

Air Conditioning  
Technical Data

# AZAS-MY1





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## AZAS-MY1

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# 1 Features

Ideal solution for busy environments and small shops

- High efficiency: - Energy labels up to A+ (cooling) / A (heating) - compressor offers substantial efficiency improvements
- Choosing for an R-32 product, reduces the environmental impact with 68% compared to R-410A, leads directly to lower energy consumption thanks to its high energy efficiency and has a lower refrigerant charge
- Very compact and easy to install
- Replace existing systems with R-32 technology without needing to replace the piping
- Guarantees operation in heating mode down to -15°C and in cooling mode down to -5°C
- Refrigerant cooled PCB guarantees reliable cooling, as it is not influenced by ambient temperature.
- Piping length up to 30m
- Exclusively offered for pair applications



Inverter



Auto cooling-  
heating  
changeover

## 2 Specifications

2-1 Capacity and Power input				FCAG100A/AZAS100MY1	FCAG125A/AZAS125MY1	FCAG140A/AZAS140MY1		
Indoor unit				FCAG100AVEB	FCAG125AVEB	FCAG140AVEB		
Outdoor unit				AZAS100M7Y1B	AZAS125M7Y1B	AZAS140M7Y1B		
Cooling capacity	Nom.	kW		9.50 (1)	12.1 (1)	13.4 (1)		
Heating capacity	Nom.	kW		10.8 (2)	13.5 (2)	15.5 (2)		
Space cooling	Energy efficiency class			A+	-			
	Capacity	Pdesign	kW	9.50	12.1	13.0		
	SEER			5.67	5.40	6.00		
	ηs,c			-	213	237		
	Annual energy consumption			kWh/a	586	1,345	1,300	
	A Condition (35°C - 27/19)	Pdc	kW	9.50	12.10	13.00		
		EERd		3.26	2.29	2.63		
		Power input	kW	2.92	5.28	4.95		
	B Condition (30°C - 27/19)	Pdc	kW	7.00	8.92	9.58		
		EERd		4.61	4.03	4.50		
		Power input	kW	1.52	2.21	2.13		
	C Condition (25°C - 27/19)	Pdc	kW	4.50	5.74	6.16		
		EERd		6.54	6.31	7.01		
		Power input	kW	0.69	0.91	0.88		
	D Condition (20°C - 27/19)	Pdc	kW	3.11	3.18	3.74		
		EERd		9.38	9.82	10.84		
Power input		kW	0.33	0.32	0.35			
Space heating (Average climate)	Energy efficiency class			A	-			
	Capacity	Pdesign	kW	6.00		7.80		
	SCOP/A			3.85	3.80	4.31		
	SCOPnet/A			3.85	3.80	4.31		
	ηs,h			%	-	149	169	
	Annual energy consumption			kWh/a	2,182	2,211	2,534	
	Required back up heating cap at design conditions			kW	0.00			
	TOL	Tol (temperature operating limit)	°C	-10				
			kW	6.00		7.80		
			COPd (declared COP)			2.33	2.43	2.26
			Power input	kW	2.58	2.47	3.44	
	TBivalent	Tbiv (bivalent temperature)	°C	-10				
			kW	6.00		7.80		
			COPd (declared COP)			2.33	2.43	2.26
			Power input	kW	2.58	2.47	3.44	
	A Condition (-7°C)	Pdh (declared heating cap)	kW	5.31	5.30	6.90		
			COPd (declared COP)			2.54	2.61	2.60
			Power input	kW	2.09	2.03	2.65	
	B Condition (2°C)	Pdh (declared heating cap)	kW	3.23		4.20		
			COPd (declared COP)			3.67	3.64	4.32
			Power input	kW	0.88	0.89	0.97	
	C Condition (7°C)	Pdh (declared heating cap)	kW	2.10	2.13	3.40		
			COPd (declared COP)			5.16	4.88	5.92
			Power input	kW	0.41	0.44	0.57	
	D Condition (12°C)	Pdh (declared heating cap)	kW	2.50	2.55	3.99		
			COPd (declared COP)			6.42	6.24	7.26
			Power input	kW	0.39	0.41	0.55	
	Pto (Thermostat off)			W	12 / 0		-	
	Cooling	Cdc (Degradation cooling)			0.25			
	Heating	Cdh (Degradation heating)			0.25			

## 2 Specifications

2-1 Capacity and Power input					FCAG100A/AZAS100MY1	FCAG125A/AZAS125MY1	FCAG140A/AZAS140MY1
Cooling function included					Yes		
Heating function included					Yes		
Average climate included					Yes		
Cold season included					No		
Warm season included					No		
Ecolabel logo					No		
Power consumption in other than active mode	Off mode	POFF		W	12		
	Standby mode	Cooling	PSB	W	12		
		Heating	PSB	W	12		
	Thermostat-off mode	PTO	Heating	W	-	12	
			Cooling	W	-	0	
	Crankcase heater mode	PCK		W	0		
	Indication if the heater is equipped with a supplementary heater (pair application)					-	No

### Notes

(1) Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB, outdoor temperature: 35°CDB, equivalent refrigerant piping: 5m, level difference: 0m.

(2) Nominal heating capacities are based on: indoor temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, equivalent refrigerant piping: 5m, level difference: 0m.

Cooling: indoor temp. 27°CDB, 19.0°CWB; outdoor temp. 35°CDB; equivalent piping length: 5m; level difference: 0m

2-2 Capacity and Power input				FBA100A/AZAS100MY1	FBA125A/AZAS125MY1	FBA140A/AZAS140MY1
Indoor unit				FBA100A2VEB	FBA125A2VEB	FBA140A2VEB
Outdoor unit				AZAS100M7Y1B	AZAS125M7Y1B	AZAS140M7Y1B
Cooling capacity	Nom.	kW		9.50 (1)	12.1 (1)	13.4 (1)
Heating capacity	Nom.	kW		10.8 (2)	13.5 (2)	15.5 (2)
Space cooling	Energy efficiency class			A	-	
	Capacity	Pdesign	kW	9.50	12.1	13.0
	SEER			5.25	4.85	5.50
	ηs,c		%	-	191	217
	Annual energy consumption		kWh/a	633	1,497	1,418
	A Condition (35°C - 27/19)	Pdc	kW	9.50	12.10	13.00
		EERd		3.20	2.30	2.72
		Power input	kW	2.97	5.26	4.78
	B Condition (30°C - 27/19)	Pdc	kW	7.00	8.92	9.58
		EERd		4.53	3.82	4.41
		Power input	kW	1.54	2.33	2.17
	C Condition (25°C - 27/19)	Pdc	kW	4.50	5.74	6.16
		EERd		6.19	5.60	6.49
		Power input	kW	0.73	1.02	0.95
	D Condition (20°C - 27/19)	Pdc	kW	3.10	3.17	3.97
		EERd		7.58	7.68	8.24
		Power input	kW	0.41		0.48

## 2 Specifications

2-2 Capacity and Power input					FBA100A/AZAS100MY1		FBA125A/AZAS125MY1		FBA140A/AZAS140MY1			
Space heating (Average climate)	Energy efficiency class				A		-					
	Capacity		Pdesign		kW		6.00		7.80			
	SCOP/A				3.81		3.55		3.85			
	SCOPnet/A				3.81		3.55		3.85			
	ηs,h			%		-		139		151		
	Annual energy consumption			kWh/a		2,205		2,366		2,836		
	Required back up heating cap at design conditions			kW		0.00						
	TOL	Tol (temperature operating limit)	°C		-10							
			Pdh (declared heating cap)	kW	6.00					7.80		
					COPd (declared COP)		2.42		2.45		2.06	
					Power input		kW		2.47		2.45	
	TBivalent	Tbiv (bivalent temperature)	°C		-10							
			Pdh (declared heating cap)	kW	6.00					7.80		
					COPd (declared COP)		2.42		2.45		2.06	
					Power input		kW		2.47		2.45	
	A Condition (-7°C)	Pdh (declared heating cap)	kW	kW		5.31		5.30		6.90		
				COPd (declared COP)		2.66		2.46				
				Power input		kW		1.99		2.81		
	B Condition (2°C)	Pdh (declared heating cap)	kW	kW		3.23		4.20				
				COPd (declared COP)		3.73		3.45		3.94		
				Power input		kW		0.87		0.94		1.07
	C Condition (7°C)	Pdh (declared heating cap)	kW	kW		2.26		2.27		3.50		
				COPd (declared COP)		4.78		4.28		4.98		
				Power input		kW		0.47		0.53		0.70
	D Condition (12°C)	Pdh (declared heating cap)	kW	kW		2.57		2.66		4.10		
				COPd (declared COP)		5.64		5.24		6.10		
				Power input		kW		0.46		0.51		0.67
	Pto (Thermostat off)			W		0 / 14		-				
	Cooling	Cdc (Degradation cooling)				0.25						
	Heating	Cdh (Degradation heating)				0.25						
	Cooling function included					Yes						
	Heating function included					Yes						
Average climate included					Yes							
Cold season included					No							
Warm season included					No							
Ecolabel logo					No							
Power consumption in other than active mode	Off mode		POFF		W		14					
	Standby mode	Cooling	PSB	W		14						
		Heating	PSB	W		14						
	Thermostat-off mode	PTO	Heating	W		-		14				
		Cooling	W		-		0					
	Crankcase heater mode		PCK		W		0					
	Indication if the heater is equipped with a supplementary heater (pair application)					-		No				

### Notes

(1) Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB, outdoor temperature: 35°CDB, equivalent refrigerant piping: 5m, level difference: 0m.

(2) Nominal heating capacities are based on: indoor temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, equivalent refrigerant piping: 5m, level difference: 0m.

Cooling: indoor temp. 27°CDB, 19.0°CWB; outdoor temp. 35°CDB; equivalent piping length: 5m; level difference: 0m

## 2 Specifications

2-3 Capacity and Power input				FAA100A/AZAS100MY1	
Indoor unit				FAA100AUVEB	
Outdoor unit				AZAS100M7Y1B	
Cooling capacity	Nom.	kW		9.50 (1)	
Heating capacity	Nom.	kW		10.8 (2)	
Space cooling	Energy efficiency class			A	
	Capacity	Pdesign	kW	9.50	
	SEER			5.25	
	Annual energy consumption		kWh/a	633	
	A Condition (35°C - 27/19)	Pdc	kW	9.50	
		EERd		2.70	
		Power input	kW	3.52	
	B Condition (30°C - 27/19)	Pdc	kW	7.00	
		EERd		4.29	
		Power input	kW	1.63	
	C Condition (25°C - 27/19)	Pdc	kW	4.50	
		EERd		6.05	
		Power input	kW	0.74	
	D Condition (20°C - 27/19)	Pdc	kW	3.00	
		EERd		9.03	
		Power input	kW	0.33	
Space heating (Average climate)	Energy efficiency class			A	
	Capacity	Pdesign	kW	6.00	
	SCOP/A			3.81	
	SCOPnet/A			3.81	
	Annual energy consumption		kWh/a	2,205	
	Required back up heating cap at design conditions		kW	0.00	
	TOL	Tol (temperature operating limit)	°C	-10	
		Pdh (declared heating cap)	kW	6.00	
		COPd (declared COP)		2.29	
		Power input	kW	2.63	
	TBivalent	Tbiv (bivalent temperature)	°C	-10	
		Pdh (declared heating cap)	kW	6.00	
		COPd (declared COP)		2.29	
		Power input	kW	2.63	
	A Condition (-7°C)	Pdh (declared heating cap)	kW	5.31	
		COPd (declared COP)		2.52	
		Power input	kW	2.10	
	B Condition (2°C)	Pdh (declared heating cap)	kW	3.23	
		COPd (declared COP)		3.64	
		Power input	kW	0.89	
	C Condition (7°C)	Pdh (declared heating cap)	kW	2.12	
		COPd (declared COP)		5.04	
		Power input	kW	0.42	
	D Condition (12°C)	Pdh (declared heating cap)	kW	2.52	
		COPd (declared COP)		6.46	
		Power input	kW	0.39	
Pto (Thermostat off)			W	0 / 12	
Cooling	Cdc (Degradation cooling)			0.25	
Heating	Cdh (Degradation heating)			0.25	
Cooling function included				Yes	
Heating function included				Yes	



## 2 Specifications

2-3 Capacity and Power input				FAA100A/AZAS100MY1	
Average climate included				Yes	
Cold season included				No	
Warm season included				No	
Ecolabel logo				No	
Power consumption in other than active mode	Off mode	POFF	W	12	
	Standby mode	Cooling	PSB	12	
		Heating	PSB	12	
	Crankcase heater mode	PCK	W	0	

### Notes

(1) Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB, outdoor temperature: 35°CDB, equivalent refrigerant piping: 5m, level difference: 0m.

(2) Nominal heating capacities are based on: indoor temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, equivalent refrigerant piping: 5m, level difference: 0m.

2-4 Capacity and Power input				AVA125A/AZAS125MY1	
Indoor unit				AVA125AMVE	
Outdoor unit				AZAS125M7Y1B	
Cooling capacity	Nom.		kW	12.1 (1)	
Heating capacity	Nom.		kW	13.5 (2)	
Space cooling	Capacity	Pdesign	kW	12.1	
	SEER			5.30	
	ηs,c			209	
	Annual energy consumption			1,370	
	A Condition (35°C - 27/19)	Pdc	kW	12.10	
		EERd		2.37	
		Power input	kW	5.11	
	B Condition (30°C - 27/19)	Pdc	kW	8.92	
		EERd		4.13	
		Power input	kW	2.16	
	C Condition (25°C - 27/19)	Pdc	kW	5.74	
		EERd		6.00	
		Power input	kW	0.96	
	D Condition (20°C - 27/19)	Pdc	kW	3.07	
		EERd		9.15	
		Power input	kW	0.34	

## 2 Specifications

2-4 Capacity and Power input					AVA125A/AZAS125MY1	
Space heating (Average climate)	Capacity	Pdesign		kW	6.00	
	SCOP/A				3.64	
	SCOPnet/A				3.64	
	ηs,h			%	143	
	Annual energy consumption			kWh/a	2,308	
	Required back up heating cap at design conditions			kW	0.00	
	TOL	Tol (temperature operating limit)		°C	-10	
		Pdh (declared heating cap)		kW	6.00	
		COPd (declared COP)			2.37	
		Power input		kW	2.53	
	TBivalent	Tbiv (bivalent temperature)		°C	-10	
		Pdh (declared heating cap)		kW	6.00	
		COPd (declared COP)			2.37	
		Power input		kW	2.53	
	A Condition (-7°C)	Pdh (declared heating cap)		kW	5.30	
		COPd (declared COP)			2.60	
		Power input		kW	2.04	
	B Condition (2°C)	Pdh (declared heating cap)		kW	3.23	
		COPd (declared COP)			3.51	
		Power input		kW	0.92	
	C Condition (7°C)	Pdh (declared heating cap)		kW	2.19	
		COPd (declared COP)			4.57	
		Power input		kW	0.48	
	D Condition (12°C)	Pdh (declared heating cap)		kW	2.57	
		COPd (declared COP)			5.60	
		Power input		kW	0.46	
Cooling	Cdc (Degradation cooling)				0.25	
Heating	Cdh (Degradation heating)				0.25	
Cooling function included					Yes	
Heating function included					Yes	
Average climate included					Yes	
Cold season included					No	
Warm season included					No	
Ecolabel logo					No	
Power consumption in other than active mode	Off mode	POFF		W	12	
	Standby mode	Cooling	PSB	W	12	
		Heating	PSB	W	12	
	Thermostat-off mode	PTO	Heating	W	12	
			Cooling	W	0	
	Crankcase heater mode	PCK		W	0	
	Indication if the heater is equipped with a supplementary heater (pair application)					No

### Notes

(1) Cooling: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB; equivalent piping length: 5m (horizontal); level difference: 0m

(2) Nominal heating capacities are based on: indoor temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, equivalent refrigerant piping: 5m, level difference: 0m.

## 2 Specifications

2-5 Technical Specifications					AZAS100MY1		AZAS125MY1		AZAS140MY1		
Capacity control	Method				Inverter controlled						
Casing	Colour				Ivory white						
	Material				Painted galvanized steel plate						
Dimensions	Unit	Height		mm	990						
		Width		mm	940						
		Depth		mm	320						
	Packed unit	Height		mm	1,170						
		Width		mm	1,015						
		Depth		mm	422						
Weight	Unit			kg	70				77		
	Packed unit			kg	78				85		
Packing	Weight			kg	9						
Heat exchanger	Fin	Type			WF fin						
		Treatment			Anti-corrosion treatment (PE)						
Compressor	Quantity				1						
	Type				Hermetically sealed swing compressor						
Fan	Type				Propeller						
	Discharge direction				Horizontal						
	Quantity				1						
	Air flow rate	Cooling	Nom.	m³/min	69	71		76			
		Heating	Nom.	m³/min	82						
Fan motor	Quantity				1						
	Model				Brushless DC motor						
	Output			W	200						
	Drive				Direct drive						
Sound power level	Cooling			dBA	70	71		73			
	Heating			dBA	-	71 (1)		73 (1)			
Sound pressure level	Cooling	Nom.		dBA	53				54		
	Heating	Nom.		dBA	57						
Operation range	Cooling	Ambien t	Min.	°CDB	-5						
			Max.	°CDB	46						
	Heating	Ambien t	Min.	°CWB	-15						
			Max.	°CWB	15.5						
Refrigerant	Type				R-32						
	Charge			kg	2.60				2.90		
				TCO <sub>2</sub> eq	1.76				1.96		
	Control				Expansion valve (electronic type)						
	GWP				675						
	Circuits	Quantity			1						
Piping connections	Liquid	Quantity			1						
		Type			Flare connection						
		OD	mm		9,52						
	Gas	Quantity			1						
		Type			Flare connection						
		OD	mm		15.9						
	Drain	Quantity			5						
		Type			Hole						
		OD	mm		26						
	Piping length	OU - IU	Min.	m	5						
			Max.	m	30						
		System	Equival ent	m	50 (2)						
			Chargel ess	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							

## 2 Specifications

2-5 Technical Specifications			AZAS100MY1	AZAS125MY1	AZAS140MY1
Refrigerant oil	Type		FW68DA		
	Charged volume	l	0.90		1.35
Defrost method			Reversed cycle		
Defrost control			Sensor for outdoor heat exchanger temperature		
Safety devices	Item	01	High pressure switch		
		02	Low pressure switch		
		03	Fan driver overload protector		
		04	Fuse		
		05	Compressor motor thermal protector		

Standard Accessories : Tie-wraps; Quantity : 2;

Standard Accessories : Installation manual; Quantity : 1;

Standard Accessories : Refrigerant label for F-gas regulation; Quantity : 1;

Standard Accessories : General safety precautions; Quantity : 1;

Standard Accessories : LOT10 Energy Label; Quantity : 1;

2-6 Electrical Specifications			AZAS100MY1	AZAS125MY1	AZAS140MY1
Power supply	Name		Y1		
	Phase		3~		
	Frequency	Hz	50		
	Voltage	V	380-415		
Current - 50Hz	Maximum fuse amps (MFA)	A	16		
Current	Zmax	List	Complies to EN61000-3-11		
	Minimum Ssc value	kVa	Equipment complying with EN / IEC 61000-3-2 / (3) / See note 4		
Wiring connections	For power supply	Remark	See installation manual outdoor unit		
	For connection with indoor	Remark	See installation manual outdoor unit		
Power supply intake			See installation manual outdoor unit		

### Notes

(1) According to ENER Lot 21

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

(3) Ssc: Short-circuit power

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  $\leq 75A$  per phase.

### 3 Electrical data

#### 3 - 1 Electrical Data

AZAS-MV1

AZAS-MY1

RZAG-MV1

RZAG-MY1

RZASG-MV1

RZASG-MY1

##### 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 Ampere [A]  
KW: Fan motor rated output [kW]

##### Notes

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

3D110014A

### AZAS71-140MV1

							Compressor		OFM		IFM			
Indoor		Outdoor	Power supply	Voltage range		MCA	TOCA	MFA	MSC	RLA	kW	FLA	kW	FLA
FCAG71AVEB		AZAS71M2V1B	50Hz ~ 220-240V	Minimum: 198 V Maximum: 264 V		17.4	—	20	—	15.4	0.094	0.9	0.054	0.4
FBA71A2VEB		AZAS71M2V1B				17.5	—	20	—	15.4	0.094	0.9	0.070	0.5
FAA71AUVEB		AZAS71M2V1B				17.4	—	20	—	15.4	0.094	0.9	0.048	0.4
FCAG100AVEB		AZAS100M7V1B				21.5	—	25	—	19.0	0.200	1.0	0.117	0.7
FBA100A2VEB		AZAS100M7V1B				21.8	—	25	—	19.0	0.200	1.0	0.127	1.0
FAA100AUVEB		AZAS100M7V1B				21.2	—	25	—	19.0	0.200	1.0	0.064	0.4
FCAG125AVEB		AZAS125M7V1B				27.8	—	32	—	24.7	0.200	1.0	0.168	1.0
FBA125A2VEB		AZAS125M7V1B				28.3	—	32	—	24.7	0.200	1.0	0.187	1.5
FCAG140AVEB		AZAS140M7V1B				27.0	—	32	—	24.0	0.200	1.0	0.168	1.0
FBA140A2VEB		AZAS140M7V1B				27.6	—	32	—	24.0	0.200	1.0	0.187	1.5
FCAG100AVEB		AZAS100M7Y1B	3N~ 50Hz 380-415V	Minimum: 342 V Maximum: 456 V		14.2	—	16	—	12.0	0.200	1.0	0.117	0.7
FBA100A2VEB		AZAS100M7Y1B				14.6	—	16	—	12.0	0.200	1.0	0.127	1.0
FAA100AUVEB		AZAS100M7Y1B				13.9	—	16	—	12.0	0.200	1.0	0.064	0.4
FCAG125AVEB		AZAS125M7Y1B				14.6	—	16	—	12.0	0.200	1.0	0.168	1.0
FBA125A2VEB		AZAS125M7Y1B				15.1	—	16	—	12.0	0.200	1.0	0.187	1.5
FCAG140AVEB		AZAS140M7Y1B				14.6	—	16	—	12.0	0.200	1.0	0.168	1.0
FBA140A2VEB		AZAS140M7Y1B				15.1	—	16	—	12.0	0.200	1.0	0.187	1.5

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# 5 Combination table

## 5 - 1 Combination Table

AZAS-MV1

AZAS-MY1

RZAG-MV1

RZAG-MY1

RZASG-MV1

RZASG-MY1

Possible combinations

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

(\*) : See note 1.

Sky Air	High Cassette				Thin cassette				2x2 cassette			Duct (medium ESP)				Concealed floor standing type			Ceiling-mounted - 4-way blow			Wall mounted type		Duct (high ESP)								
Model	FCAG71GVEB	FCAG100GVEB	FCAG125GVEB	FCAG140GVEB	FCAG35AVEB	FCAG50AVEB	FCAG60AVEB	FCAG71AVEB	FCAG100AVEB	FCAG125AVEB	FCAG140AVEB	FFA35A2VEB	FFA50A2VEB	FFA60A2VEB	FBA35A2VEB	FBA50A2VEB	FBA60A2VEB	FBA71A2VEB	FBA100A2VEB	FBA125A2VEB	FBA140A2VEB	RNA35A2VEB	RNA50A2VEB	RNA60A2VEB	FUA71AVEB	FUA100AVEB	FUA125AVEB	FAA71AUEB	FAA100AUEB	FDA125A5VEB		
RZAG71M7Y1B	RZAG71M7Y1B	P			2			P				2			2			P				2			P				P			
RZAG100M7Y1B	RZAG100M7Y1B		P		3	2			P			3	2		3	2			P				2			P				P		
RZAG125M7Y1B	RZAG125M7Y1B			P	4	3	2			P		4	3	2	4	3	2			P		4		2			P				P	
RZAG140M7Y1B	RZAG140M7Y1B	2			P	4			2			P	4		4			2		P		4				2				P		
RZASG71M2V1B					2			P				2			2			P				2			P				P			
RZASG100M7Y1B					3	2			P			3	2		3	2			P			2				P			P			
RZASG125M7Y1B	RZASG125M7Y1B				4	3	2			P		4	3	2	4	3	2			P		4		2			P			P		P
RZASG140M7Y1B	RZASG140M7Y1B				4			2				4			4			2		P		4			2							
AZAS71M2V1B								P										P										P				
AZAS100M7Y1B	AZAS100M7Y1B								P										P										P			
AZAS125M7Y1B	AZAS125M7Y1B									P										P										P		
AZAS140M7Y1B	AZAS140M7Y1B										P										P											

Sky Air	Floor standing type				Slim duct			Ceiling-suspended						
Model	FVA71AMVEB	FVA100AMVEB	FVA125AMVEB	FVA140AMVEB	FDX103F3V1B	FDX105F3V1B	FDX106F3V1B	FHA35AVEB	FHA50AVEB	FHA60AVEB	FHA71AVEB	FHA100AVEB	FHA125AVEB	FHA140AVEB
RZAG71M7Y1B	P				2			2			P			
RZAG100M7Y1B		P			3	2		3	2		P			
RZAG125M7Y1B			P		4	3	2	4	3	2		P		
RZAG140M7Y1B	2			P	4			4			2		P	
RZASG71M2Y1B					2			2			P			
RZASG100M7Y1B		P			3	2		3	2		P			
RZASG125M7Y1B			P		4	3	2	4	3	2		P		
RZASG140M7Y1B	2			P	4			4			2		P	
AZAS71M2Y1B														
AZAS100M7Y1B														
AZAS125M7Y1B														
AZAS140M7Y1B														

Notes

- Maximum capacity is limited based on outdoor unit capacity.
- When combining multiple indoor units, designate the unit whose remote controller is equipped with the most functions as the master unit.
- For the selection of the correct refnet kit, required to install a multi-combination, refer to the option list.

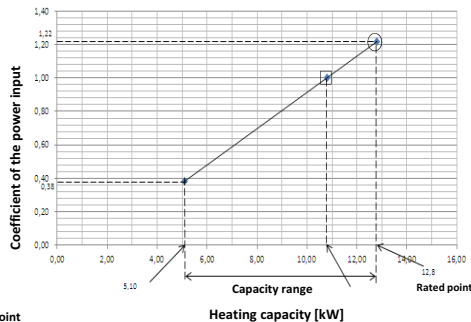
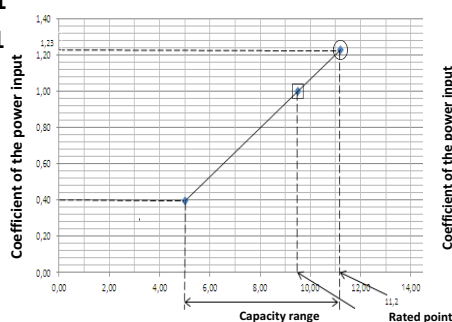
Twin : KHRQ(M)58T  
Triple : KHRQ(M)58H  
Double twin : KHRQ(M)58T

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# 6 Capacity tables

## 6 - 1 Cooling/Heating Capacity Tables

### AZAS100MV1 AZAS100MY1



**Symbols**  
 AFR: Air flow rate [m<sup>3</sup>/min]  
 BF: Bypass factor  
 EWB: Entering wet-bulb temperature (°C WB)  
 EDB: Entering dry-bulb temperature (°C DB)  
 TC: Maximum total cooling/heating capacity [kW]  
 SHC: Sensible heat capacity [kW]  
 CPI: Coefficient of the power input  
 PI: Power input [kW]  
 compressor + indoor and outdoor fan motors

Indoor		Cooling capacity [kW]											
		Outdoor Temperature (°C DB)											
		25			30			35			40		
°CWB	°CDB	TC	SHC	CPI	TC	SHC	CPI	TC	SHC	CPI	TC	SHC	CPI
16.0	22	11.2	7.61	1.01	10.8	7.44	1.11	10.5	7.29	1.22	10.1	7.09	1.32
18.0	25	11.8	7.59	1.01	11.4	7.49	1.12	11.0	7.27	1.23	10.5	7.09	1.33
19.0	27	12.0	7.57	1.02	11.6	7.44	1.12	11.2	7.26	1.23	10.8	7.04	1.33
19.5	27	12.1	7.59	1.02	11.7	7.37	1.13	11.4	7.34	1.23	10.9	7.04	1.34
22.0	30	12.8	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	13.9	7.42	1.03	12.9	7.27	1.14	12.4	7.06	1.25	12.0	6.91	1.36

- Notes**
- The ratings shown are net capacities which include a deduction for indoor fan motor heat.
  - = Maximum at standard conditions  
□ = Rated capacity and rated coefficient of the power input  
The maximum capacity is not guaranteed except at standard conditions.
  - SHC is based on indoor units EWB & EDB.  
SHC for other dry-bulb temperatures = SHC + SHC\*  
SHC\* = SHC correction for other dry-bulb temperatures  
= 0.02 x AFR (m<sup>3</sup>/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 below.
  - The rated power input for each model is mentioned in the table below.

Pair	FCAG100A	FAA100A	FBA100A
AFR	22.8	26.0	29.0
(BF)	(0.17)	(0.10)	(0.03)

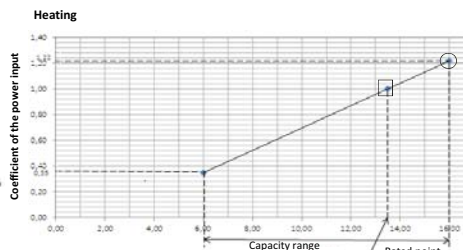
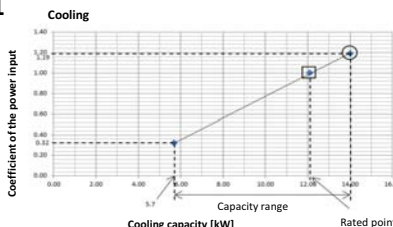
Pair	FCAG100A	FAA100A	FBA100A
Cooling	2.92	3.52	2.97
Heating	3.45	3.98	3.32

#### Heating

Indoor		Outdoor temperature (°C WB)											
		-15.0			-10.0			-5.0			0.0		
		TC	CPI	TC	CPI	TC	CPI	TC	CPI	TC	CPI	TC	CPI
16	°CDB	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	°CDB	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	°CDB	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	°CDB	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	°CDB	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	°CDB	8.54	1.09	9.41	1.15	10.0	1.19	10.3	1.23	12.8	1.31	13.8	1.38

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### AZAS125MV1 AZAS125MY1



**Symbols**  
 AFR: Air flow rate [m<sup>3</sup>/min]  
 BF: Bypass factor  
 EWB: Entering wet-bulb temperature (°C WB)  
 EDB: Entering dry-bulb temperature (°C DB)  
 TC: Maximum total cooling/heating capacity [kW]  
 SHC: Sensible heat capacity [kW]  
 CPI: Coefficient of the power input  
 PI: Power input [kW]  
 compressor + indoor and outdoor fan motors

Indoor		Cooling capacity [kW]											
		Outdoor temperature (°C DB)											
		25			30			35			40		
°CWB	°CDB	TC	SHC	CPI	TC	SHC	CPI	TC	SHC	CPI	TC	SHC	CPI
16.0	22	14.10	9.54	0.97	13.60	9.30	1.08	13.10	9.12	1.18	12.60	8.78	1.28
18.0	25	14.70	9.50	0.97	14.20	9.32	1.08	13.70	9.09	1.19	13.20	8.83	1.30
19.0	27	15.00	9.52	0.99	14.50	9.34	1.09	14.00	9.06	1.19	13.50	8.87	1.29
19.5	27	15.20	9.52	0.99	14.70	9.26	1.09	14.20	9.08	1.19	13.60	8.81	1.30
22.0	30	16.00	9.39	0.99	15.50	9.14	1.09	14.90	8.95	1.20	14.40	8.74	1.31
24.0	32	16.70	9.31	1.00	16.10	9.09	1.11	15.50	8.83	1.21	15.00	8.63	1.32

- Notes**
- The ratings shown are net capacities which include a deduction for indoor fan motor heat.
  - = Maximum at standard conditions  
□ = Rated capacity and rated coefficient of the power input  
The maximum capacity is not guaranteed except at standard conditions.
  - SHC is based on indoor units EWB & EDB.  
SHC for other dry-bulb temperatures = SHC + SHC\*  
SHC\* = SHC correction for other dry-bulb temperatures  
= 0.02 x AFR (m<sup>3</sup>/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 below.
  - The rated power input for each model is mentioned in the table below.

Pair	FCAG125A	AVA125A	FBA125A
AFR	26.0	28.0	34.0
(BF)	(0.21)	(0.14)	(0.06)

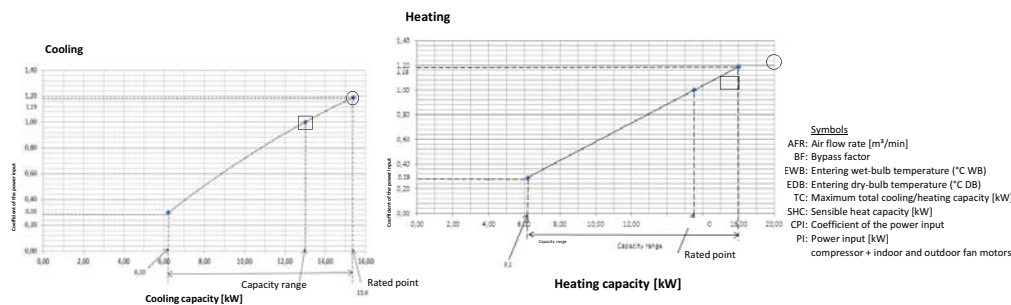
Pair	FCAG125A	AVA125A	FBA125A
Cooling	5.28	5.11	5.26
Heating	3.44	3.60	3.23

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## 6 Capacity tables

### 6 - 1 Cooling/Heating Capacity Tables

AZAS140MV1  
AZAS140MY1



Cooling		Outdoor temperature [°C DB]											
		25			30			35			40		
Indoor	°CWB / °CDB	TC	SHC	CPI	TC	SHC	CPI	TC	SHC	CPI	TC	SHC	CPI
		kW	kW	—	kW	kW	—	kW	kW	—	kW	kW	—
16.0	22	15.5	10.47	0.98	14.9	10.25	1.08	14.4	10.03	1.18	13.9	9.69	1.28
18.0	25	16.2	10.55	0.98	15.6	10.21	1.08	15.1	10.01	1.19	14.5	9.71	1.30
19.0	27	16.6	10.43	0.98	16.0	10.18	1.08	15.4	9.98	1.19	14.8	9.75	1.30
19.5	27	16.7	10.48	0.98	16.1	10.18	1.10	15.6	10.00	1.19	15.0	9.86	1.30
22.0	30	17.6	10.37	0.98	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

#### Notes

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

Pair		
	FCAG140A	FBA140A
AFR	26.0	34.0
(BF)	(0.23)	(0.06)

Pair		
	FCAG140A	FBA140A
Cooling	4.47	4.45
Heating	5.01	5.13

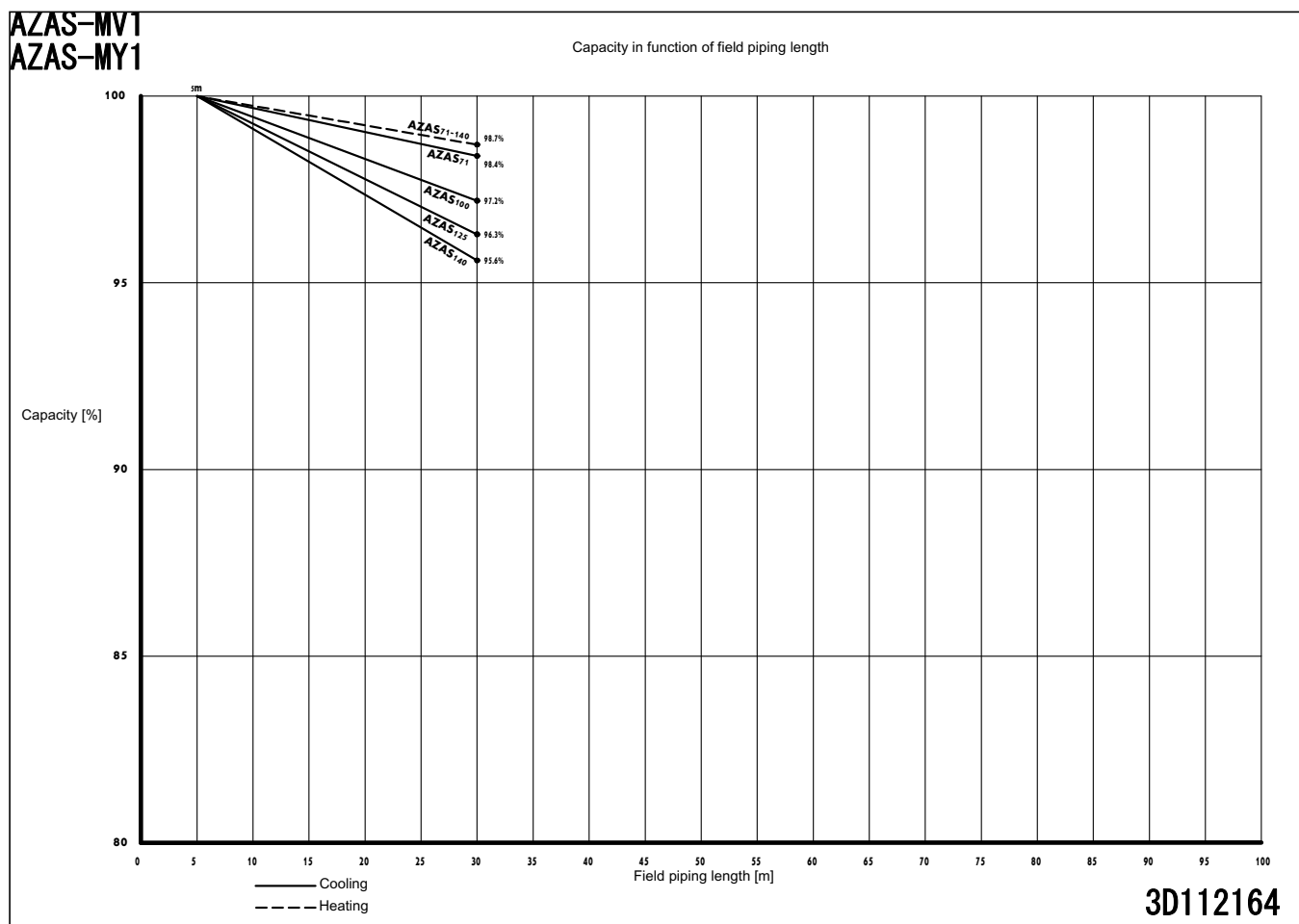
Heating		Outdoor temperature [°C WB]											
		-15.0		-10.0		-5.0		0.0		6.0		10.0	
Indoor	°CDB	TC	CPI	TC	CPI	TC	CPI	TC	CPI	TC	CPI	TC	CPI
		kW	—	kW	—	kW	—	kW	—	kW	—	kW	—
16	11.6	0.91	12.7	0.97	13.6	1.00	13.9	1.03	18.0	1.09	19.4	1.16	—
18	11.6	0.95	12.7	1.00	13.6	1.04	13.9	1.07	18.0	1.14	19.4	1.21	—
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	—

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## 6 Capacity tables

### 6 - 2 Capacity Correction Factor



## 7 Dimensional drawings

### 7 - 1 Dimensional Drawings

AZAS100-140MV1

AZAS-MY1

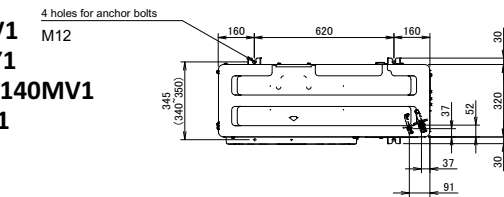
RZAG71MV1

M12

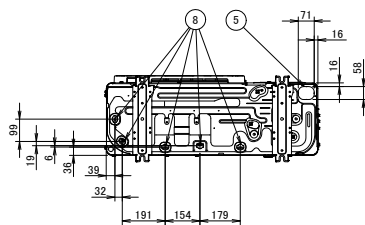
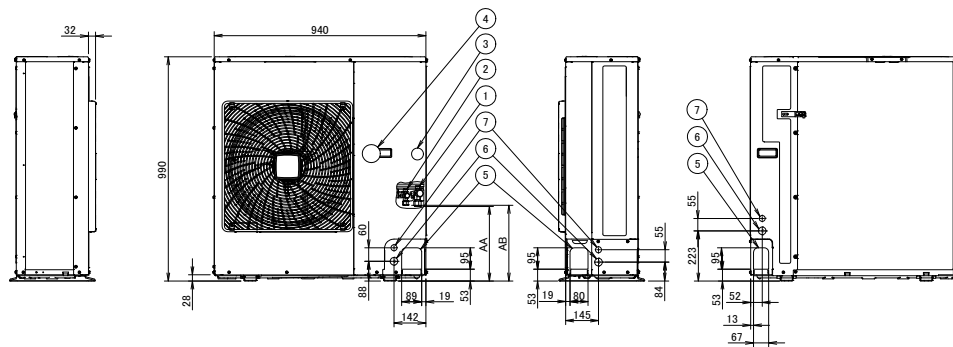
RZAG71MY1

RZASG100-140MV1

RZASG-MY1



Model	AA	AB
RZAG71* / RZASG100-125* / AZAS100-125*	331	337
RZASG140* / AZAS140*	414	420



- ① Gas pipe connection Ø15.9 flare
- ② Liquid pipe connection Ø9.5 flare
- ③ Service port (in the unit)
- ④ Electronic connection and grounding terminal M5 (in the switch box)
- ⑤ Refrigerant piping intake
- ⑥ Power supply wiring intake (knockout hole Ø34)
- ⑦ Control wiring intake (knockout hole Ø27)
- ⑧ Drain outlet

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## 8 Centre of gravity

### 8 - 1 Centre of Gravity

**AZAS100-140MV1**

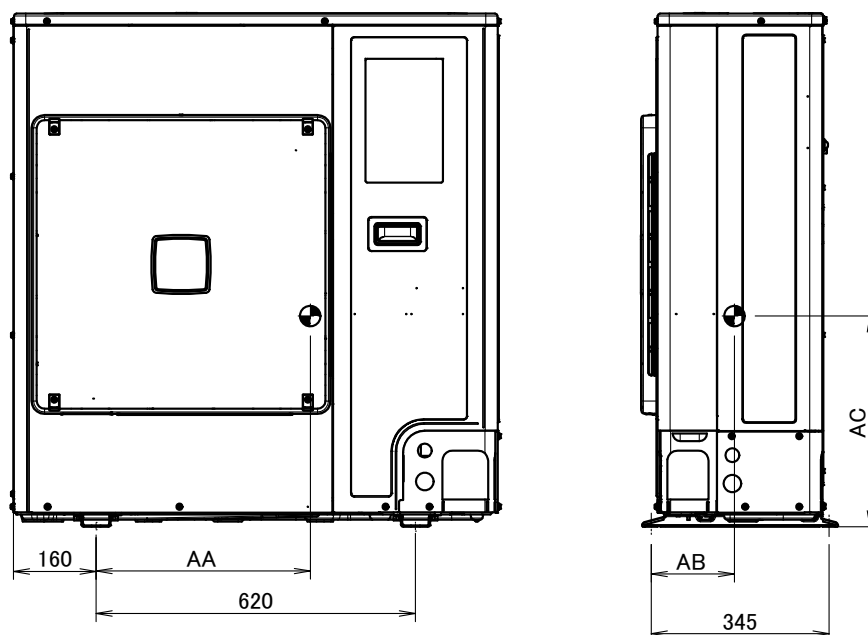
**AZAS-MY1**

**RZAG71MV1**

**RZAG71MY1**

**RZASG100-140MV1**

**RZASG-MY1**



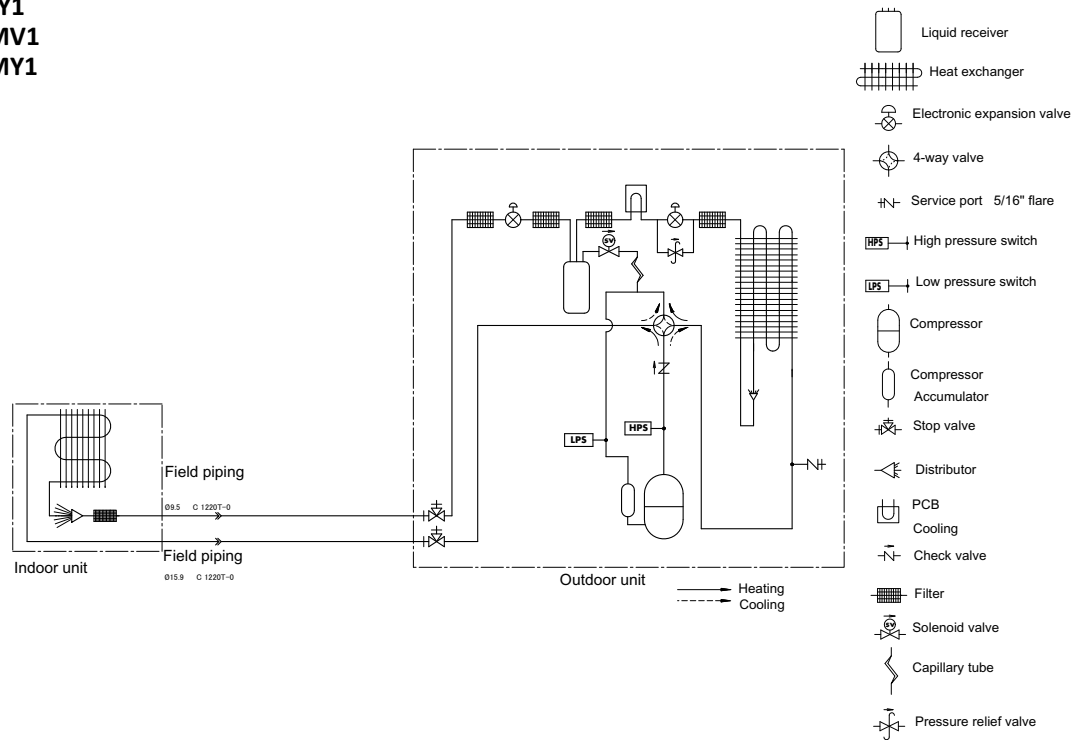
Model	AA	AB	AC
RZAG71M7V*	414	163	407
RZAG71M7Y*	432	137	407
RZASG100-125M7V* / AZAS100-125M7V*	425	181	422
RZASG100-125M7Y* / AZAS100-125M7Y*	414	156	417
RZASG140M7V* / AZAS140M7V*	414	161	423
RZASG140M7Y* / AZAS140M7Y*	416	151	418

**4D110025**

# 9 Piping diagrams

## 9 - 1 Piping Diagrams

AZAS-MV1  
AZAS-MY1  
RZAG-MV1  
RZAG-MY1  
RZASG-MV1  
RZASG-MY1

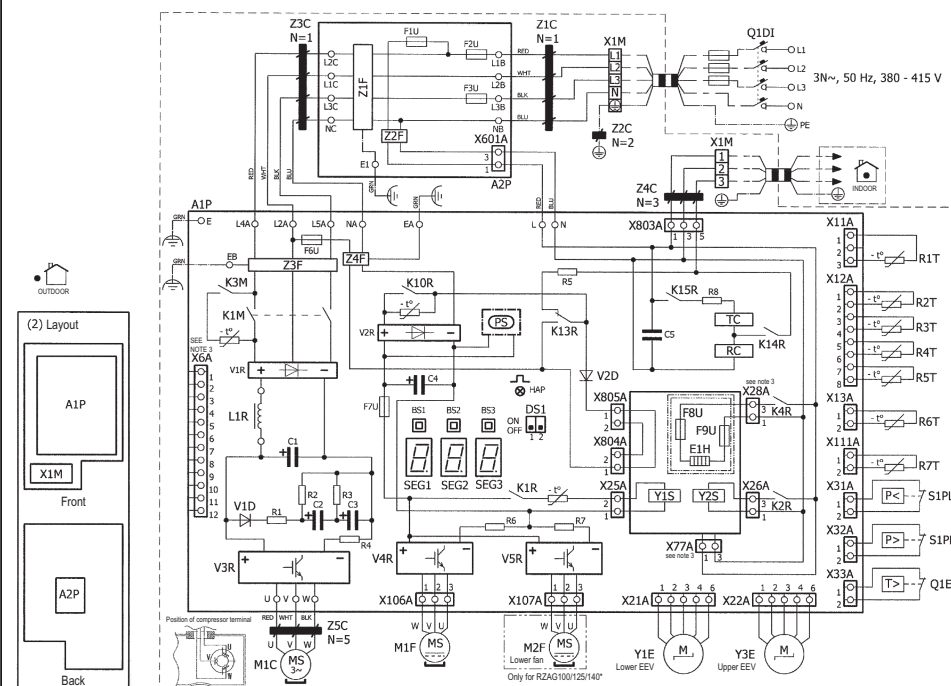


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# 10 Wiring diagrams

## 10 - 1 Wiring Diagrams - Three Phase

RZAG-MY1, RZASG-MY1, AZAS-MY1



+ : Connection  
 X1M : Main terminal  
 --- : Earth wiring  
 --- : Field supply  
 --- : Option  
 --- : Switch box  
 --- : PCB  
 --- : Wiring depending on model  
 --- : Protective earth  
 --- : Field wire

### NOTES

1. Refer to the wiring diagram sticker (on the back of the front plate) for how to use the BS1-BS3 and DS1 switches.
2. When operating, do not short-circuit protection device(s) S1PH, S1PL and Q1E.
3. Refer to the combination table and the option manual for how to connect the wiring to X5A, X28A and X77A.
4. Colours: BLK: Black, RED: Red, BLU: Blue, WHT: White, GRN: Green.

### LEGEND

# : Field supply  
\* : Optional

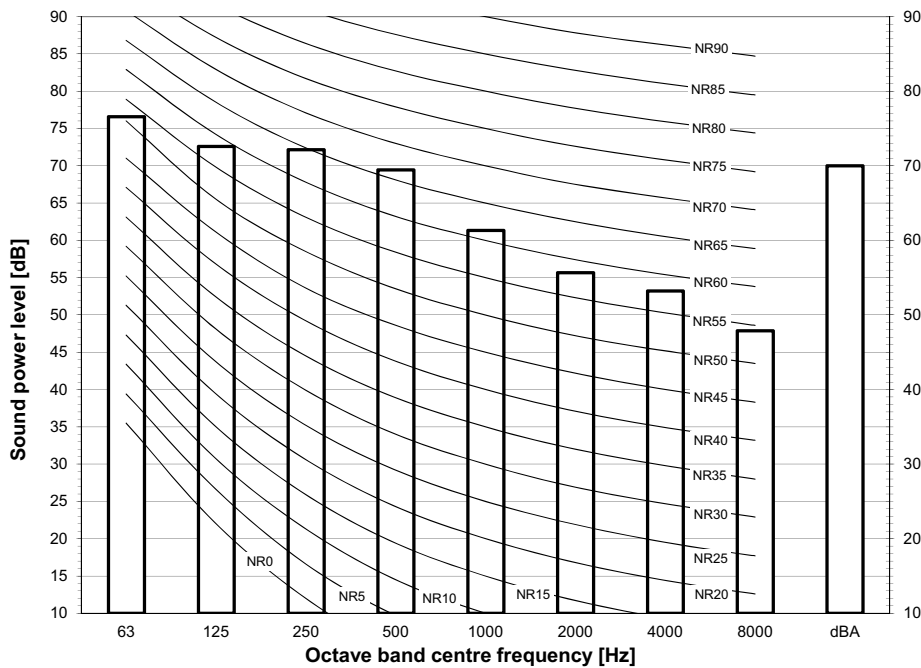
Part n°	Description
A1P	Printed circuit board (main)
A2P	Printed circuit board (noise filter)
BS1-BS3 (A1P)	Push-button switch
C1-C5 (A1P)	Capacitor
DS1 (A1P)	Dipswitch
E1H	Bottom plate heater
F1U (A2P)	Fuse T 6.3 A 250 V
F2U, F3U (A2P)	Fuse T 30 A 500 V
F6U (A1P)	Fuse T 6.3 A 250 V
F7U (A1P)	Fuse T 5 A 250 V
F8U, F9U	Fuse T 1 A 250 V
HAP (A1P)	Light-emitting diode (service monitor is green)
K1M, K3M (A1P)	Magnetic contactor
K1R (A1P)	Magnetic relay (Y1S)
K2R (A1P)	Magnetic relay (Y2S)
K4R (A1P)	Magnetic relay (E1H)
K13R-K15R (A1P)	Magnetic relay
L1R	Reactor
M1C	Compressor motor
M1F, M2F	Fan motor
PS (A1P)	Switching power supply
Q1DI	Earth leakage circuit breaker (30mA)
Q1E	Overload protection
R1-R8 (A1P)	Resistor
R1T	Thermistor (air)
R2T	Thermistor (discharge)
R3T	Thermistor (suction)
R4T	Thermistor (heat exchanger)
R5T	Thermistor (heat exchanger middle)
R6T	Thermistor (liquid)
R7T	Thermistor (fin)
RC (A1P)	Signal receiver circuit
S1PH	High pressure switch
S1PL	Low pressure switch
SEG1-SEG3 (A1P)	7-segment display
TC (A1P)	Signal transmission circuit
V1D, V2D (A1P)	Diode
V1R, V2R (A1P)	Diode module
V3R-V5R (A1P)	IGBT power module
X1M	Terminal strip
Y1E, Y3E	Electronic expansion valve
Y1S, Y2S	Solenoid valve (4-way valve)
Z1C-Z5C	Noise filter (ferrite core)
Z1F-Z4F (A1P-A2P)	Noise filter
L'A, L'B, NA, NBE*, U, V, W, X'A (A1P, A2P)	Connector

4D109448

# 11 Sound data

## 11 - 1 Sound Power Spectrum

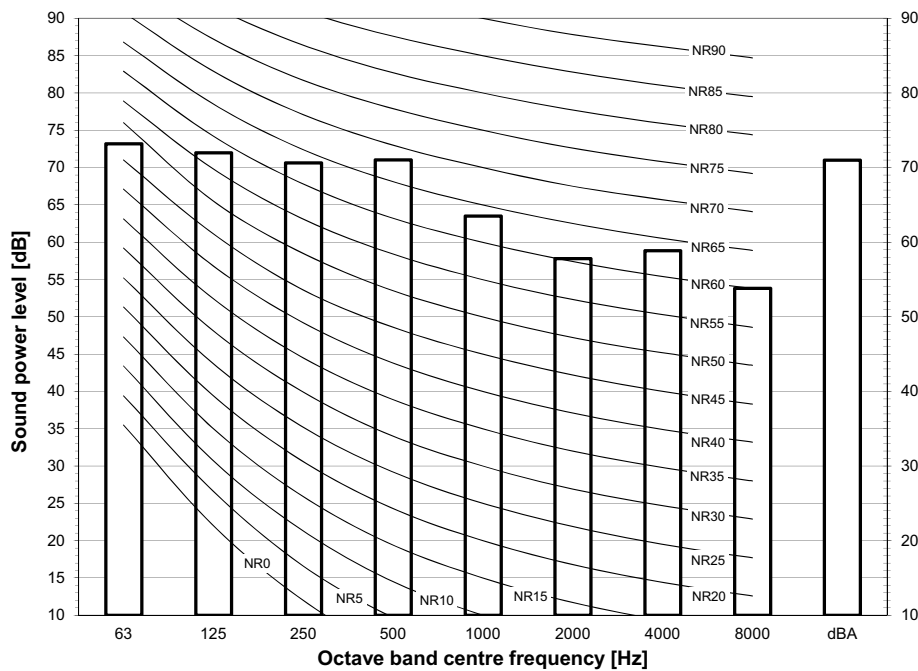
AZAS100MV1  
AZAS100MY1  
RZASG100MV1  
RZASG100MY1



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

3D110038

AZAS125MV1  
AZAS125MY1  
RZASG125MV1  
RZASG125MY1



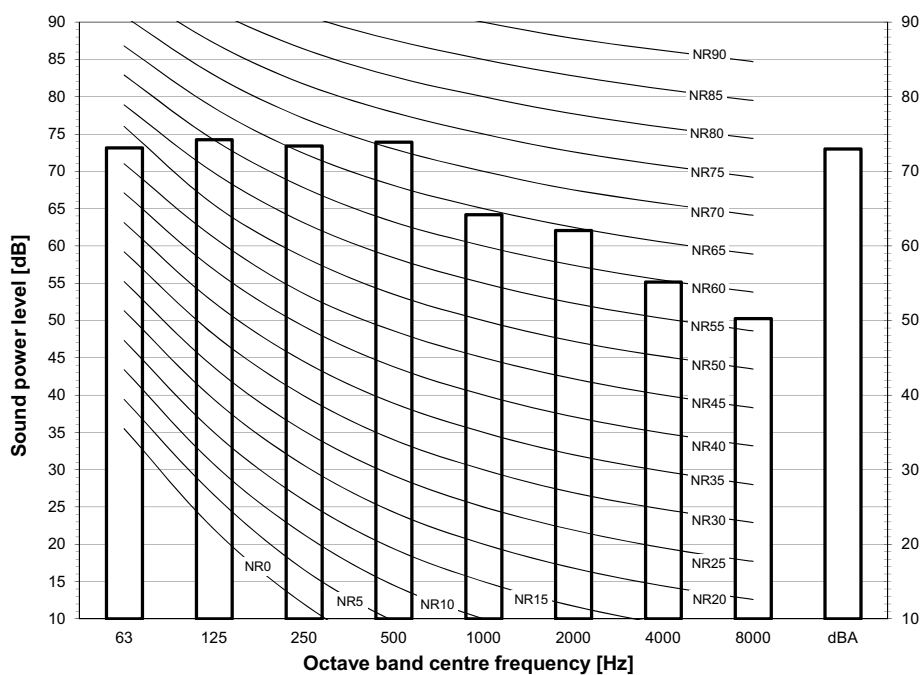
**Notes**  
- dBA = A-weighted sound power level (A scale according to IEC).  
- Reference acoustic intensity 0dB = 10E-6μW/m²  
- Measured according to ISO 3744

3D110039

# 11 Sound data

## 11 - 1 Sound Power Spectrum

AZAS140MV1  
AZAS140MY1  
RZASG140MV1  
RZASG140MY1



### Notes

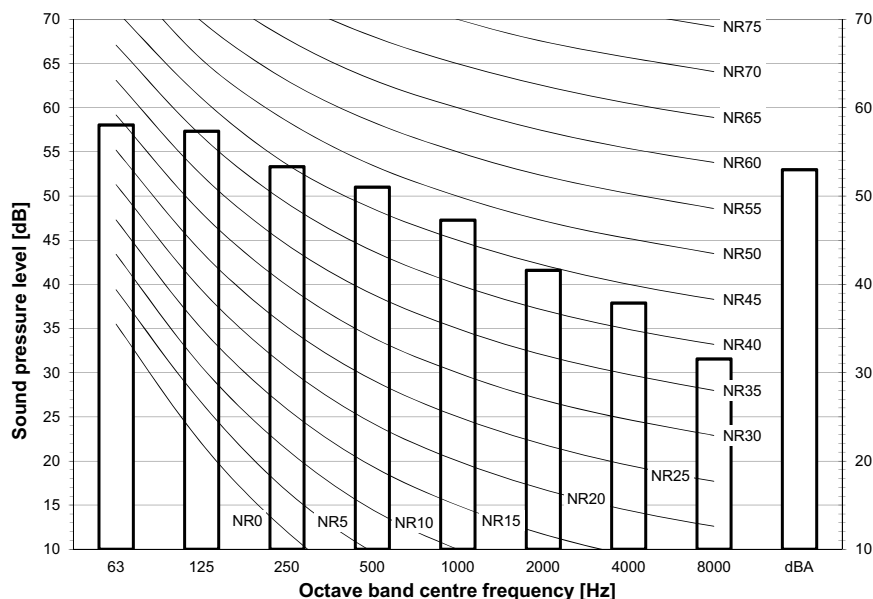
- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity 0dB =  $10^{-6} \mu\text{W}/\text{m}^2$
- Measured according to ISO 3744

3D110040

# 11 Sound data

## 11 - 2 Sound Pressure Spectrum - Cooling

AZAS100MV1  
AZAS100MY1  
RZASG100MV1  
RZASG100MY1

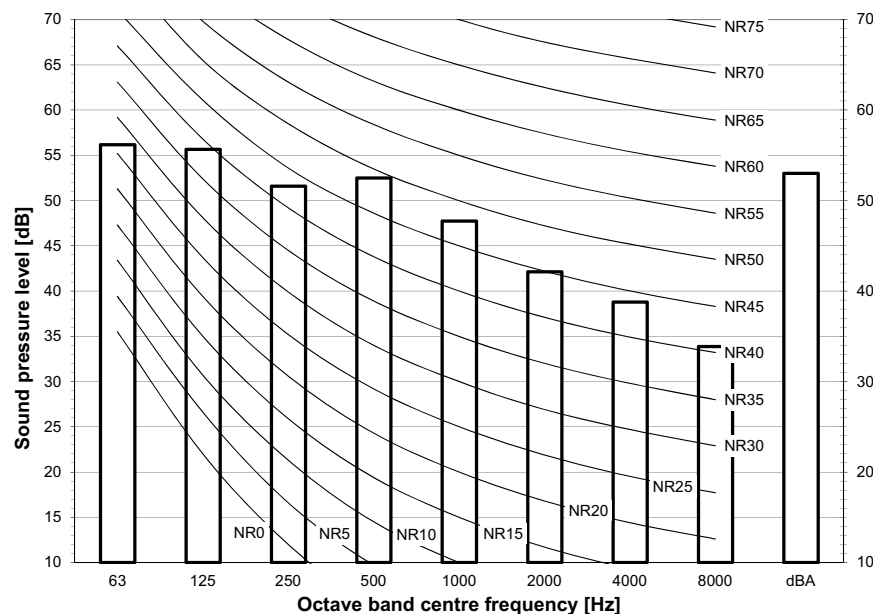


### Notes

- 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  $\mu$ Pa

3D110050

AZAS125MV1  
AZAS125MY1  
RZASG125MV1  
RZASG125MY1



### 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  $\mu$ Pa

3D110051



# 11 Sound data

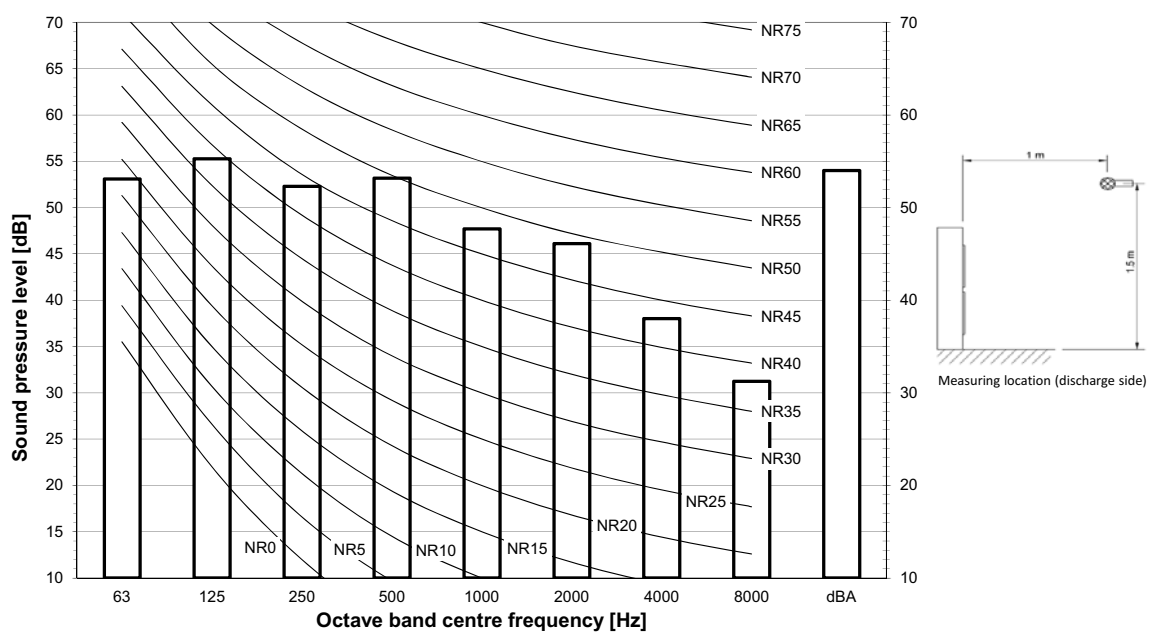
## 11 - 2 Sound Pressure Spectrum - Cooling

AZAS140MV1

AZAS140MY1

RZASG140MV1

RZASG140MY1



### Notes

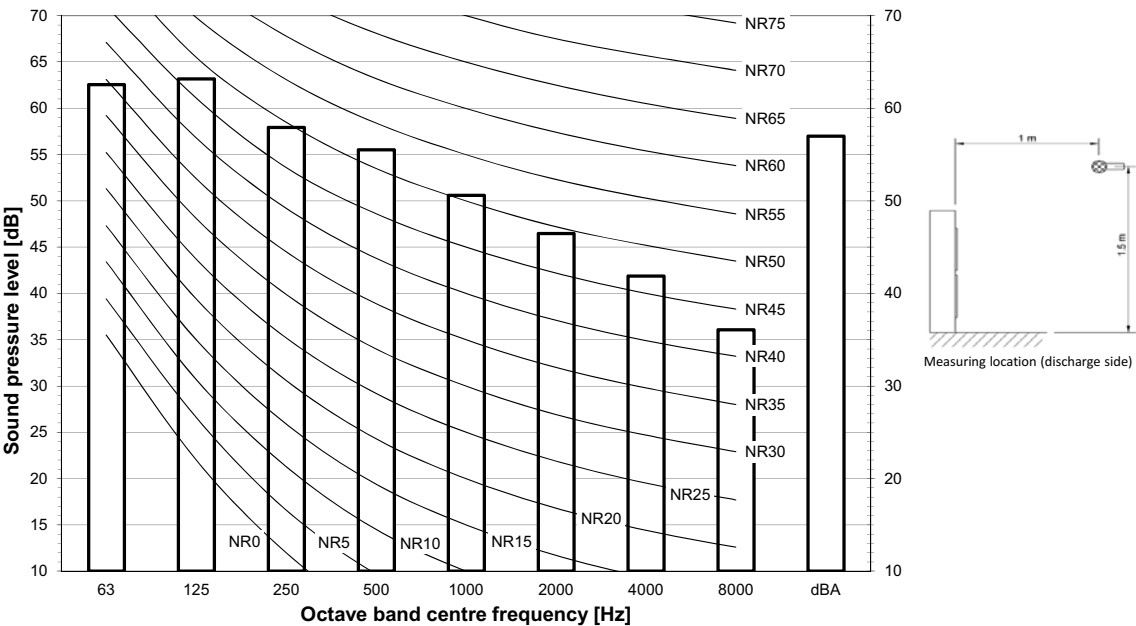
- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20  $\mu$ Pa

3D111310

# 11 Sound data

## 11 - 3 Sound Pressure Spectrum - Heating

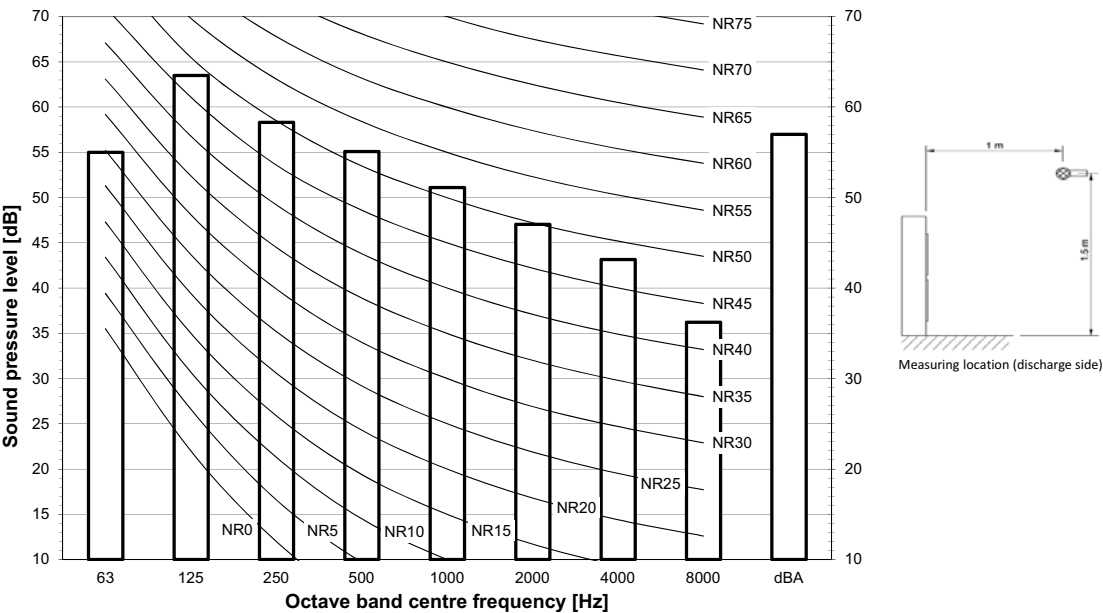
AZAS100MV1  
AZAS100MY1  
RZASG100MV1  
RZASG100MY1



- 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

3D111294

AZAS125MV1  
AZAS125MY1  
RZASG125MV1  
RZASG125MY1



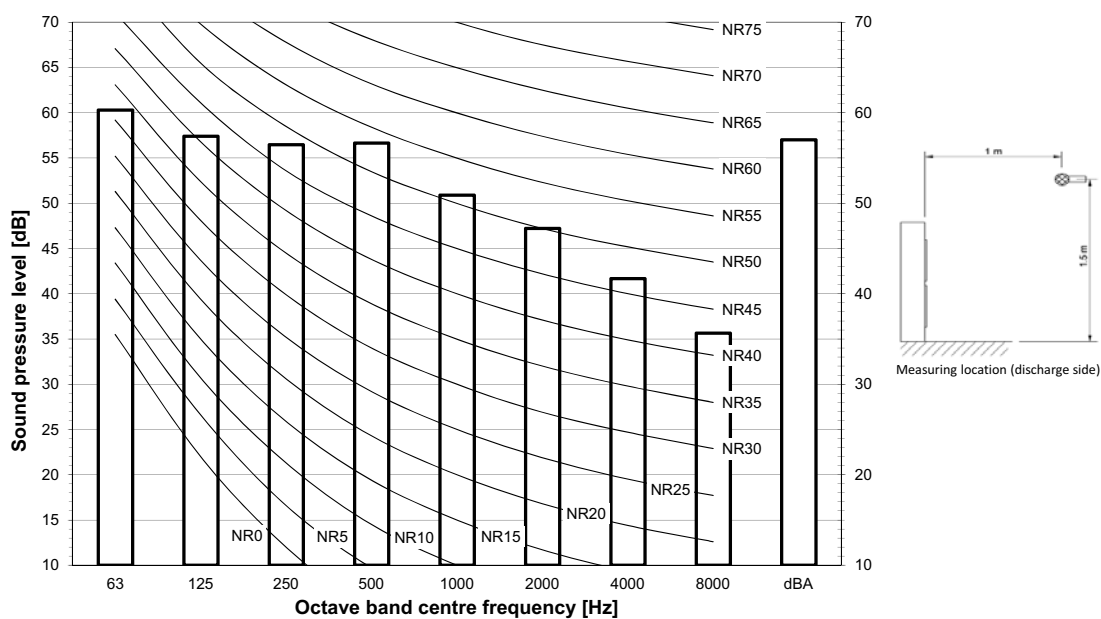
- Notes**
- Data is valid at free field condition.
  - Data is valid at nominal operation condition.
  - dBA = A-weighted sound pressure level (A scale according to IEC).
  - Reference acoustic pressure 0 dB = 20 µPa

3D111295

# 11 Sound data

## 11 - 3 Sound Pressure Spectrum - Heating

AZAS140MV1  
AZAS140MY1  
RZASG140MV1  
RZASG140MY1



### Notes

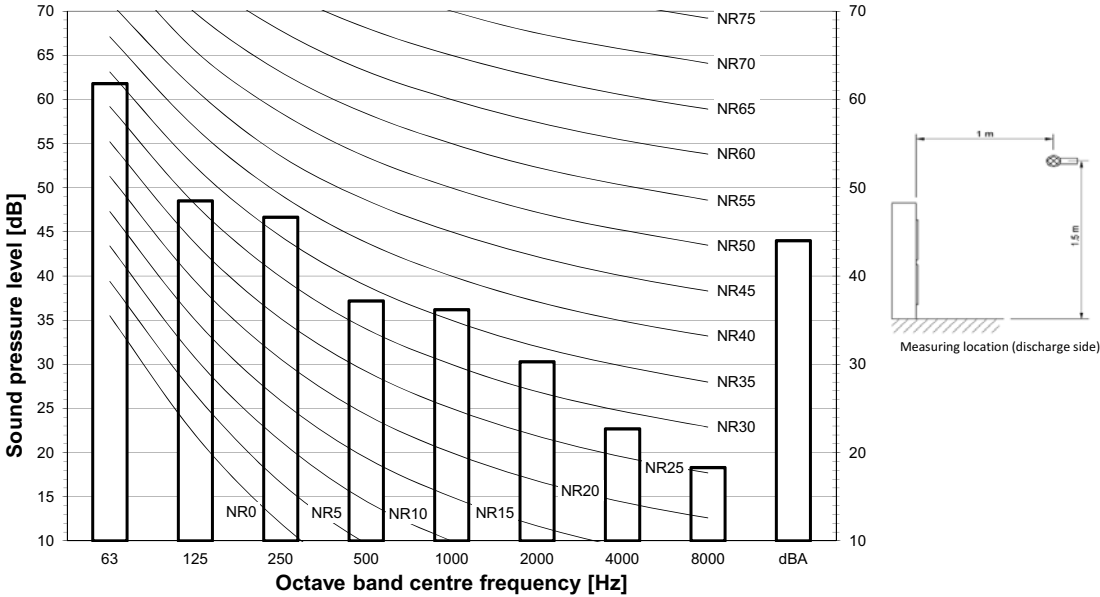
- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20  $\mu$ Pa

3D111296

# 11 Sound data

## 11 - 4 Sound Pressure Spectrum Quiet Mode

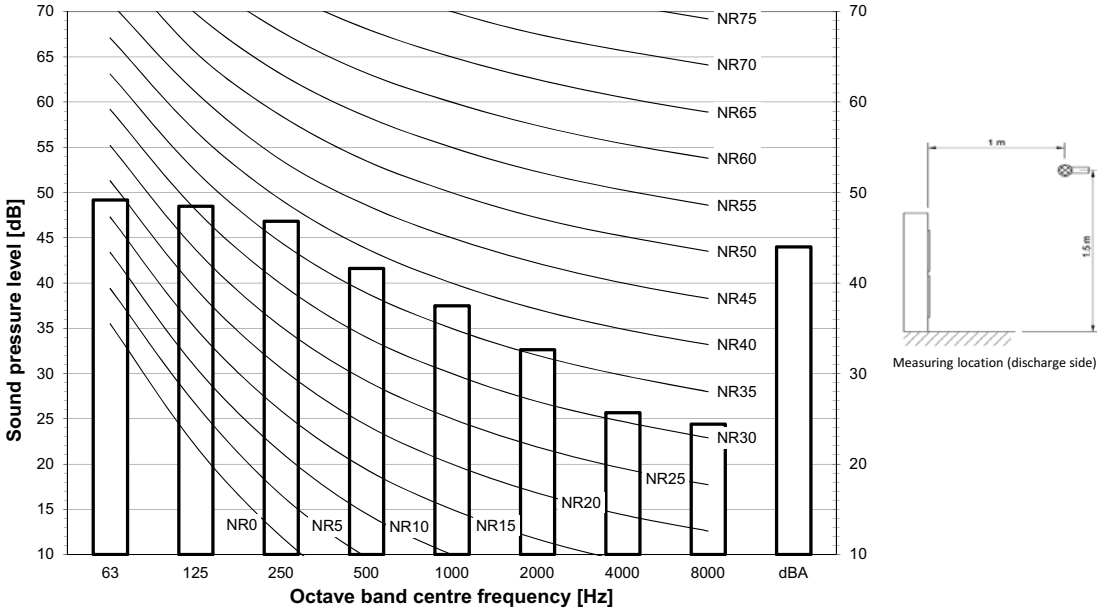
AZAS100MV1  
 AZAS100MY1  
 RZASG100MV1  
 RZASG100MY1



**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

3D111316

AZAS125MV1  
 AZAS125MY1  
 RZASG125MV1  
 RZASG125MY1



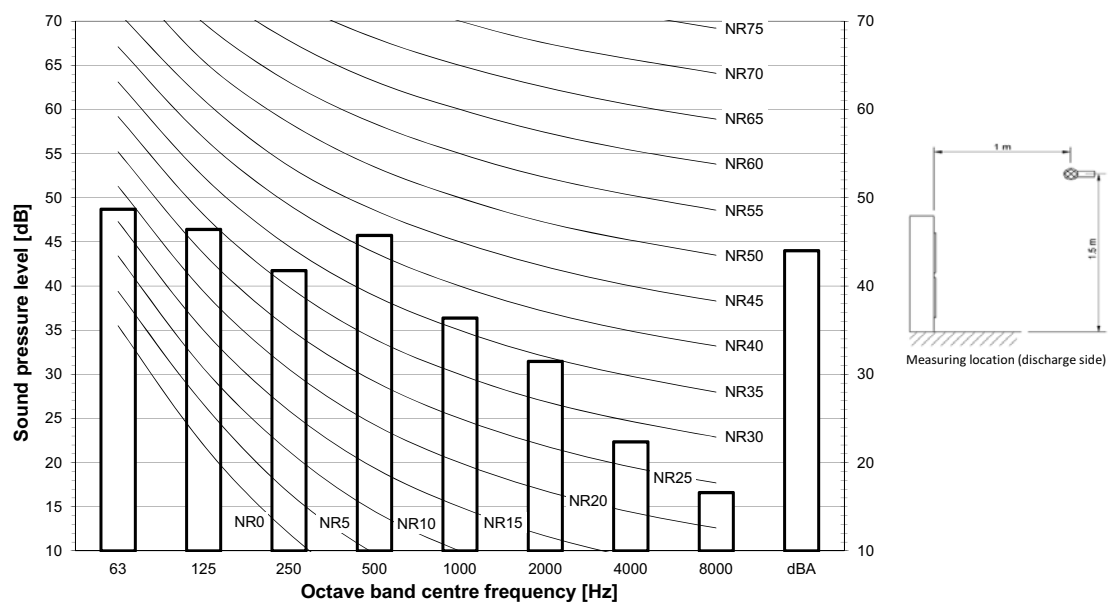
**Notes**  
 - Data is valid at free field condition.  
 - Data is valid at nominal operation condition.  
 - dBA = A-weighted sound pressure level (A scale according to IEC).  
 - Reference acoustic pressure 0 dB = 20 µPa

3D111317

# 11 Sound data

## 11 - 4 Sound Pressure Spectrum Quiet Mode

AZAS140MV1  
AZAS140MY1  
RZASG140MV1  
RZASG140MY1



### 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  $\mu$ Pa

3D111318

# 12 Installation

## 12 - 1 Installation Method

RZAG-MV1  
RZAG-MY1  
RZASG-MV1  
RZASG-MY1  
AZAS-MV1  
AZAS-MY1

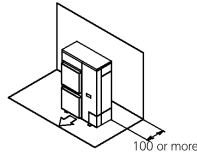
### Installation service space

The measure of these values is "mm".

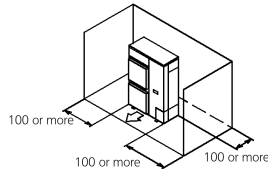
#### (A) When there are obstacles on suction sides.

##### • No obstacle above

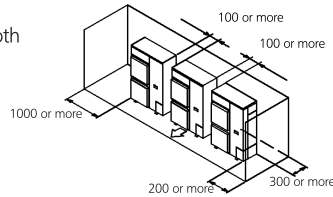
- ① Stand-alone installation
  - Obstacle on the suction side only



- Obstacle on both sides and suction side, too

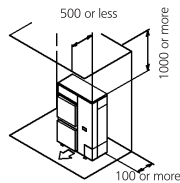


- ② Series installation (2 or more) (Note 1)
  - Obstacle on the suction side and both sides

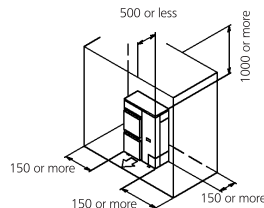


##### • Obstacle above, too.

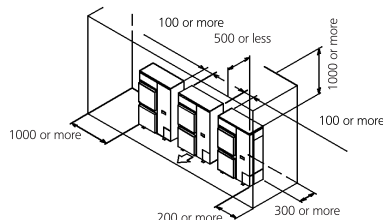
- ① Stand-alone installation
  - Obstacle on the suction side, too



- Obstacle on both sides and suction side, too



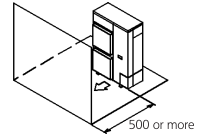
- ② Series installation (2 or more) (Note 1)
  - Obstacle on the suction side and both sides



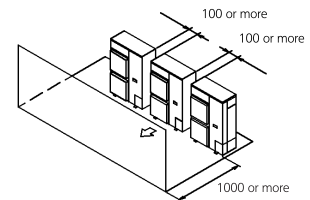
#### (B) When there are obstacles on discharge sides.

##### • No obstacle above

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

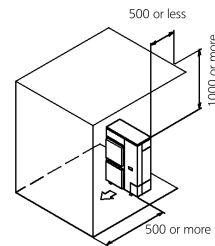


- ② Series installation (2 or more) (Note 1)
  - Obstacle on the discharge side only

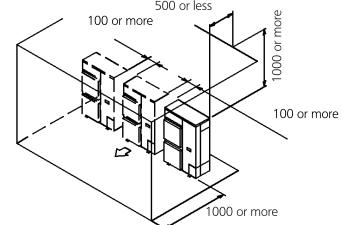


##### • Obstacle above, too

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



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



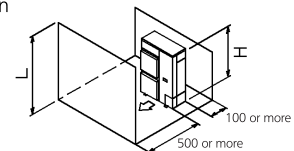
#### (C) When there are obstacles on both suction and discharge sides.:

##### Pattern 1

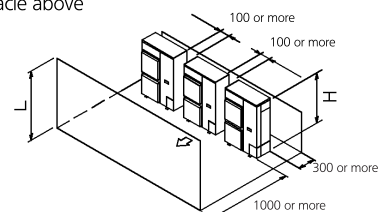
When the obstacles on the discharge side is higher than the unit. (L>H)  
(There is no limit for the height of obstructions on the suction side.)

##### • 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

RZAG-MV1  
RZAG-MY1  
RZASG-MV1  
RZASG-MY1  
AZAS-MV1  
AZAS-MY1

12

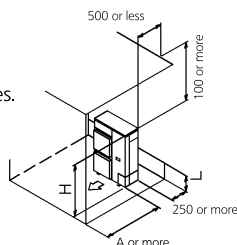
### • Obstacle above, too

#### 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.

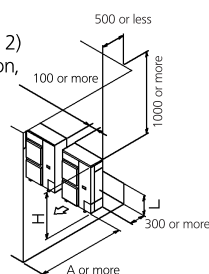
The relations between H, A and L are as follows.

	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

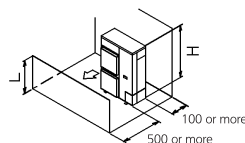
When the obstacle on the discharge side is lower than the unit ( $L \leq H$ )  
(There is no limit for the height of obstructions on the suction side.)



### • No obstacle above

#### ① Stand-alone installation

- No obstacle above

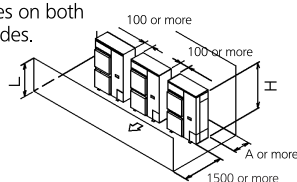


#### ② Series installation (2 or more) (Note 1, 2)

- 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



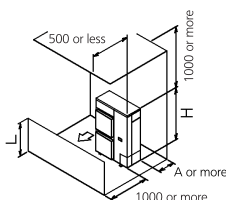
### • obstacle above

#### 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	



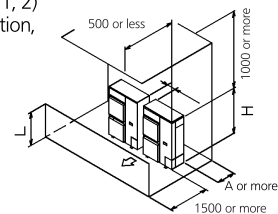
#### ② Series installation (2 or more) (Note 1, 2)

- 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	

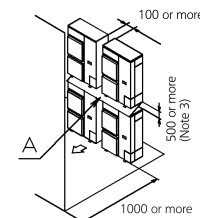
Limit of series installation is 2 units.



### (D) Double-decker installation

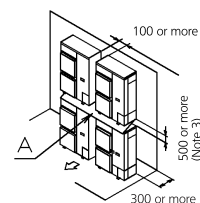
#### ① Obstacle on the discharge side. ( 1 )

- 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.



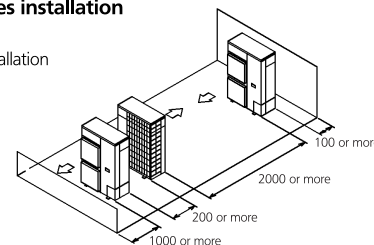
#### ② Obstacle on the suction side. ( 1 )

- 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.)

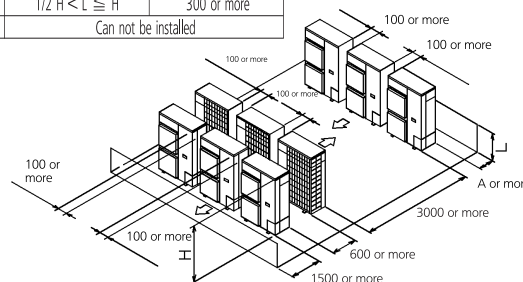
#### ① One row of stand-alone installation



#### 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

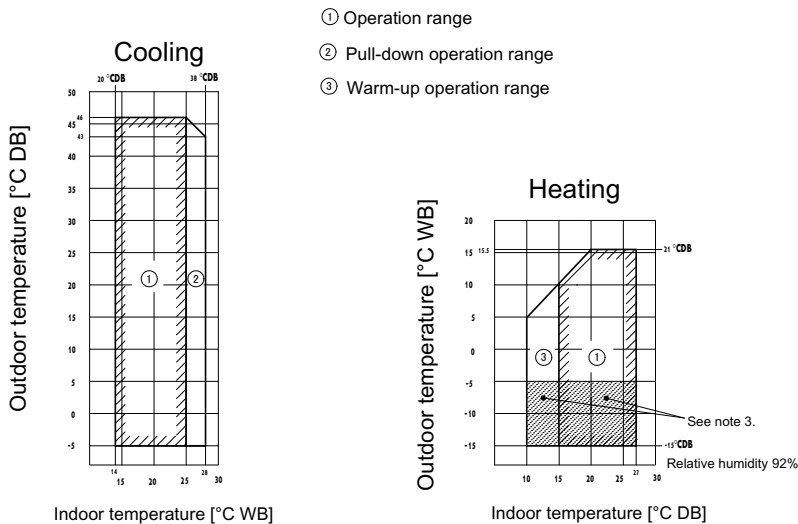
- In case of the sideways piping, make a 100mm gap between the unit above.
- Close the bottom of the installation frame to prevent the discharged air from being bypassed.
- It is not necessary to install a roof cover if there is no danger of drainage dripping and freezing. In this case, the space between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

3D069554

# 13    Operation range

## 13 - 1    Operation Range

AZAS-MV1  
AZAS-MY1



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%) at ambient temperatures of < -5°C, a RZAG model should be used instead to avoid freeze-up of the outdoor unit.

3D111298



# 14 Appropriate Indoors

## 14 - 1 Appropriate Indoors

RZAG-MV1/MY1  
RZASG-MV1/MY1  
AZAS-MV1/MY1

ENER Lot 21

Recommended combinations

Sky Air		High Cassette				Thin cassette						2x2 cassette			Duct (medium ESP)						Concealed floor standing type			Ceiling-mounted - 4-way blow			Wall mounted type		Duct (high ESP)	
Model		FCAG100	FCAG125	FCAG140	FCAG35	FCAG50	FCAG60	FCAG71	FCAG100	FCAG125	FCAG140	FFA35	FFA50	FFA60	FBA35	FBA50	FBA60	FBA71	FBA100	FBA125	FBA140	FMA35	FMA50	FMA60	FUA71	FUA100	FUA125	FAA71	FAA100	FDA125
RZAG125M7V1B	RZAG125M7Y1B		P		4					P					4					P						P				P
RZAG140M7V1B	RZAG140M7Y1B			P	4						P				4					P										
RZASG125M7V1B	RZASG125M7Y1B				4					P					4					P						P				P
RZASG140M7V1B	RZASG140M7Y1B				4					P					4					P										
AZAS125M7V1B	AZAS125M7Y1B									P										P										
AZAS140M7V1B	AZAS140M7Y1B										P									P										

Sky Air		Floor standing type				Slim duct			Ceiling-suspended						Floor standing type	
Model		FVA71	FVA100	FVA125	FVA140	FDM35	FDM50	FDM60	FHA35	FHA50	FHA60	FHA71	FHA100	FHA125	FHA140	A/A125
RZAG125M7V1B	RZAG125M7Y1B			P									P			
RZAG140M7V1B	RZAG140M7Y1B				P									P		
RZASG125M7V1B	RZASG125M7Y1B			P									P			
RZASG140M7V1B	RZASG140M7Y1B				P									P		
AZAS125M7V1B	AZAS125M7Y1B														P	
AZAS140M7V1B	AZAS140M7Y1B															

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

3D112646A

# 14 Appropriate Indoors

## 14 - 1 Appropriate Indoors

RZAG-MV1/MY1

RZASG-MV1/MY1

AZAS-MV1/MY1

ENER Lot 21

Appropriate indoor units

Connectable to ·RZAG125M7V1B / RZAG125M7Y1B· and covered by ·ENER Lot 21·

FCAG125	FCAG35	FFA35	FBA35	FNA35	FUA125	-	FDA125	FVA125	FDXM35	FHA35	-
-	FCAG50	FFA50	FBA50	FNA50	-	-	-	-	FDXM50	FHA50	-
-	FCAG60	FFA60	FBA60	FNA60	-	-	-	-	FDXM60	FHA60	-
-	FCAG125	-	FBA125	-	-	-	-	-	-	FHA125	-

Connectable to ·RZASG125M7V1B / RZASG125M7Y1B· and covered by ·ENER Lot 21·

-	FCAG35	FFA35	FBA35	FNA35	FUA125	-	FDA125	FVA125	FDXM35	FHA35	-
-	FCAG50	FFA50	FBA50	FNA50	-	-	-	-	FDXM50	FHA50	-
-	FCAG60	FFA60	FBA60	FNA60	-	-	-	-	FDXM60	FHA60	-
-	FCAG125	-	FBA125	-	-	-	-	-	-	FHA125	-

Connectable to ·AZAS125M7V1B / AZAS125M7Y1B· and covered by ·ENER Lot 21·

-	FCAG125	-	FBA125	-	-	-	-	-	-	-	AVA125
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Connectable to ·RZAG140M7V1B / RZAG140M7Y1B· and covered by ·ENER Lot 21·

FCAG71	FCAG35	FFA35	FBA35	FNA35	FUA71	FAA71	-	FVA71	FDXM35	FHA35	-
FCAG140	FCAG50	FFA50	FBA50	FNA50	-	-	-	FVA140	FDXM50	FHA50	-
-	FCAG71	-	FBA71	-	-	-	-	-	-	FHA71	-
-	FCAG140	-	FBA140	-	-	-	-	-	-	FHA140	-

Connectable to ·RZASG140M7V1B / RZASG140M7Y1B· and covered by ·ENER Lot 21·

-	FCAG35	FFA35	FBA35	FNA35	FUA71	FAA71	-	FVA71	FDXM35	FHA35	-
-	FCAG50	FFA50	FBA50	FNA50	-	-	-	FVA140	FDXM50	FHA50	-
-	FCAG71	-	FBA71	-	-	-	-	-	-	FHA71	-
-	FCAG140	-	FBA140	-	-	-	-	-	-	FHA140	-

Connectable to ·AZAS140M7V1B / AZAS140M7Y1B· and covered by ·ENER Lot 21·

-	FCAG140	-	FBA140	-	-	-	-	-	-	-	-
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ENER Lot 10

Appropriate indoor units

Connectable to ·RZAG71M7V1B / RZAG71M7Y1B· and covered by ·ENER Lot 10·

FCAG71	FCAG35	FFA35	FBA35	FNA35	FUA71	FAA71	-	FVA71	FDXM35	FHA35	-
-	FCAG71	-	FBA71	-	-	-	-	-	-	FHA71	-

Connectable to ·RZASG71M2V1B· and covered by ·ENER Lot 10·

-	FCAG35	FFA35	FBA35	FNA35	FUA71	FAA71	-	FVA71	FDXM35	FHA35	-
-	FCAG71	-	FBA71	-	-	-	-	-	-	FHA71	-

Connectable to ·AZAS71M2V1B· and covered by ·ENER Lot 10·

-	FCAG71	-	FBA71	-	-	FAA71	-	-	-	-	-
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Connectable to ·RZAG100M7V1B / RZAG100M7Y1B· and covered by ·ENER Lot 10·

FCAG100	FCAG35	FFA35	FBA35	FNA35	FUA100	FAA100	-	FVA100	FDXM35	FHA35	-
-	FCAG50	FFA50	FBA50	FNA50	-	-	-	-	FDXM50	FHA50	-
-	FCAG100	-	FBA100	-	-	-	-	-	-	FHA100	-

Connectable to ·RZASG100M7V1B / RZASG100M7Y1B· and covered by ·ENER Lot 10·

-	FCAG35	FFA35	FBA35	FNA35	FUA100	FAA100	-	FVA100	FDXM35	FHA35	-
-	FCAG50	FFA50	FBA50	FNA50	-	-	-	-	FDXM50	FHA50	-
-	FCAG100	-	FBA100	-	-	-	-	-	-	FHA100	-

Connectable to ·AZAS100M7V1B / AZAS100M7Y1B· and covered by ·ENER Lot 10·

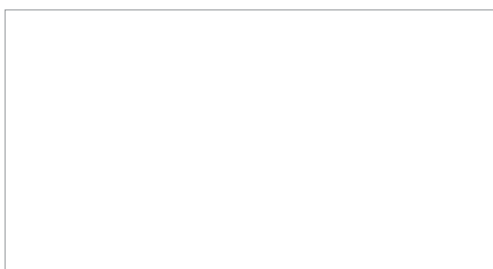
-	FCAG100	-	FBA100	-	-	FAA100	-	-	-	-	-
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