



Air Conditioning Technical Data

Outdoor units



EEEN15-101

AZQS-B(8)V1 UK

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AZQS-B(8)V1 UK

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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
- With gas cooled PCB reliable cooling is guaranteed as it is not influenced by ambient temperature (1~)
- Outdoor units are fitted with either a swing or scroll compressor, renowned for low noise and high energy efficiency
- Outdoor units for pair application
- Units optimized for seasonal efficiency give an indication on how efficient an air conditioner operates over an entire heating or cooling season.

1



Inverter



Auto cooling-
heating
changeover

2 Specifications

2-1 Capacity and Power input				FCQG71F/AZQS71BV1 UK	FCQG100F/AZQS100B8V1 UK	FCQG125F/AZQS125B8V1 UK	FCQG140F/AZQS140B8V1 UK
Indoor unit				FCQG71F	FCQG100F	FCQG125F	FCQG140F
Outdoor unit				AZQS71BV1 UK	AZQS100B8V1 UK	AZQS125B8V1 UK	AZQS140B8V1 UK
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	2.19	2.96	3.90	4.63
	Heating	Nom.	kW	2.08	3.09	3.96	4.70
Seasonal efficiency (according to EN14825)	Cooling	Energy label		A+		A	
		Pdesign	kW	6.80	9.50	-	-
		SEER		5.70	5.50	-	-
		Annual energy consumption	kWh	418	605	-	-
	Heating (Average climate)	Energy label		A		-	
		Pdesign	kW	6.33	7.60	-	-
		SCOP		4.00	3.85	-	-
		Annual energy consumption	kWh	2,116	2,764	-	-
Nominal efficiency	EER		3.11	3.21	3.10	2.81	
	COP		3.61	3.50	3.41	3.30	
	Annual energy consumption		kWh	1,093	1,480	1,952	2,313
	Energy label	Cooling	B	A	B	-	
		Heating	A	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				AZQS71BV1 UK	AZQS100B8V1 UK	AZQS125B8V1 UK	AZQS140B8V1 UK	
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	72.8	74.3	94.9	
	Packed unit		kg	71	81.3	82.8	104.4	
Heat exchanger	Fin	Type		WF fin				
		Treatment		Anti-corrosion treatment (PE)				
Compressor	Quantity			1				
	Type			Hermetically sealed swing compressor				
	Starting method			Inverter driven				
Fan	Type			Propeller fan				
	Discharge direction			Horizontal				
	Quantity			1		2		
	Air flow rate	Cooling	Nom.	m³/min	52.0	76	77	83
			Super low	m³/min cfm	-			
		Heating	Nom.	m³/min	48.0	83		62
Super low			m³/min cfm	-				

2 Specifications

2

2-2 Technical Specifications					AZQS71BV1 UK	AZQS100B8V1 UK	AZQS125B8V1 UK	AZQS140B8V1 UK
Fan motor	Quantity				1			2
	Model		KFD-325-70-8A		Brushless DC motor			
	Output		W	70	200		94	
	Drive		Direct drive					
	Speed	Cooling	Super low	rpm	-			
Heating		Super low	rpm	-				
Sound power level	Cooling		dBA	64	70	71	70	
	Heating		dBA	-				
Sound pressure level	Cooling	Nom.	dBA	48	53	54	53	
	Heating	Nom.	dBA	50	57	58	54	
	Night quiet mode	Level 1	dBA	43	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		
			tCO ₂ eq	5.7	6.1	8.4		
	Control		Expansion valve (electronic type)					
	GWP		2,087.5					
	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			
		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						
Defrost method		Pressure equalising		Reversed cycle				
Defrost control		Sensor for outdoor heat exchanger temperature						
Safety devices	Item	01	High pressure switch					
		02	Low pressure switch					
	03	Fuse	Fan motor thermal protection					
	04	-	Fuse					

2-3 Electrical Specifications					AZQS71BV1 UK	AZQS100B8V1 UK	AZQS125B8V1 UK	AZQS140B8V1 UK
Power supply	Name		V1					
	Phase		1~					
	Frequency		Hz	50				
	Voltage		V	220-240				
	Voltage range	Min.	%	-10				
		Max.	%	10				

4

2 Specifications

2-3 Electrical Specifications				AZQS71BV1 UK	AZQS100B8V1 UK	AZQS125B8V1 UK	AZQS140B8V1 UK
Current	Zmax	List		Complies to EN61000-3-11			
	A	Recommended fuses	20	32	40		
Current - 50Hz	Maximum fuse amps (MFA)		A	-			
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

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

3 Electrical data

3 - 1 Electrical Data

AZQS-B(8)V1
AZQS-BY1

Indoor	Outdoor	Hz	Power supply	Voltage range	Comp					OFM		IFM	
					MCA	TOCA	MFA	MSC	RLA	KW	FLA	kW	FLA
FCQG71FVEB	AZQS71B2V1B	50Hz	~220-240V	Min. 198V Max. 264V	18.7	—	20	—	16.2	0.07	0.3	0.054	0.4
FCQG100FVEB	AZQS100B8V1B				28.4	—	32	—	24.4	0.2	0.6	0.117	0.7
FCQG125FVEB	AZQS125B8V1B				28.8	—	32	—	24.4	0.2	0.6	0.168	1.0
FCQG140FVEB	AZQS140B8V1B				28.8	—	32	—	24.2	0.094+0.094	0.4+0.4	0.168	1.0
FCQG100FVEB	AZQS100B7Y1B				14.1	—	16	—	11.4	0.2	0.6	0.117	0.7
FCQG125FVEB	AZQS125B7Y1B	3N~50Hz 380-415V		Min. 342V Max. 456V	14.5	—	16	—	11.4	0.2	0.6	0.168	1.0
FCQG140FVEB	AZQS140B7Y1B				17.8	—	20	—	14.2	0.094+0.094	0.4+0.4	0.168	1.0

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 _____

4 Options

4 - 1 Options

AZQS-B(8)V1

Option	Option kit	
	AZQS71B2V1B	AZQS100B8V1B
		AZQS125B8V1B
		AZQS140B8V1B
Demand adaptor kit	KRP58M51MK	

4D090357

5 Combination table

5 - 1 Combination Table

AZQS-B(8)V1

AZQS-BY1

5

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

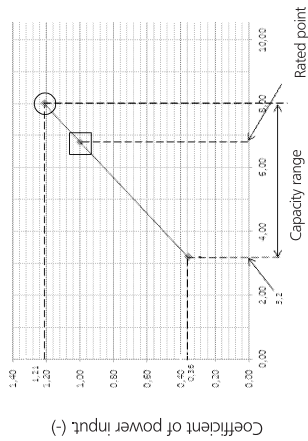
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6 Capacity tables

6 - 1 Cooling/Heating Capacity Tables

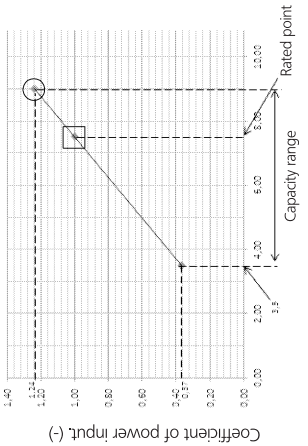
AZQ571BV1
AZQ571BY1

Cooling



Cooling capacity (kW)

Heating



Heating capacity (kW)

SYMBOLS

- AFR: (m³/min)
- BF: Bypass factor
- EWB: Entering wet bulb temp. (°CDB)
- 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)
- CPI: Coefficient of power input (-)

Caution:
TC and SHC are shown by kW.

Cooling

Indoor °CWB (°C)	Outdoor temp. (°CDB)											
	25	30	35	40	45	50	55	60	65	70		
16	22	27	32	37	42	47	52	57	62	67		
18	25	30	35	40	45	50	55	60	65	70		
19.5	27	32	37	42	47	52	57	62	67	72		
22	30	35	40	45	50	55	60	65	70	75		
24	32	37	42	47	52	57	62	67	72	77		
	TC (kW)	SHC (kW)	CPI (-)	TC (kW)	SHC (kW)	CPI (-)	TC (kW)	SHC (kW)	CPI (-)	TC (kW)	SHC (kW)	CPI (-)

Heating

Indoor °CDB (°C)	outdoor temperature (°CWB)											
	-15	-10	-5	0	5	10	15	20	25	30		
16	5.14	0.89	5.68	0.94	6.22	0.98	6.75	1.03	7.22	1.08	7.72	1.13
18	5.14	0.92	5.67	0.97	6.21	1.02	6.74	1.07	7.21	1.12	7.70	1.18
20	5.13	0.96	5.67	1.01	6.20	1.06	6.73	1.11	7.20	1.17	7.69	1.23
21	5.13	0.98	5.66	1.03	6.20	1.08	6.73	1.13	7.20	1.19	7.69	1.25
22	5.12	0.99	5.66	1.04	6.19	1.10	6.73	1.15	7.19	1.22	7.68	1.28
24	5.12	1.03	5.66	1.09	6.19	1.14	6.72	1.20	7.19	1.26	7.68	1.32
	TC (kW)	CPI (-)	TC (kW)	CPI (-)	TC (kW)	CPI (-)	TC (kW)	CPI (-)	TC (kW)	CPI (-)	TC (kW)	CPI (-)

NOTES

- Ratings shown are net capacities which include a deduction for indoor fan motor heat.
- 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.
- SHC is based on indoor EWB and EDB.
SHC* = SHC correction for other dry bulb.
SHC* = 0.02 x AFR (m³/min) x (1-BF) x (DB*-EDB)
- Capacities are based on following conditions:
outdoor air : 85 % RH, however, the condition on nominal capacity is 7° CDB/6° CWB
Corresponding refrigerant piping length: 0.5m
Level difference: 0m
- Coefficient of power input is the percentage when the rated value is defined as 1.00.
- The value contains less than 5% error according to indoor unit type.
- Heating performance include the drop of frost formation.

NOTES

- Air flow rate and (BF) are tabulated below.
(Pair)
- | | |
|----------|---------|
| AFR (BF) | FCQG |
| | 21.5 |
| | (0.140) |
- Rated power input of each model is tabulated below.
(Pair)
- | | |
|---------|------|
| Cooling | FCQG |
| Heating | 21.9 |
| | 2.08 |

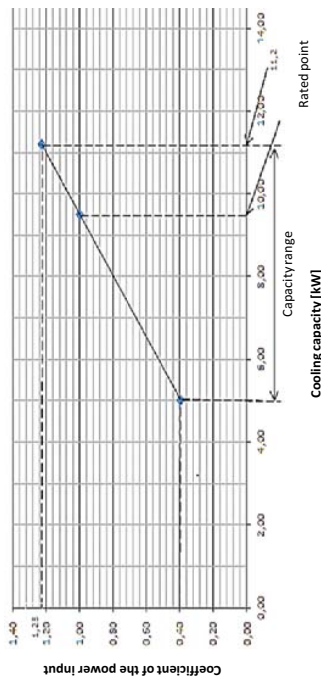
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6 Capacity tables

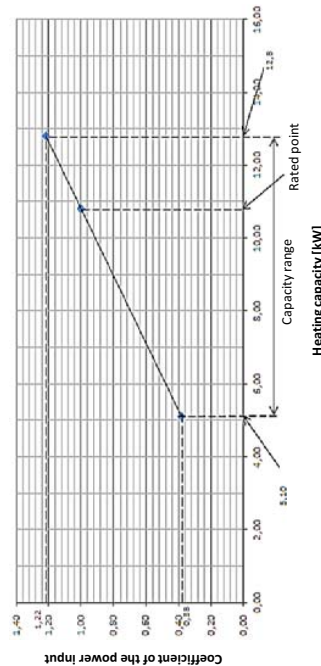
6 - 1 Cooling/Heating Capacity Tables

AZQS100B8V1 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	°CWB	°CDB	Outdoor temperature [°C DB]											
			25			30			35			40		
			TC	SHC	CPI	TC	SHC	CPI	TC	SHC	CPI	TC	SHC	CPI
16.0	22	11.2	7.61	1.01	1.08	7.44	1.11	1.05	7.29	1.22	1.01	7.08	1.32	
18.0	25	11.8	7.59	1.01	11.4	7.49	1.12	11.0	7.27	1.23	1.05	7.08	1.33	
19.0	27	12.0	7.57	1.02	11.6	7.44	1.12	11.2	7.26	1.23	1.08	7.04	1.33	
19.5	27	12.1	7.59	1.02	11.7	7.37	1.13	11.4	7.34	1.23	1.09	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	1.15	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	1.20	6.91	1.36	

Heating

Indoor	°CDB	Outdoor temperature [°C WB]																	
		-15.0			-10.0			-5.0			0.0			6.0			10.0		
		TC	CPI	kW	TC	CPI	kW	TC	CPI	kW	TC	CPI	kW	TC	CPI	kW	TC	CPI	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**
- 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
 SHC* = 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.

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

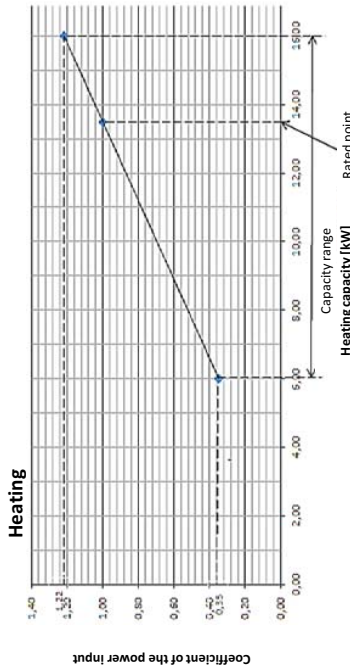
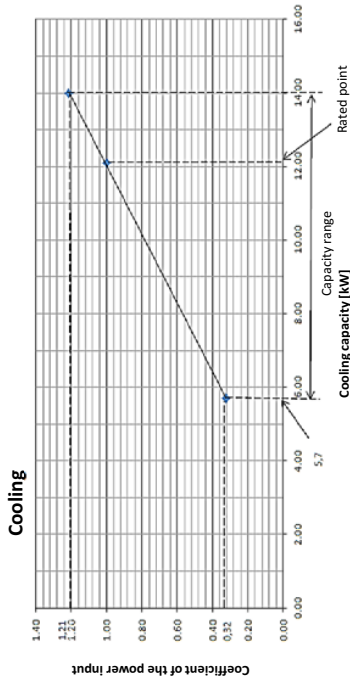
FCQG100F	Pair
AFR (BF)	32.0 (0.17)

FCQG100F	Pair
Cooling	2.96
Heating	3.09

6 Capacity tables

6 - 1 Cooling/Heating Capacity Tables

AZQS125B8V1
AZQS125BY1



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 DB	TC	SHC	CPI	TC	SHC	CPI	TC	SHC	CPI	TC	SHC	CPI
16.0	22	14.1	0.94	13.6	9.30	1.09	13.1	9.12	1.19	12.6	8.78	1.29
18.0	25	14.7	0.99	14.2	9.32	1.08	13.7	9.08	1.20	13.2	8.83	1.31
19.5	27	15.0	0.92	14.5	9.34	1.10	14.0	9.06	1.20	13.5	8.87	1.31
21.0	27	15.2	0.92	14.7	9.26	1.11	14.2	9.08	1.20	13.6	8.81	1.31
22.0	30	16.0	0.99	15.5	9.14	1.11	14.9	8.95	1.21	14.4	8.74	1.32
24.0	32	16.7	0.91	16.1	9.08	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									
°C DB	TC	CPI	TC	CPI	TC	CPI	TC	CPI	TC	CPI	TC	CPI	TC	CPI	TC	CPI									
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**
- The ratings shown are net capacities which include a deduction for indoor fan motor heat.
 - = Maximum 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.

FCQG125F	
AFR (BF)	33.0 (0.21)

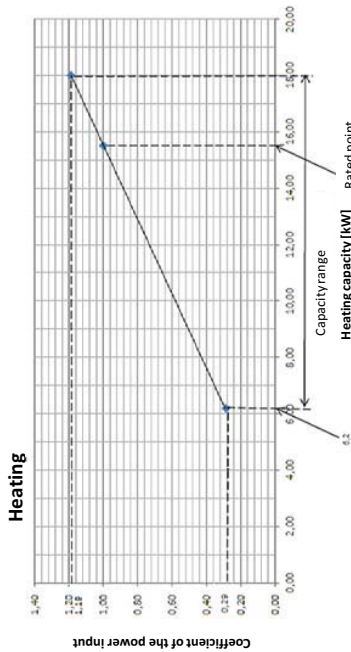
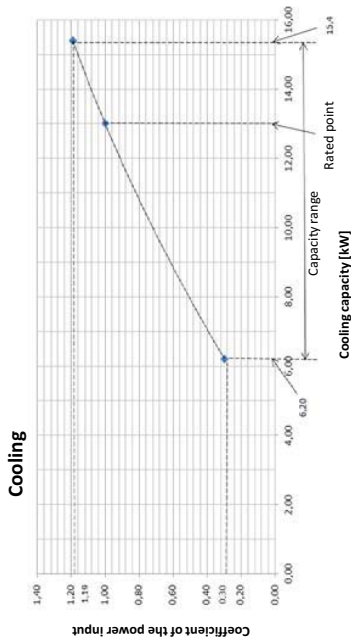
FCQG125F	
Cooling	3.90
Heating	3.96

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

6 Capacity tables

6 - 1 Cooling/Heating Capacity Tables

AZQS140B8V1
AZQS140BY1



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											
°CWB	TC	SHC	OPI	TC	SHC	OPI	TC	SHC	OPI	TC	SHC	OPI	TC	SHC	OPI
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	0.98	16.0	10.18	1.09	15.4	9.98	1.19	14.8	9.76	1.30	—	—
19.5	27	16.7	10.48	0.98	16.1	10.16	1.10	15.6	10.00	1.19	15.0	9.86	1.30	—	—
22.0	30	17.6	10.37	0.99	17.0	10.16	1.10	16.4	9.83	1.21	15.8	9.60	1.31	—	—
24.0	32	18.4	10.20	1.00	17.7	10.00	1.11	17.0	9.67	1.22	16.4	9.47	1.32	—	—

Heating

Indoor	Outdoor temperature [°C WB]													
	-15.0	-10.0	-5.0	0.0	6.0	10.0	15.0	20.0						
°CDB	TC	CPI	TC	CPI	TC	CPI	TC	CPI	TC	CPI	TC	CPI	TC	CPI
16	11.6	0.91	12.7	0.97	13.6	1.00	13.9	1.03	18.0	1.09	19.4	1.16	—	—
18	11.6	0.95	12.7	1.00	13.6	1.04	13.9	1.07	18.0	1.14	19.4	1.21	—	—
20	11.6	0.99	12.7	1.05	13.5	1.09	13.9	1.11	18.0	1.19	19.4	1.25	—	—
21	11.5	1.00	12.7	1.06	13.5	1.11	13.9	1.13	18.0	1.21	19.4	1.28	—	—
22	11.5	1.02	12.7	1.08	13.5	1.12	13.9	1.16	18.0	1.24	19.4	1.30	—	—
24	11.5	1.07	12.6	1.12	13.5	1.17	13.9	1.20	18.0	1.29	19.4	1.35	—	—

- Notes**
- The ratings shown are net capacities which include a deduction for indoor fan motor heat.
 - = Maximum 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.

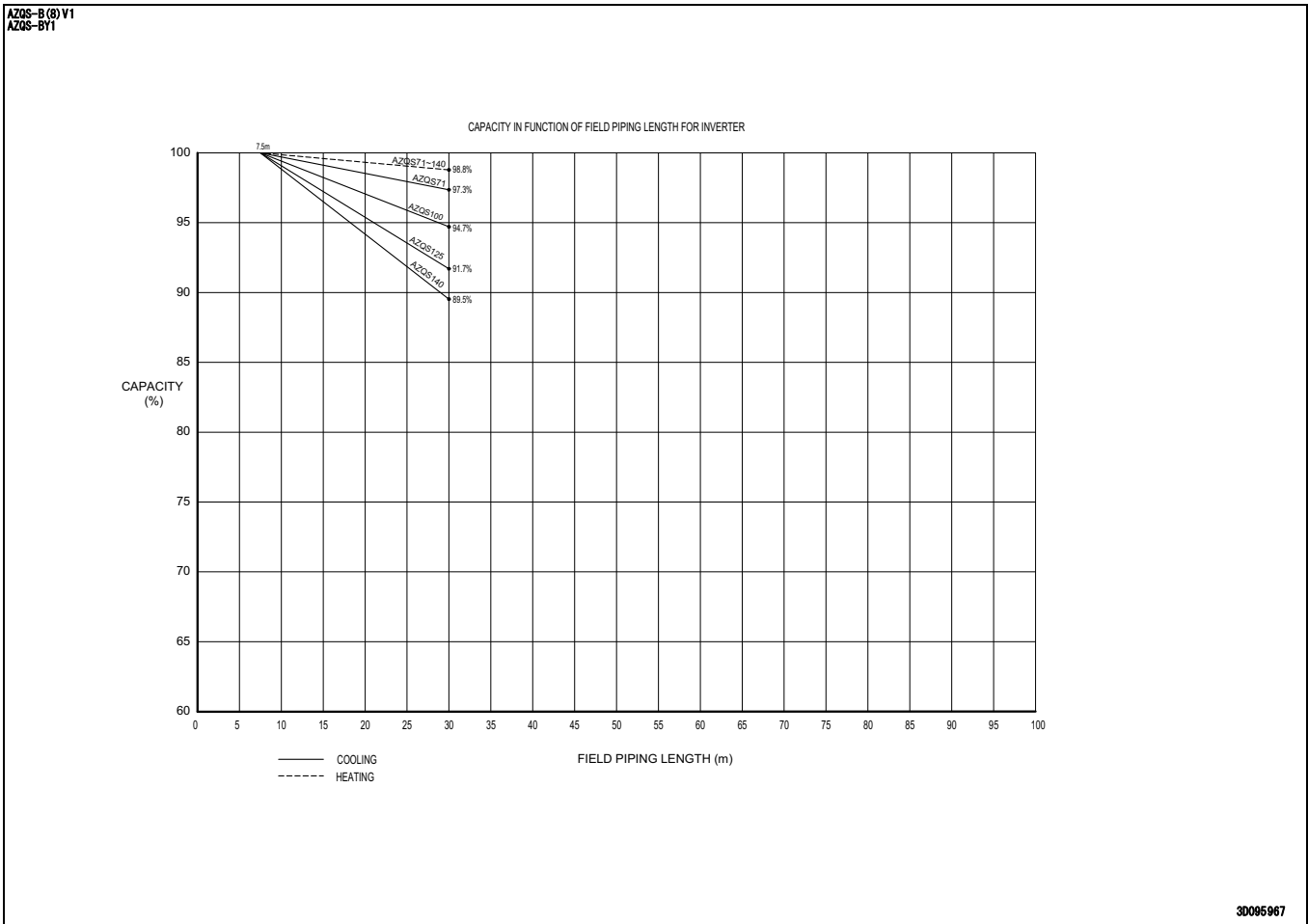
FCQG140F	
AFR (BF)	33.0 (0.23)

FCQG140F	
Cooling	4.63
Heating	4.70

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

6 Capacity tables

6 - 2 Capacity Correction Factor



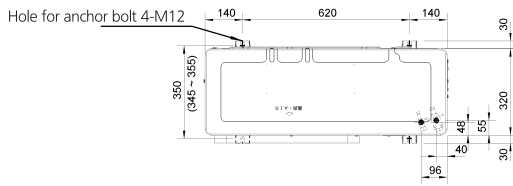
7 Dimensional drawings

7 - 1 Dimensional Drawings

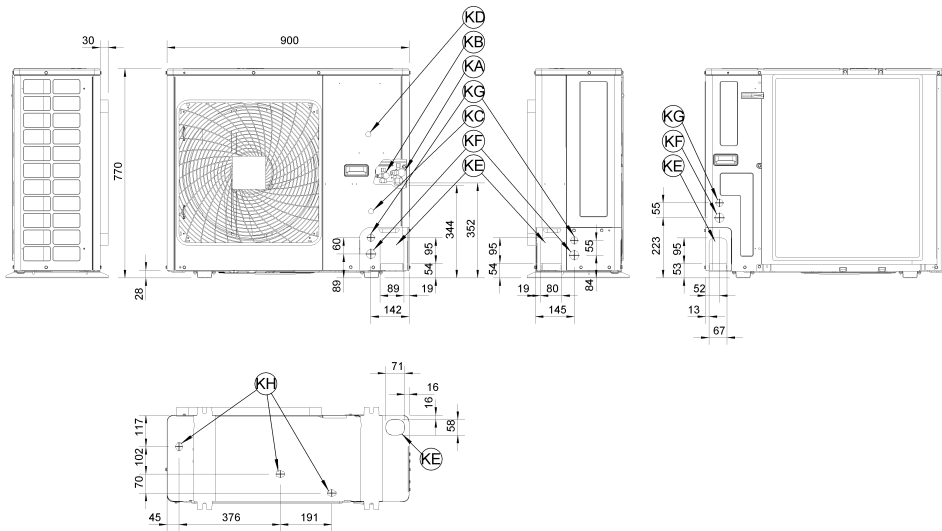
7

AZQS71B2V1

unit (mm)

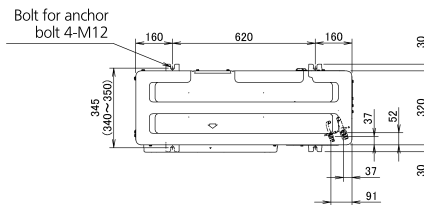


- KA Gas pipe connection ϕ 15.9 flare
- KB Liquid pipe connection - ϕ 9.5 flare
- KC Service port (in the unit)
- KD Grounding terminal M5 (in switch box)
- KE Refrigerant piping intake
- KF Power supply wiring intake (knock hole ϕ 34)
- KG Control wiring intake (knock hole ϕ 27)
- KH Drain outlet

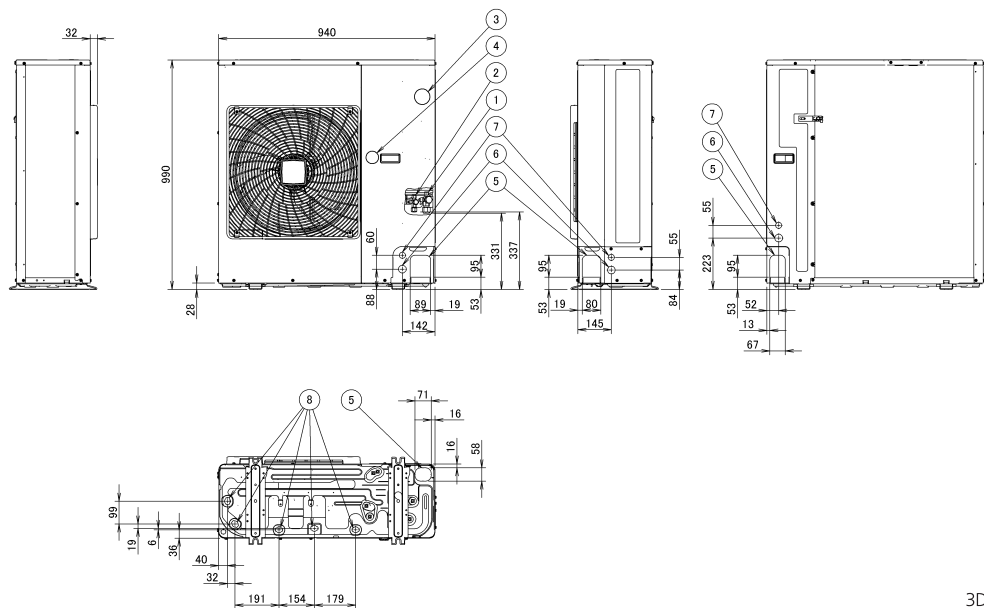


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- 1 Gas pipe connection ϕ 15.9 flare
- 2 Liquid pipe connection - ϕ 9.5 flare
- 3 Service port (in the unit)
- 4 Grounding terminal M5 (in switch box)
- 5 Refrigerant piping intake
- 6 Power supply wiring intake (knock out hole ϕ 34)
- 7 Control wiring intake (Knock out hole ϕ 27)
- 8 Drain outlet

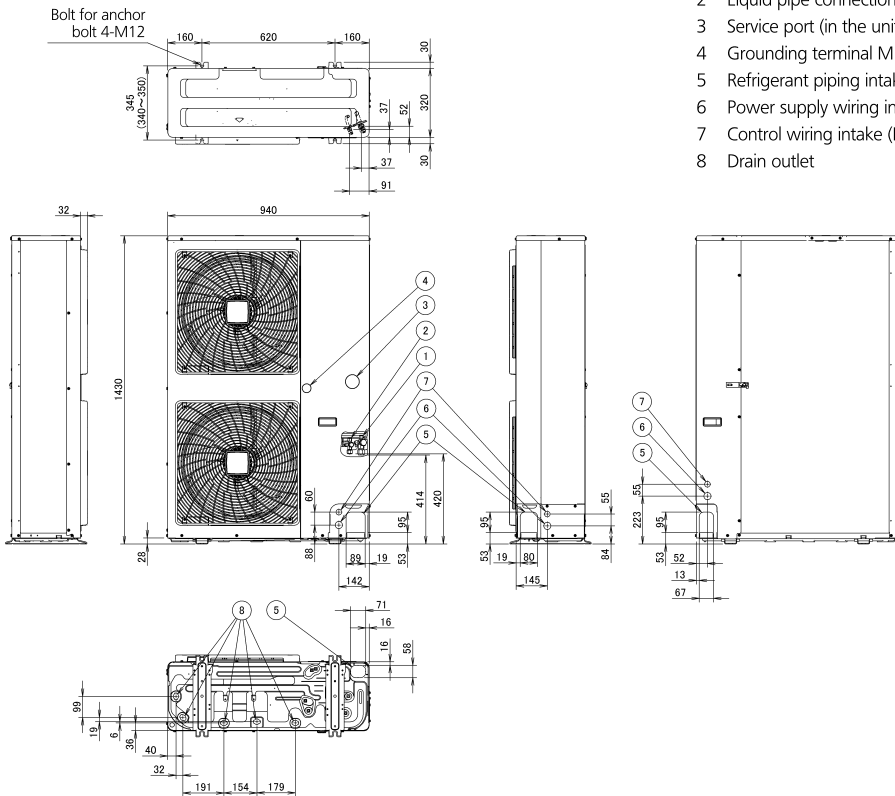


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7 Dimensional drawings

7 - 1 Dimensional Drawings

AZQS140B8V1



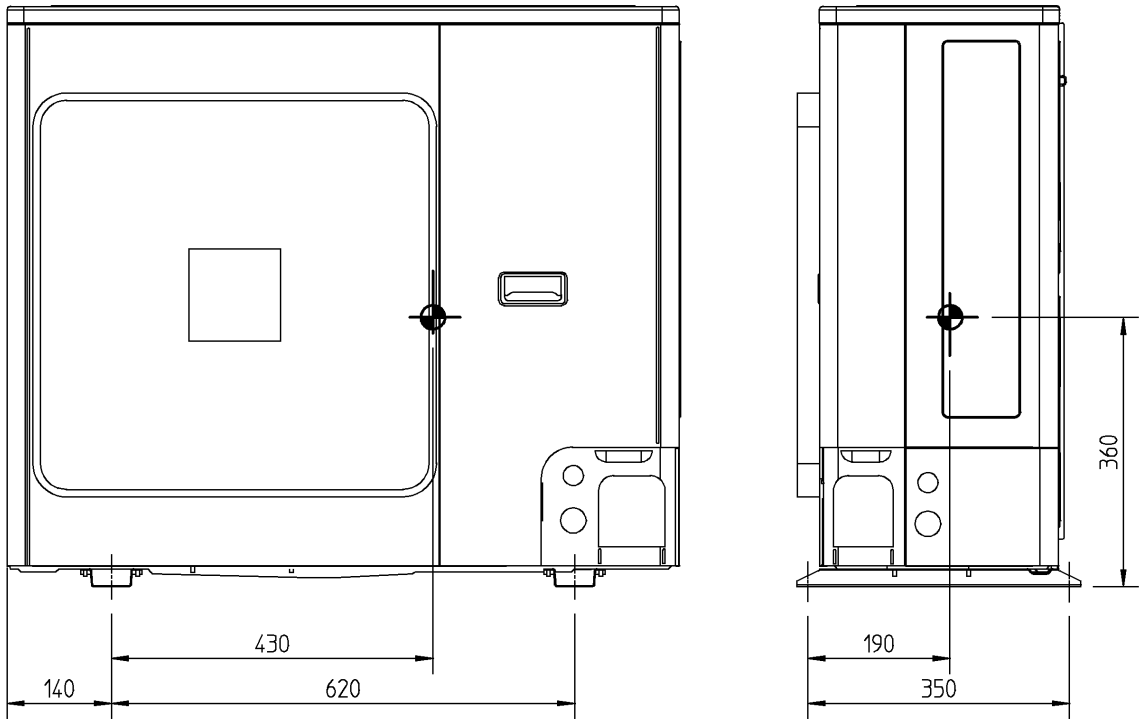
3D076346

8 Centre of gravity

8 - 1 Centre of Gravity

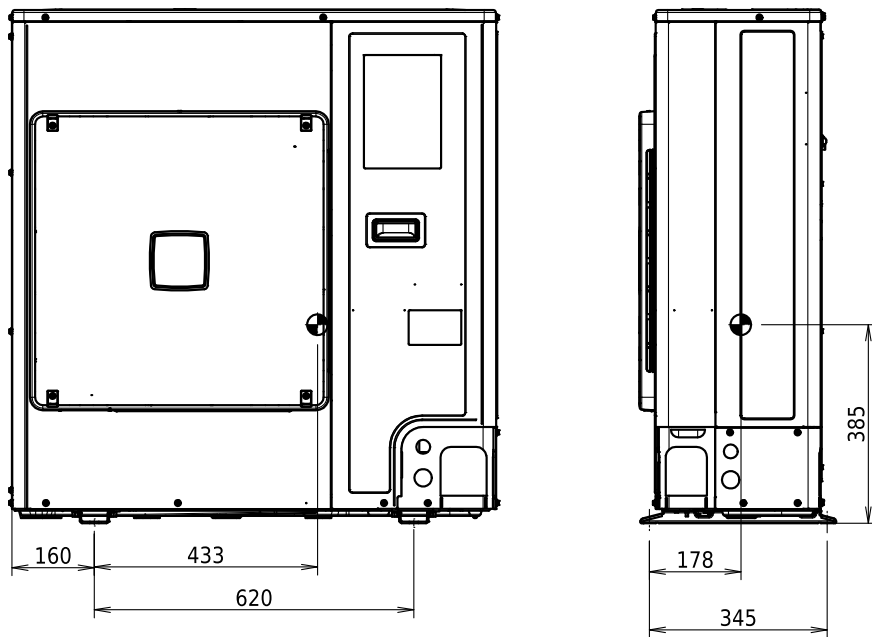
8

AZQS71B2V1



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AZQS100B8V1

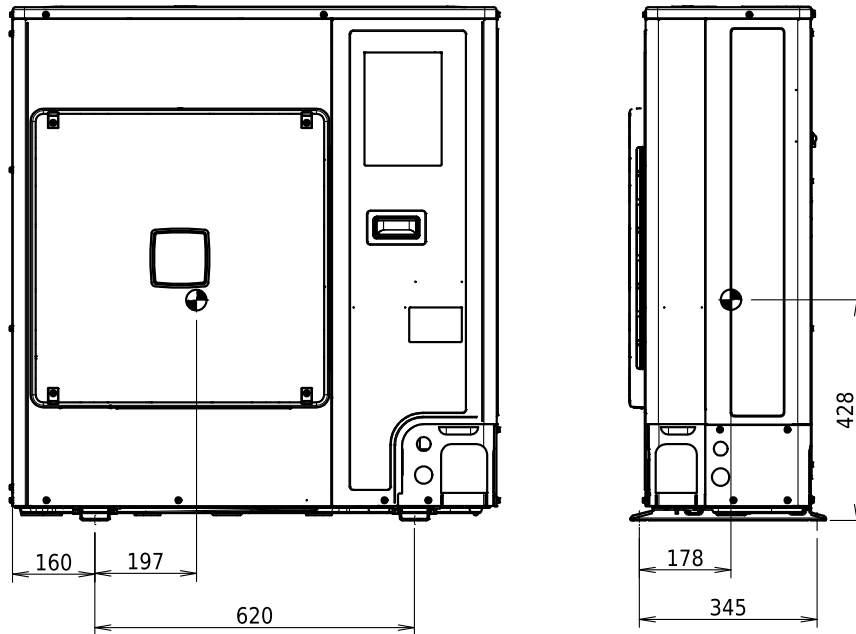


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8 Centre of gravity

8 - 1 Centre of Gravity

AZQS125B8V1

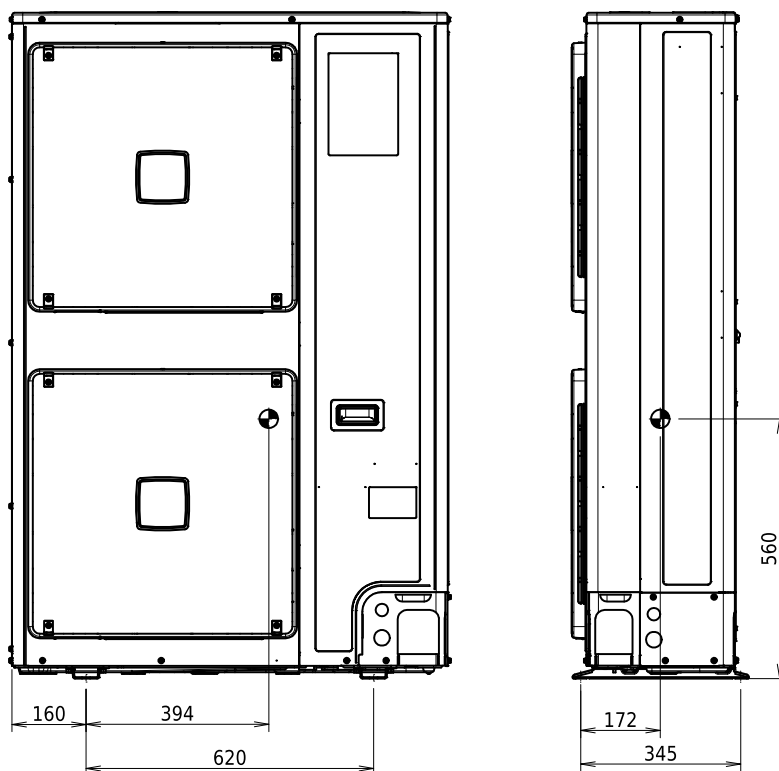


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8 Centre of gravity

8 - 1 Centre of Gravity

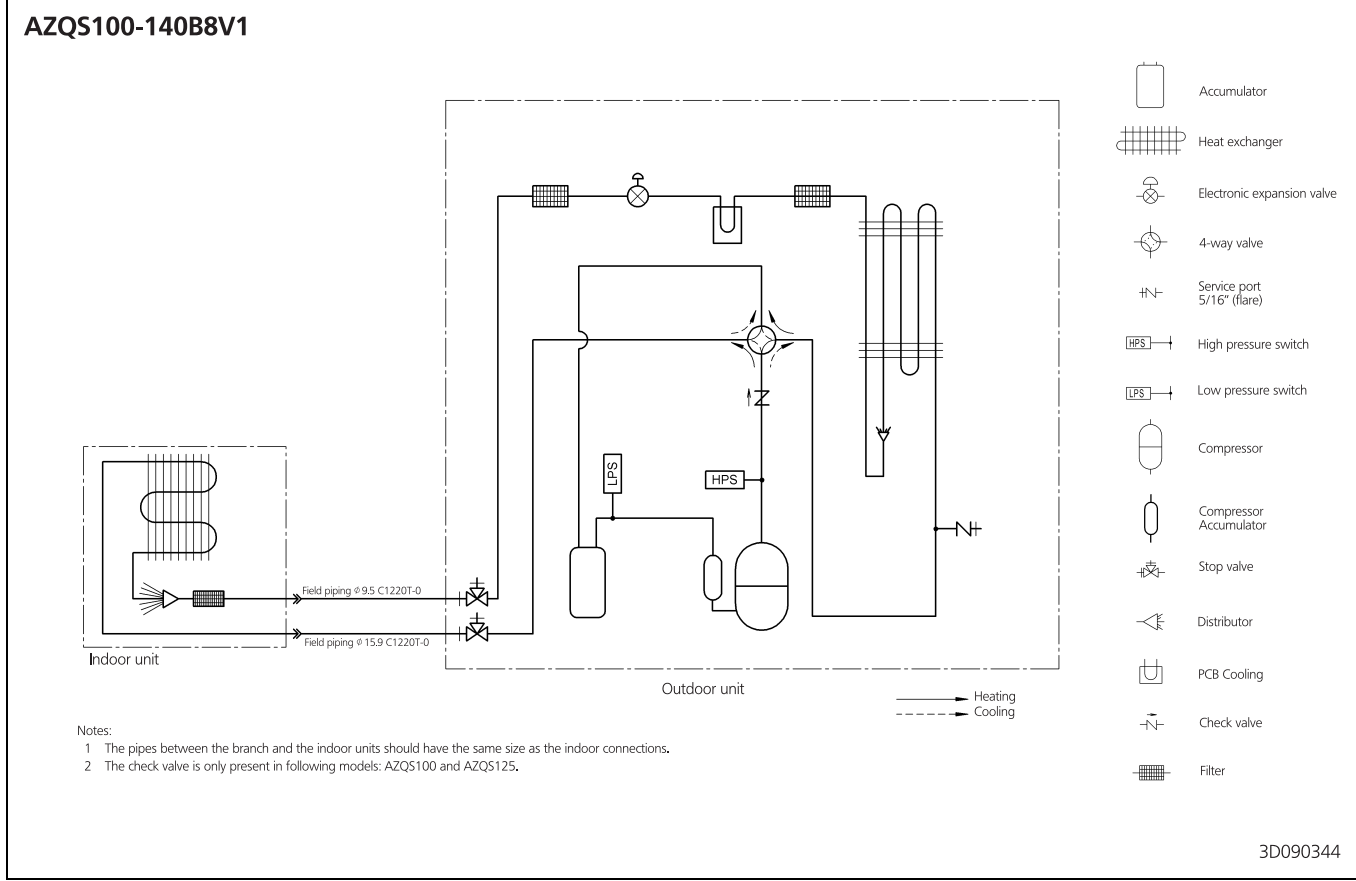
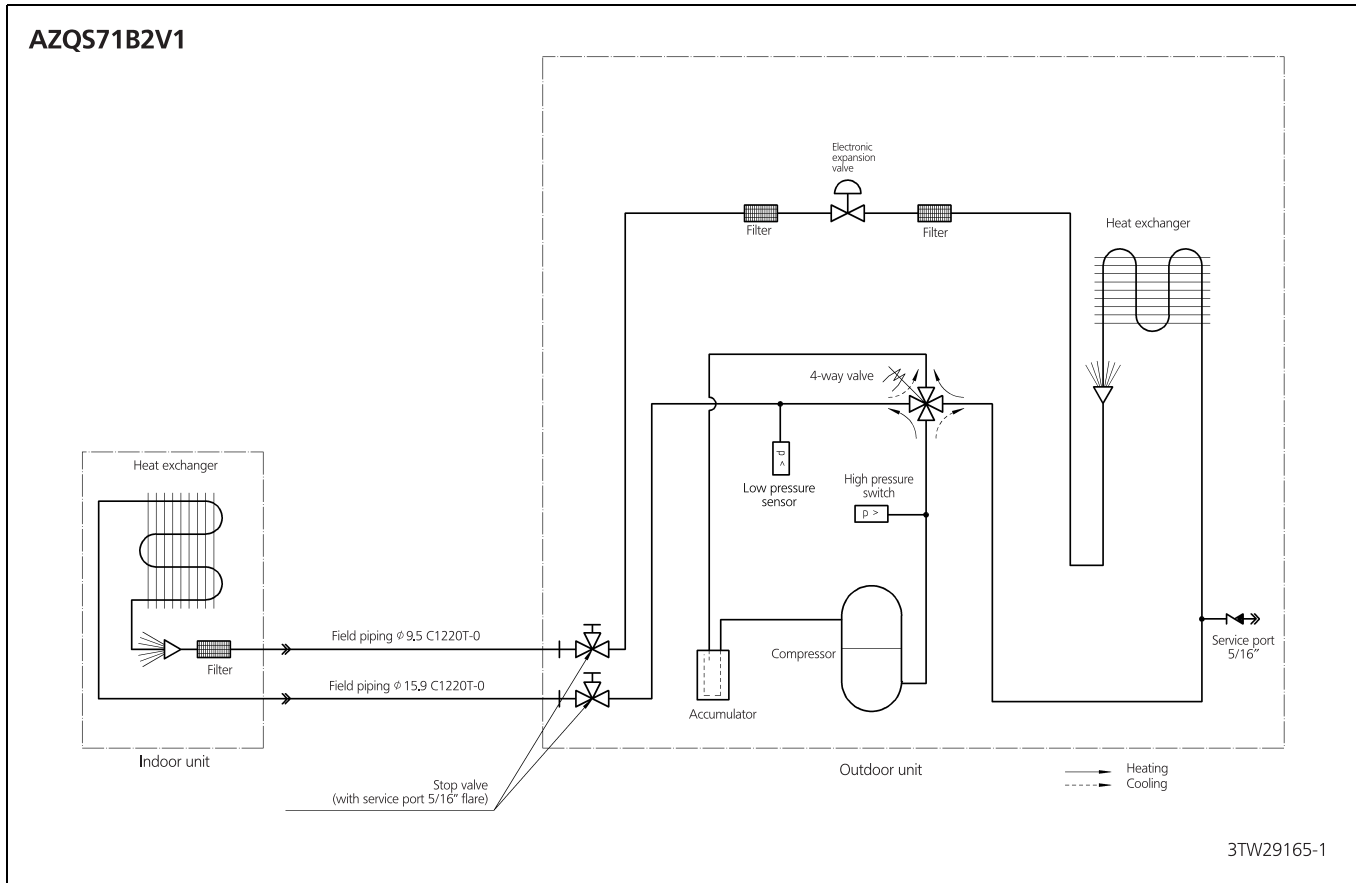
AZQS140B8V1



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9 Piping diagrams

9 - 1 Piping Diagrams

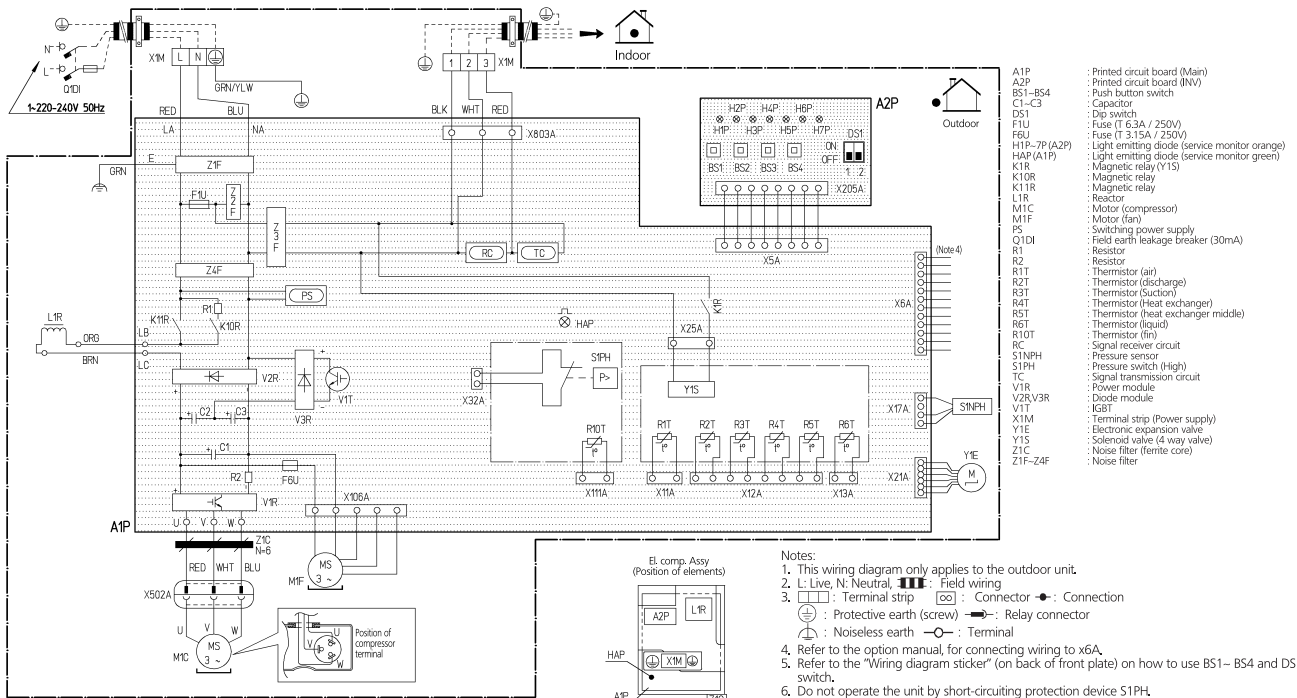


10 Wiring diagrams

10 - 1 Wiring Diagrams - Single Phase

10

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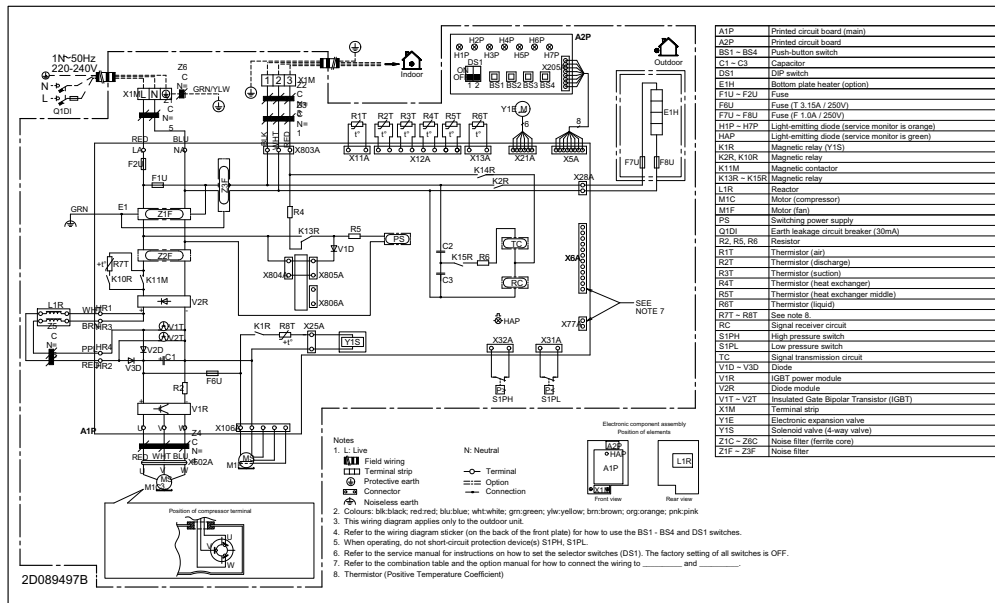


- A1P : Printed circuit board (Main)
- A2P : Printed circuit board (INV)
- B51-B54 : Push button switch
- C1-C3 : Capacitor
- DS1 : Dip switch
- F1U : Fuse (T 6.3A / 250V)
- F6U : Fuse (T 3.15A / 250V)
- H1P-7P (A2P) : Light emitting diode (service monitor orange)
- HAP (A1P) : Light emitting diode (service monitor green)
- K1R : Magnetic relay (Y1S)
- K10R : Magnetic relay
- K11R : Magnetic relay
- K12R : Magnetic relay
- K13R : Magnetic relay
- M : Motor (compressor)
- M1C : Motor (fan)
- M1F : Switching power supply
- PS : Field earth leakage breaker (30mA)
- Q1DI : Resistor
- R1 : Resistor
- R2 : Resistor
- R1T : Thermistor (air)
- R2T : Thermistor (discharge)
- R3T : Thermistor (suction)
- R4T : Thermistor (Heat exchanger)
- R5T : Thermistor (Heat exchanger middle)
- R6T : Thermistor (Heat exchanger middle)
- R7T : Thermistor (fin)
- R8T : Thermistor (fin)
- RC : Signal receiver circuit
- S1PH : Pressure sensor
- S1PH : Pressure switch (High)
- S1PL : Pressure switch (Low)
- 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 (ferite corp)
- Z1F-Z4F : Noise filter

- Notes:
- This wiring diagram only applies to the outdoor unit.
 - L: Live; N: Neutral; : Field wiring
 - : Terminal strip : Connector : Connection
 - : Protective earth (screw) : Relay connector
 - : Noiseless earth : Terminal
 - Refer to the option manual for connecting wiring to x6A.
 - Refer to the "Wiring diagram sticker" (on back of front plate) on how to use BS1 - BS4 and DS1 switch.
 - Do not operate the unit by short-circuiting protection device S1PH.
 - Colours: WHT: White / RED: Red / BLU: Blue / ORG: Orange / BRN: Brown / GRN: Green / YLW: Yellow / BLK: Black
 - Confirm the method of setting the selector switches (DS1) by service manual. Factory setting of all switches: "OFF".

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- A1P : Printed circuit board (main)
- A2P : Printed circuit board
- B51 - B54 : Push-button switch
- C1 - C3 : Capacitor
- DS1 : Dip switch
- E1H : Bottom plate heater (option)
- F1U - F2U : Fuse
- F6U : Fuse (T 3.15A / 250V)
- F7U - F8U : Fuse (T 1.0A / 250V)
- H1P - H7P : Light-emitting diode (service monitor is orange)
- HAP : Light-emitting diode (service monitor is green)
- K1R : Magnetic relay (Y1S)
- K10R : Magnetic relay
- K11M : Magnetic relay
- K13R - K13R : Magnetic relay
- K13R - K13R : Magnetic relay
- L1R : Resistor
- M1C : Motor (compressor)
- M1F : Motor (fan)
- PS : Switching power supply
- Q1DI : Earth leakage circuit breaker (30mA)
- R1, R5, R6 : Resistor
- R1T : Thermistor (air)
- R2T : Thermistor (discharge)
- R3T : Thermistor (suction)
- R4T : Thermistor (heat exchanger)
- R5T : Thermistor (heat exchanger middle)
- R6T : Thermistor (heat exchanger middle)
- R7T - R8T : See note 8
- RC : Signal receiver circuit
- S1PH : High pressure switch
- S1PL : Low pressure switch
- TC : Signal transmission circuit
- V1D - V2D : Diode
- V1R : IGBT power module
- V2R : Diode module
- V1T - V2T : Insulated Gate Bipolar Transistor (IGBT)
- X1M : Terminal strip
- Y1E : Electronic expansion valve
- Y1S : Solenoid valve (4 way valve)
- Z1C - Z4C : Noise filter (ferite corp)
- Z1F - Z4F : Noise filter

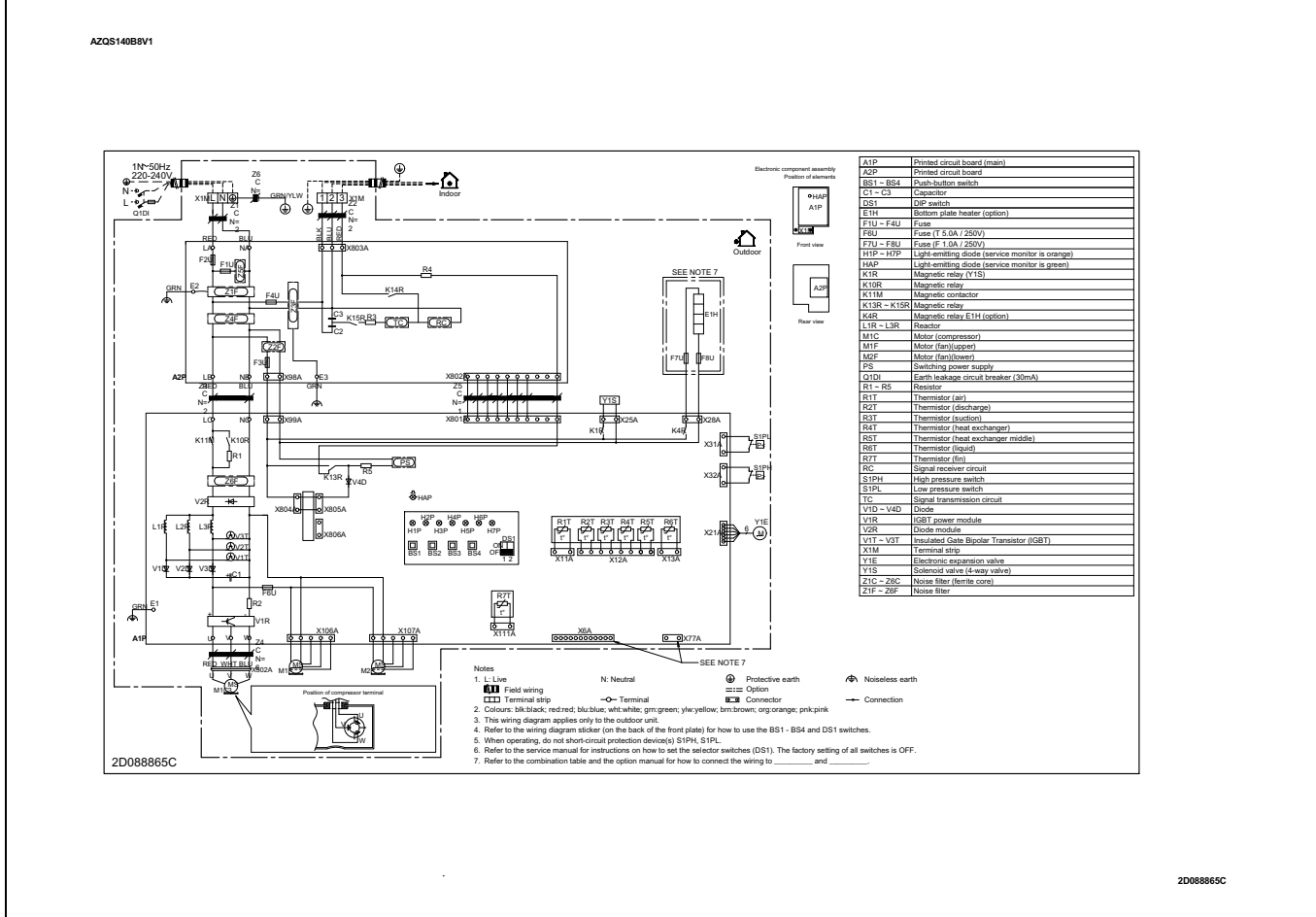
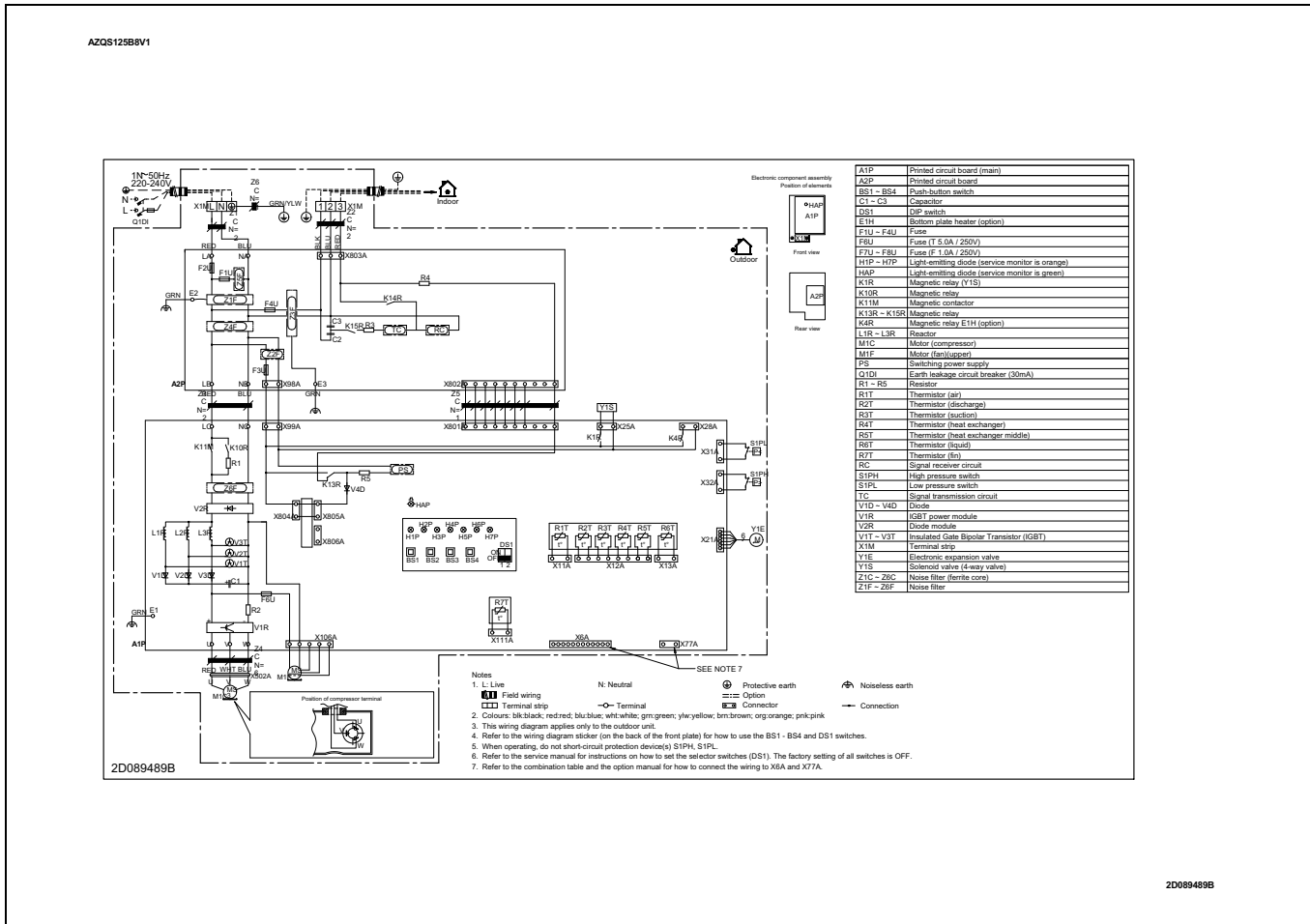
- Notes:
- L: Live; : Field wiring; : Terminal strip; : Protective earth; : Noiseless earth
 - Colours: blk:black; red:red; blu:blue; wht:white; grn:green; ylw:yellow; brn:brown; org:orange; prk:pink
 - This wiring diagram applies only to the outdoor unit.
 - Refer to the wiring diagram sticker (on the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

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20

10 Wiring diagrams

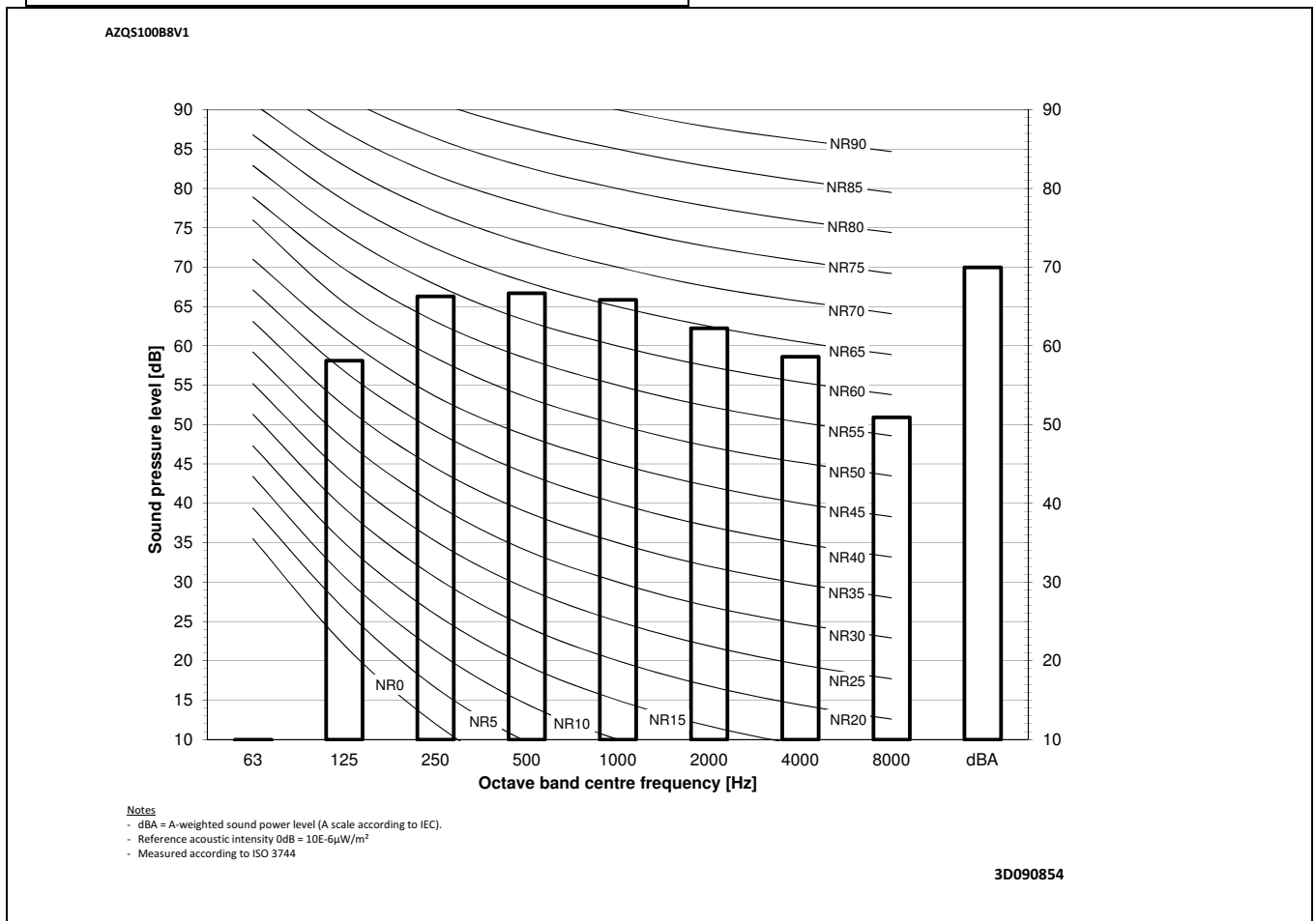
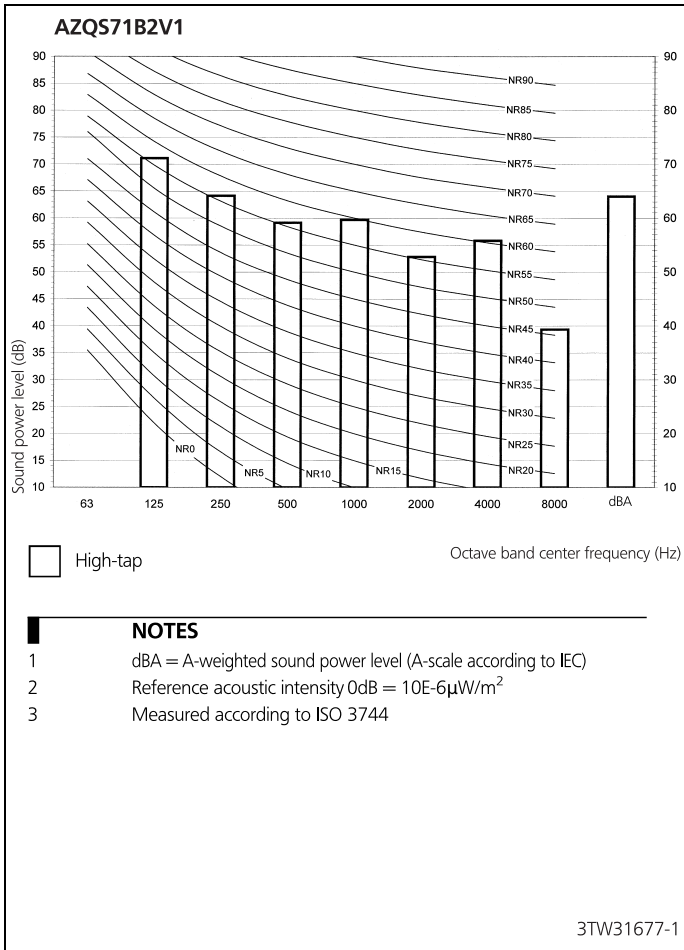
10 - 1 Wiring Diagrams - Single Phase



11 Sound data

11 - 1 Sound Power Spectrum

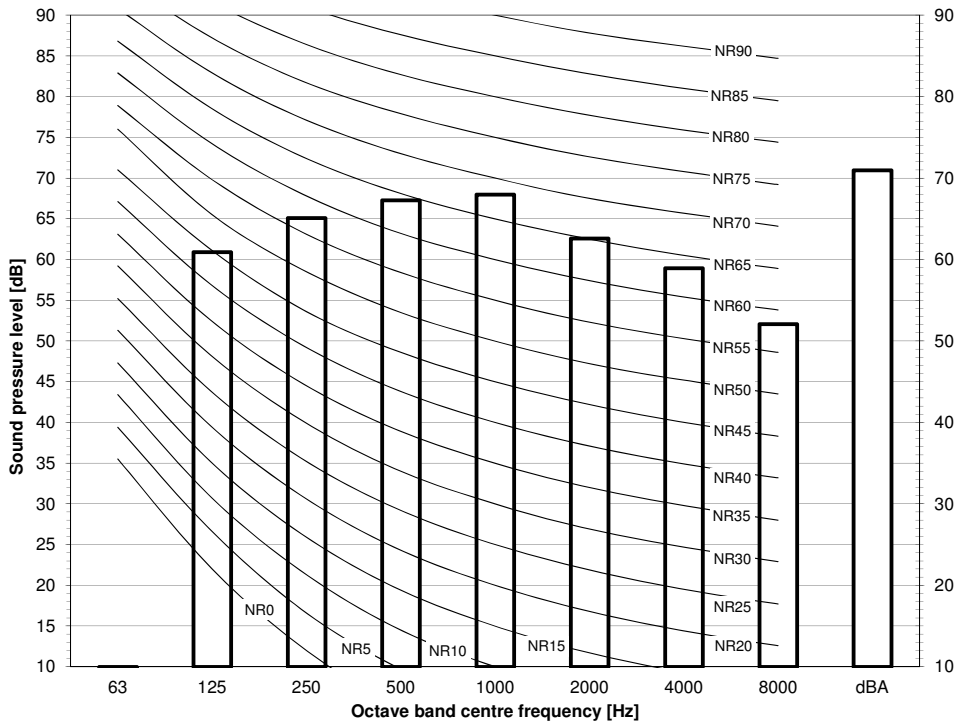
11



11 Sound data

11 - 1 Sound Power Spectrum

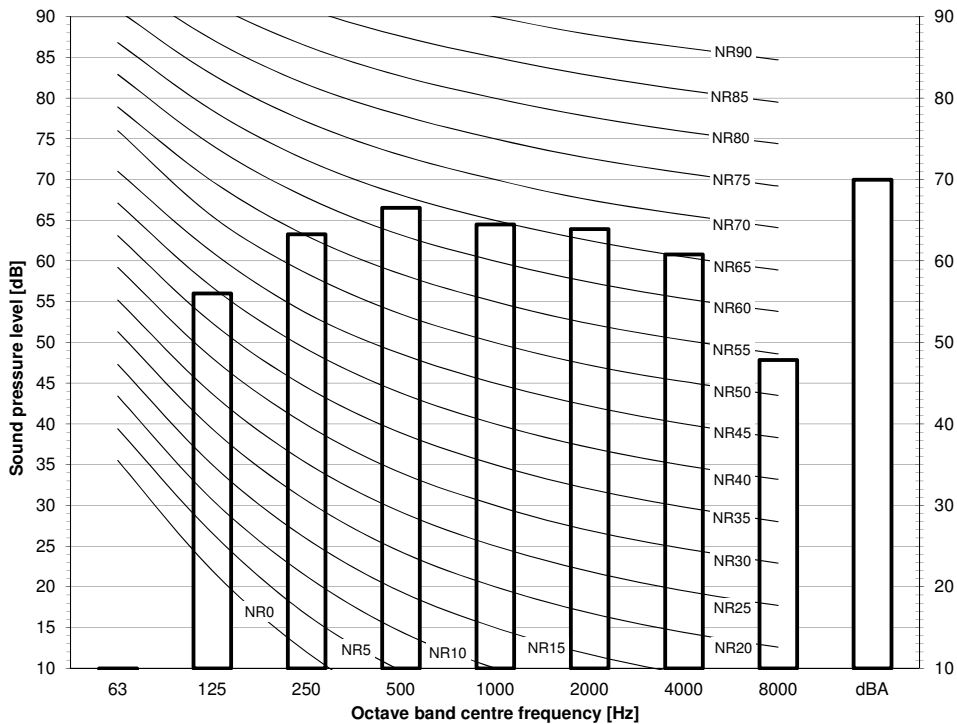
AZQS125B8V1



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

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AZQS140B8V1



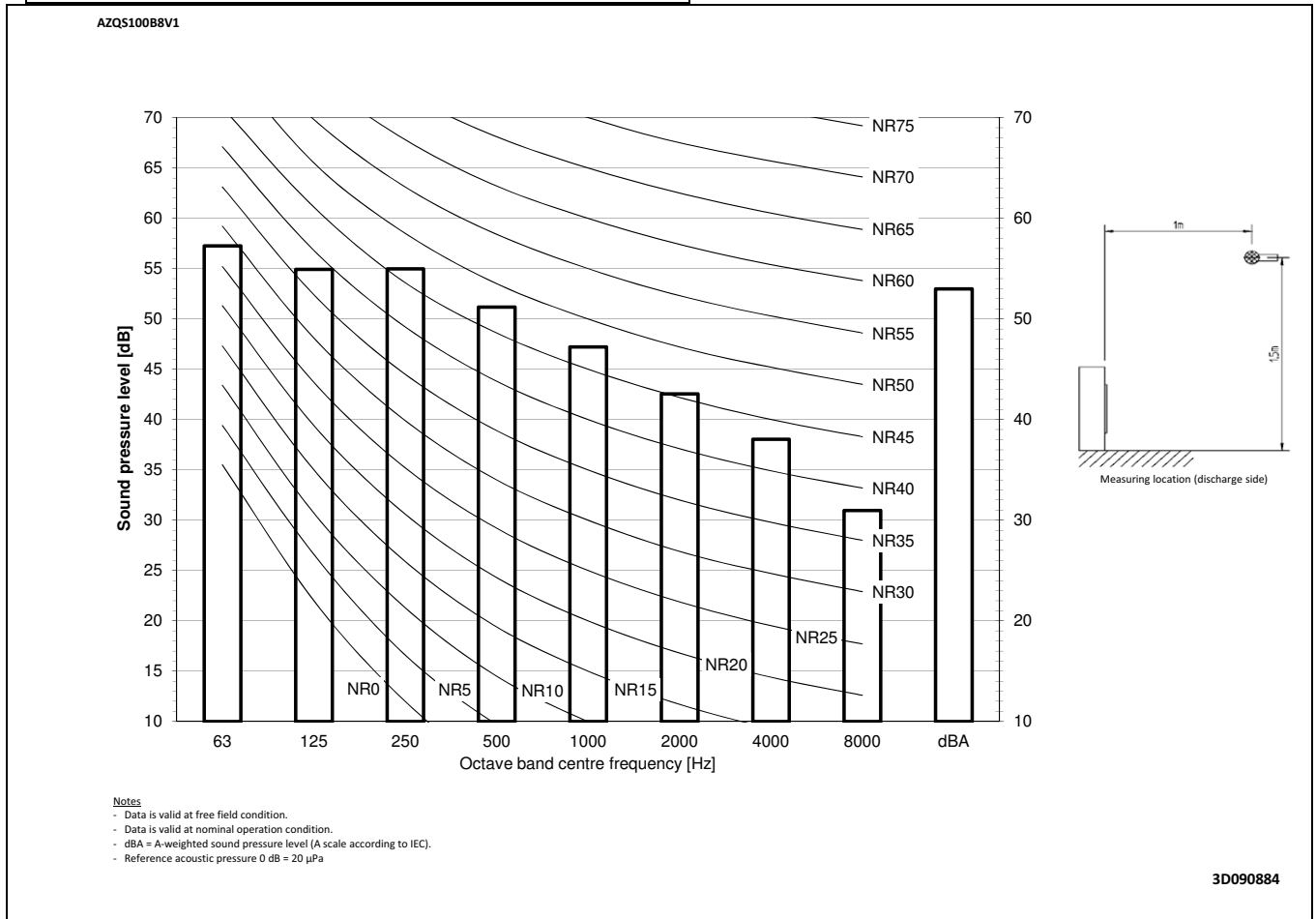
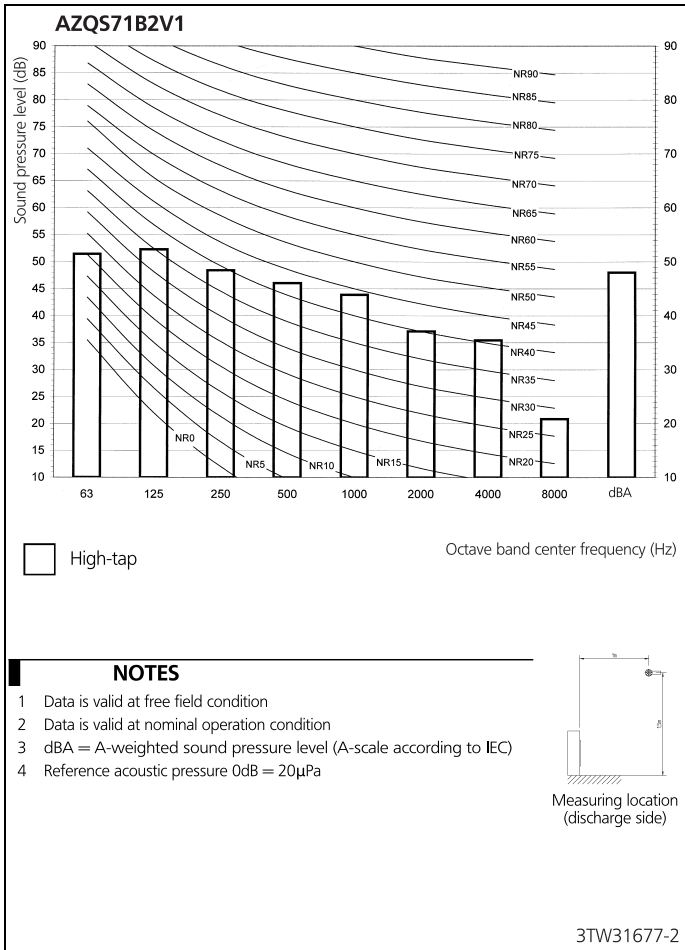
Notes
 - dBA = A-weighted sound power level (A scale according to IEC).
 - Reference acoustic intensity $O_{dB} = 10E-6 \mu W/m^2$
 - Measured according to ISO 3744

3D090856

11 Sound data

11 - 2 Sound Pressure Spectrum - Cooling

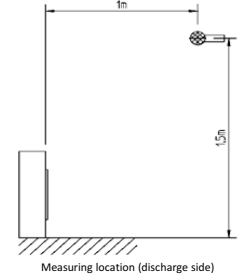
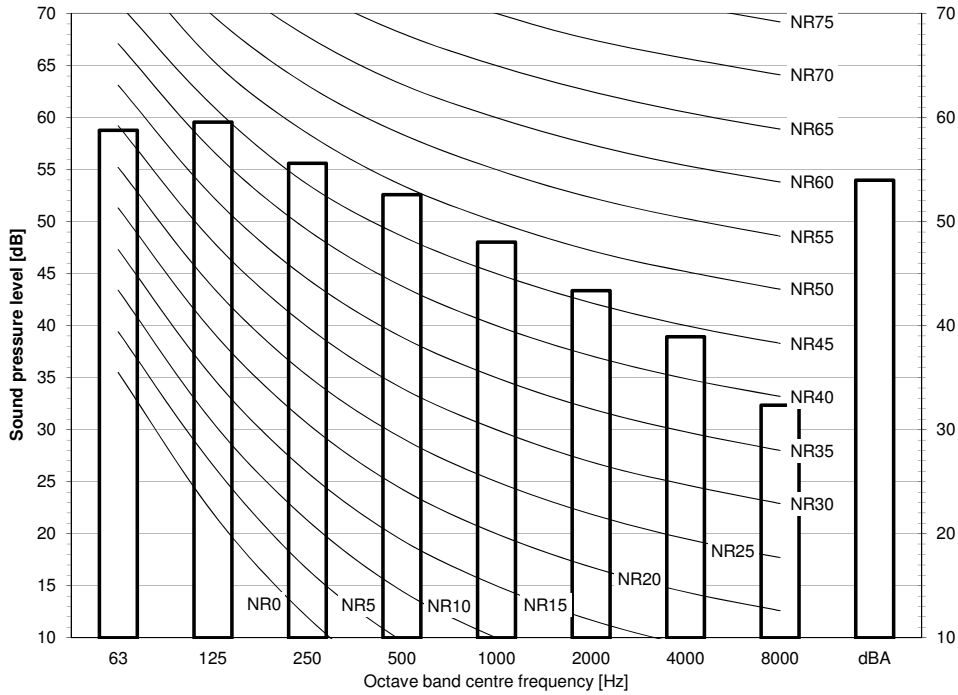
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11 Sound data

11 - 2 Sound Pressure Spectrum - Cooling

AZQS125B8V1

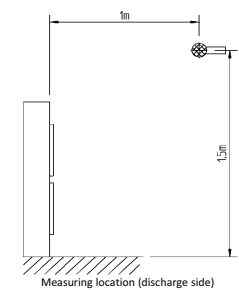
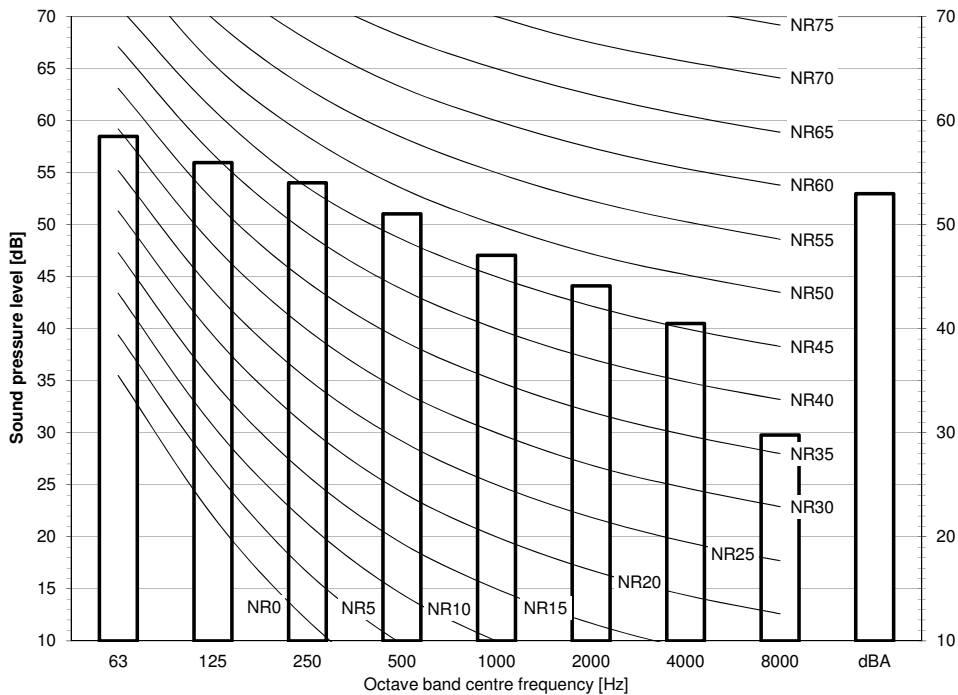


Notes

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

3D090885

AZQS140B8V1



Notes

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

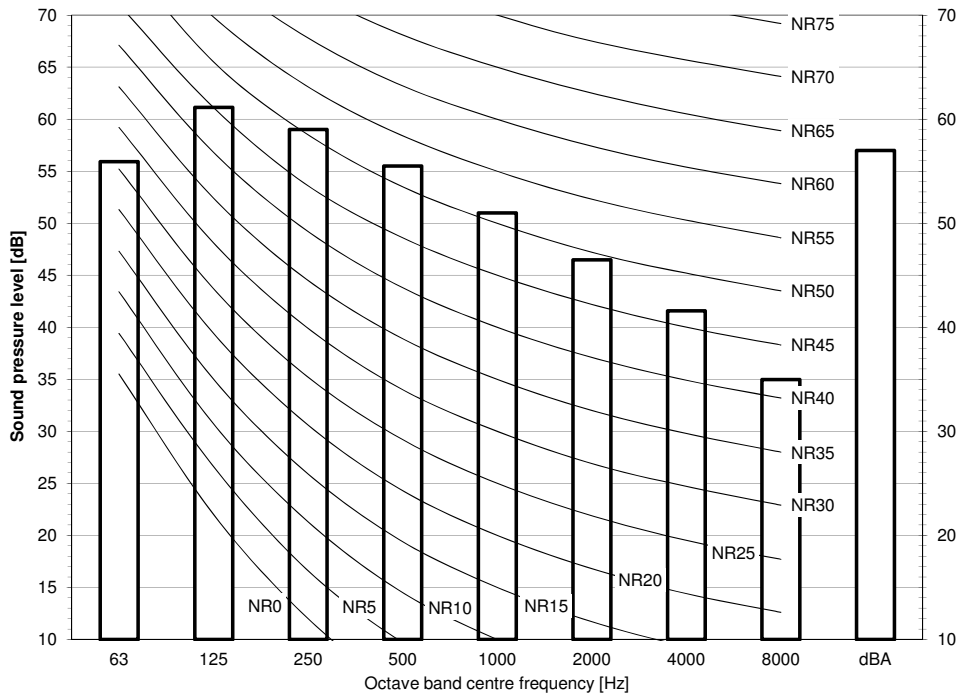
3D090886

11 Sound data

11 - 3 Sound Pressure Spectrum - Heating

11

AZQS100B8V1

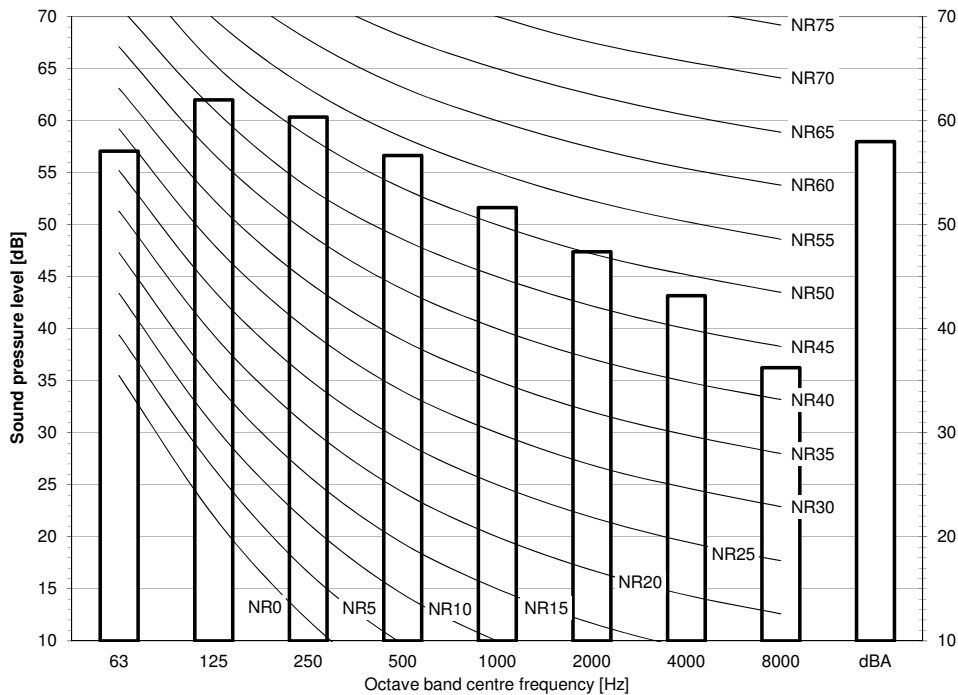


Notes

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

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AZQS125B8V1



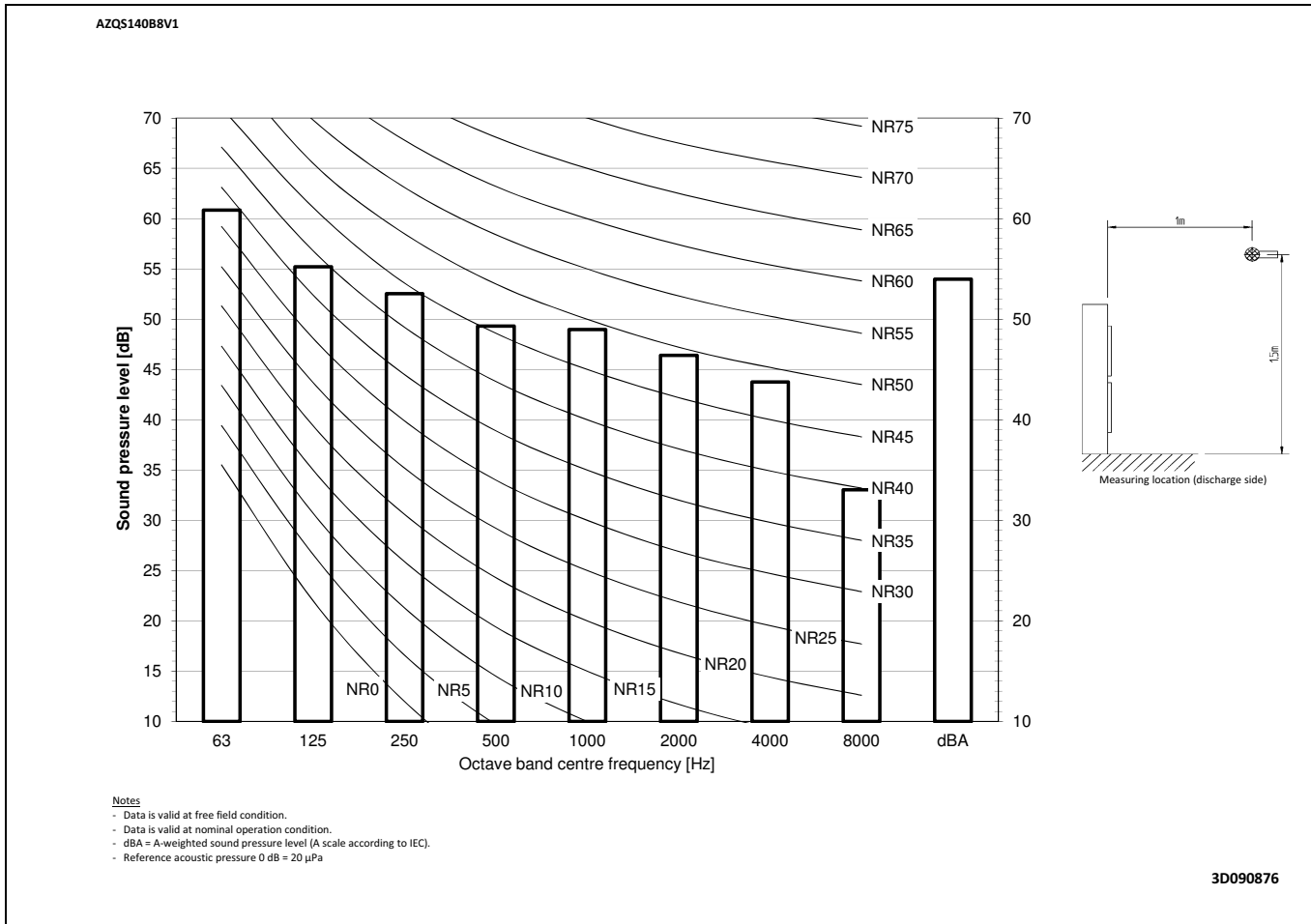
Notes

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

3D090875

11 Sound data

11 - 3 Sound Pressure Spectrum - Heating

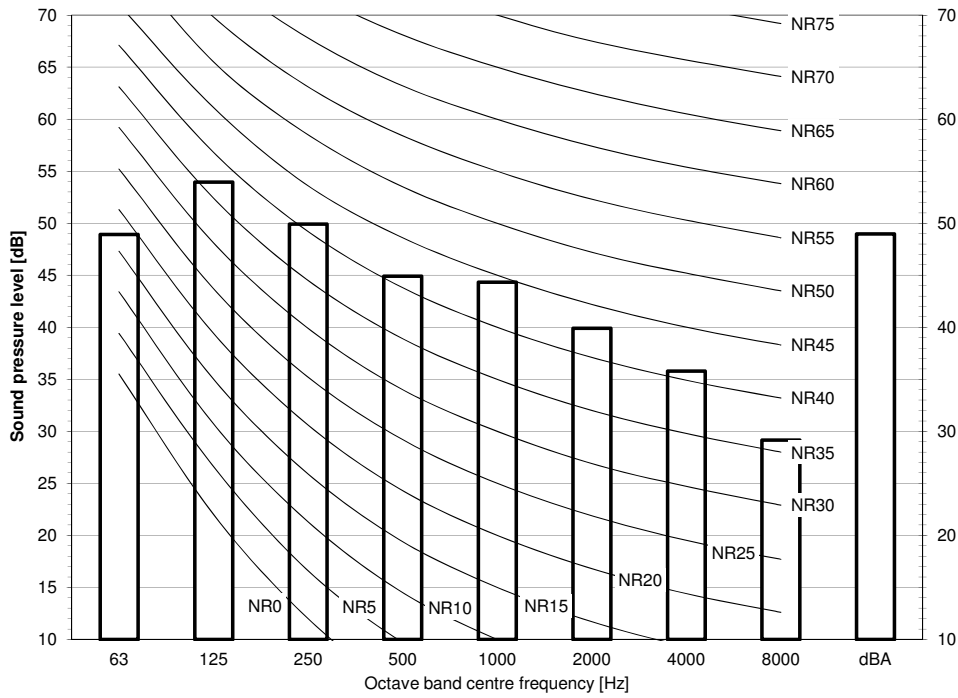


11 Sound data

11 - 4 Sound Pressure Spectrum Quiet Mode

11

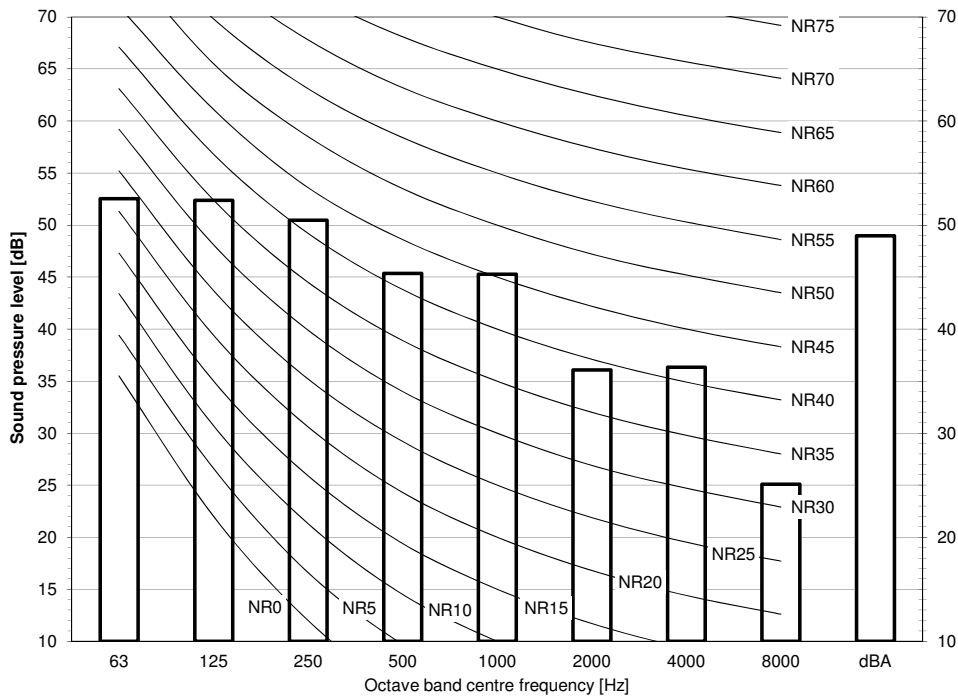
AZQS100B8V1



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

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AZQS125B8V1

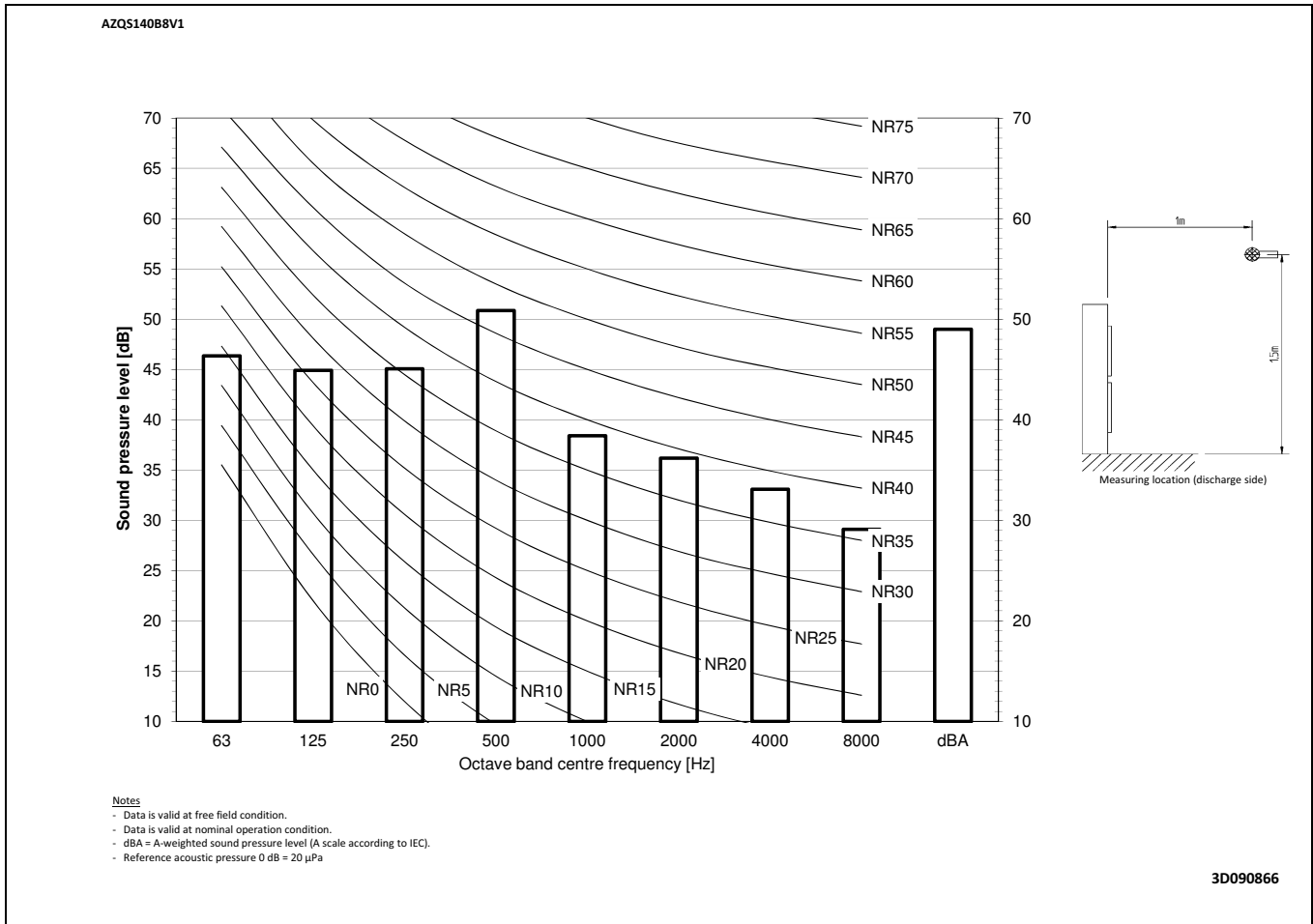


- Notes**
- Data is valid at free field condition.
 - Data is valid at nominal operation condition.
 - dBA = A-weighted sound pressure level (A scale according to IEC).
 - Reference acoustic pressure 0 dB = 20 µPa

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11 Sound data

11 - 4 Sound Pressure Spectrum Quiet Mode



12 Installation

12 - 1 Installation Method

AZQS-B(8)V1

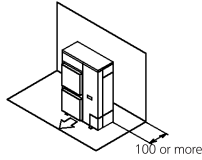
Installation service space

The measure of these values is "mm".

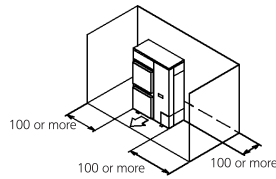
(A) When there are obstacles on suction sides.

• No obstacle above

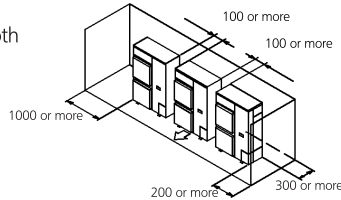
- ① Stand-alone installation
 - Obstacle on the suction side only



- Obstacle on both sides and suction side, too

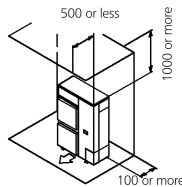


- ② Series installation (2 or more) (Note 1)
 - Obstacle on the suction side and both sides

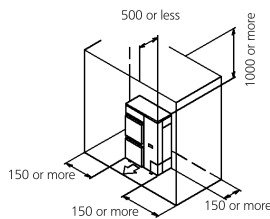


• Obstacle above, too.

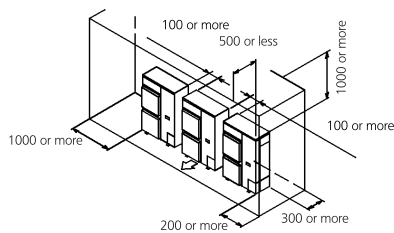
- ① Stand-alone installation
 - Obstacle on the suction side, too



- Obstacle on both sides and suction side, too



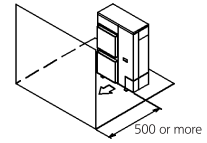
- ② Series installation (2 or more) (Note 1)
 - Obstacle on the suction side and both sides



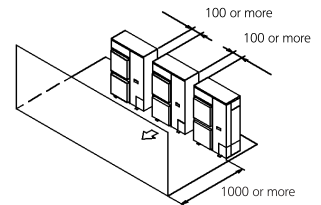
(B) When there are obstacles on discharge sides.

• No obstacle above

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

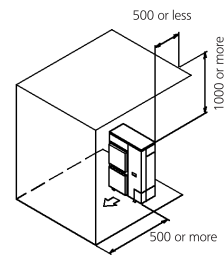


- ② Series installation (2 or more) (Note 1)
 - Obstacle on the discharge side only

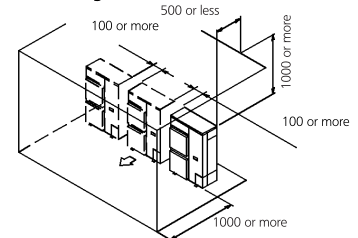


• Obstacle above, too

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



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



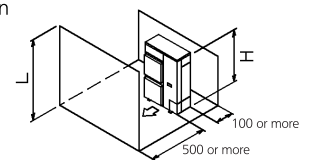
(C) When there are obstacles on both suction and discharge sides.:

Pattern 1

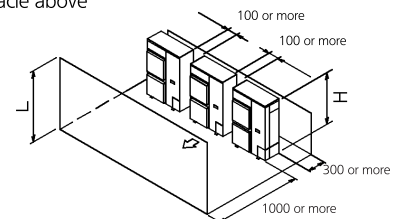
When the obstacles on the discharge side is higher than the unit. (L>H)
(There is no limit for the height of obstructions on the suction side.)

• No obstacle above

- ① Stand-alone installation
 - No obstacle above



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



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12 Installation

12 - 1 Installation Method

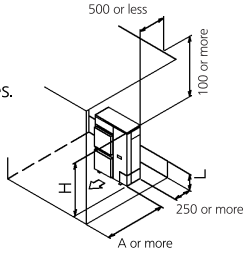
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● **Obstacle above, too**

- 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
$L \leq H$	$L \leq 1/2 H$ $1/2 H < L \leq H$	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.

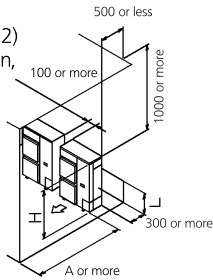
The relations between H, A and L are as follows.

	L	A
$L \leq H$	$L \leq 1/2 H$ $1/2 H < L \leq H$	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.

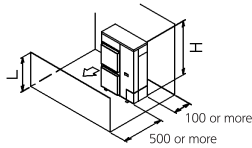
Pattern 2

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**

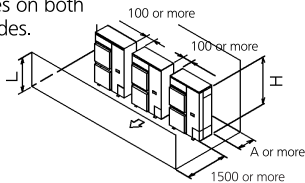
- ① Stand-alone installation
 - No obstacle above



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

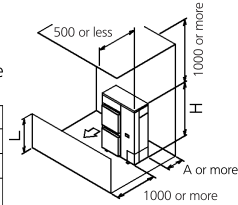


● **obstacle above**

- 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
$L \leq H$	$L \leq 1/2 H$ $1/2 H < L \leq H$	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	

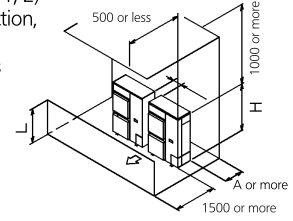


- ② Series installation (2 or more) (Note 1, 2)

- When there are obstacles on suction, discharge and top sides.
- The relations between H, A and L are as follows.

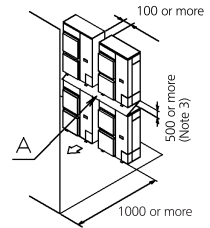
	L	A
$L \leq H$	$L \leq 1/2 H$ $1/2 H < L \leq H$	250 or more 300 or more
$L > H$	Set the stand as : $L \leq H$ Refer to the column of $L \leq H$ for A	

Limit of series installation is 2 units.

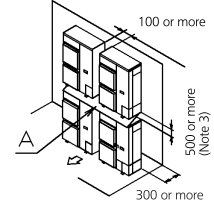


(D) Double-decker installation

- 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.

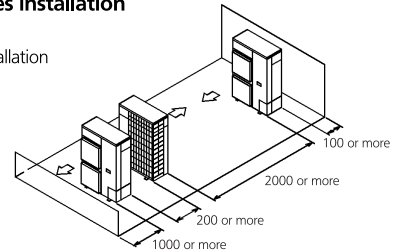


- ② Obstacle on the suction side. (1)
 - Do not exceed two levels for stacked installation.
 - Install a roof cover similar to A (field supply), as outdoor units with downward drainage are prone to dripping and freezing.
 - Install the upper-level outdoor unit so that its bottom plate is a sufficient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



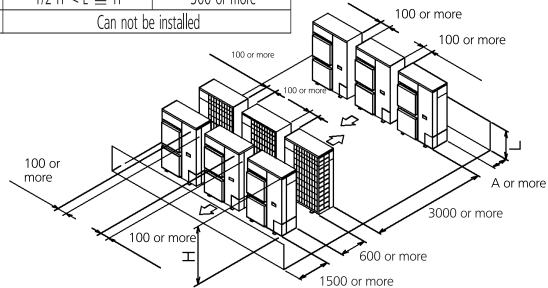
(E) Multiple rows of series installation (on the rooftop, etc.)

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



NOTES

- In case of the sideways's 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 re-intake of discharged air.

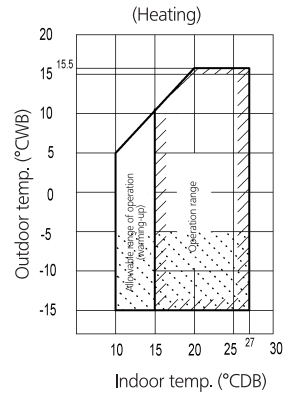
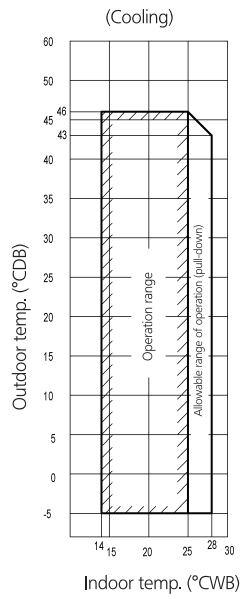
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13 Operation range

13 - 1 Operation Range

13

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AZQS-BY1



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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