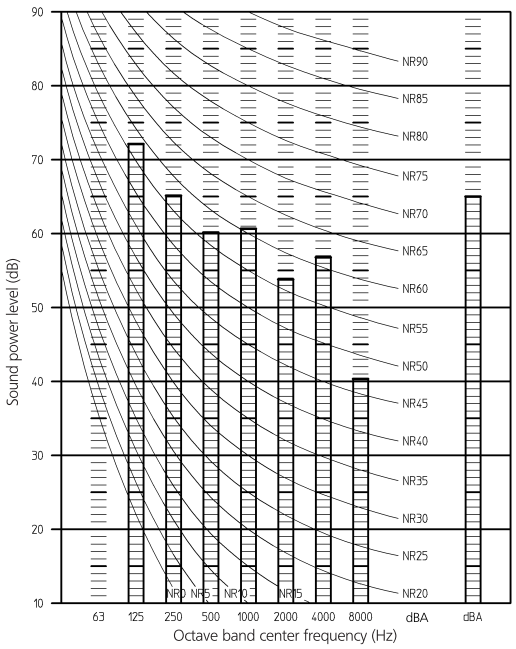
Notes
1. L: Live N: Neutral
Field wiring
Terminal strip
Terminal
Protective earth
Option
Connector
Noiseless earth
Connection
2. Colours: blk:black; red:red; blu:blue; wht:white; grn:green; ylw:yellow; brn:brown; org:orange; pnk:pink
3. This wiring diagram applies only to the outdoor unit.
4. Refer to the wiring diagram sticker (on the back of the front plate) for how to use the BS1 - BS4 and DS1 switches.
5. When operating, do not short-circuit protection device(s) S1PH, S1PL.
6. Refer to the service manual for instructions on how to set the selector switches (DS1). The factory setting of all switches is OFF.
7. Refer to the combination table and the option manual for how to connect the wiring to _____ and _____.

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11 Sound data

11 - 1 Sound Power Spectrum

RZQSG71L3V1

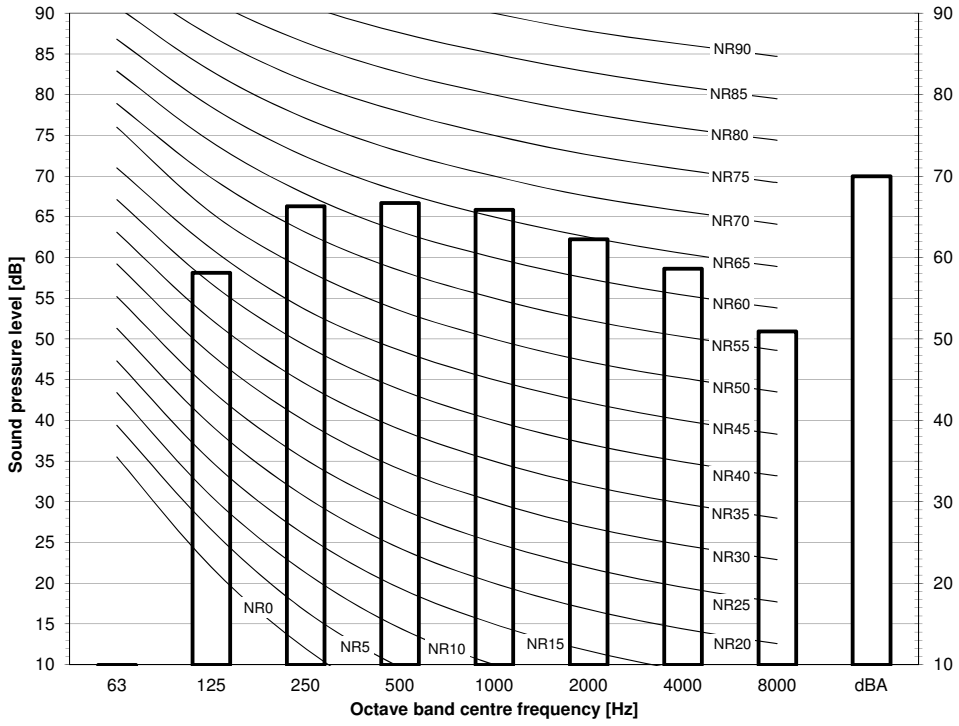


NOTES

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

RZQSG100L9V1



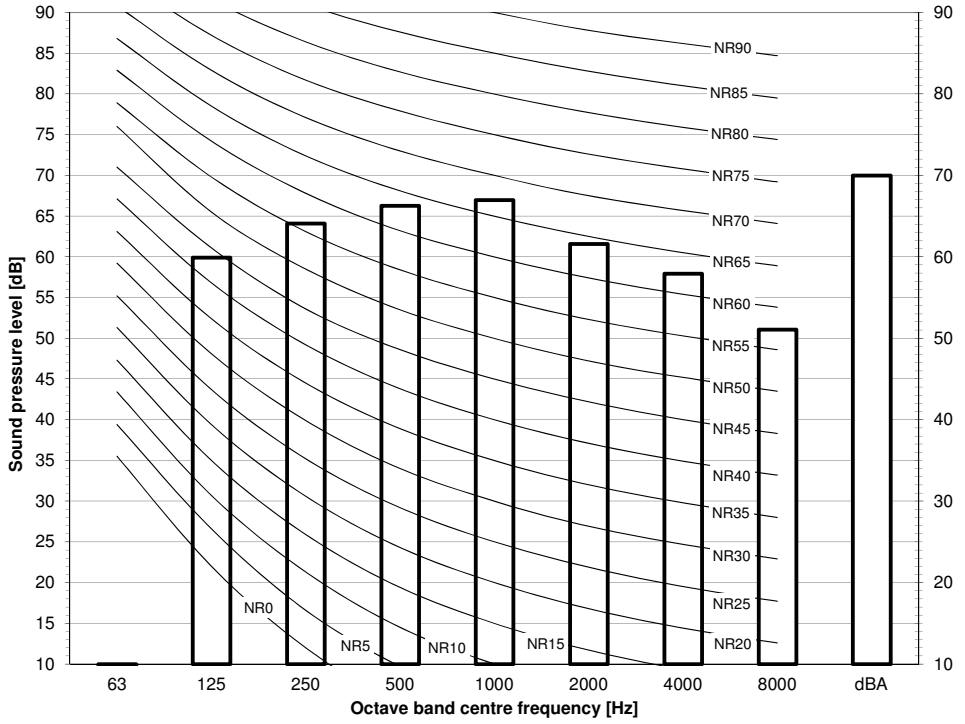
Notes
- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity 0dB = 10E-6μW/m²
- Measured according to ISO 3744

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11 Sound data

11 - 1 Sound Power Spectrum

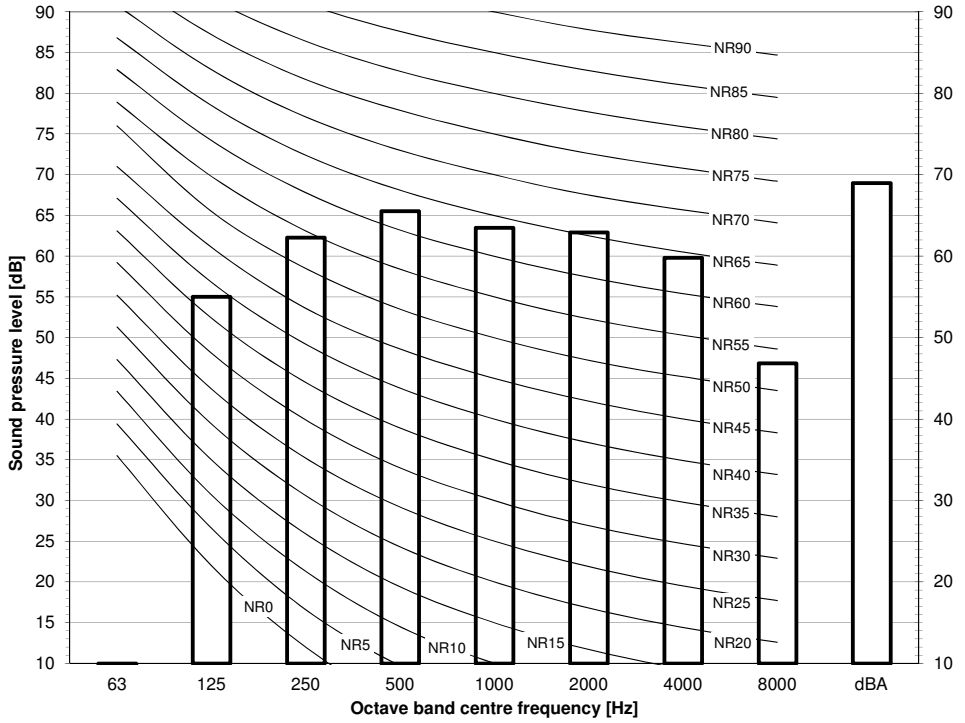
RZQSG125L9V1



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

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RZQSG140L9V1



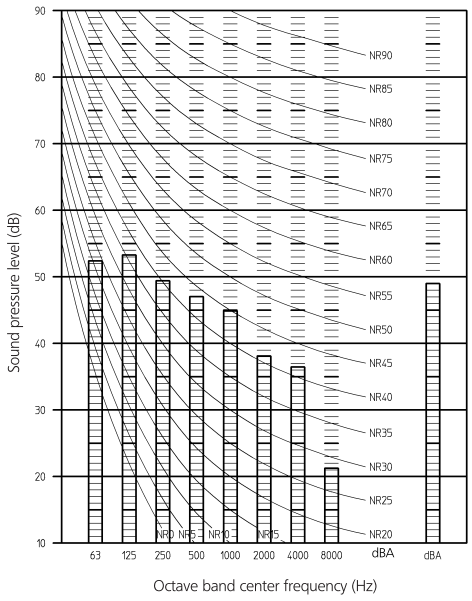
Notes
- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity 0dB = 10E-6µW/m²
- Measured according to ISO 3744

3D090853

11 Sound data

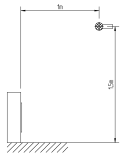
11 - 2 Sound Pressure Spectrum - Cooling

RZQSG71L3V1



NOTES

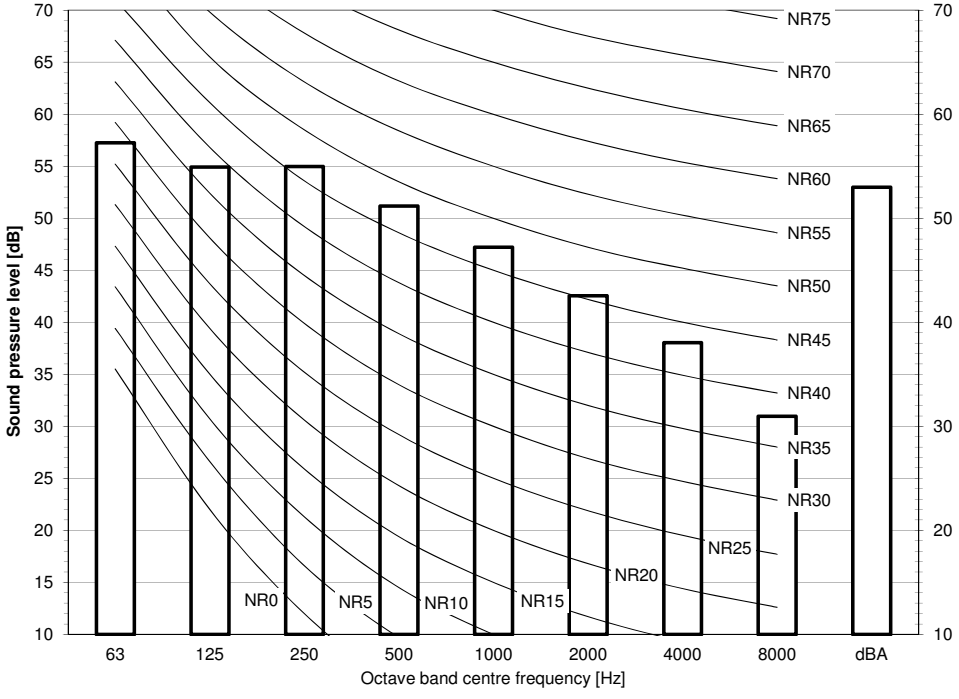
1 Data is valid at free field condition
2 Data is valid at nominal operation condition
3 dBA = A-weighted sound pressure level (A-scale according to IEC)
4 Reference acoustic pressure 0dB = 20µPa

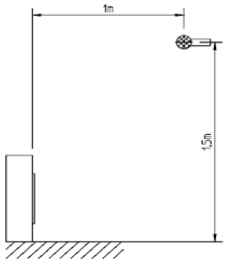


Measuring location (discharge side)

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RZQSG100L9V1





Measuring location (discharge side)

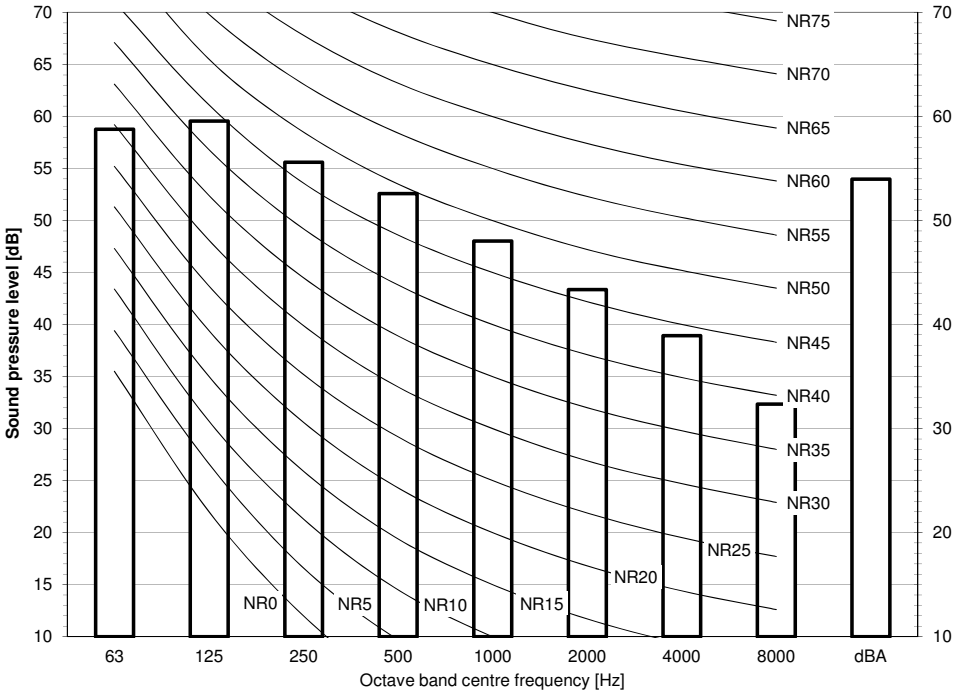
Notes
- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 µPa

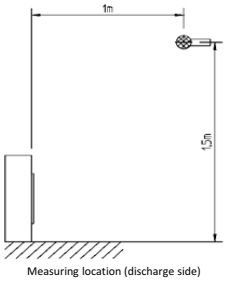
3D090881

11 Sound data

11 - 2 Sound Pressure Spectrum - Cooling

RZQSG125L9V1

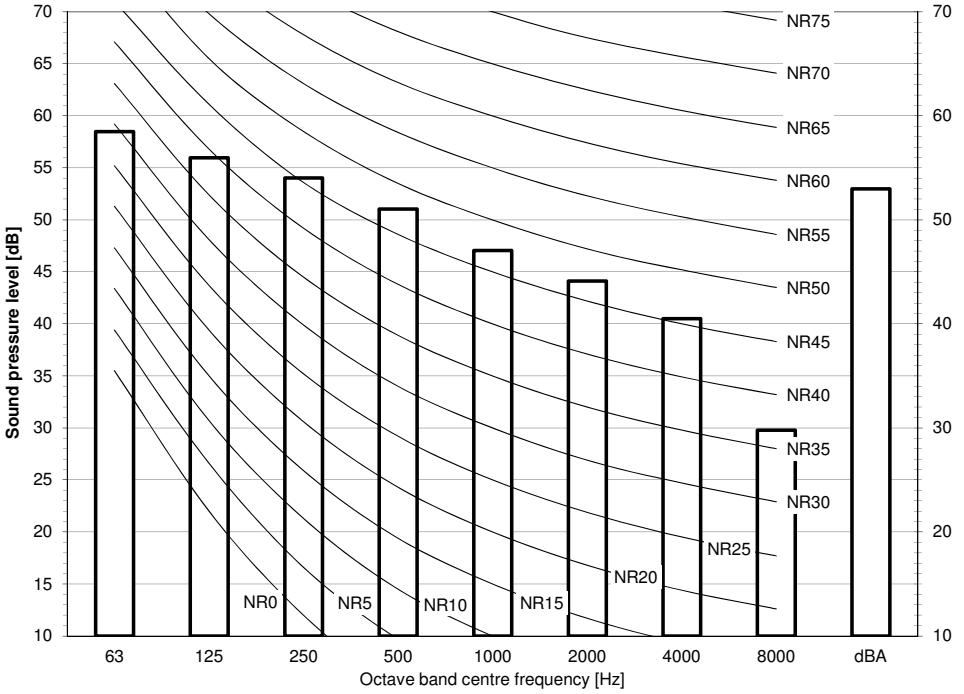


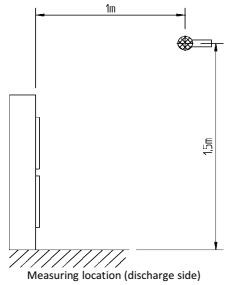


Notes
- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 µPa

3D090882

RZQSG140L9V1





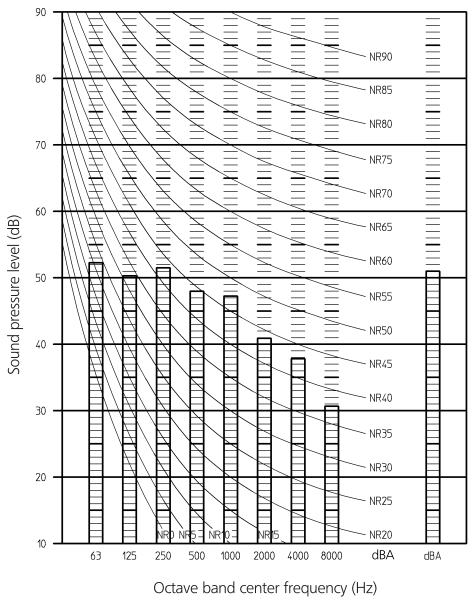
Notes
- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 µPa

3D090883

11 Sound data

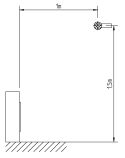
11 - 3 Sound Pressure Spectrum - Heating

RZQSG71L3V1



NOTES

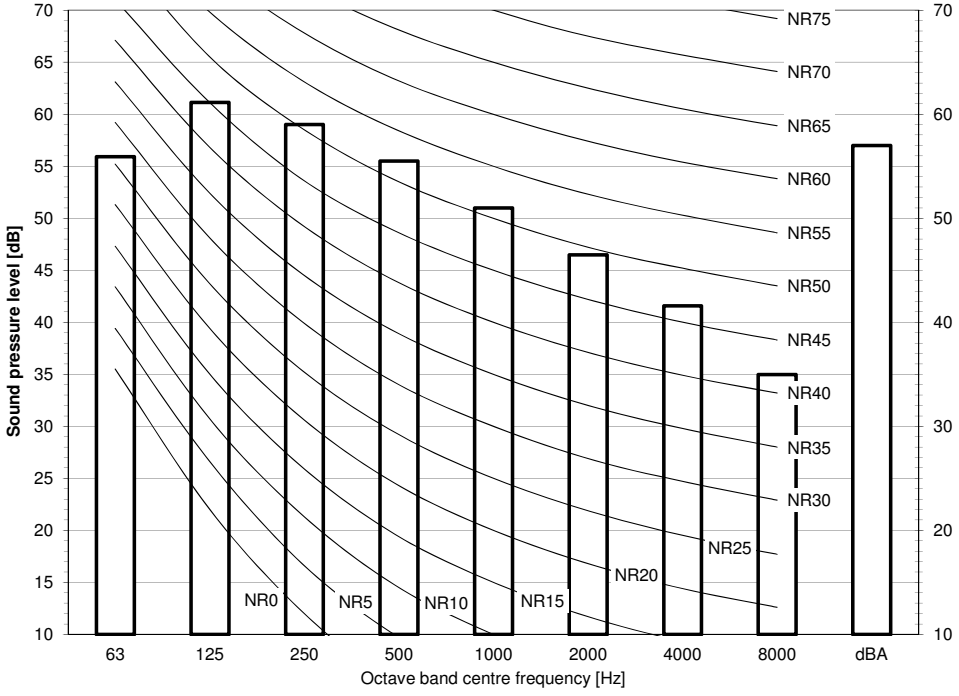
1 Data is valid at free field condition
2 Data is valid at nominal operation condition
3 dBA = A-weighted sound pressure level (A-scale according to IEC)
4 Reference acoustic pressure 0dB = 20µPa

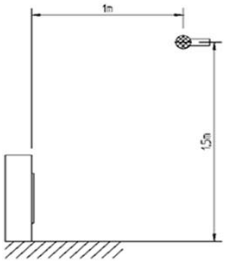


Measuring location (discharge side)

3TW30467-2

RZQSG100L9V1





Measuring location (discharge side)

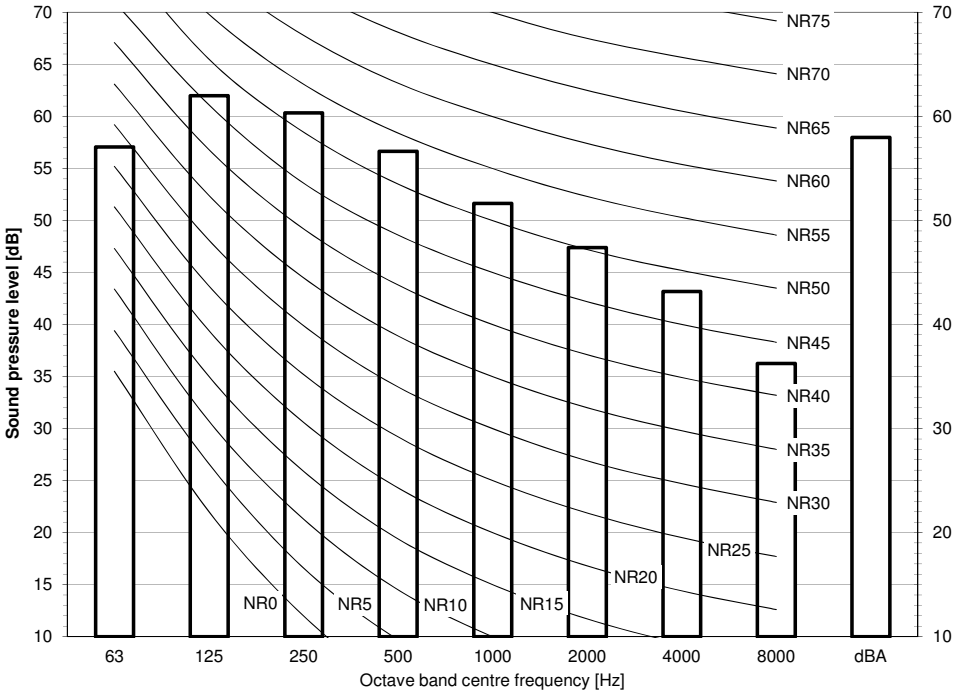
Notes
- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 µPa

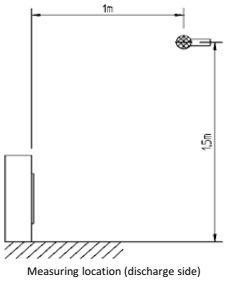
3D090871

11 Sound data

11 - 3 Sound Pressure Spectrum - Heating

RZQSG125L9V1

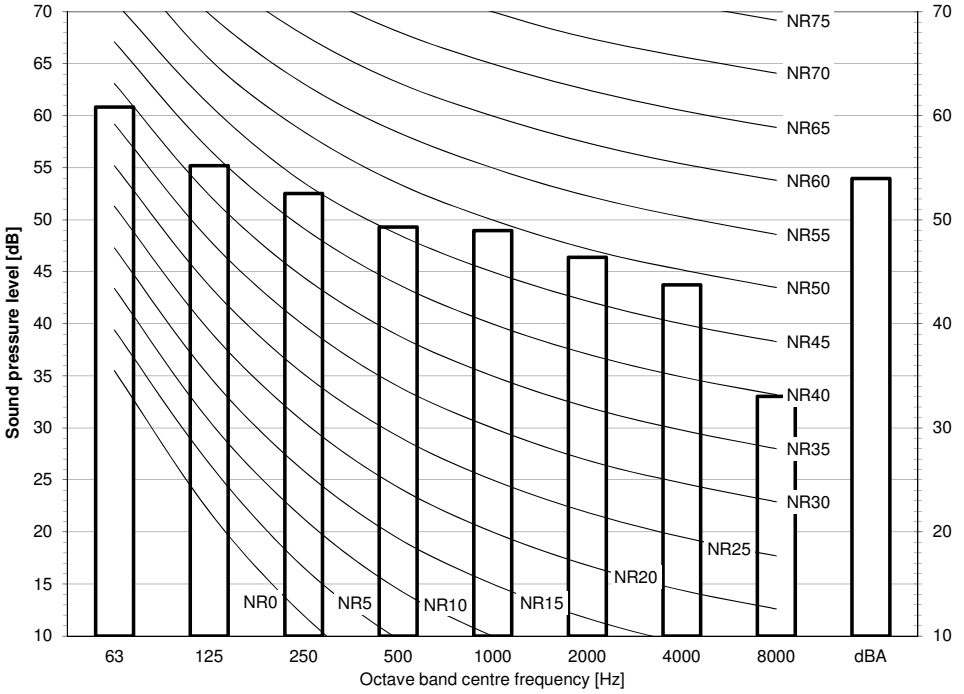


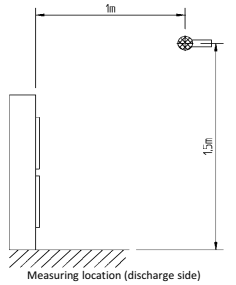


Notes
- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 µPa

3D090872

RZQSG140L9V1





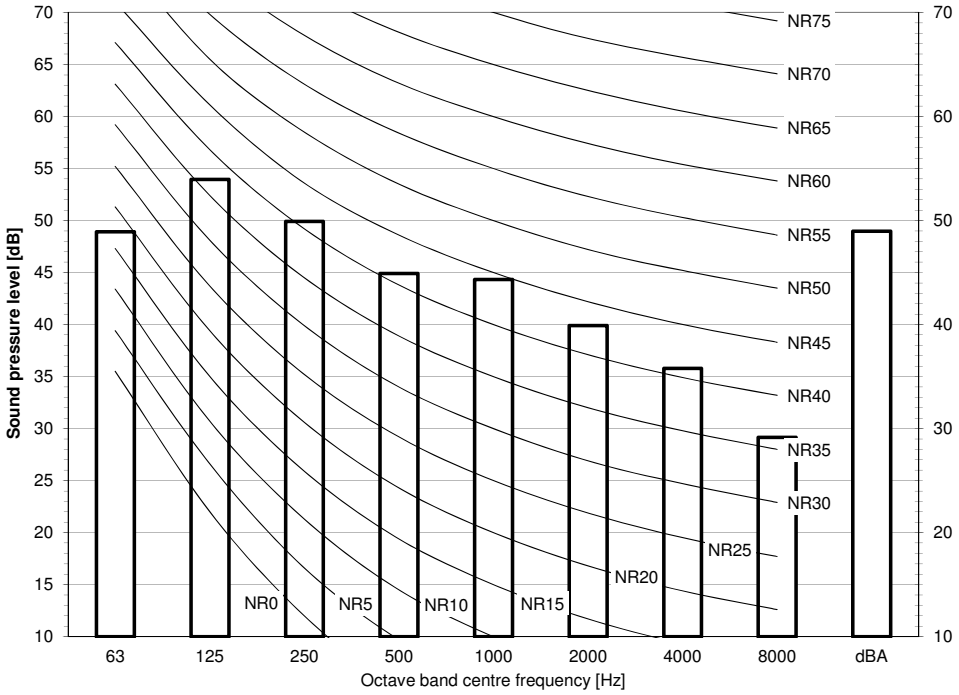
Notes
- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 µPa

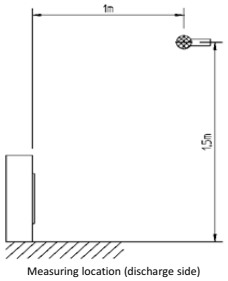
3D090873

11 Sound data

11 - 4 Sound Pressure Spectrum Quiet Mode

RZQSG100L9V1

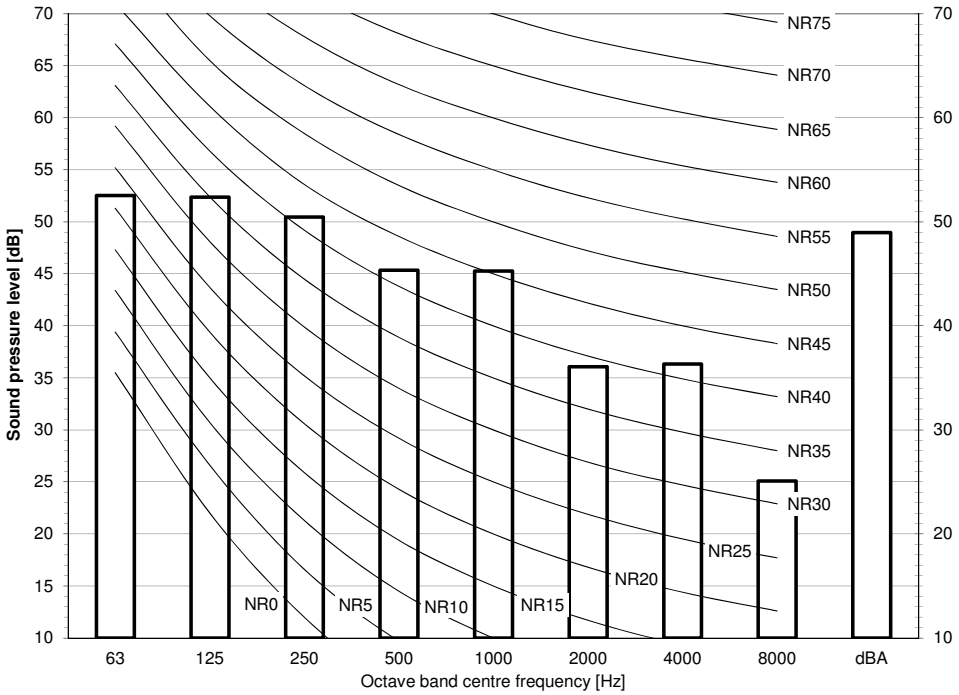


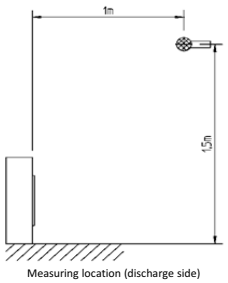


Notes
- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 µPa

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RZQSG125L9V1





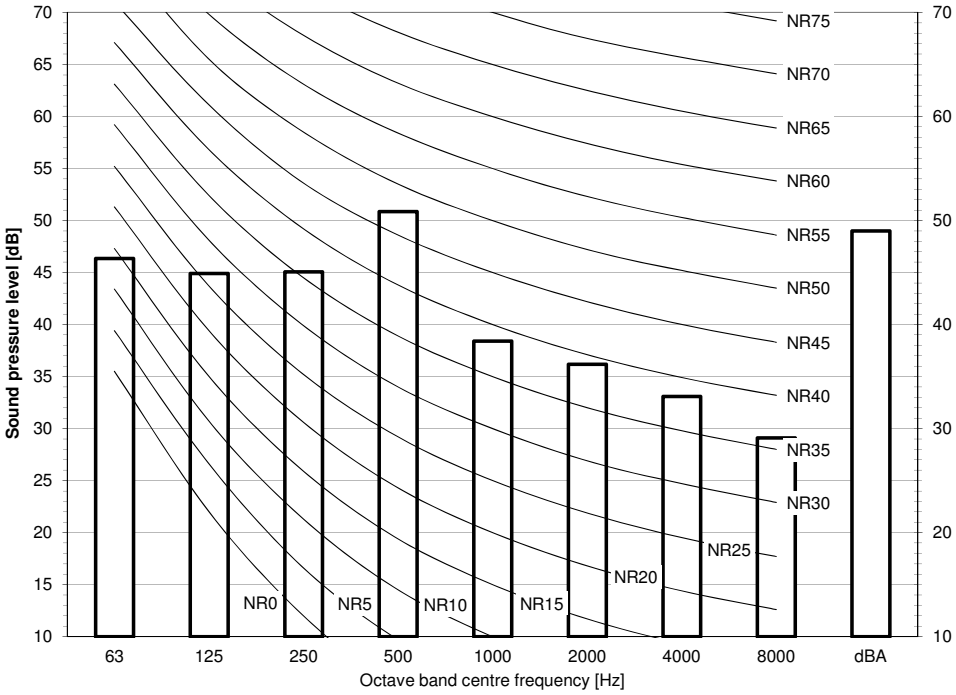
Notes
- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 µPa

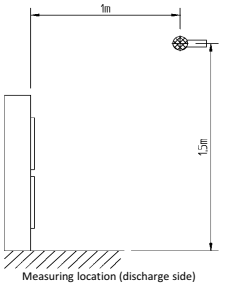
3D090862

11 Sound data

11 - 4 Sound Pressure Spectrum Quiet Mode

RZQSG140L9V1





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

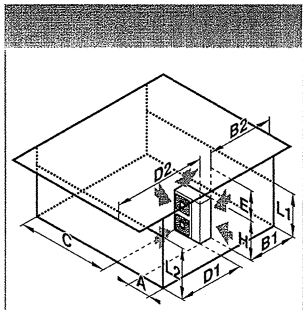
3D090863

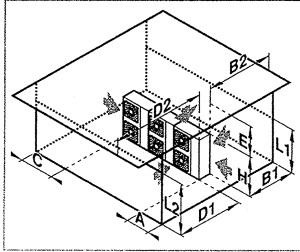
12 Installation

12 - 1 Installation Method

RZQSG71L3V1

A. Non stacked installation





							A	B1	B2	C	D1	D2	E	L1/L2	
✓								≥50(100)							
✓		✓	✓				≥100	≥100		≥100					
✓				✓				≥100				≤500	≥1000		
✓		✓	✓	✓			≥150	≥150		≥150		≤500	≥1000		
	✓										≥500				
	✓			✓					≤500		≥500		≥1000		
✓	✓					L1<L2		≥50(100)			≥500				
						L2<L1		≥50(100)			≥500				
✓	✓			✓		L1<L2	L1≤H	≥150(250)	≤500		≥750		≥1000	0<L1≤1/2H	
											≥1000			0<L1≤1/2H	
							B1≤L1	L1≤H							1
						L2<L1	L2≤H	≥50(100)			≥500 (1000)	≥500	≥1000	0<L2≤1/2H	
								≥100(200)						1/2H<L2≤H	
							B1≤L2	L2≤H							
✓		✓	✓				≥200	≥200(300)		≥1000					
✓		✓	✓	✓			≥200	≥200(300)		≥1000		≤500	≥1000		
	✓										≥1000				
	✓			✓					≤500		≥1000		≥1000		
✓	✓					L1<L2		≥200(300)			≥1000				
						L2<L1		≥150(250)			≥1000 (1500)			0<L2≤1/2H	
								≥200(300)						1/2H<L2≤H	
✓	✓			✓		L1<L2	L1≤H	≥200(300)	≤500		≥1000		≥1000	0<L1≤1/2H	
											≥1250			1/2H<L1≤H	1
							B1≤L1	L1≤H							
						L2<L1	L2≤H	≥150(250)			≥1000 (1500)	≤500	≥1000	0<L2≤1/2H	
								≥200(300)						1/2H<L2≤H	2
							B1≤L2	L2≤H							

Legend Unit: mm

- Suction side obstacle
- Discharge side obstacle
- Left side obstacle
- Right side obstacle
- Top side obstacle
- ✓ Obstacle is present

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

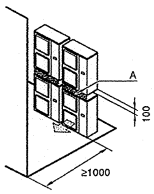
2 In these cases, only 2 units can be installed.

This situation is not allowed.

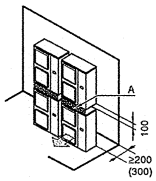
Figures between ( ) indicate the dimensions only for the 100-125-140 class models.

B. Stacked installation

1. Obstacles exist in front of the outlet side



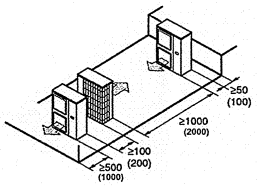
2. Obstacles exist in front of the air inlet



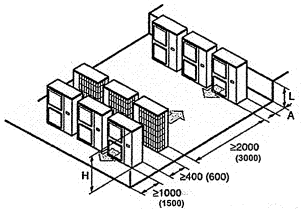
Do not stack more than one unit.
About 100mm is required as the dimension for laying the upper outdoor unit's drain pipe.
Get the portion A sealed so that air from the outlet does not bypass.

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	

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12 Installation

12 - 1 Installation Method

RZQSG100-140L9V1

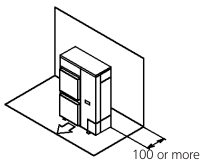
Installation service space

The measure of these values is "mm".

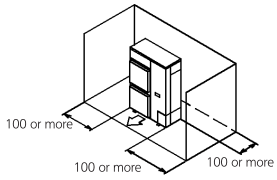
(A) When there are obstacles on suction sides.

● No obstacle above

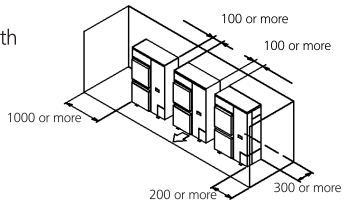
① Stand-alone installation
- Obstacle on the suction side only



- Obstacle on both sides and suction side, too

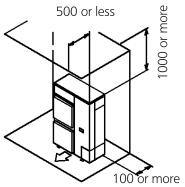


② Series installation (2 or more) (Note 1)
- Obstacle on the suction side and both sides

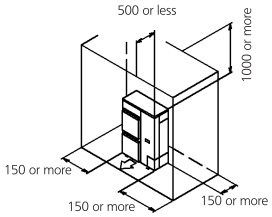


● Obstacle above, too.

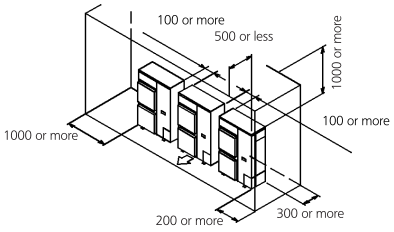
① Stand-alone installation
- Obstacle on the suction side, too



- Obstacle on both sides and suction side, too



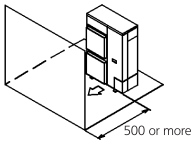
② Series installation (2 or more) (Note 1)
- Obstacle on the suction side and both sides



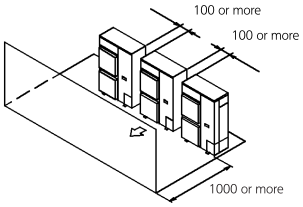
(B) When there are obstacles on discharge sides.

● No obstacle above

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

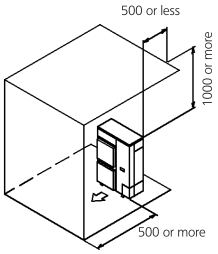


② Series installation (2 or more) (Note 1)
- Obstacle on the discharge side only

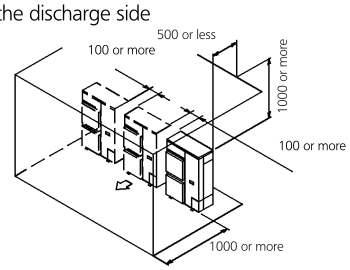


● Obstacle above, too

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



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



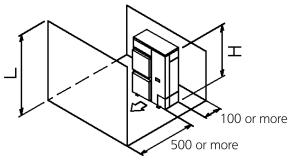
(C) When there are obstacles on both suction and discharge sides.:

Pattern 1

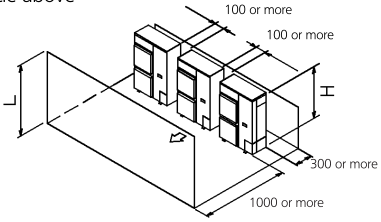
When the obstacles on the discharge side is higher than the unit. (L>H)
(There is no limit for the height of obstructions on the suction side.)

● No obstacle above

① Stand-alone installation
- No obstacle above



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



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12 Installation

12 - 1 Installation Method

RZQSG100-140L9V1

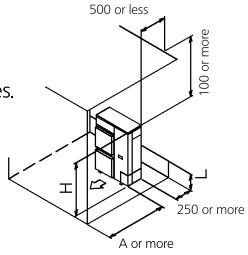
● **Obstacle above, too**

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



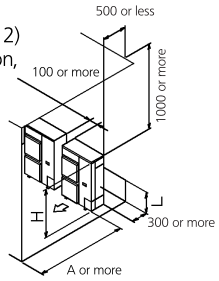
② Series installation (2 or more) (Note 1, 2)

● When there are obstacles on suction, discharge and top sides.

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

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

Limit of series installation is 2 units.



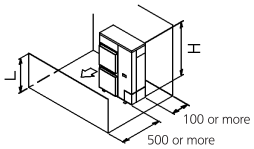
Pattern 2

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

● **No obstacle above**

① Stand-alone installation

● No obstacle above

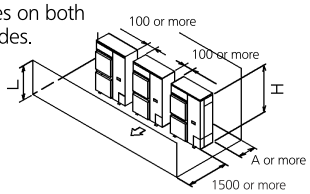


② Series installation (2 or more) (Note 1, 2)

● When there are obstacles on both suction and discharge sides.

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

L	A
L ≦ 1/2 H	250 or more
1/2 H < L ≦ H	300 or more



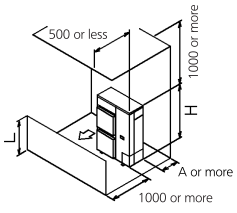
● **Obstacle above, too**

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



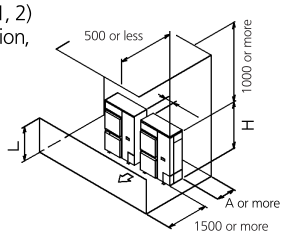
② Series installation (2 or more) (Note 1, 2)

● When there are obstacles on suction, discharge and top sides.

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

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

Limit of series installation is 2 units.



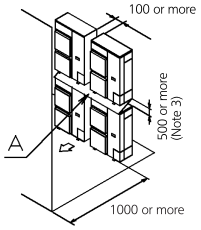
(D) Double-decker installation

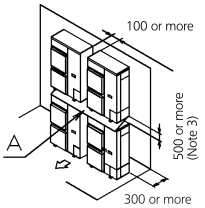
① Obstacle on the discharge side. (Note 1)

● 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)

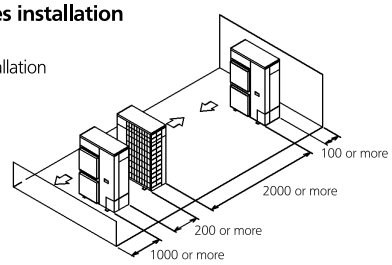
● Do not exceed two levels for stacked installation.
● Install a roof cover similar to A (field supply), as outdoor units with downward drainage are prone to dripping and freezing.
● Install the upper-level outdoor unit so that its bottom plate is a sufficient height above the roof cover. This is to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





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

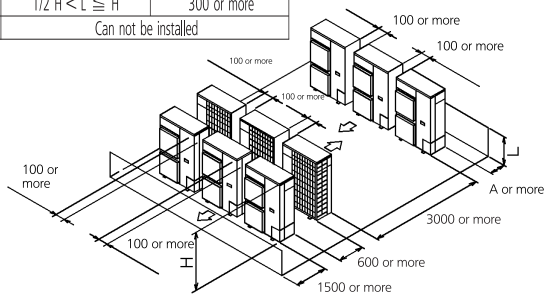
① One row of stand-alone installation



② Rows of series installation (2 or more)

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

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



NOTES

1 In case of the sideway'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.

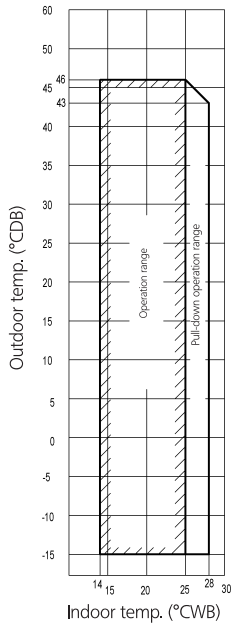
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13 Operation range

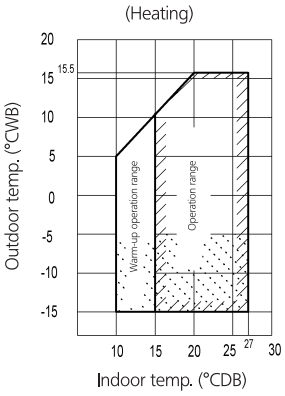
13 - 1 Operation Range

RZQSG-L3/9V1

(Cooling)



(Heating)



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.

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