

Air Conditioning
Technical Data

AZQS-BY1 A



TABLE OF CONTENTS

AZQS-BY1 A

1	Features	2
2	Specifications	3
	Capacity and Power input	3
	Technical Specifications	3
	Electrical Specifications	4
3	Electrical data	6
4	Options	7
5	Combination table	8
6	Capacity tables	9
	Cooling/Heating Capacity Tables	9
	Capacity Correction Factor	11
7	Dimensional drawings	12
8	Centre of gravity	13
9	Piping diagrams	14
10	Wiring diagrams	15
	Wiring Diagrams - Three Phase	15
11	Sound data	17
	Sound Power Spectrum	17
	Sound Power Spectrum Quiet Mode	18
	Sound Pressure Spectrum - Cooling	19
	Sound Pressure Spectrum - Heating	20
12	Installation	21
	Installation Method	21
13	Operation range	23

1 Features

Ideal solution for busy environments and small shops

- Daikin outdoor units are neat, sturdy and can easily be mounted on a roof or terrace or simply placed against an outside wall
- Outdoor units are fitted with either a swing or scroll compressor, renowned for low noise and high energy efficiency
- Outdoor units for pair application
- Seasonal efficiency, optimized for all seasons.
- 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				FCQG100F/AZQS100BY1 A	FCQG125F/AZQS125BY1 A	FCQG140F/AZQS140BY1 A
Indoor unit				FCQG100F	FCQG125F	FCQG140F
Outdoor unit				AZQS100BY1 A	AZQS125BY1 A	AZQS140BY1 A
Cooling capacity	Nom.		kW	9.5	12.1	13.0
Heating capacity	Nom.		kW	10.8	13.5	15.5
Power input	Cooling	Nom.	kW	2.96	3.90	4.63
	Heating	Nom.	kW	3.09	3.96	4.70
Seasonal efficiency (according to EN14825)	Cooling	Energy efficiency class		A	-	-
		Pdesign	kW	9.50	-	-
		SEER		5.50	-	-
		Annual energy consumption	kWh	605	-	-
	Heating (Average climate)	Energy efficiency class		A	-	-
		Pdesign	kW	7.60	-	-
		SCOP/A		3.85	-	-
		Annual energy consumption	kWh	2,764	-	-
Nominal efficiency	EER			3.21	3.10	2.81
	COP			3.50	3.41	3.30
	Annual energy consumption		kWh	1,480	1,952	2,313
	Energy labeling Directive	Cooling		A	B	-
		Heating		B		-

Notes

Annual energy consumption is according to Energy labeling directive 2002/31/EC

SEER and SCOP are according to EN 14825

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

2-2 Technical Specifications					AZQS100BY1 A		AZQS125BY1 A		AZQS140BY1 A		
Capacity control	Method				Inverter controlled						
Casing	Colour				Ivory white						
	Material				Painted galvanized steel plate						
Dimensions	Unit	Height		mm	990				1,430		
		Width		mm	940						
		Depth		mm	320						
	Packed unit	Height		mm	1,170				1,610		
		Width		mm	1,015						
		Depth		mm	422						
Weight	Unit			kg	82				101		
	Packed unit			kg	88				108		
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	76	77				83	
		Heating	Nom.	m³/min	83				62		
Fan motor	Quantity				1				2		
	Model				Brushless DC motor						
	Output			W	200				94		
	Drive				Direct drive						
	Speed	Cooling	Super low	rpm	-						
		Heating	Super low	rpm	-						

2 Specifications

2-2 Technical Specifications					AZQS100BY1 A		AZQS125BY1 A		AZQS140BY1 A	
Sound power level	Cooling			dBA	70		71		70	
	Heating			dBA	-					
Sound pressure level	Cooling	Nom.	dBA		53		54		53	
	Heating	Nom.	dBA		57		58		54	
	Night quiet mode	Level 1		dBA	49					
Operation range	Cooling	Ambient	Min.	°CDB		-5				
			Max.	°CDB		46				
	Heating	Ambient	Min.	°CWB		-15				
			Max.	°CWB		15.5				
Refrigerant	Type				R-410A					
	Charge			kg	2.9				4.0	
				TCO ₂ eq	6.1				8.4	
	Control				Expansion valve (electronic type)					
	GWP				2,087.5					
	Circuits	Quantity			1					
Piping connections	Liquid	Quantity			1					
		Type			Flare connection					
		OD	mm		9.52					
		Gas			1					
	Gas	Quantity			1					
		Type			Flare connection					
		OD	mm		15.9					
		Drain	Quantity			5				
	Type			Hole						
	ID		mm		-					
	OD		mm		26					
	Piping length	OU - IU	Min.	m	5 (1)					
			Max.	m	30 (1)					
		System	Equivalent	m	40					
			Chargeless	m	30					
	Additional refrigerant charge			kg/m	See installation manual					
	Level difference	IU - OU	Max.	m	30.0					
IU - IU		Max.	m	0.5						
Heat insulation				Both liquid and gas pipes						
Refrigerant oil	Type				FVC50K					
	Charged volume			l	0.9				1.35	
Defrost method					Reversed cycle					
Defrost control					Sensor for outdoor heat exchanger temperature					
Safety devices	Item	01			High pressure switch					
		02			Fan motor thermal protection					
		03			Fuse					

Standard Accessories : Tie-wraps; Quantity : 2;

Standard Accessories : Installation manual; Quantity : 1;

2-3 Electrical Specifications				AZQS100BY1 A	AZQS125BY1 A	AZQS140BY1 A
Power supply	Name			Y1		
	Phase			3N~		
	Frequency		Hz	50		
	Voltage		V	380-415		
	Voltage range	Min.	%	-10		
		Max.	%	10		
Current - 50Hz	Maximum fuse amps (MFA)		A	-		
Current	Zmax	List		Complies to EN61000-3-11		
	Recommended fuses		A	20		25
Current - 60Hz	Maximum fuse amps (MFA)		A	-		

2 Specifications

2-3 Electrical Specifications			AZQS100BY1 A	AZQS125BY1 A	AZQS140BY1 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) For details regarding your combination of outdoor and indoor unit, refer to the technical databook

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 $\leq 75A$ per phase

See separate drawing for electrical data

Contains fluorinated greenhouse gases

Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB, outdoor temperature: 35°CDB, equivalent refrigerant piping: 5m, level difference: 0m. Data for high efficiency series, Eurovent certified

Nominal heating capacities are based on: indoor temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, equivalent refrigerant piping: 5m, level difference: 0m. Data for high efficiency series, Eurovent certified

3 Electrical data

3 - 1 Electrical Data

AZQS-B(8)V1A
AZQS-BY1A

Indoor	Outdoor	Hz	Power supply	Voltage range	MCA	TOCA	MFA	Comp		OFM		IFM	
								MSC	RLA	kW	FLA	kW	FLA
FOG100FVEB	AZQS100B8V1B A				28.4	—	32	—	24.4	0.2	0.6	0.117	0.7
FOG125FVEB	AZQS125B8V1B A				28.8	—	32	—	24.4	0.2	0.6	0.168	1.0
FOG140FVEB	AZQS140B8V1B A				28.8	—	32	—	24.2	0.094+0.094	0.4+0.4	0.168	1.0
FOG100FVEB	AZQS100B7Y1B A				14.1	—	16	—	11.4	0.2	0.6	0.117	0.7
FOG125FVEB	AZQS125B7Y1B A				14.5	—	16	—	11.4	0.2	0.6	0.168	1.0
FOG140FVEB	AZQS140B7Y1B A				17.8	—	20	—	14.2	0.094+0.094	0.4+0.4	0.168	1.0

Symbols

MCA: Minimum Circuit Amperes [A]
TOCA: Total overcurrent amps [A]
MFA: Maximum Fuse Amperes [A]
MSC: Maximum current of the starting compressor [A]
RLA: Rated load amps [A]
OFM: Outdoor fan motor
IFM: Indoor fan motor
FLA: Full load amps
KW: Fan motor rated output [kW]

Notes

- The RLA is based on the following conditions.
Cooling
Indoor temperature 27.0°C DB / 19.0°C WB
Outdoor temperature 35.0°C DB
Heating
Indoor temperature 20.0°C DB
Outdoor temperature 7.0°C DB / 6.0°C WB
- TOCA is the total value of each overcurrent set.
- Voltage range
The units are suitable for use with electrical systems in which the voltage supplied to the unit terminals is not below or above the listed range limits.
- The maximum allowable voltage that is unbalanced between phases is 2%.
- MCA is the maximum input current.
The capacity of the MFA must be greater than that of the MCA.
Select the MFA according to the table.
The next lower standard fuse rating is minimum 15 ampere.
- Select the wire size according to the MCA.
- MFA is used to select the circuit breaker and the ground fault circuit interruptor.
Earth leakage circuit breaker _____

3D090681B

4 Options

4 - 1 Options

AZQS-BV1

AZQS-BY1

Name of option	Kit name		
	AZQS71BV1	AZQS100BV1	AZQS100BY1
		AZQS125BV1	AZQS125BY1
		AZQS140BV1	AZQS140BY1
Demand adapter kit	KRP58M51		

4D080869

5 Combination table

5 - 1 Combination Table

5

AZQS-BY1 A
AZQS-B(8)V1 A

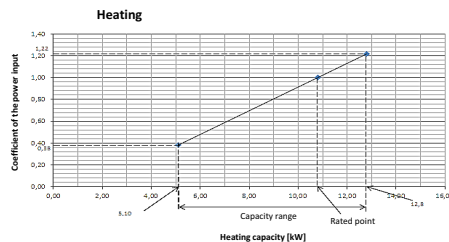
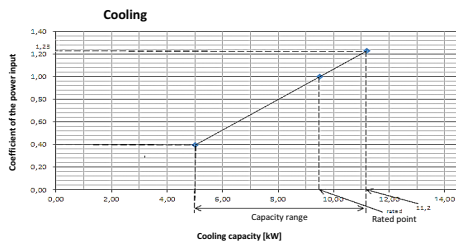
Sky Air	Roundflow cassette			
Model	FCQG71FVEB	FCQG100FVEB	FCQG125FVEB	FCQG140FVEB
AZQS71B2V1B A	P			
AZQS100B8V1B A		P		
AZQS125B8V1B A			P	
AZQS140B8V1B A				P
AZQS100B7Y1B A		P		
AZQS125B7Y1B A			P	
AZQS140B7Y1B A				P

3D090363B

6 Capacity tables

6 - 1 Cooling/Heating Capacity Tables

AZQS100BY1A AZQS100B(8)V1



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		
°C WB	°C DB	TC	SHC	CPI	TC	SHC	CPI	TC	SHC	CPI	TC	SHC	CPI
16.0	22	11.2	7.61	1.01	10.8	7.44	1.11	10.5	7.29	1.22	10.1	7.09	1.32
18.0	25	11.8	7.58	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	7.58	1.02	11.7	7.37	1.13	11.4	7.34	1.23	10.9	7.04	1.34
22.0	30	12.8	7.52	1.02	12.4	7.36	1.13	11.9	7.16	1.24	11.5	7.03	1.35
24.0	32	13.3	7.42	1.03	12.9	7.27	1.14	12.4	7.06	1.25	12.0	6.91	1.36

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	—	kW	—	kW
16	8.58	0.93	9.45	0.99	1.01	1.02	1.04	1.05	1.06	1.07	1.08	1.12	1.13	1.18	1.19
18	8.57	0.97	9.44	1.02	1.00	1.07	1.03	1.10	1.12	1.17	1.21	1.27	1.31	1.38	1.42
20	8.56	1.01	9.43	1.07	1.00	1.11	1.03	1.14	1.18	1.22	1.27	1.34	1.38	1.45	1.49
21	8.56	1.03	9.42	1.09	1.00	1.13	1.03	1.16	1.18	1.24	1.28	1.34	1.38	1.45	1.49
22	8.55	1.04	9.42	1.10	1.00	1.14	1.03	1.18	1.19	1.26	1.30	1.36	1.40	1.47	1.50
24	8.54	1.09	9.41	1.15	1.00	1.19	1.03	1.23	1.23	1.28	1.31	1.37	1.41	1.48	1.51

- Notes**
- The ratings shown are net capacities which include a deduction for indoor fan motor heat.
 - = Maximum at standard conditions
= Rated capacity and rated coefficient of the power input
The maximum capacity is not guaranteed except at standard conditions.
 - 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)
 - 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
 - CPI is a percentage value compared to the rated value which is 1.00.
 - The error rate for this value is less than 5% and depends on the indoor unit type.
 - The heating performance takes into account the drop that occurs during defrost operation.
 - The air flow rate and bypass factor are mentioned in the table.

Pair

	FCQG100F
AFR	32.0
BF	(0.17)

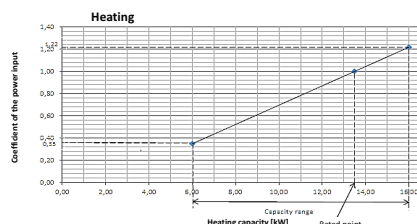
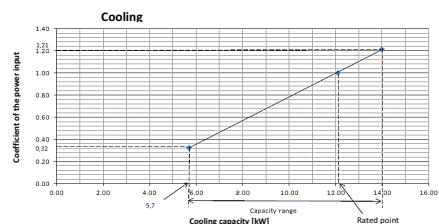
9. The rated power input for each model is mentioned in the table below.

Pair

	FCQG100F
Cooling	2.96
Heating	3.09

3D081255F

AZQS125BY1A AZQS125B(8)V1



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		
°C WB	°C DB	TC	SHC	CPI	TC	SHC	CPI	TC	SHC	CPI	TC	SHC	CPI
16.0	22	14.1	9.54	0.99	13.6	9.30	1.09	13.1	9.12	1.19	12.6	8.78	1.29
18.0	25	14.7	9.50	0.99	14.2	9.32	1.09	13.7	9.09	1.20	13.2	8.83	1.31
19.0	27	15.0	9.52	1.00	14.5	9.24	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	9.00	1.20	13.6	8.91	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	9.21	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	CF	TC	CPI	CF	TC	CPI	CF	TC	CPI	CF	TC	CPI	CF	TC	CPI	CF
°C DB	kW	—	kW	—	kW	—	kW	—	kW	—	kW	—	kW	—	kW	—	kW	—	kW
16	10.7	0.93	1.18	0.99	1.26	1.02	1.30	1.05	1.60	1.12	1.73	1.18	1.88	1.23	1.98	1.33	2.08	1.38	2.18
18	10.7	0.97	1.18	1.02	1.25	1.07	1.29	1.10	1.60	1.17	1.73	1.23	1.88	1.23	1.98	1.33	2.08	1.38	2.18
20	10.7	1.01	1.18	1.07	1.25	1.11	1.29	1.14	1.60	1.22	1.73	1.28	1.88	1.28	1.98	1.38	2.13	1.43	2.23
21	10.7	1.03	1.18	1.09	1.25	1.13	1.29	1.16	1.60	1.24	1.73	1.31	1.88	1.31	1.98	1.41	2.16	1.46	2.26
22	10.7	1.04	1.18	1.10	1.25	1.14	1.29	1.18	1.60	1.25	1.73	1.33	1.88	1.33	1.98	1.43	2.18	1.48	2.28
24	10.7	1.09	1.18	1.15	1.25	1.19	1.29	1.23	1.60	1.31	1.73	1.38	1.88	1.38	1.98	1.48	2.23	1.53	2.33

- Notes**
- The ratings shown are net capacities which include a deduction for indoor fan motor heat.
 - = Maximum at standard conditions
= Rated capacity and rated coefficient of the power input
The maximum capacity is not guaranteed except at standard conditions.
 - 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)
 - 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
 - CPI is a percentage value compared to the rated value which is 1.00.
 - The error rate for this value is less than 5% and depends on the indoor unit type.
 - The heating performance takes into account the drop that occurs during defrost operation.
 - The air flow rate and bypass factor are mentioned in the table.

Pair

	FCQG125F
AFR	33.0
BF	(0.23)

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

Pair

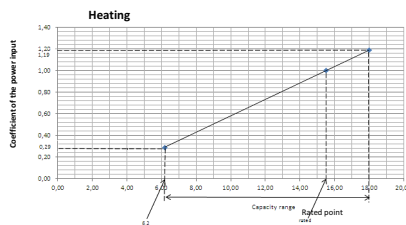
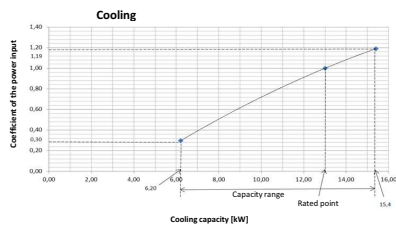
	FCQG125F
Cooling	3.90
Heating	3.96

3D081256F

6 Capacity tables

6 - 1 Cooling/Heating Capacity Tables

AZQS140BY1 A
AZQS140B(8)BV1



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

Indoor		Outdoor Temperature (°C DB)											
		25				30				35			
		TC	SHC	CPI	PI	TC	SHC	CPI	PI	TC	SHC	CPI	PI
°C WB	°C DB												
16.0	22	15.5	10.47	0.98	14.9	10.25	1.06	14.4	10.03	1.19	13.9	9.89	1.28
18.0	25	16.2	10.55	0.98	15.6	10.21	1.09	15.1	10.01	1.19	14.5	9.71	1.30
19.0	27	16.6	10.43	0.99	16.0	10.18	1.09	15.4	9.90	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	15.9	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

Indoor		Outdoor temperature (°C WB)											
		-15.0				-10.0				-5.0			
		TC	SHC	CPI	PI	TC	SHC	CPI	PI	TC	SHC	CPI	PI
°C DB	°C WB												
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

- The ratings shown are net capacities which include a deduction for indoor fan motor heat.
- = Maximum at standard conditions.
= Rated capacity and rated coefficient of the power input
The maximum capacity is not guaranteed except at standard conditions.
- 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)
- 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
- CPI is a percentage value compared to the rated value which is 1.00.
- The error rate for this value is less than 5% and depends on the indoor unit type.
- The heating performance takes into account the drop that occurs during defrost operation.
- The air flow rate and bypass factor are mentioned in the table.

Pair		FCQG140F
AFR	33.0	
(BF)	(0.23)	

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

Pair

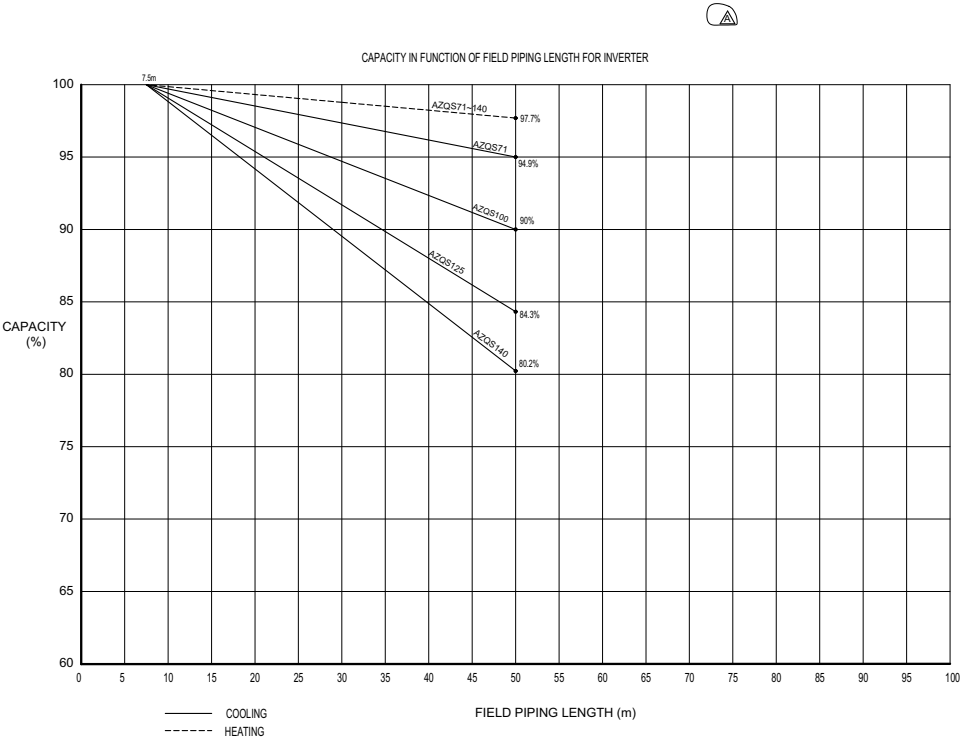
Pair		FCQG140F
Cooling		4.63
Heating		4.70

3D081257D

6 Capacity tables

6 - 2 Capacity Correction Factor

AZQS-BY1



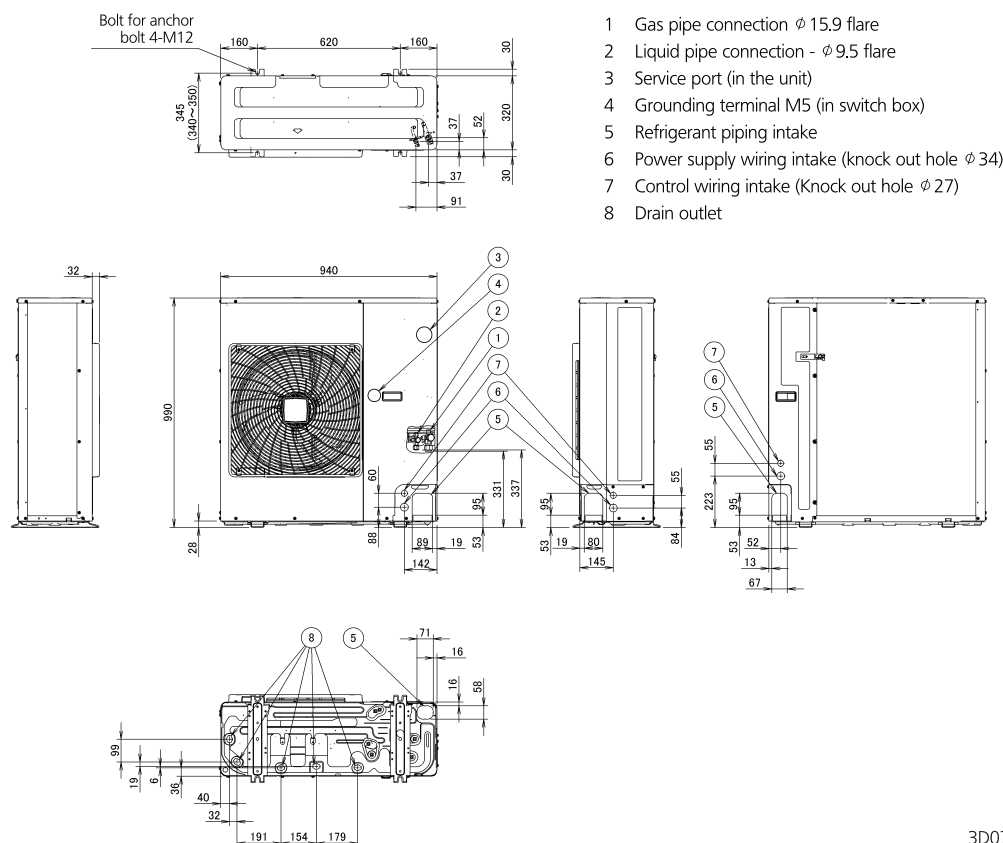
3D080872A

7 Dimensional drawings

7 - 1 Dimensional Drawings

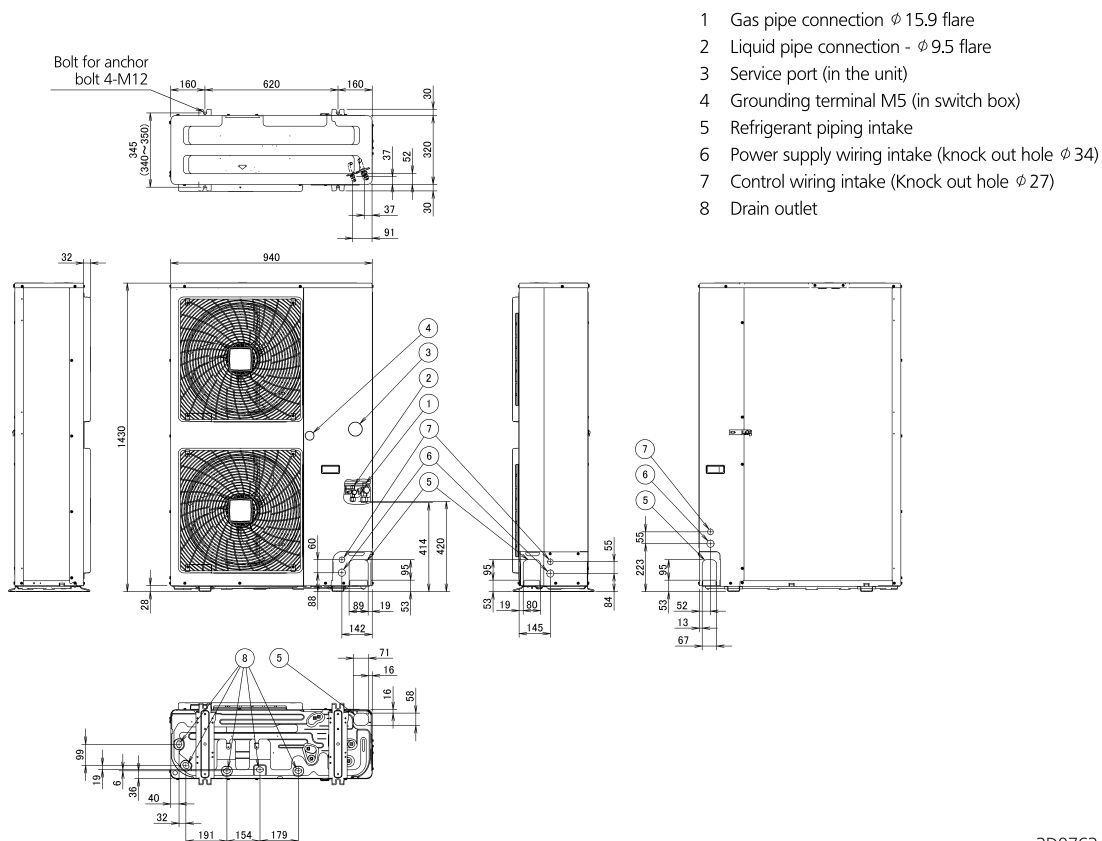
7

AZQS100-125BY1



3D076345

AZQS140BY1

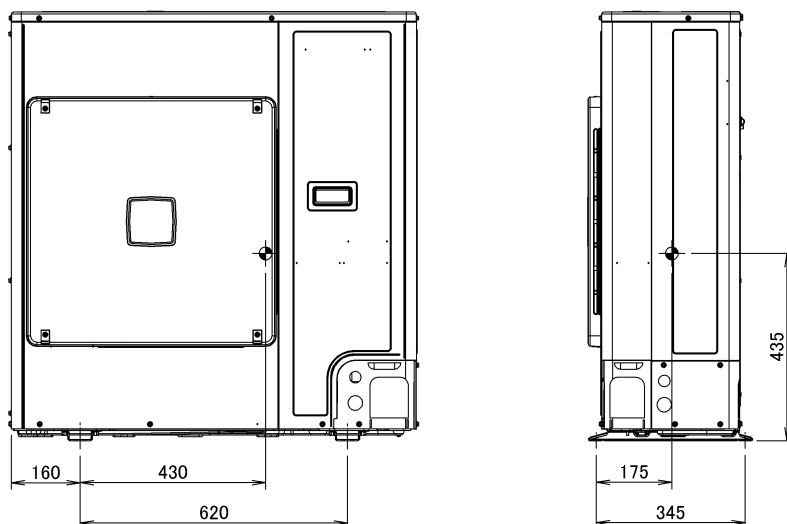


3D076346

8 Centre of gravity

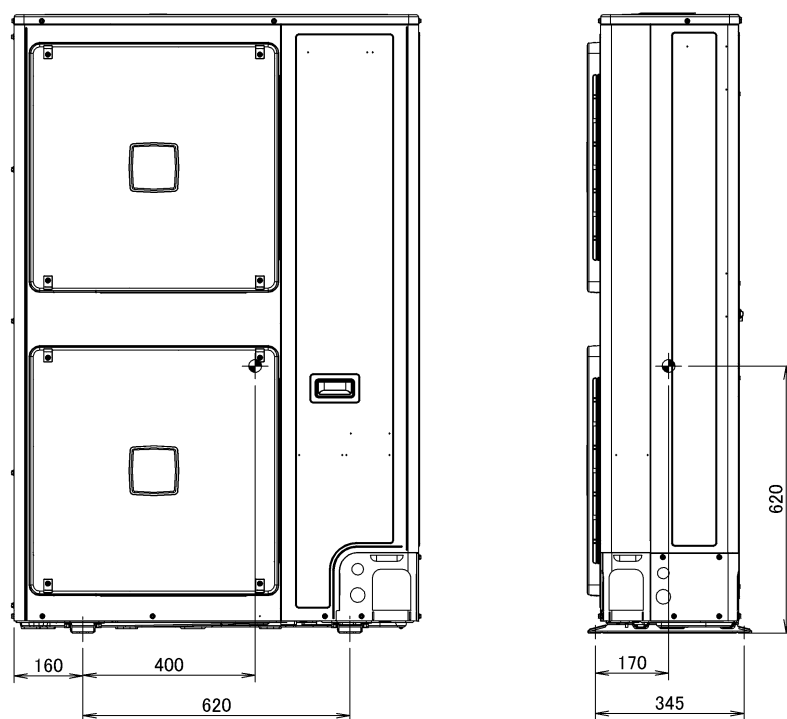
8 - 1 Centre of Gravity

AZQS100-125BY1



4D077809

AZQS140BY1



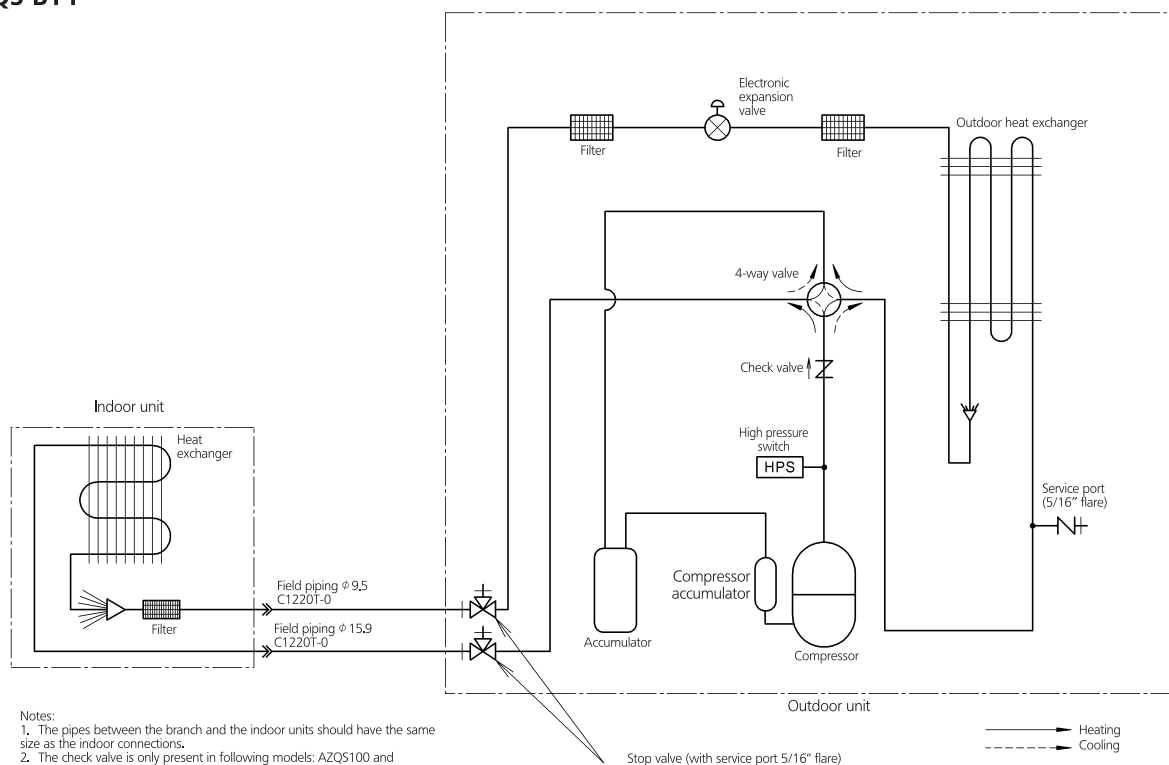
4D077808

9 Piping diagrams

9 - 1 Piping Diagrams

9

AZQS-BY1



3D080932

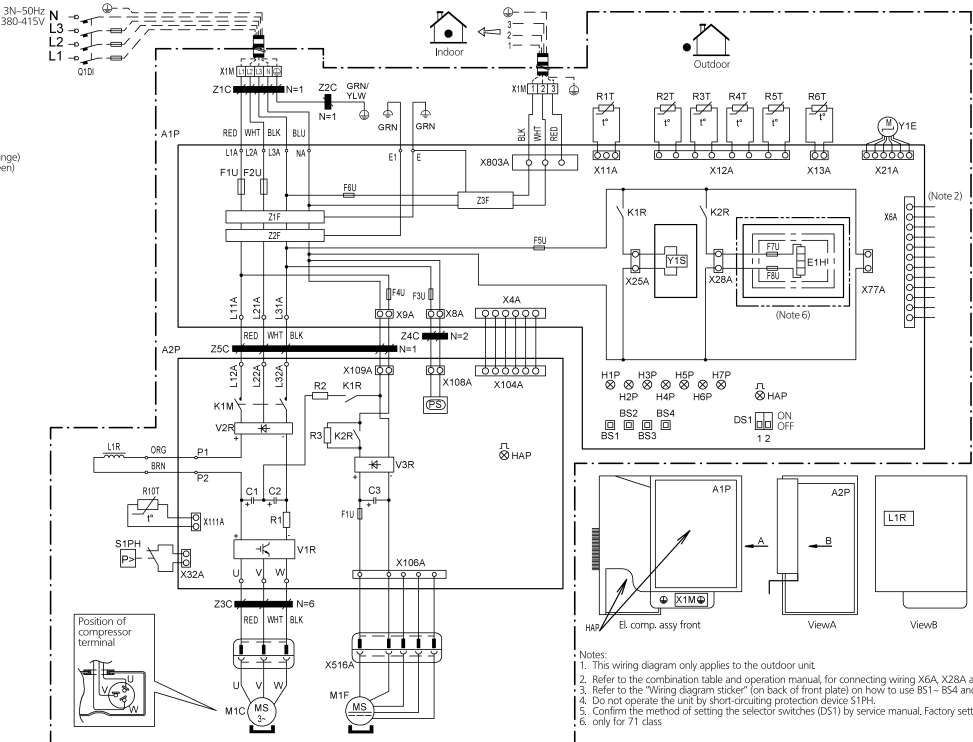
10 Wiring diagrams

10 - 1 Wiring Diagrams - Three Phase

AZQS100-125BY1

- A1P : Printed circuit board
- A2P : Printed circuit board (Inverter)
- BS1-BS2 : Push button switch
- C1-C3 : Capacitor
- DS1 : Dip switch
- E1H : Bottomplate heater (Option)
- F1U : Fuse (31.5A / 250V)
- F2U : Fuse (31.5A / 250V)
- F3U-F6U : Fuse (F 6.3A / 250V)
- F7U-F8U : Fuse (F 1.0A / 250V)
- F1U (A2P) : Fuse (F 5.0A / 250V)
- H1P-H7P : Light emitting diode (service monitor orange)
- HAP (A1P/A2P) : Light emitting diode (service monitor green)
- K1M : Magnetic contactor
- K1R (A1P) : Magnetic relay (Y1S)
- K1R (A2P) : Magnetic relay
- K2R (A1P) : Magnetic relay (E1H Option)
- K2R (A2P) : Magnetic relay
- L1R : Reactor
- M1C : Motor (compressor)
- M1F : Motor (fan) (upper)
- M2F : Motor (fan) (lower)
- M2F : Switching power supply
- Q1D : Earth leakage breaker (30mA)
- R1-R3 : 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)
- S1PH : Pressure switch (High)
- V1R : IGBT Power module
- V2R, V3R : Diode module
- X6A : Connector (Option)
- X1M : Terminal strip
- Y1E : Electronic expansion valve
- Y1S : Solenoid valve (4 way valve)
- Z1C-Z5C : Noise filter (Ferrite core)
- Z1F-Z3F : Noise filter

- L: Live
- N: Neutral
- Field wiring
- Protective earth (screw)
- Noiseless earth
- Terminal
- Connection
- Terminal strip
- Connector
- Relay connector
- Option
- BLK: Black
- BLU: Blue
- BRN: Brown
- GRN: Green
- ORG: Orange
- RED: Red
- WHT: White
- YLW: Yellow



- Notes:
1. This wiring diagram only applies to the outdoor unit.
 2. Refer to the combination table and operation manual for connecting wiring X6A, X28A and X77A.
 3. Refer to the "Wiring diagram sticker" (on back of front plate) on how to use BS1-BS4 and DS1 switch.
 4. Do not operate the unit by short-circuiting protection device S1PH.
 5. Confirm the method of setting the selector switches (DS1) by service manual. Factory setting of all switches: "OFF".
 6. only for 71 class

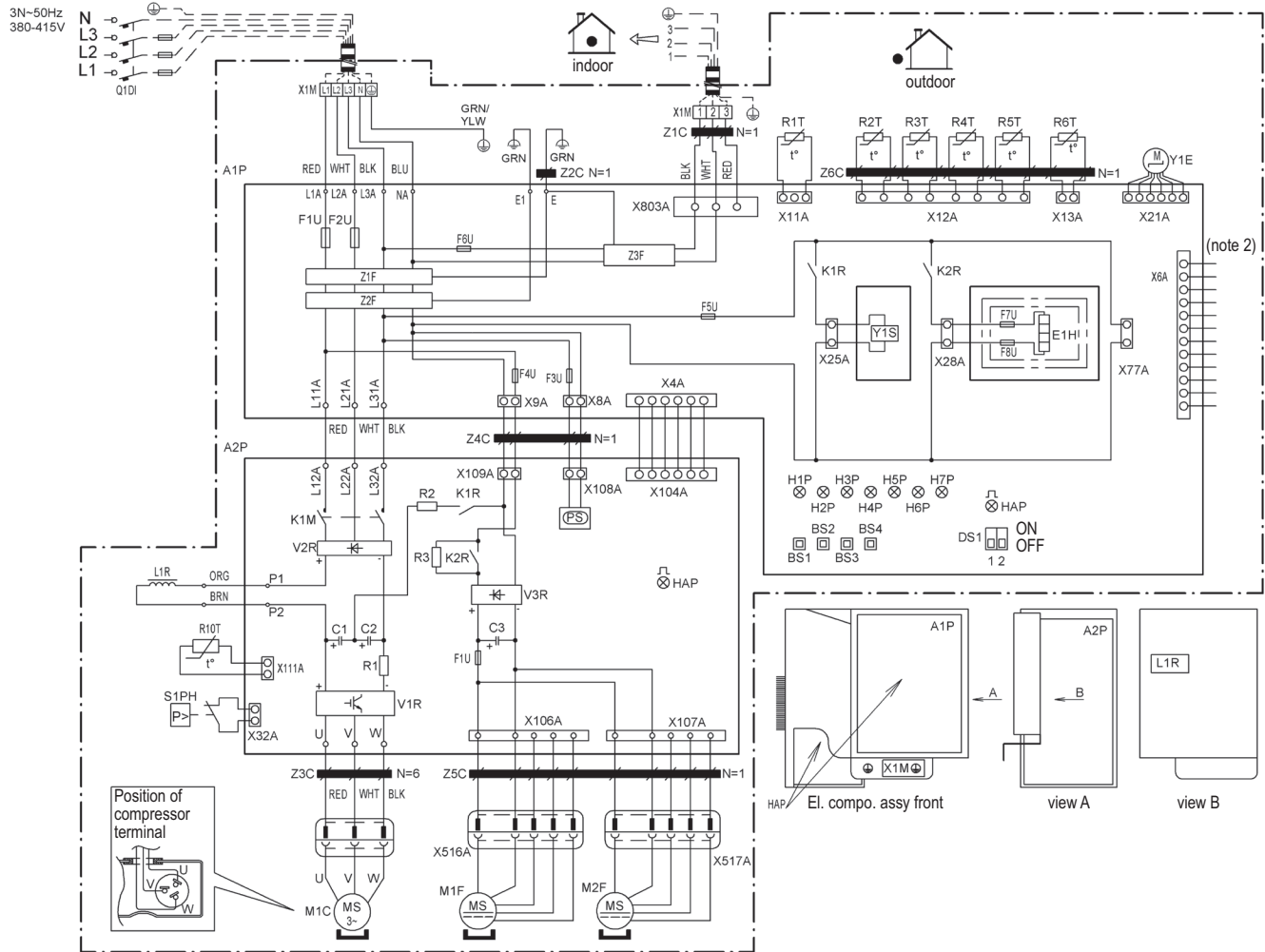
2D080114B

10 Wiring diagrams

10 - 1 Wiring Diagrams - Three Phase

10

AZQS140BY1



A1P	Printed circuit board	K1M	Magnetic contactor	R4T	Thermistor (heat exchanger)
A2P	Printed circuit board (inv.)	K1R (A1P)	Magnetic relay (Y1S)	R5T	Thermistor (heat exchanger middle)
BS1-BS2	Push button switch	K1R (A2P)	Magnetic relay	R6T	Thermistor (liquid)
C1~C3	Capacitor	K2R (A1P)	Magnetic relay (E1H option)	R10T	Thermistor (fin)
DS1	Dip switch	K2R (A2P)	Magnetic relay	S1PH	Pressure switch (high)
E1H	Bottom plate heater (option)	L1R	Reactor	V1R	Igbt power module
F1U	Fuse (31.5A/250V)	M1C	Motor (compressor)	V2R,V3R	Diode module
F2U	Fuse (31.5A/250V)	M1F	Motor (fan) (upper)	X6A	Connector (option)
F3U~F6U	Fuse (T 6.3a/250V)	M2F	Motor (fan) (lower)	X1M	Terminal strip
F7U,F8U	Fuse (F 1.0a/250V)	PS	Switching power supply	Y1E	Electronic expansion valve
F1U (A2P)	Fuse (T 5.0a/250V)	Q1DI	Earth leakage breaker (30mA)	Y1S	Solenoid valve (4 way valve)
H1P~H7P	Light emitting diode (service monitor orange)	R1~R3	Resistor	Z1C~Z6C	Noise filter (ferrit core)
HAP	Light emitting diode (service monitor green)	R1T	Thermistor (air)	Z1F~Z3F	Noise filter
		R2T	Thermistor (discharge)		
		R3T	Thermistor (suction)		

L : Live
N : Neutral
- - - : Field wiring
⊕ : Protective earth (screw)
⊕ : Noiseless earth
- - - : Terminal

→ : Connection
□ : Terminal strip
□ : Connector
→ : Relay connector
- - - : Option

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

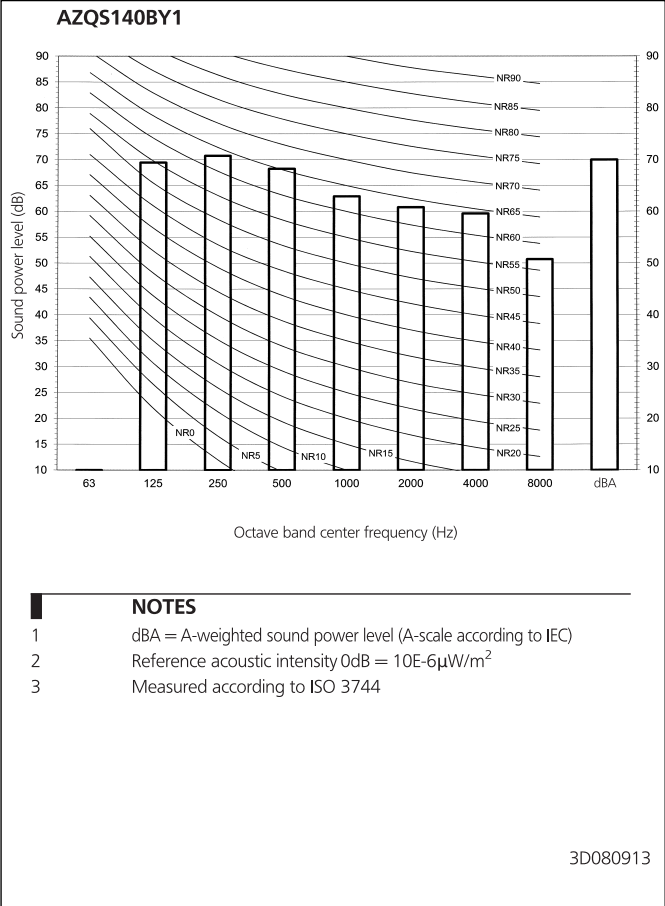
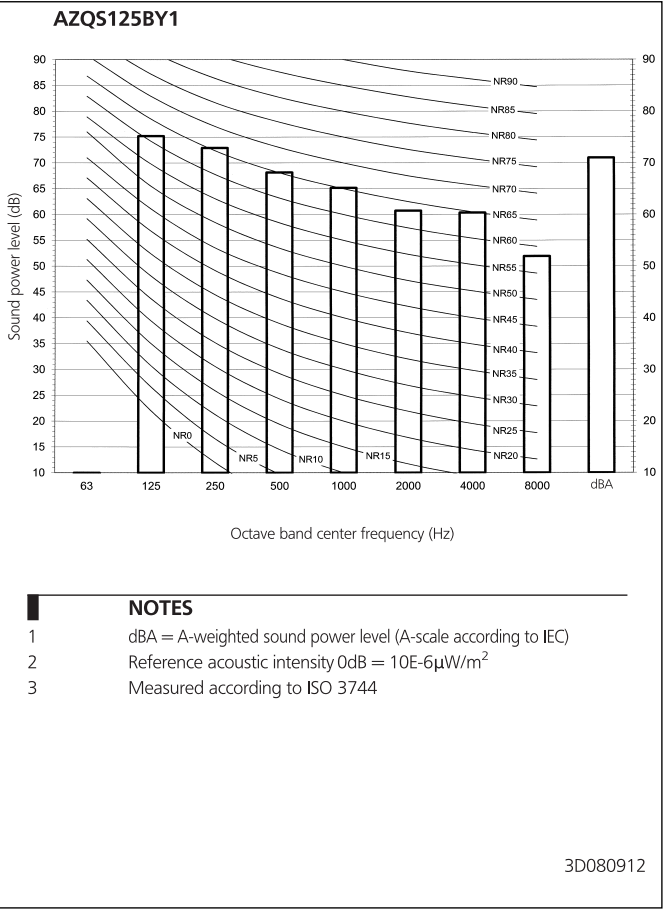
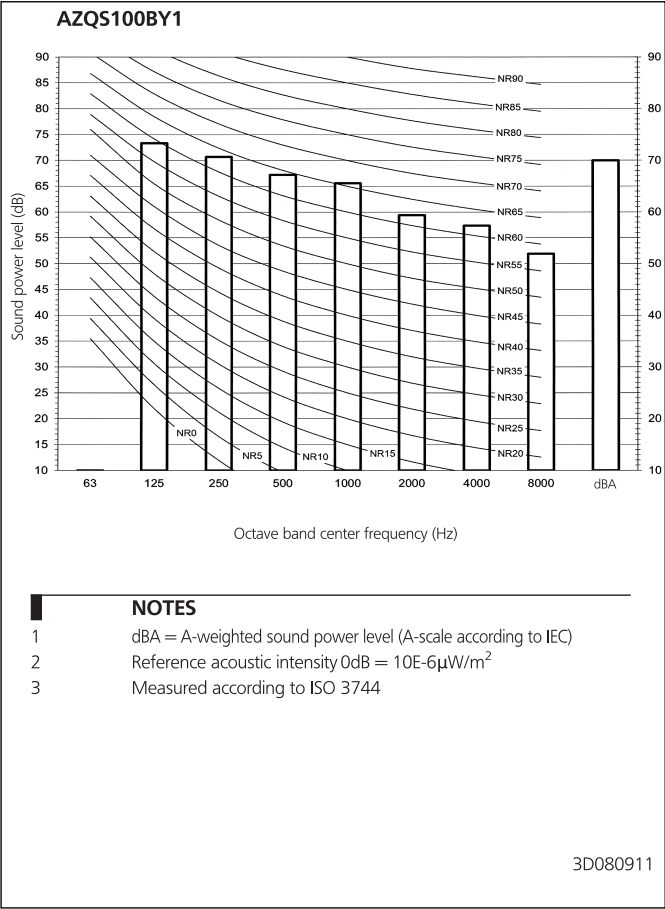
NOTES

- This wiring diagram only applies to the outdoor unit.
- Refer to the combination table and operation manual, for connecting wiring X6A, X28A and X77A.
- Refer to the 'wiring diagram sticker' (on the back of the front plate) on how to use BS1~BS4 and DS1 switch.
- Do not operate the unit by short-circuiting protection device S1PH.
- Confirm the method of settings the selector switches (DS1) by service manual factory setting of all switches "OFF".

2D077192A

11 Sound data

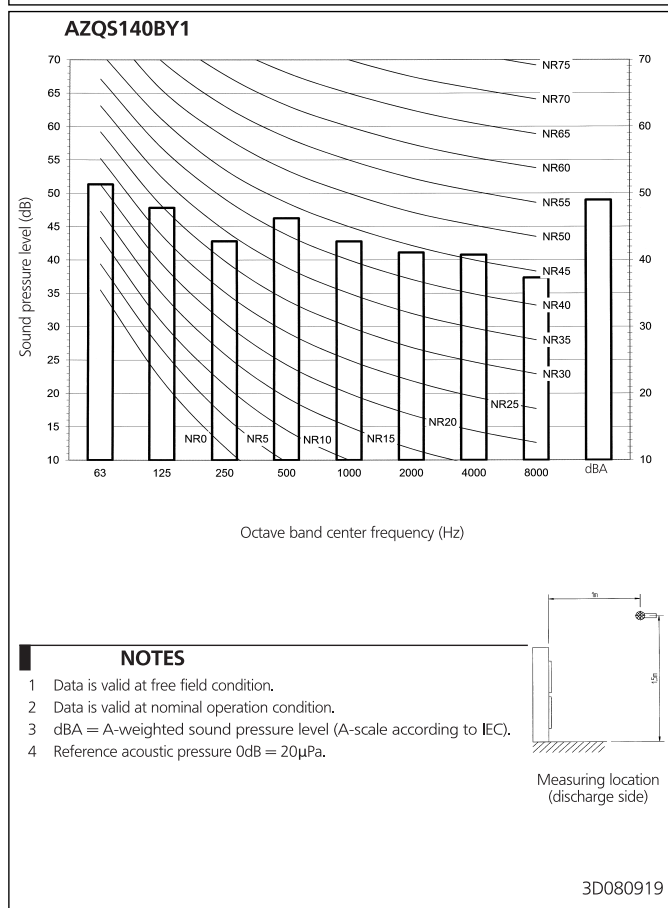
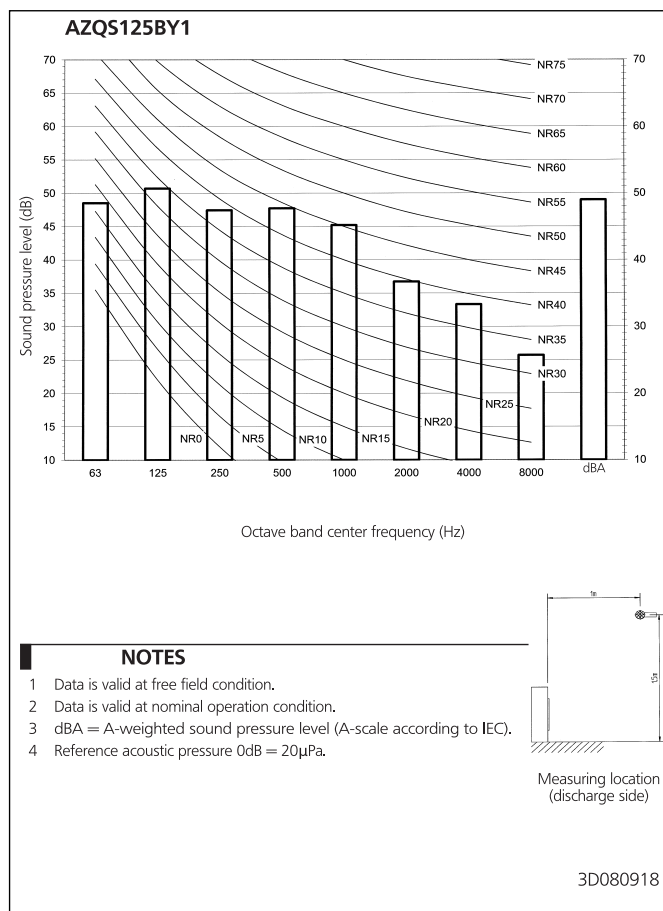
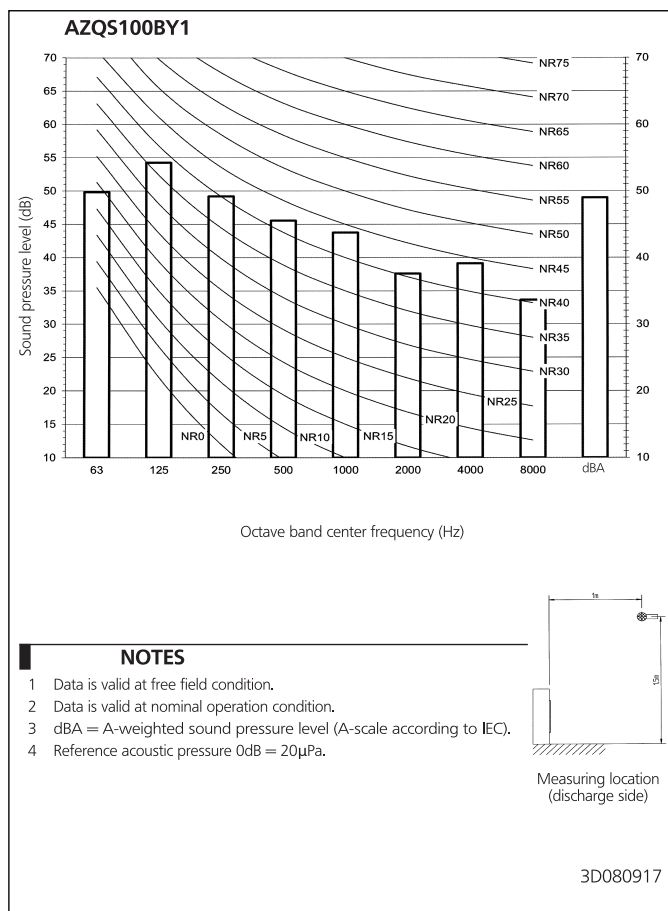
11 - 1 Sound Power Spectrum



11 Sound data

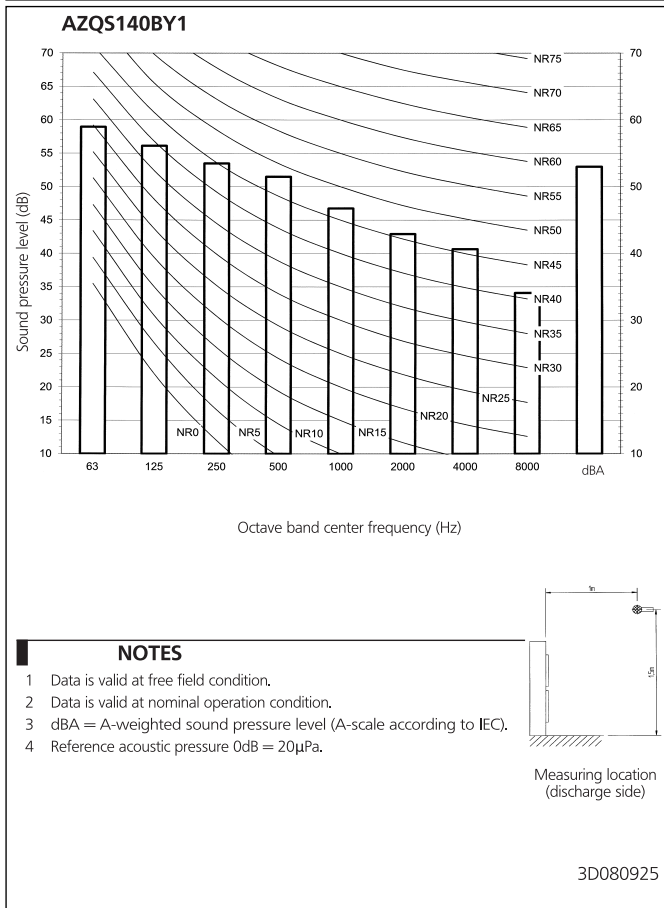
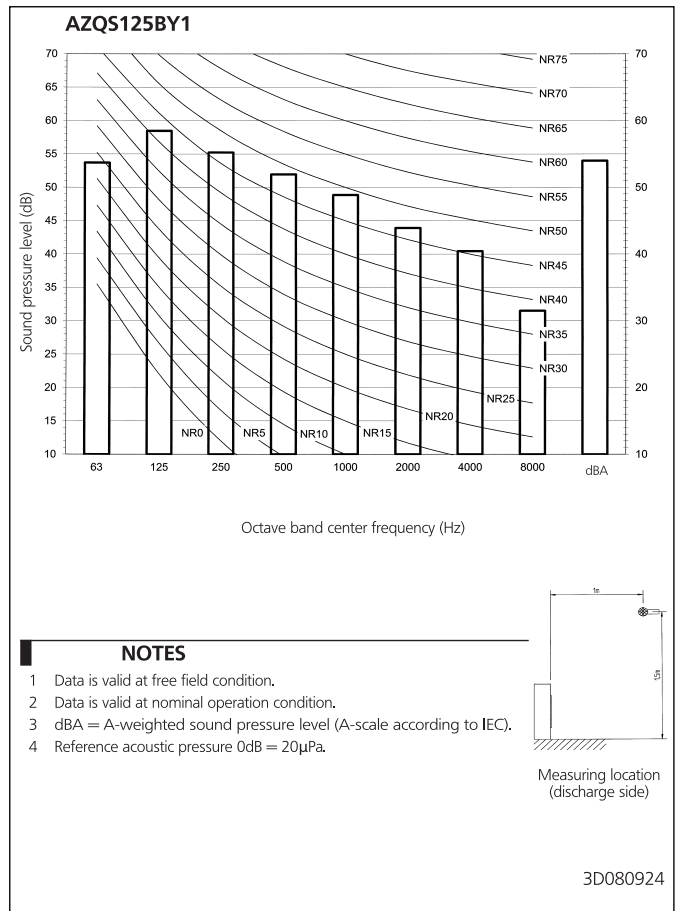
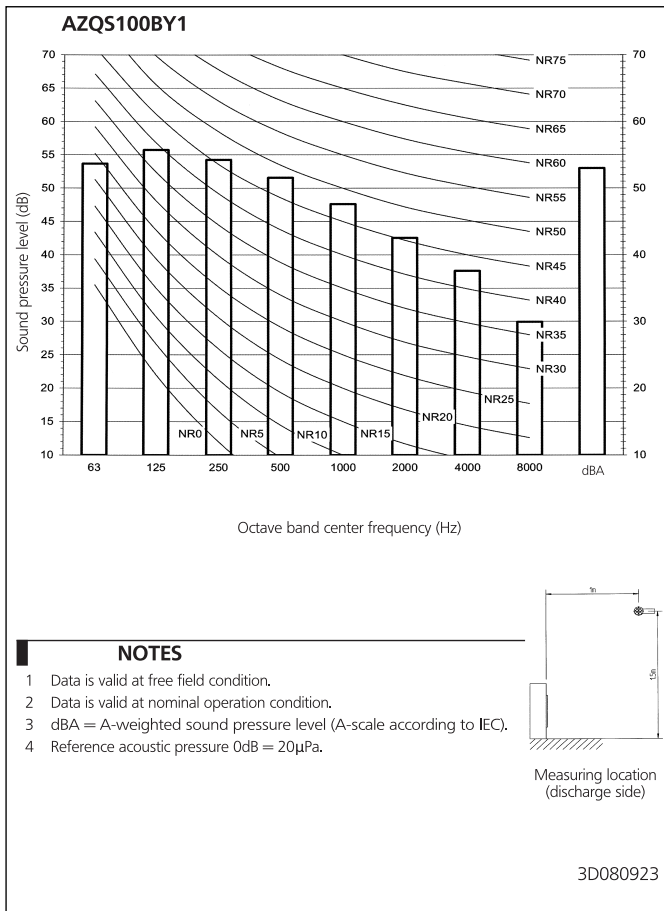
11 - 2 Sound Power Spectrum Quiet Mode

11



11 Sound data

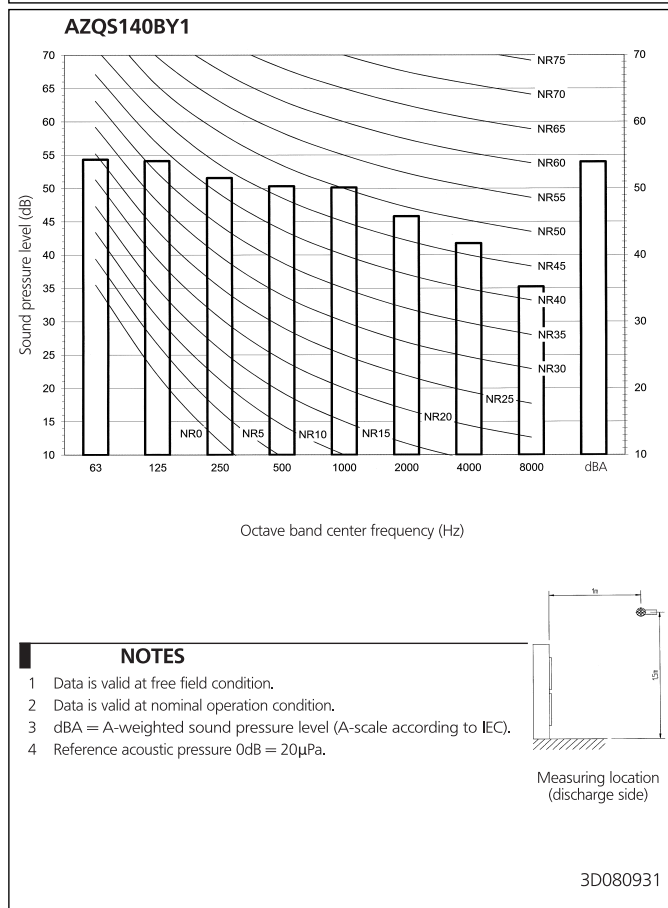
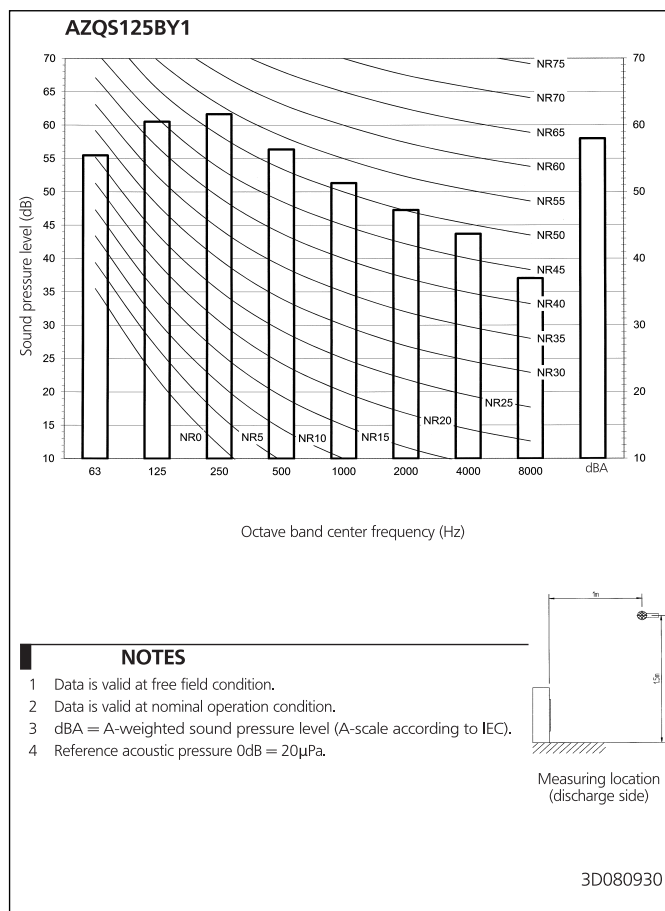
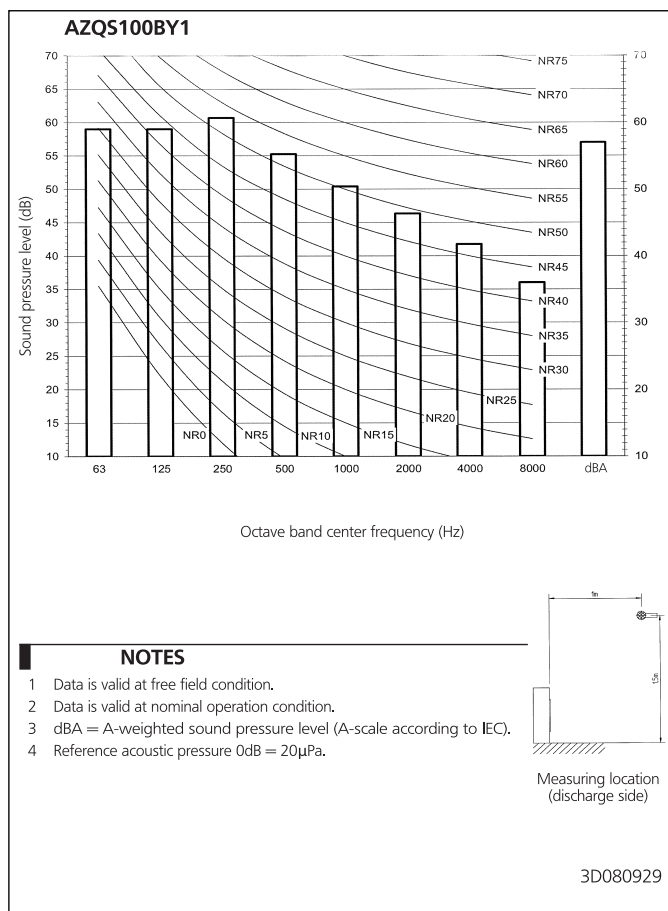
11 - 3 Sound Pressure Spectrum - Cooling



11 Sound data

11 - 4 Sound Pressure Spectrum - Heating

11



12 Installation

12 - 1 Installation Method

AZQS-BV1 AZQS-BY1

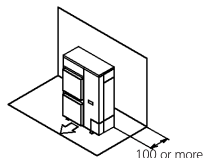
Installation service space

The measure of these values is "mm".

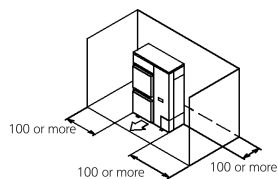
(A) When there are obstacles on suction sides.

• No obstacle above

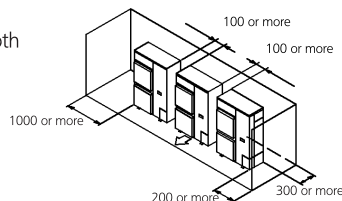
- ① Stand-alone installation
- Obstacle on the suction side only



- Obstacle on both sides and suction side, too

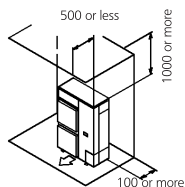


- ② Series installation (2 or more) (Note 1)
- Obstacle on the suction side and both sides

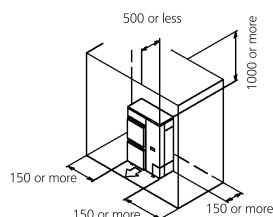


• Obstacle above, too.

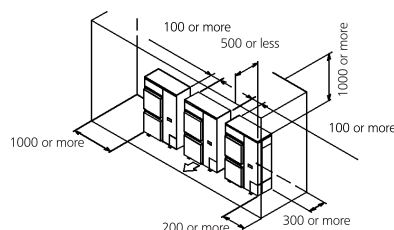
- ① Stand-alone installation
- Obstacle on the suction side, too



- Obstacle on both sides and suction side, too



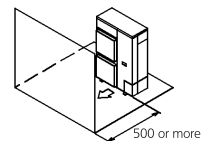
- ② Series installation (2 or more) (Note 1)
- Obstacle on the suction side and both sides



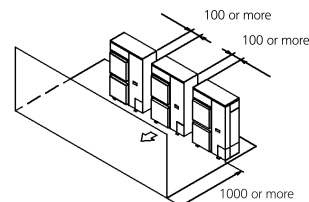
(B) When there are obstacles on discharge sides.

• No obstacle above

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

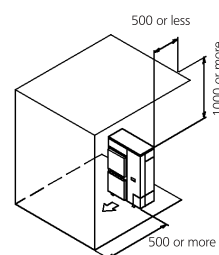


- ② Series installation (2 or more) (Note 1)
- Obstacle on the discharge side only

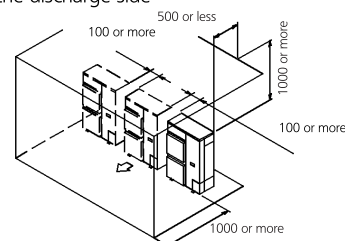


• Obstacle above, too

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



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



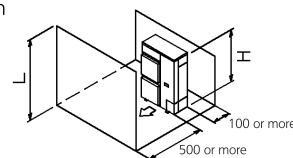
(C) When there are obstacles on both suction and discharge sides.:

Pattern 1

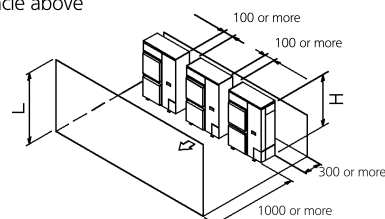
When the obstacles on the discharge side is higher than the unit. ($L > H$)
(There is no limit for the height of obstructions on the suction side.)

• No obstacle above

- ① Stand-alone installation
- No obstacle above



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



3D069554

12 Installation

12 - 1 Installation Method

AZQS-BV1 AZQS-BY1

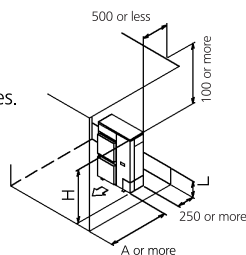
• Obstacle above, too

① Stand-alone installation (Note 2)

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

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

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



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

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

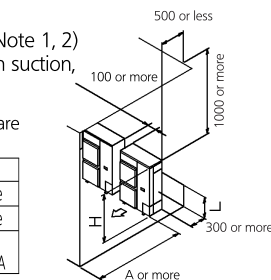
The relations between H, A and L are as follows.

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

Limit of series installation is 2 units.

Pattern 2

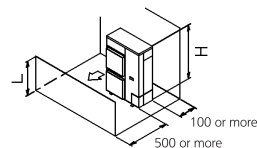
When the obstacle on the discharge side is lower than the unit ($L \leq H$)
(There is no limit for the height of obstructions on the suction side.)



• No obstacle above

① Stand-alone installation

- No obstacle above

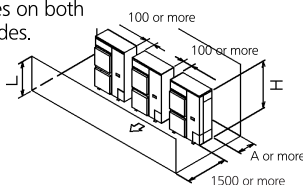


② Series installation (2 or more) (Note 1, 2)

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

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

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



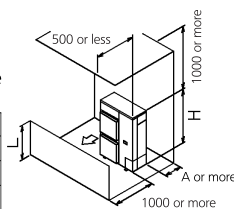
• obstacle above

① Stand-alone installation (Note 2)

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

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

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



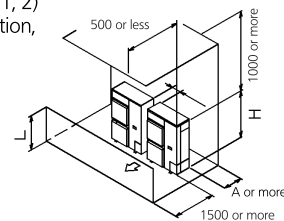
② Series installation (2 or more) (Note 1, 2)

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

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

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

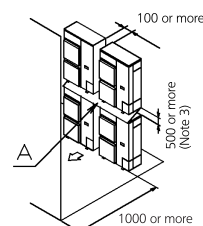
Limit of series installation is 2 units.



(D) Double-decker installation

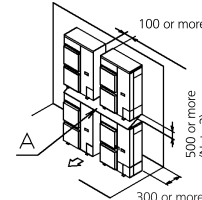
① Obstacle on the discharge side. (1)

- 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.



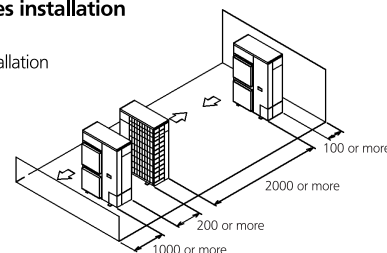
② Obstacle on the suction side. (1)

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



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

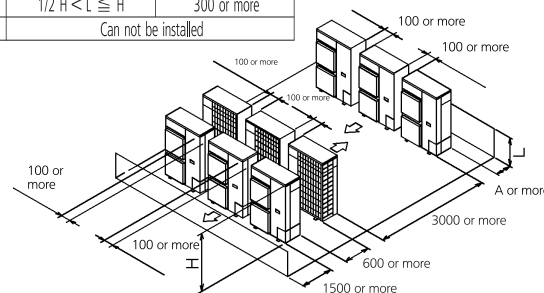
① One row of stand-alone installation



② Rows of series installation (2 or more)

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

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



NOTES

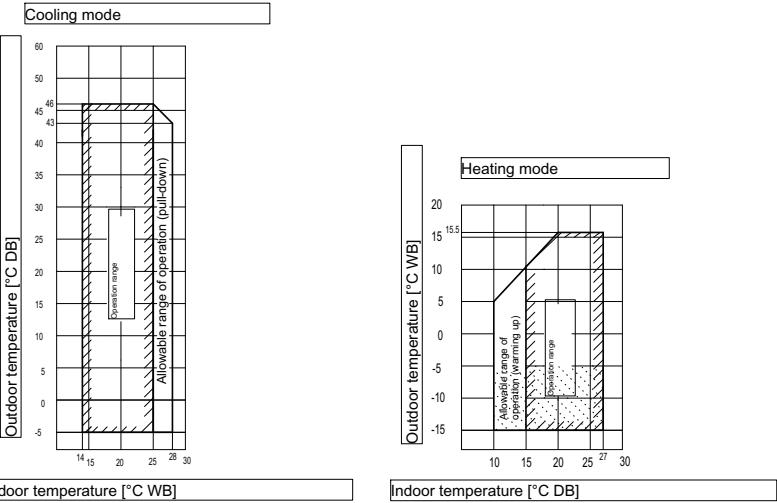
- In case of the sideways piping, make a 100mm gap between the unit above.
- Close the bottom of the installation frame to prevent the discharged air from being bypassed.
- It is not necessary to install a roof cover if there is no danger of drainage dripping and freezing. In this case, the space between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

3D069554

13 Operation range

13 - 1 Operation Range

AZQS-BY1
AZQS-B(8)V1



Notes

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

3D096574A

Daikin Europe N.V. Naamloze Vennootschap - Zandvoordestraat 300, B-8400 Oostende - Belgium - www.daikin.eu - BE 0412 120 336 - RPR Oostende



EEDEN17

01/17



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



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