DAIKIN

Air Conditioning

Technical Data

EEDEN14-131A

AZQS-BV1

TABLE OF CONTENTS

AZQS-BV1

1 Features

- 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.
- Seasonal efficiency gives 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				ACQ71C/AZQS71BV1	ACQ100C/AZQS100BV1	ACQ125C/AZQS125BV1
Cooling capacity	Nom.		kW	6.8	9.5	12.1
Heating capacity	Nom.		kW	7.50	10.80	13.5
Power input	Cooling	Nom.	kW	2.05	2.96	4.02
	Heating	Nom.	kW	2.08	2.99	3.96
Seasonal efficiency (according to EN14825)	Cooling	Energy label		B		-
		Pdesign	kW	6.80	9.50	-
		SEER		4.65		-
		Annual energy consumption	kWh	512	716	-
	Heating (Average climate)	Energy label		A		-
		Pdesign	kW	6.33	7.60	-
		SCOP		3.80		-
		Annual energy consumption	kWh	2,332	2,800	-
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER			3.31	3.21	3.01
	COP			3.61		3.41
	Annual energy consumption		kWh	1,025	1,480	2,010
	Energy label	Cooling		B	A	B
		Heating		A		B

Notes

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

2-2 Capacity and Power input				ABQ71C/AZQS71BV1	ABQ100C/AZQS100BV1	ABQ125C/AZQS125BV1	ABQ140C/AZQS140BV1
Cooling capacity	Nom.		kW	6.8	9.5	12.1	13.0
Heating capacity	Nom.		kW	7.5	10.8	13.5	15.5
Power input	Cooling	Nom.	kW	2.33	3.63	4.31	4.32
	Heating	Nom.	kW	2.13	3.16	3.96	4.55
Seasonal efficiency (according to EN14825)	Cooling	Energy label		B		-	
		Pdesign	kW	6.80	9.50	-	
		SEER		4.65		-	
		Annual energy consumption	kWh	512	716	-	
	Heating (Average climate)	Energy label		A		-	
		Pdesign	kW	5.65	6.78	-	
		SCOP		3.80		-	
		Annual energy consumption	kWh	2,082	2,498	-	
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER			2.91	2.62	2.81	3.01
	COP			3.51	3.42	3.41	
	Annual energy consumption		kWh	1,165	1,813	2,153	2,159
	Energy label	Cooling		C	D	C	B
		Heating		B			

Notes

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

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

(3) SEER and SCOP are according to EN 14825

2-3 Capacity and Power input				AHQ71C/AZQS71BV1	AHQ100C/AZQS100BV1	AHQ125C/AZQS125BV1	AHQ140C/AZQS140BV1
Cooling capacity	Nom.		kW	6.8	9.5	12.1	13.0
Heating capacity	Nom.		kW	7.5	10.8	13.5	15.5
Power input	Cooling	Nom.	kW	2.24	3.62	4.60	4.32
	Heating	Nom.	kW	2.46	3.17	3.74	4.55

2 Specifications

2-3 Capacity and Power input				AHQ71C/AZQS71BV1	AHQ100C/AZQS100BV1	AHQ125C/AZQS125BV1	AHQ140C/AZQS140BV1
Seasonal efficiency (according to EN14825)	Cooling	Energy label		B		-	
		Pdesign	kW	6.80	9.50	-	
		SEER		4.65	4.60	-	
		Annual energy consumption	kWh	512	723	-	
	Heating (Average climate)	Energy label		A		-	
		Pdesign	kW	6.33	7.60	-	
		SCOP		3.80		-	
		Annual energy consumption	kWh	2,332	2,800	-	
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER			3.03	2.62	2.63	3.01
	COP			3.05	3.41	3.61	3.41
	Annual energy consumption		kWh	1,120	1,810	2,300	2,159
	Energy label	Cooling		B	D		-
		Heating		D	B	A	-

Notes

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

2-4 Technical Specifications					AZQS71BV1	AZQS100BV1	AZQS125BV1	AZQS140BV1
Capacity control	Method				Inverter controlled			
Casing	Colour				-	Ivory white		
	Material				-	Painted galvanized steel plate		
Dimensions	Unit	Height		mm	770	990		1,430
		Width		mm	900	940		
		Depth		mm	320			
	Packed unit	Height		mm	900	1,170		1,610
		Width		mm	980	1,015		
		Depth		mm	420	422		
Weight	Unit			kg	67	81		102
	Packed unit			kg	71	88		108
Heat exchanger	Length			mm	857	-		
	Rows	Quantity			2	-		
	Fin pitch			mm	1.4	-		
	Passes	Quantity			8	-		
	Face area			m²	0.641	-		
	Stages	Quantity			34	-		
	Empty tubeplate hole	Quantity			0	-		
	Tube type				Hi-XSS	-		
	Fin	Type			WF fin			
		Treatment			Anti-corrosion treatment (PE)			
Compressor	Quantity				1			
	Model				2YC63DXD	-		
	Type				Hermetically sealed swing compressor			
	Output			W	1,700.0	-		
	Starting method				Inverter driven	-		
Fan	Type				Propeller fan			
	Discharge direction				Horizontal			
	Quantity				1			2
	Air flow rate	Cooling	Nom.	m³/min	52.0	76	77	83
			Super low	m³/min	-			
				cfm	-			
		Heating	Nom.	m³/min	48.0	83		62
			Super low	m³/min	-			
				cfm	-			

2 Specifications

2-4 Technical Specifications					AZQS71BV1	AZQS100BV1	AZQS125BV1	AZQS140BV1
Fan motor	Quantity				1			2
	Model				KFD-325-70-8A	Brushless DC motor		
	Output			W	70	200		94
	Drive				Direct drive			
	Speed	Steps			8	-		
		Cooling	Nom.	rpm	800	-		
			Super low	rpm	-			
		Heating	Nom.	rpm	745	-		
			Super low	rpm	-			
Sound power level	Cooling			dBA	65	70	71	70
	Heating			dBA	-			
Sound pressure level	Cooling	Nom.		dBA	48	53	54	53
		Silent operation		dBA	43	-		
	Heating	Nom.		dBA	50	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	2.75	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	30	50		
		System	Equivalent	m	40	70		
			Chargeless	m	30			
	Additional refrigerant charge			kg/m	See installation manual			
	Level difference	IU - OU	Max.	m	15.0	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			
		03			Fuse			

2 Specifications

2-5 Electrical Specifications				AZQS71BV1	AZQS100BV1	AZQS125BV1	AZQS140BV1
Power supply	Name			V1			
	Phase			1~			
	Frequency		Hz	50			
	Voltage		V	220-240			
	Voltage range	Min.	%	-10			
		Max.	%	10			
Current	Nominal running current (RLA)	Cooling	A	16.20	-		
	Zmax	List		Complies to EN6100-3-3	Complies to EN61000-3-12		
	Recommended fuses		A	20	32		
Current - 50Hz	Maximum fuse amps (MFA)		A	20	-		
Current - 60Hz	Maximum fuse amps (MFA)		A	-			
Wiring connections	For power supply	Remark		-	See installation manual outdoor unit		
	For connection with indoor	Remark		-	See installation manual outdoor unit		
Power supply intake				Outdoor unit only			

Notes

(1) 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.

(2) Short-circuit power

(3) RLA is based on following conditions: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB

(4) MFA is used to select the circuit breaker and the ground fault circuit interrupter (earth leakage circuit breaker).

(5) See separate drawings for electrical data

(6) 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

(7) PED unit category: excluded from scope of PED due to article 1, item 3.6 of 97/23/EC

3 Electrical data

3 - 1 Electrical Data

AZQS-BV1
AZQS-BY1

							Comp		OFM		IFM	
Indoor	Outdoor	Hz ~ Power supply	Voltage range	MCA	TOCA	MFA	MSC	RLA	KW	FLA	kW	FLA
ACQ71CV1	AZQS71B2V1B	50Hz ~220-240V	Min. 198V Max. 264V	18.8	—	20	—	16.2	0.07	0.3	0.067	0.52
ABQ71CV1	AZQS71B2V1B			19.5	—	20	—	16.2	0.07	0.3	0.128	1.05
AHQ71CV1	AZQS71B2V1B			19.2	—	20	-	16.2	0.07	0.3	0.106	0.8
ACQ100CV1	AZQS100B7V1B			28.5	—	32	—	24.4	0.2	0.6	0.094	0.77
ABQ100CV1	AZQS100B7V1B			28.6	—	32	—	24.4	0.2	0.6	0.109	0.9
AHQ100CV1	AZQS100B7V1B			28.9	—	32	—	24.4	0.2	0.6	0.149	1.12
ACQ125CV1	AZQS125B7V1B			28.9	—	32	—	24.4	0.2	0.6	0.137	1.12
ABQ125CV1	AZQS125B7V1B			31.5	—	32	—	24.4	0.2	0.6	0.413	3.16
AHQ125CV1	AZQS125B7V1B			28.9	—	32	—	24.4	0.2	0.6	0.240	1.1
ABQ140CV1	AZQS140B7V1B			32.8	—	40	—	24.2	0.094+0.094	0.4+0.4	0.546	4.23
AHQ140CV1	AZQS140B7V1B			30.7	—	32	—	24.2	0.094+0.094	0.4+0.4	0.316	2.52
ACQ100CV1	AZQS100B7Y1B	3N~50Hz 380-415V	Min. 342V Max. 456V	14.2	—	20	—	11.4	0.2	0.6	0.094	0.77
ABQ100CV1	AZQS100B7Y1B			14.3	—	20	—	11.4	0.2	0.6	0.109	0.9
AHQ100CV1	AZQS100B7Y1B			14.6	—	20	—	11.4	0.2	0.6	0.149	1.12
ACQ125CV1	AZQS125B7Y1B			14.6	—	20	—	11.4	0.2	0.6	0.137	1.12
ABQ125CV1	AZQS125B7Y1B			17.2	—	20	—	11.4	0.2	0.6	0.413	3.16
AHQ125CV1	AZQS125B7Y1B			14.6	—	20	—	11.4	0.2	0.6	0.240	1.1
ABQ140CV1	AZQS140B7Y1B			21.8	—	25	—	14.2	0.094+0.094	0.4+0.4	0.546	4.23
AHQ140CV1	AZQS140B7Y1B			19.7	—	20	—	14.2	0.094+0.094	0.4+0.4	0.316	2.52

Symbols
MCA: Minimum Circuit Ampere (A)
TOCA: Total overcurrent amps [A]
MFA: Maximum Fuse Ampere (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
1.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
2.·TOCA· is the total value of each overcurrent set.
3.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.
4.The maximum allowable voltage that is unbalanced between phases is ·2·%.
5.·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.
6.Select the wire size according to the MCA.
7.·MFA· is used to select the circuit breaker and the ground fault circuit interruptor.
Earth leakage circuit breaker

3D080873D

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

AZQS-BV1
AZQS-BY1

SKY-AIR		Cassette			Duct				Ceiling suspended			
MODEL NAME		ACQ71CV1	ACQ100CV1	ACQ125CV1	ABQ71CV1	ABQ100CV1	ABQ125CV1	ABQ140CV1	AHQ71CV1	AHQ100CV1	AHQ125CV1	AHQ140CV1
AZQS71B2V1B		P			P				P			
AZQS100B7V1B	AZQS100B7Y1B		P			P				P		
AZQS125B7V1B	AZQS125B7Y1B			P			P				P	
AZQS140B7V1B	AZQS140B7Y1B							P				P

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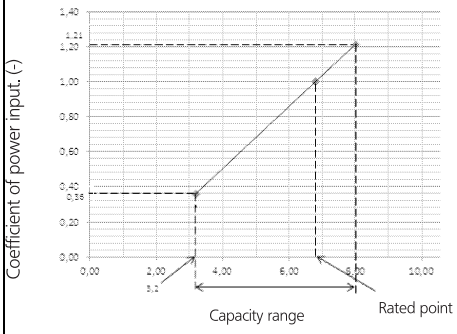
6 Capacity tables

6 - 1 Cooling Capacity Tables

AZQS71BV1

Cooling



Cooling

Indoor		Outdoor temp. (°CDB)											
°CWB	°CDB	25			30			35			40		
(°C)	(°C)	TC (kW)	SHC (kW)	CPI (-)	TC (kW)	SHC (kW)	CPI (-)	TC (kW)	SHC (kW)	CPI (-)	TC (kW)	SHC (kW)	CPI (-)
16,0	22	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

3D081310C

NOTES

1. Ratings shown are net capacities which include a deduction for indoor fan motor heat.
2. On the figure the mark ◯ show the max. at standard conditions.
   On the figure the mark ▭ show rated capacity and rated coefficient of power input.
   However the max. capacity is not guaranteed, except at standard condition.
3. SHC is based on indoor EWB and EDB.
   SHC for other dry bulb temp. = SHC + SHC*.
   SHC* = SHC correction for other dry bulb.
   SHC* = 0.02 x AFR (m^3/min.) x (1–BF) x (DB*–EDB)
4. Coefficient of power input is the percentage when the rated value is defined as 1.00.
5. The value contains less than 5% error acording to indoor unit type.
6. Heating performance include the drop of frost formation.
7. Air flow rate and (BF) are tabulated below.

(Pair)

	ACQ71C	ABQ71C	AHQ71C
AFR (BF)	24,4 (0.157)	18,3 (0.233)	23,8 (0.212)

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

(Pair)

	ACQ71C	ABQ71C	AHQ71C
Cooling	2,05	2,33	2,22

SYMBOLS

AFR:	Air flow rate	(m^3/min)
BF:	Bypass factor	
EWB:	Entering wet bulb temp.	(°CWB)
EDB:	Entering dry bulb temp.	(°CDB)
TC:	Maximum Total cooling (heating) capacity	(kW)
SHC:	Sensible heating capacity	(kW)
PI:	Power input (comp.+indoor and outdoor fan motor)	(kW)
CPI:	Coefficient of power input.	(-)

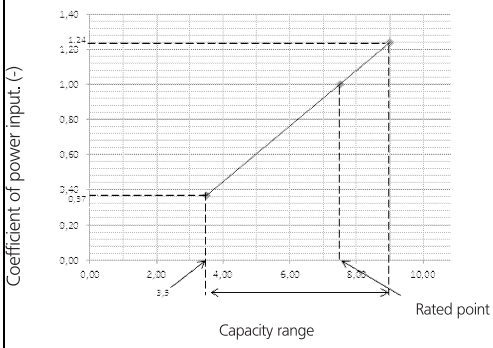
Caution:
TC and SHC are shown by kW.

6 Capacity tables

6 - 2 Heating Capacity Tables

AZQS71BV1

Heating



Heating

Indoor °CDB	-15.0		-10.0		-5.0		0.0		6.0		10.0	
(°C)	TC (kW)	CPI (-)	TC (kW)	CPI (-)	TC (kW)	CPI (-)	TC (kW)	CPI (-)	TC (kW)	CPI (-)	TC (-)	CPI (-)
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

3D081310C

NOTES

1. Ratings shown are net capacities which include a deduction for indoor fan motor heat.
2. On the figure the mark ◯ show the max. at standard conditions.
   On the figure the mark ▭ show rated capacity and rated coefficient of power input.
   However the max. capacity is not guaranteed, except at standard condition.
3. SHC is based on indoor EWB and EDB.
   SHC for other dry bulb temp. = SHC + SHC*.
   SHC* = 0.02 x AFR (m^3/min.) x (1–BF) x (DB*–EDB)
4. Capacities are based on 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 capacity include the drop of frost formation.
8. Air flow rate and (BF) are tabulated below.

   (Pair)

	ACQ71C	ABQ71C	AHQ71C
AFR (BF)	24.4 (0.157)	18.3 (0.233)	23.8 (0.212)

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

   (Pair)

	ACQ71C	ABQ71C	AHQ71C
Heating	2.08	2.13	2.46

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 heating capacity	(kW)
PI:	Power input (comp.+indoor and outdoor fan motor)	(kW)
CPI:	Coefficient of power input.	(-)

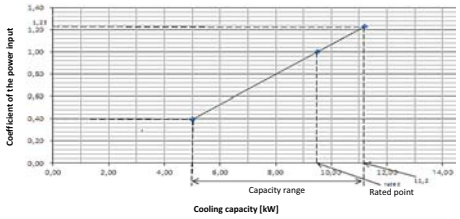
Caution:
TC and SHC are shown by kW.

6 Capacity tables

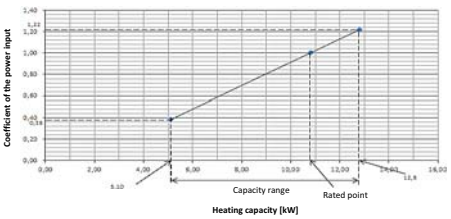
6 - 3 Cooling/Heating Capacity Tables

AZQS100BV1
AZQS100BY1

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	7,58	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	12,8	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	0.93	9.45	0.99	10.1	1.02	10.4	1.05	12.8	1.12	13.8	1.18
18	8.57	0.97	9.44	1.02	10.0	1.07	10.3	1.10	12.8	1.17	13.8	1.23
20	8.56	1.01	9.43	1.07	10.0	1.11	10.3	1.14	**12.8**	**1.22**	13.8	1.28
21	8.56	1.03	9.42	1.09	10.0	1.13	10.3	1.16	12.8	1.24	13.8	1.30
22	8.55	1.04	9.42	1.10	10.0	1.14	10.3	1.18	12.8	1.26	13.8	1.33
24	8.54	1.09	9.41	1.15	10.0	1.19	10.3	1.23	12.8	1.31	13.8	1.38

Notes
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

	ACQ100CV1	AHQ100CV1	ABQ100CV1
AFR (BF)	29.2 (0.253)	31.1 (0.174)	22.7 (0.175)

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

	ACQ100CV1	AHQ100CV1	ABQ100CV1
Cooling	2,96	3,62	3,63
Heating	2,99	3,17	3,16

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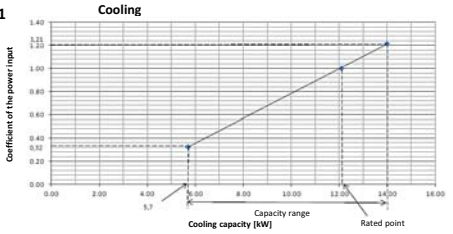
6 Capacity tables

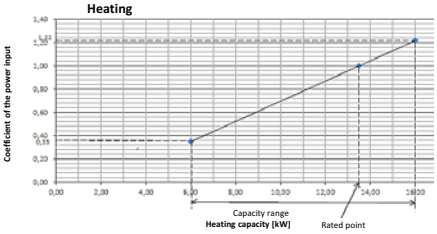
6 - 3 Cooling/Heating Capacity Tables

AZQS125BV1
AZQS125BV1

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	8,76	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

	ACQ125CV1	ABQ125CV1	AHQ125CV1
AFR (BF)	34.0 (0.10)	40.5 (0.157)	34.4 (0.123)

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

	ACQ125CV1	ABQ125CV1	AHQ125CV1
Cooling	4,02	4,30	4,60
Heating	3,96	3,96	3,74

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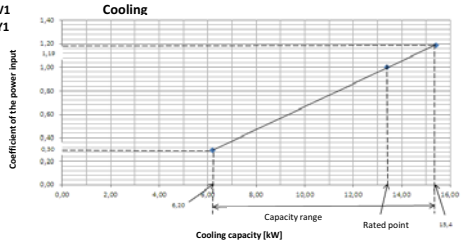
6 Capacity tables

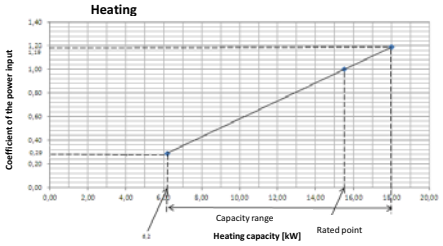
6 - 3 Cooling/Heating Capacity Tables

AZQS140BV1
AZQS140BY1

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	1,09	15,1	10,01	1,19	14,5	9,71	1,30
19,0	27	16,6	10,43	0,99	16,0	10,18	1,09	**15,4**	**9,98**	**1,19**	14,8	9,76	1,30
19,5	27	16,7	10,49	0,99	16,1	10,16	1,10	15,6	10,00	1,19	15,0	9,66	1,30
22,0	30	17,6	10,37	0,99	17,0	10,16	1,10	16,4	9,83	1,21	15,8	9,60	1,31
24,0	32	18,4	10,20	1,00	17,7	10,00	1,11	17,0	9,67	1,22	16,4	9,47	1,32

Heating

Indoo r	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.
   Pair

	ABQ140CV1	AHQ140CV1
AFR (BF)	48.7 (0.15)	43.9 (0.157)

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

	ABQ140CV1	AHQ140CV1
Cooling	4,32	4,32
Heating	4,55	4,55

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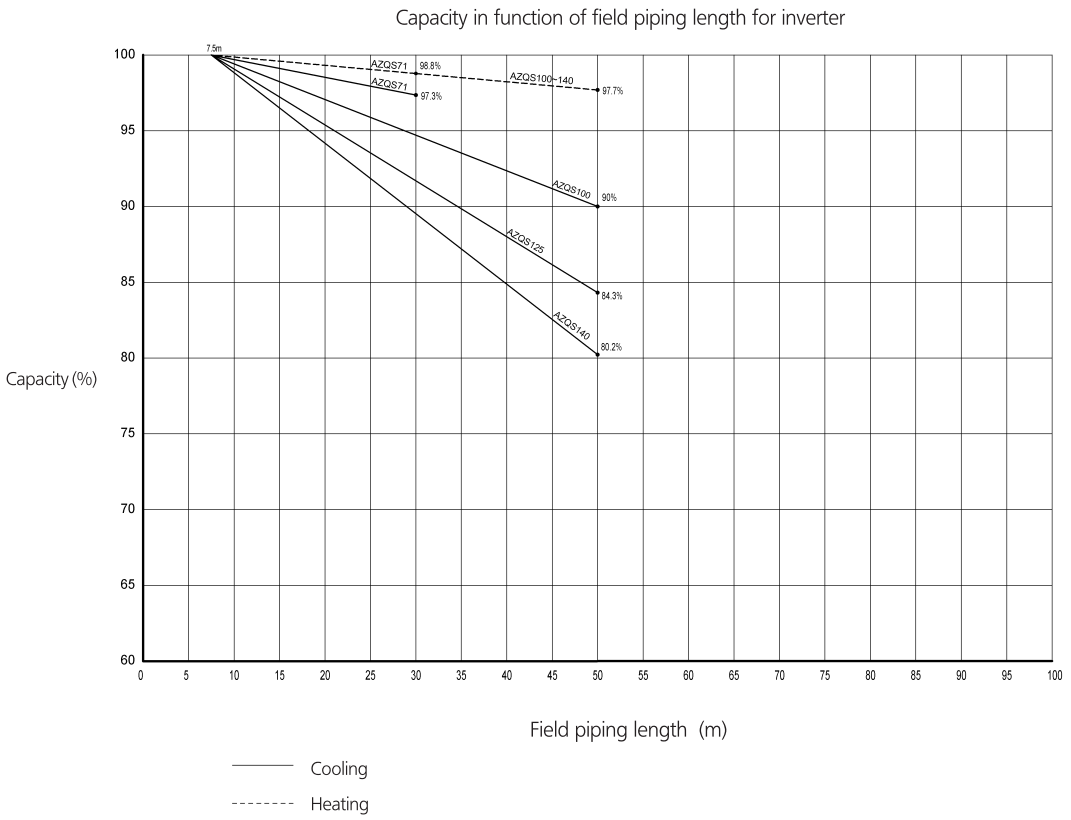
6 Capacity tables

6 - 4 Capacity Correction Factor

AZQS100-140BV1



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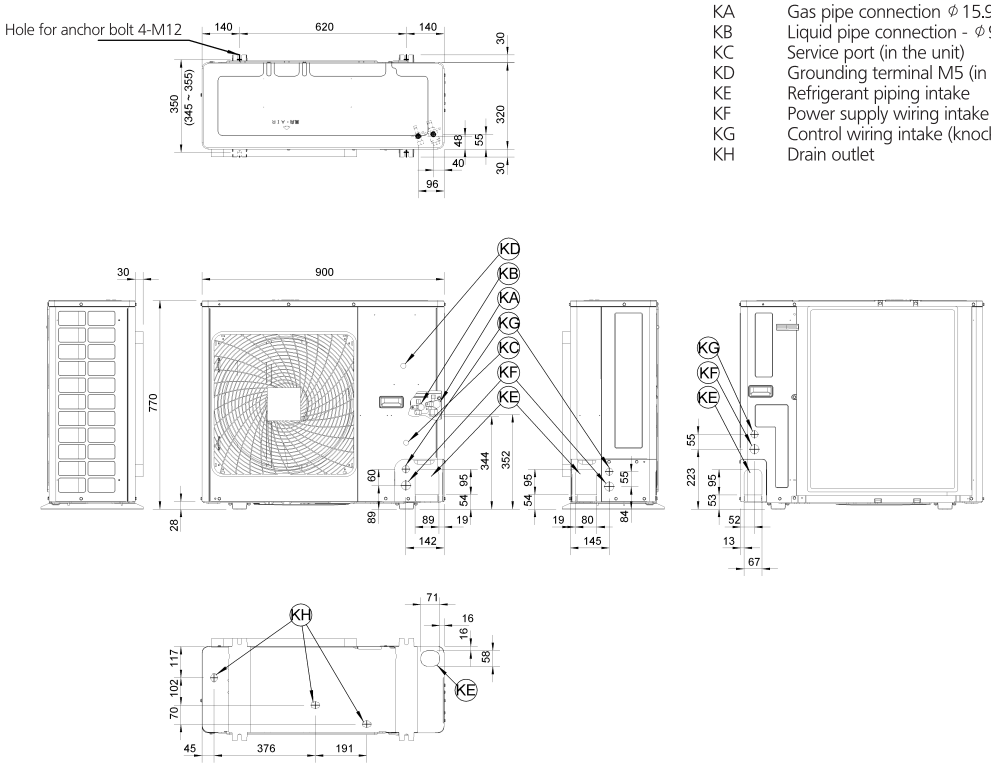
7 Dimensional drawings

7 - 1 Dimensional Drawings

AZQS71BV1

unit (mm)



KA	Gas pipe connection ϕ15.9 flare
KB	Liquid pipe connection - ϕ9.5 flare
KC	Service port (in the unit)
KD	Grounding terminal M5 (in switch box)
KE	Refrigerant piping intake
KF	Power supply wiring intake (knock hole ϕ34)
KG	Control wiring intake (knock hole ϕ27)
KH	Drain outlet

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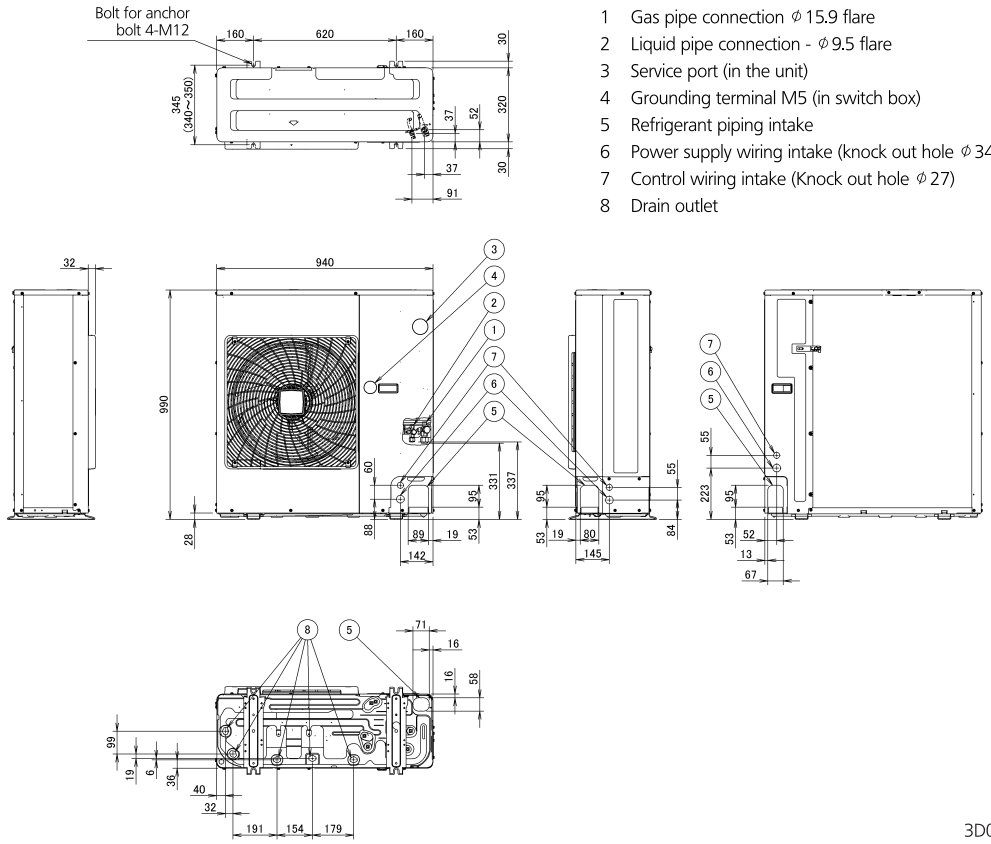
AZQS100-125BV1



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

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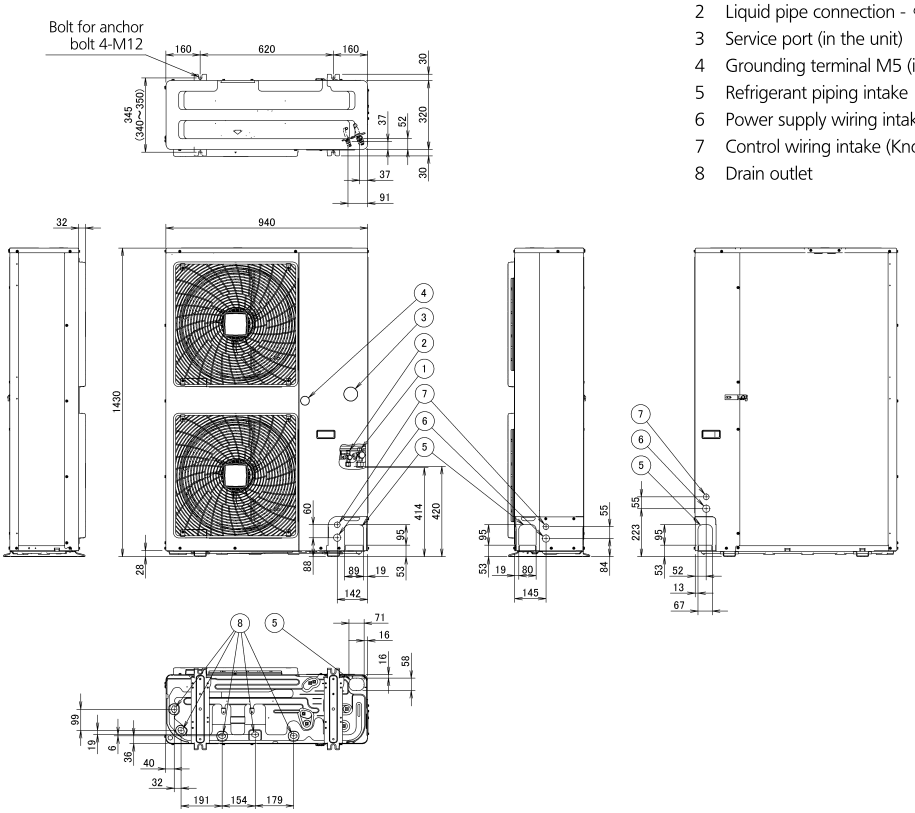
7 Dimensional drawings

7 - 1 Dimensional Drawings

AZQS140BV1



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

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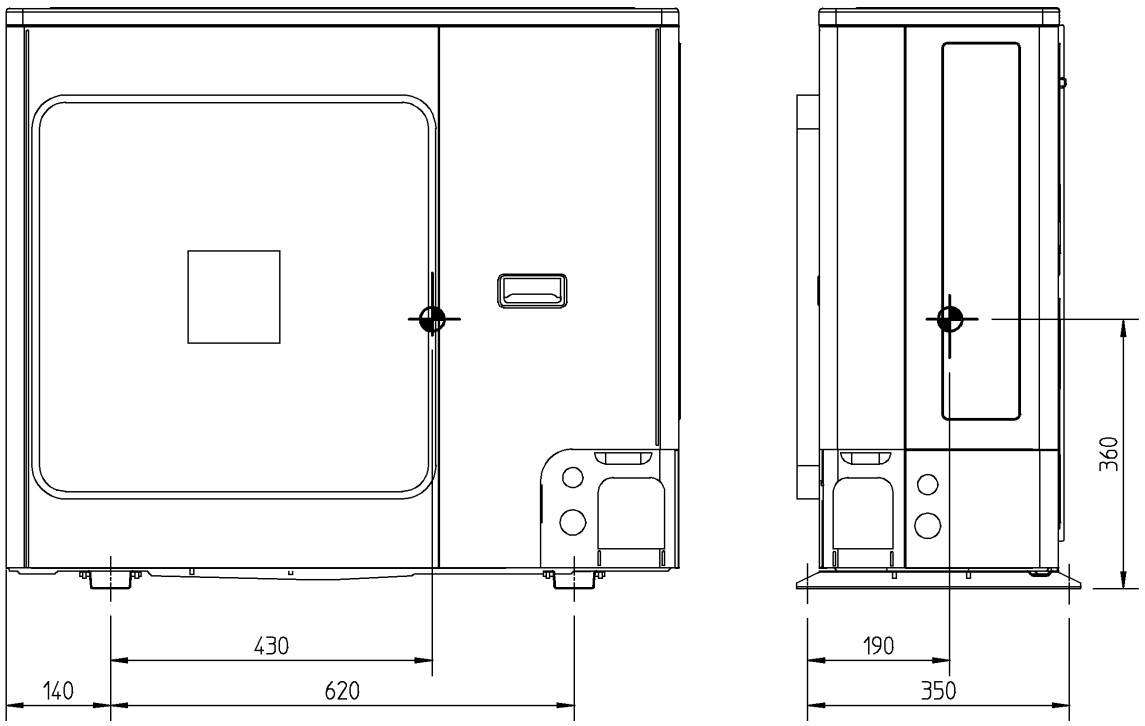
8 Centre of gravity

8 - 1 Centre of Gravity

AZQS71BV1



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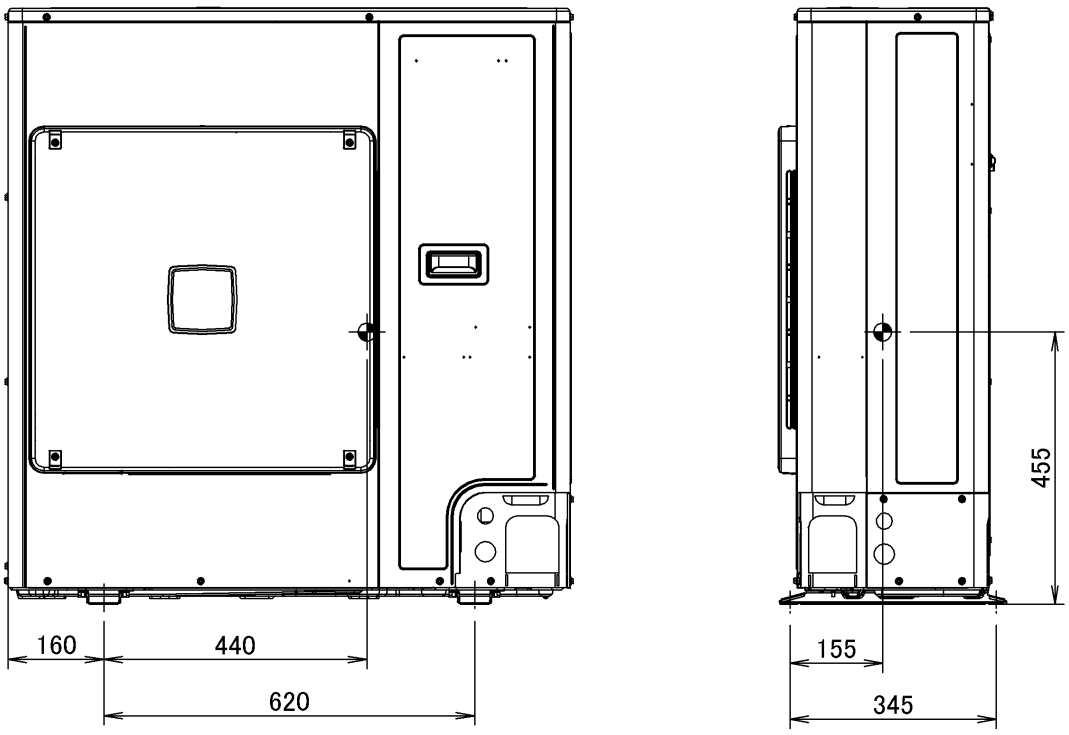
AZQS100-125BV1



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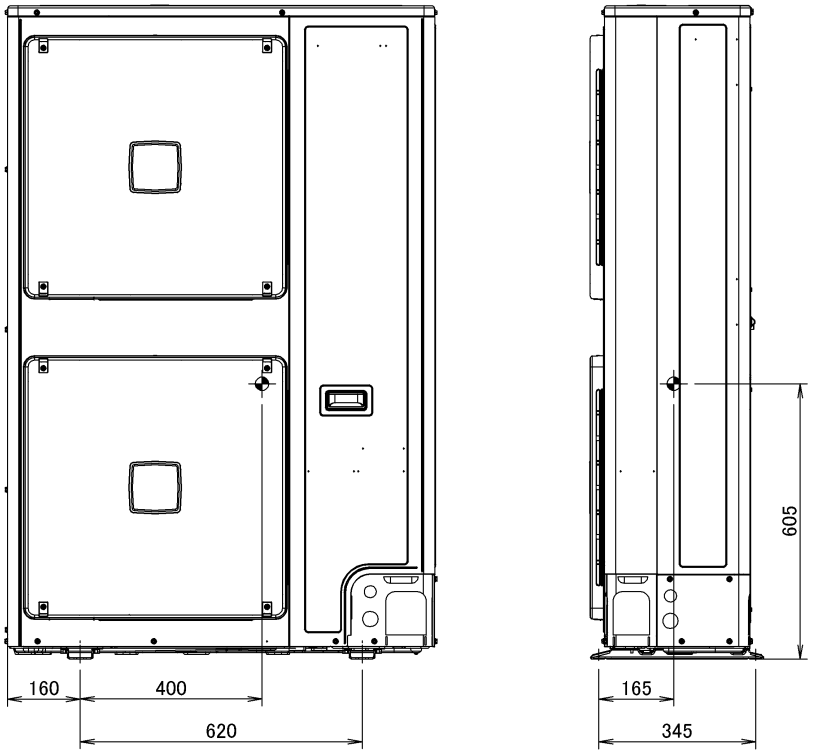
8 Centre of gravity

8 - 1 Centre of Gravity

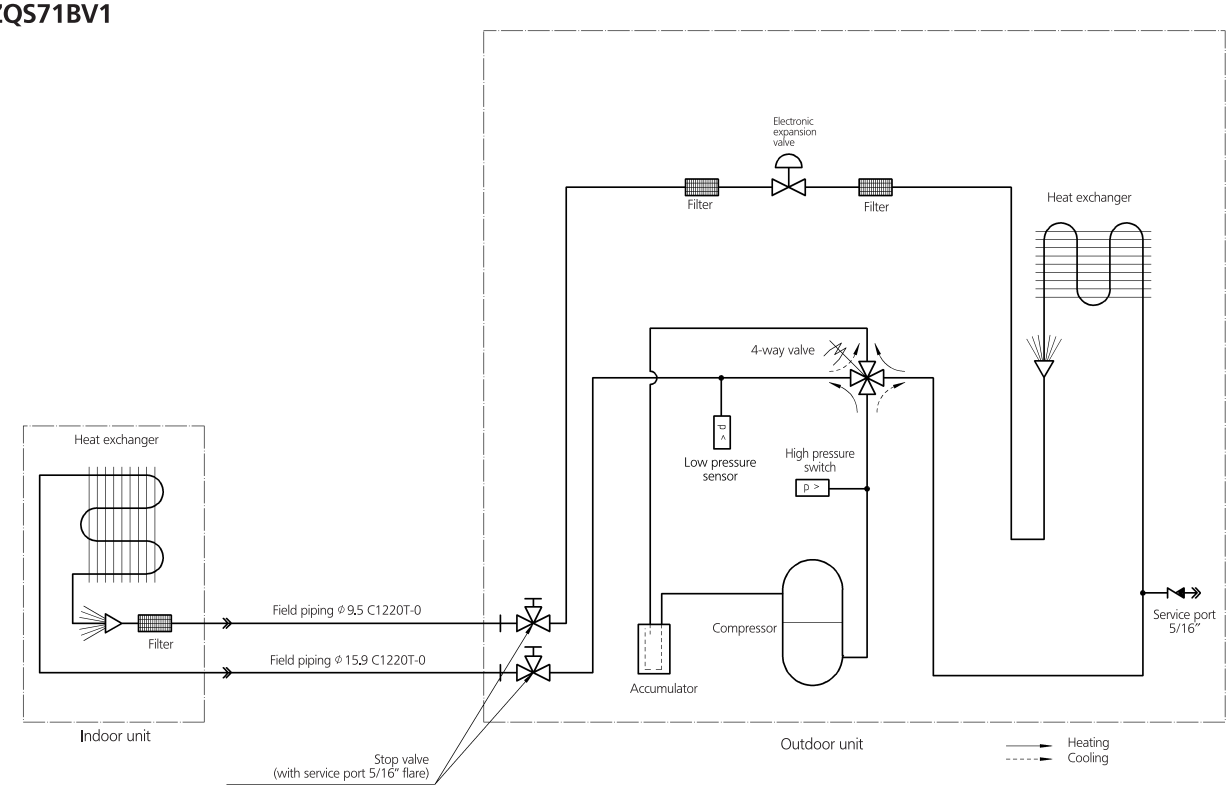
AZQS140BV1



9 Piping diagrams

9 - 1 Piping Diagrams

AZQS71BV1



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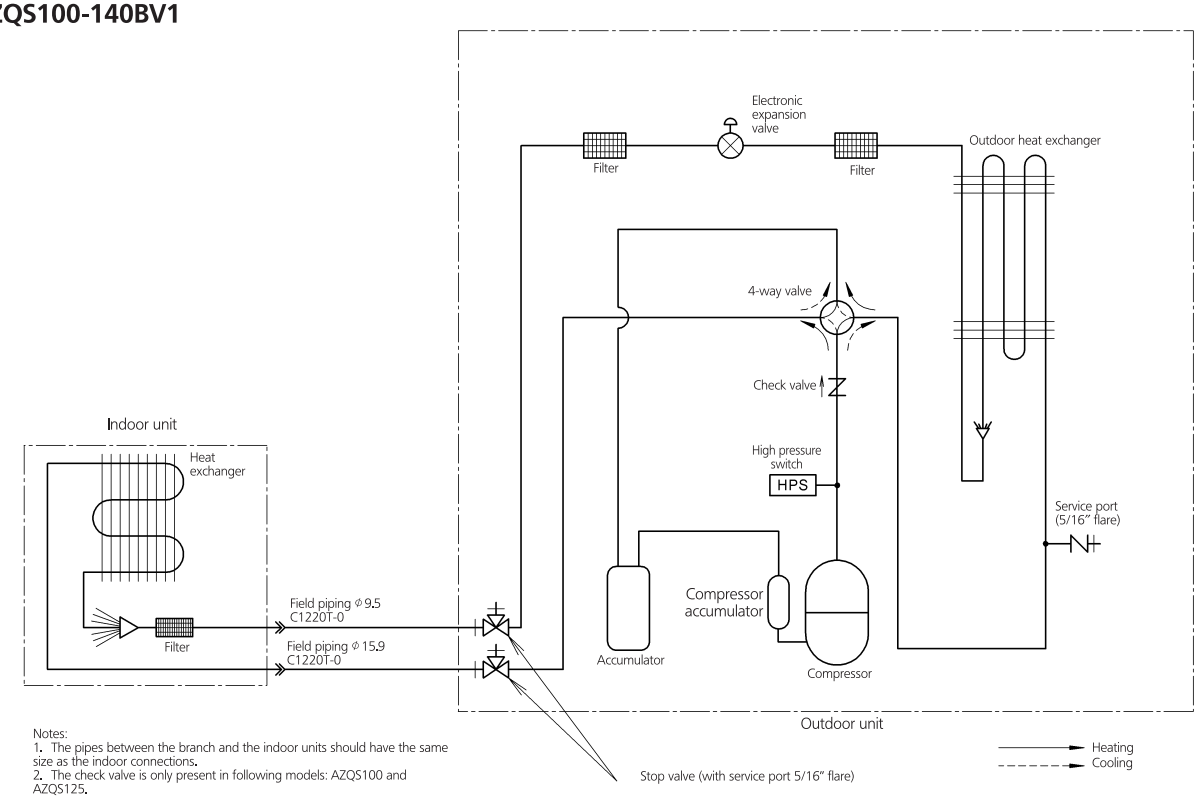
AZQS100-140BV1



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: AZQS100 and AZQS125.

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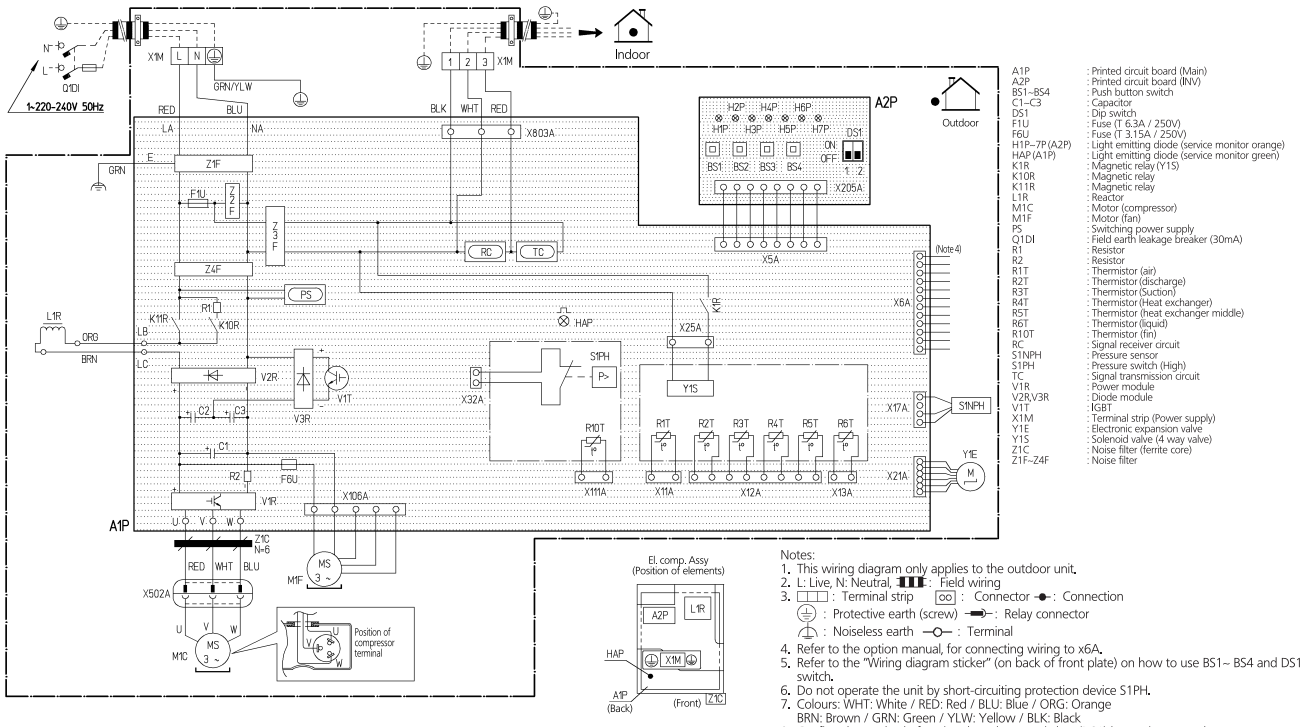
10 Wiring diagrams

10 - 1 Wiring Diagrams - Single Phase

AZQS71BV1



A1P : Printed circuit board (Main)
A2P : Printed circuit board (INV)
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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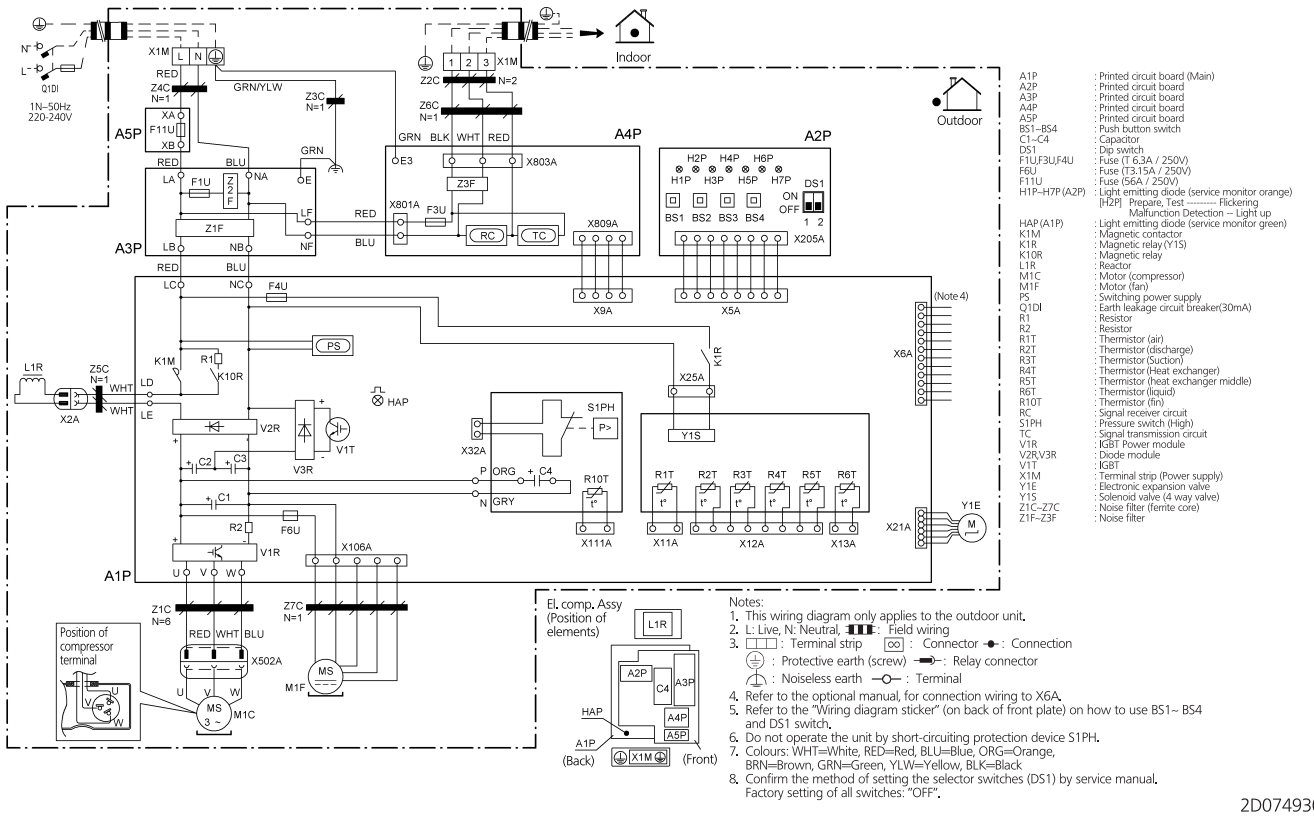
AZQS100-125BV1



A1P : Printed circuit board (Main)
A2P : Printed circuit board
A3P : Printed circuit board
A4P : Printed circuit board
A5P : Printed circuit board
BS1~BS4 : Push button switch
C1~C4 : Capacitor
DS1 : Dip switch
F1U,F3U,F4U : Fuse (T 6.3A / 250V)
F6U : Fuse (T3.15A / 250V)
F11U : Fuse (56A / 250V)
H1P~H7P(A2P) : Light emitting diode (service monitor orange)
[H2P] Prepare, Test ---------- Flickering
Malfunction Detection -- Light up
HAP(A1P) : Light emitting diode (service monitor green)
K1M : Magnetic contactor
K1R : Magnetic relay (Y1S)
K10R : Magnetic relay
L1R : Reactor
M1C : Motor (compressor)
M1F : Motor (fan)
PS : Switching power supply
Q1DI : Earth leakage circuit 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
S1PH : Pressure switch (High)
TC : Signal transmission circuit
V1R : IGBT Power module
V2R,V3R : Diode module
V1T : IGBT
X1M : Terminal strip (Power supply)
Y1E : Electronic expansion valve
Y1S : Solenoid valve (4 way valve)
Z1C~Z7C : Noise filter (ferrite core)
Z1F~Z3F : 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 optional manual, for connection 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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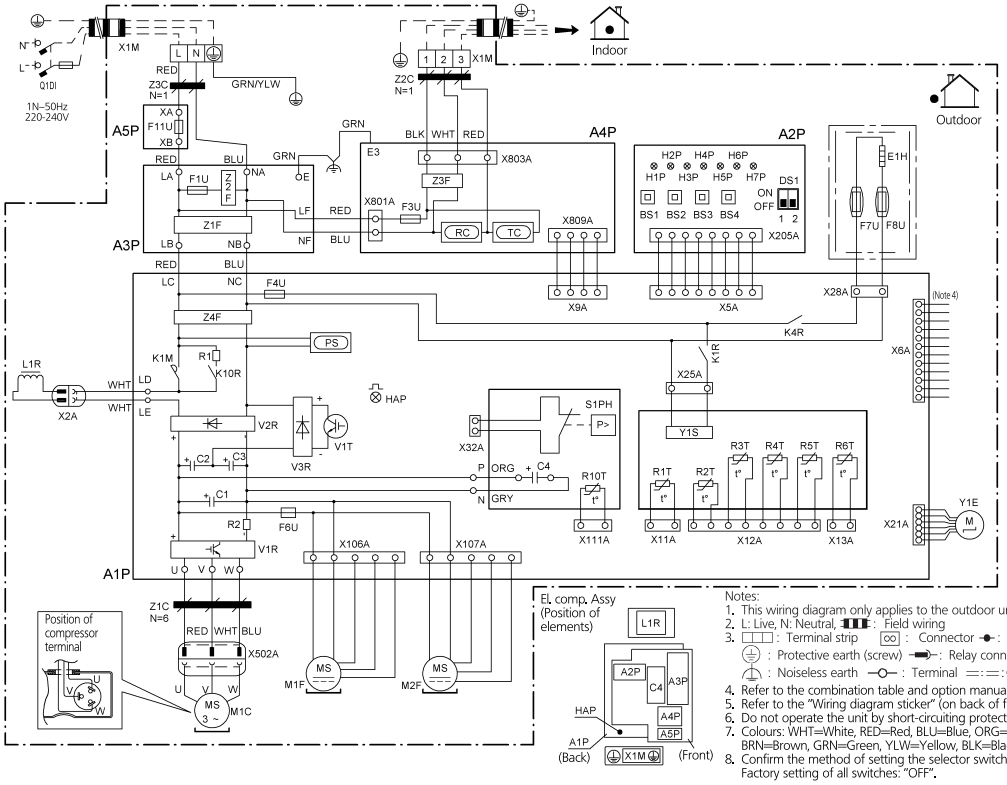
10 Wiring diagrams

10 - 1 Wiring Diagrams - Single Phase

AZQS140BV1



A1P	: Printed circuit board (Main)
A2P	: Printed circuit board
A3P	: Printed circuit board
A4P	: Printed circuit board
A5P	: Printed circuit board
BS1~BS4	: Push button switch
C1~C4	: Capacitor
DS1	: Dip switch
E1H	: Bottomplate heater (Option)
F1U,F3U, F4U	: Fuse (T 6.3A / 250V)
F6U	: Fuse (T 5A / 250V)
F7U,F8U	: Fuse (F 1.0A / 250V)
F11U	: Fuse (56A / 250V)
H1P~H7P (A2P)	: Light emitting diode (service monitor orange) [H2P] Prepare, Test ---------- Flickering Malfunction Detection ~ Light up
HAP (A1P)	: Light emitting diode (service monitor green)
K1M	: Magnetic contactor
K1R	: Magnetic relay (Y1S)
K4R	: Magnetic relay (E1H)(Option)
K10R	: Magnetic relay
L1R	: Reactor
M1C	: Motor (compressor)
M1F	: Motor (fan)(upper)
M2F	: Motor (fan)(lower)
PS	: Switching power supply
Q1DI	: Earth leakage circuit 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
S1PH	: Pressure switch (High)
TC	: Signal transmission circuit
V1R	: IGBT Power module
V2R,V3R	: Diode module
V1T	: IGBT
X1M	: Terminal strip (Power supply)
Y1E	: Electronic expansion valve
Y1S	: Solenoid valve (4 way valve)
Z1C~Z3C	: Noise filter (ferrite core)
Z1F~Z4F	: Noise filter
Optional connector	
X1Y	: Connector

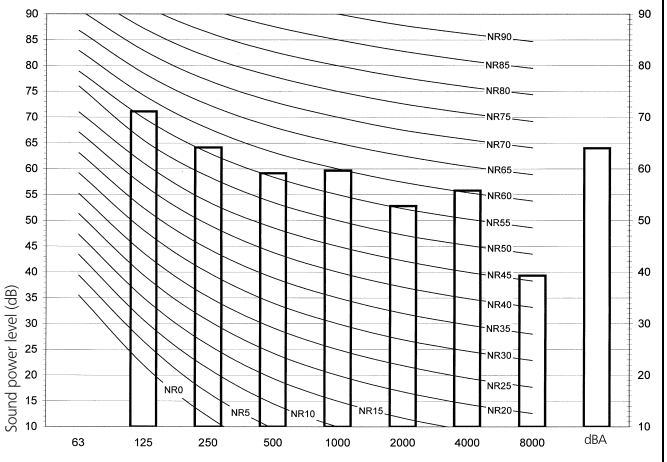
Notes:
1. This wiring diagram only applies to the outdoor unit.
2. L: Live, N: Neutral, ▮▮▮: Field wiring
3. □□□: Terminal strip ⊙⊙: Connector -●-: Connection
   ⏚: Protective earth (screw) -▰-: Relay connector
   ⏚: Noiseless earth -○-: Terminal =:=:Option
4. Refer to the combination table and option manual, for connecting wiring to X6A and X28A.
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".

2D074931A

11 Sound data

11 - 1 Sound Power Spectrum

AZQS71BV1

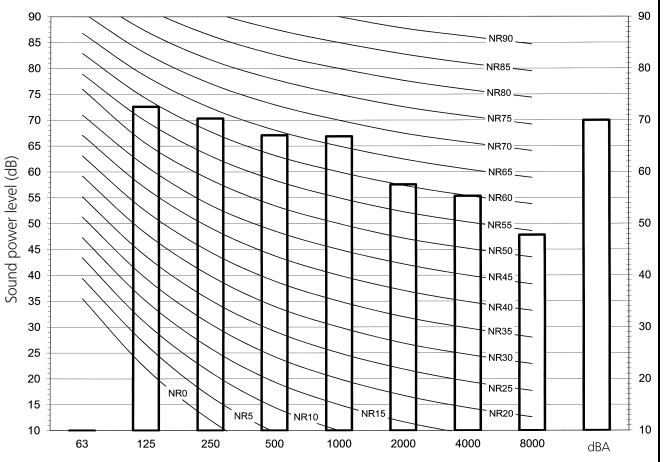


NOTES

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

3TW31677-1

AZQS100BV1

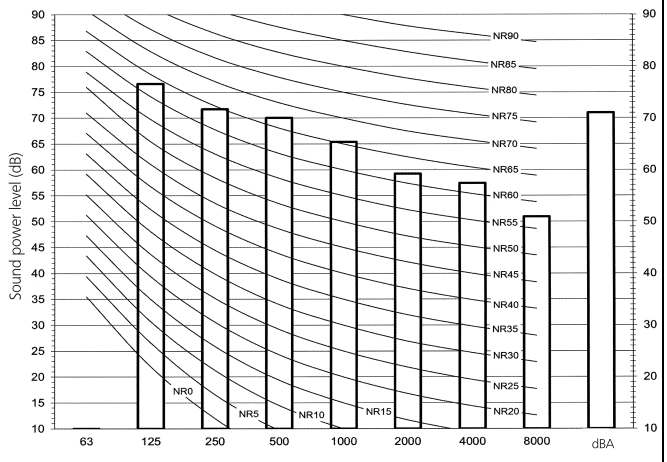


NOTES

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

3D080908

AZQS125BV1

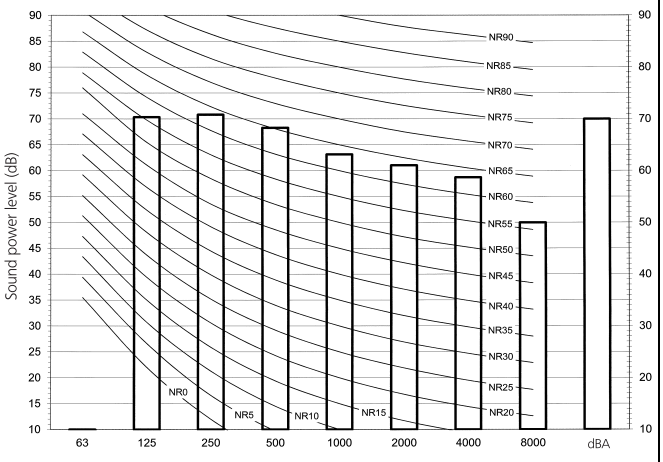


NOTES

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

3D080909

AZQS140BV1



NOTES

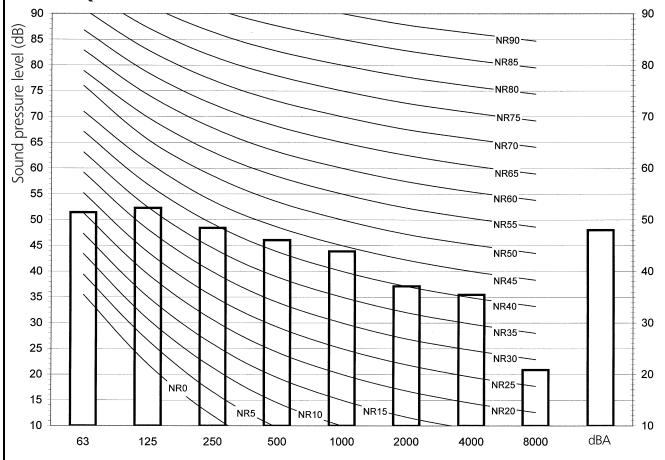
1 dBA = A-weighted sound power level (A-scale according to IEC)
2 Reference acoustic intensity 0dB = 10E-6μW/m^2
3 Measured according to ISO 3744

3D080910

11 Sound data

11 - 2 Sound Pressure Spectrum - Cooling

AZQS71BV1

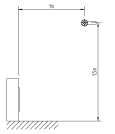


High-tap

Octave band center frequency (Hz)

NOTES

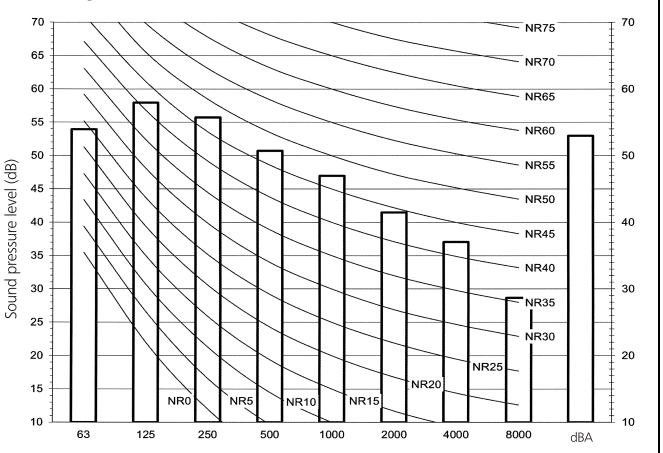
1 Data is valid at free field condition
2 Data is valid at nominal operation condition
3 dBA = A-weighted sound pressure level (A-scale according to IEC)
4 Reference acoustic pressure 0dB = 20µPa



Measuring location (discharge side)

3TW31677-2

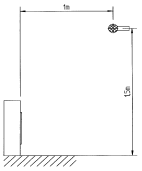
AZQS100BV1



Octave band center frequency (Hz)

NOTES

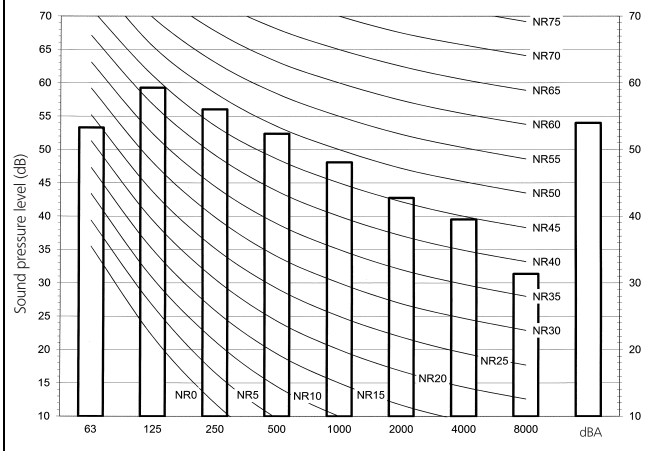
1 Data is valid at free field condition.
2 Data is valid at nominal operation condition.
3 dBA = A-weighted sound pressure level (A-scale according to IEC).
4 Reference acoustic pressure 0dB = 20µPa.



Measuring location (discharge side)

3D080920

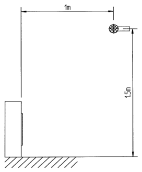
AZQS125BV1



Octave band center frequency (Hz)

NOTES

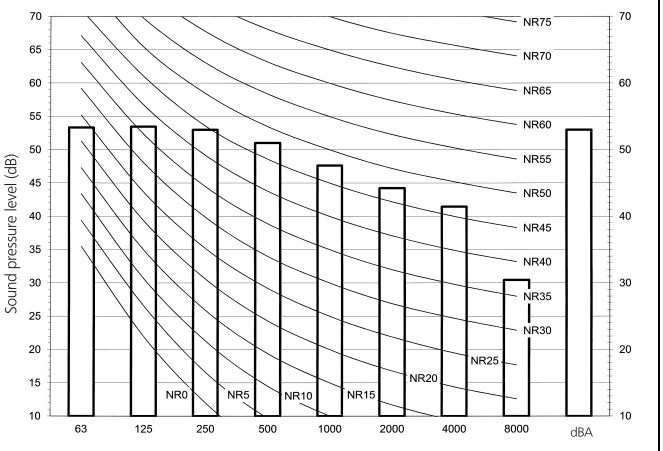
1 Data is valid at free field condition.
2 Data is valid at nominal operation condition.
3 dBA = A-weighted sound pressure level (A-scale according to IEC).
4 Reference acoustic pressure 0dB = 20µPa.



Measuring location (discharge side)

3D080921

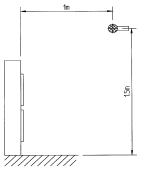
AZQS140BV1



Octave band center frequency (Hz)

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.



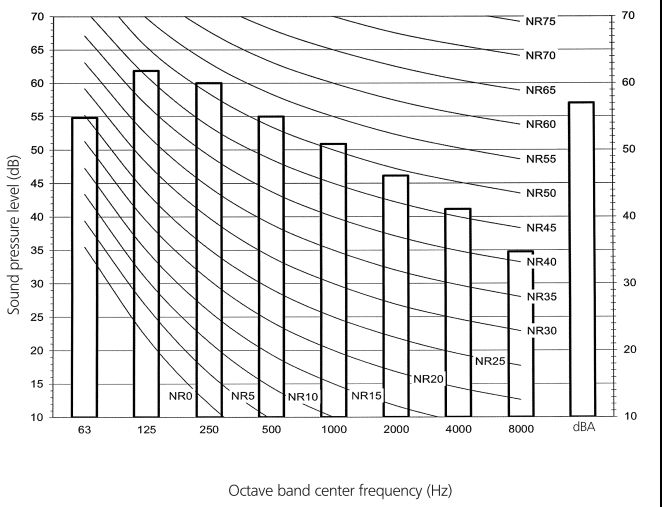
Measuring location (discharge side)

3D080922

11 Sound data

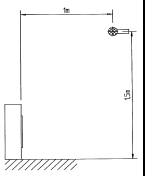
11 - 3 Sound Pressure Spectrum - Heating

AZQS100BV1



NOTES

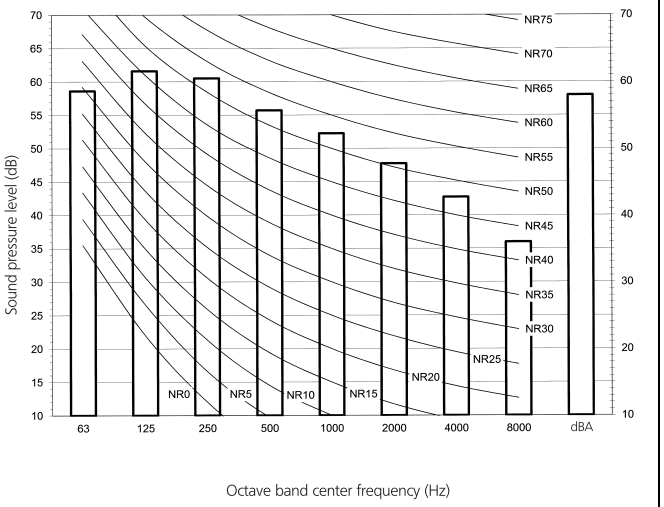
1 Data is valid at free field condition.
2 Data is valid at nominal operation condition.
3 dBA = A-weighted sound pressure level (A-scale according to IEC).
4 Reference acoustic pressure 0dB = 20μPa.



Measuring location (discharge side)

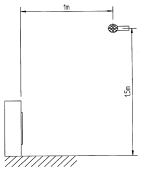
3D080926

AZQS125BV1



NOTES

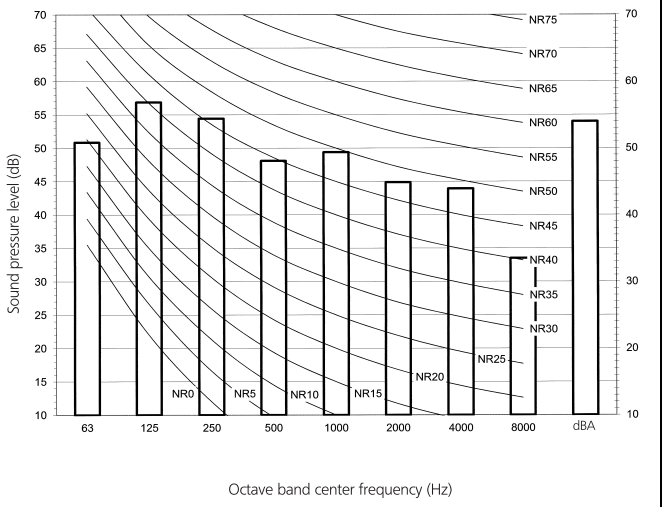
1 Data is valid at free field condition.
2 Data is valid at nominal operation condition.
3 dBA = A-weighted sound pressure level (A-scale according to IEC).
4 Reference acoustic pressure 0dB = 20μPa.



Measuring location (discharge side)

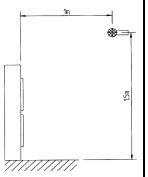
3D080927

AZQS140BV1



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.



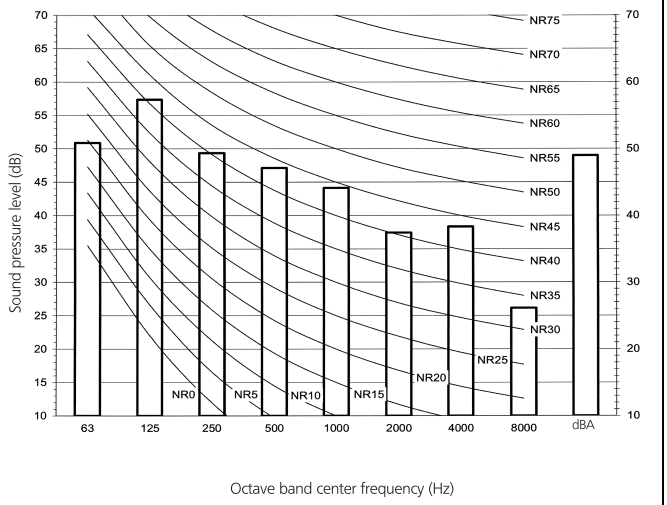
Measuring location (discharge side)

3D080928

11 Sound data

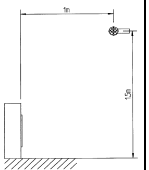
11 - 4 Sound Pressure Spectrum Quiet Mode

AZQS100BV1



NOTES

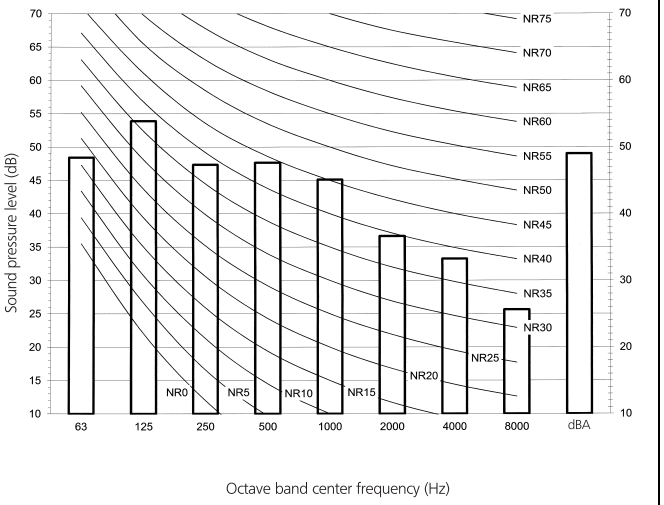
1 Data is valid at free field condition.
2 Data is valid at nominal operation condition.
3 dBA = A-weighted sound pressure level (A-scale according to IEC).
4 Reference acoustic pressure 0dB = 20µPa.



Measuring location (discharge side)

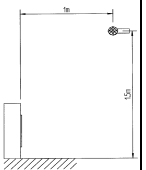
3D080914

AZQS125BV1



NOTES

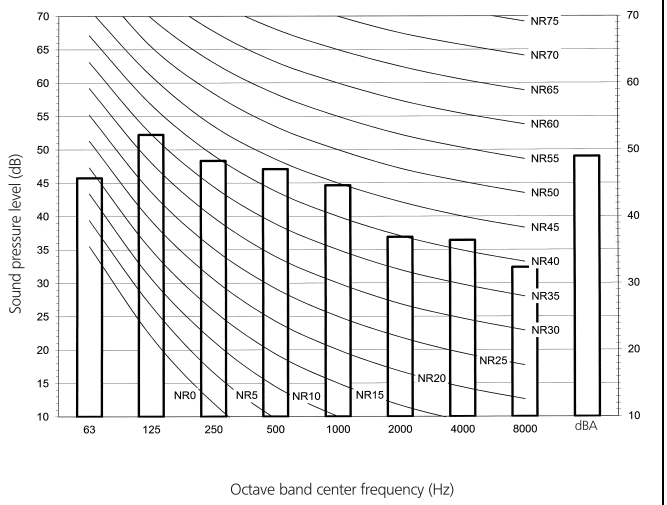
1 Data is valid at free field condition.
2 Data is valid at nominal operation condition.
3 dBA = A-weighted sound pressure level (A-scale according to IEC).
4 Reference acoustic pressure 0dB = 20µPa.



Measuring location (discharge side)

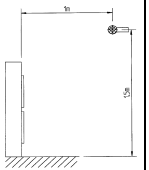
3D080915

AZQS140BV1



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)

3D080916

12 Installation

12 - 1 Installation Method

AZQS-BV1
AZQS-BY1

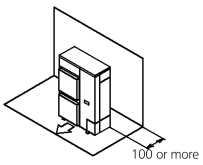
Installation service space

The measure of these values is "mm".

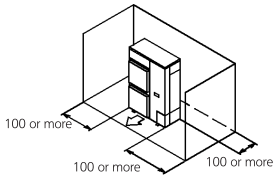
(A) When there are obstacles on suction sides.

● No obstacle above

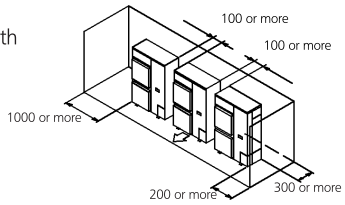
① Stand-alone installation
- Obstacle on the suction side only



- Obstacle on both sides and suction side, too

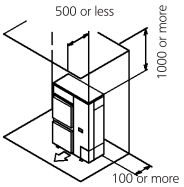


② Series installation (2 or more) (Note 1)
- Obstacle on the suction side and both sides

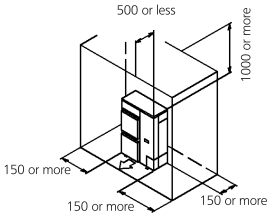


● Obstacle above, too.

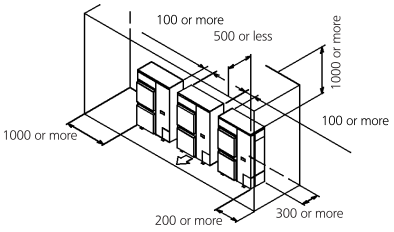
① Stand-alone installation
- Obstacle on the suction side, too



- Obstacle on both sides and suction side, too



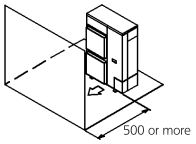
② Series installation (2 or more) (Note 1)
- Obstacle on the suction side and both sides



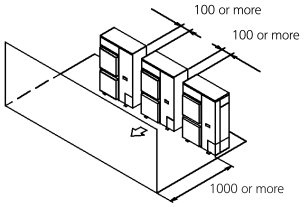
(B) When there are obstacles on discharge sides.

● No obstacle above

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

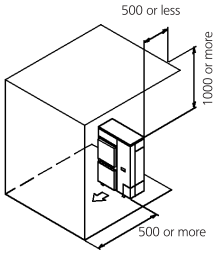


② Series installation (2 or more) (Note 1)
- Obstacle on the discharge side only

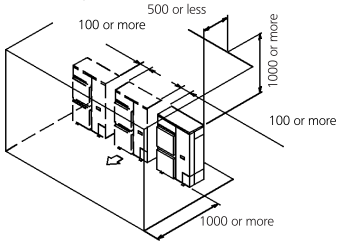


● Obstacle above, too

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



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



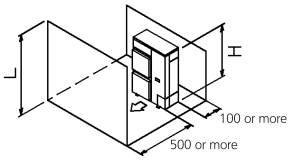
(C) When there are obstacles on both suction and discharge sides.:

Pattern 1

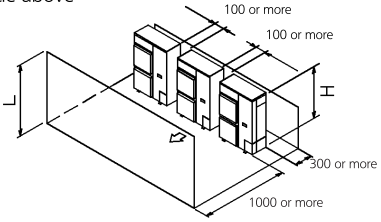
When the obstacles on the discharge side is higher than the unit. (L>H)
(There is no limit for the height of obstructions on the suction side.)

● 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

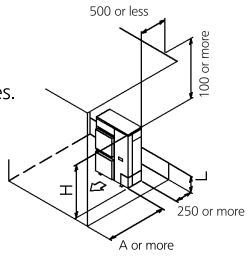
AZQS-BV1
AZQS-BY1

- **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 ≦ 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	

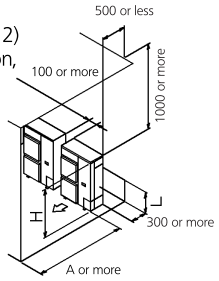


② Series installation (2 or more) (Note 1, 2)
- When there are obstacles on suction, discharge and top sides.

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.

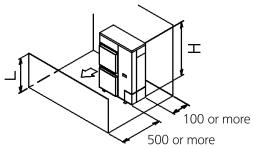


Pattern 2

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**

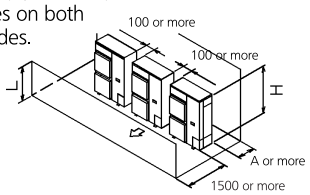
① Stand-alone installation
- No obstacle above



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

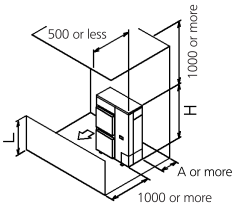


- **obstacle above**

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	

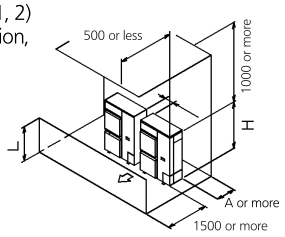


② Series installation (2 or more) (Note 1, 2)
- When there are obstacles on suction, discharge and top sides.

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	

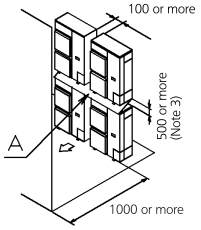
Limit of series installation is 2 units.

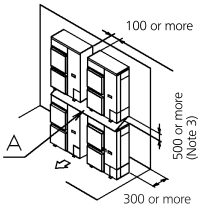


(D) Double-decker installation

① Obstacle on the discharge side. (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.

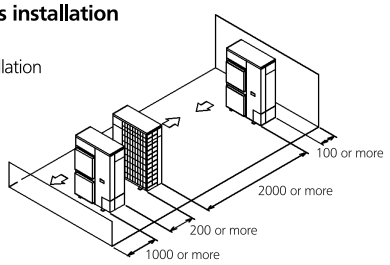
② Obstacle on the suction side. (1)
- Do not exceed two levels for stacked installation.
- Install a roof cover similar to A (field supply), as outdoor units with downward drainage are prone to dripping and freezing.
- Install the upper-level outdoor unit so that its bottom plate is a sufficient height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





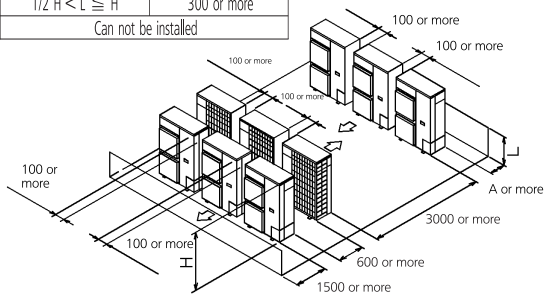
(E) Multiple rows of series installation (on the rooftop, etc.)

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 ≦ 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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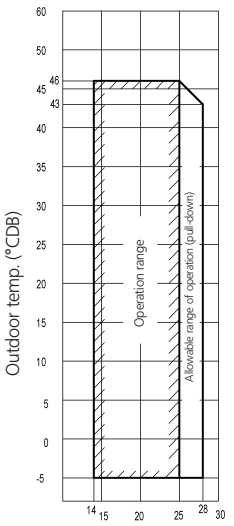
13 Operation range

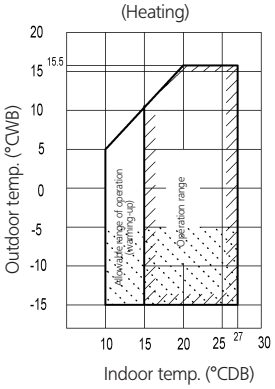
13 - 1 Operation Range

AZQS-BV1

(Cooling)



(Heating)



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, an RZQG model should be used instead of an RZQSG model. This to avoid freeze-up of the outdoor unit.

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