



Sky Air Alpha-series  
Air Conditioning  
Technical Data  
RZAG-NV1





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## RZAG-NV1

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# 1 Features

## 1 - 1 RZAG-NV1

### Industry leading technology in the most compact casing ever

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- › Unique, low-height single fan range
- › Compact dimensions allow almost unnoticeable installation
- › Market-leading serviceability and handling, thanks to wide access area, 7-segment display and additional handle
- › Top efficiency: - Energy labels up to A++ in both cooling and 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
- › The perfect balance in efficiency and comfort thanks to Variable Refrigerant Temperature: top seasonal efficiency throughout most of the year and quick reaction speed on the hottest days.
- › Suits high sensible, infrastructure cooling applications
- › Replace existing systems with R-32 technology without needing to replace the piping
- › Guarantees operation in both heating and cooling mode down to -20°C
- › Refrigerant cooled PCB guarantees reliable cooling, as it is not influenced by ambient temperature.
- › Maximum piping length up to 85m
- › Outdoor units for pair, twin, triple, double twin application



Guaranteed operation down to -20°C



Infrastructure cooling



Inverter



Swing compressor



Seasonal efficiency - Smart use of energy



Replacement technology



Auto cooling-heating changeover



Night quiet mode



Twin/triple/double twin application



Variable refrigerant temperature



Low sound enclosure (optional)

## 2 Specifications

### 2 - 1 Specifications

Technical Specifications					RZAG71NV1	RZAG100NV1	RZAG125NV1	RZAG140NV1	
Casing	Colour	Ivory white							
	Material	Painted galvanized steel plate							
Dimensions	Unit	Height	mm	870					
		Width	mm	1,100					
		Depth	mm	460					
	Packed unit	Height	mm	1,050					
		Width	mm	1,205					
Depth		mm	569						
Weight	Unit	kg	81	85	95				
	Packed unit	kg	92	95	106				
Packing	Weight	kg	10						
Heat exchanger	Fin	WF fin							
	Type Treatment	Anti-corrosion treatment (PE)							
Fan	Type	Propeller							
	Discharge direction	Horizontal							
	Quantity	1							
	Air flow rate	Cooling	Nom.	m <sup>3</sup> /min	68	67	80	87	
Heating			Nom.	m <sup>3</sup> /min	75	82	80	87	
		Partial	m <sup>3</sup> /min	-		45 (1)			
Fan motor	Quantity	1							
	Model	Brushless DC motor							
	Output	W	234						
	Drive	Direct drive							
Compressor	Quantity	1							
	Type	Hermetically sealed swing compressor							
Operation range	Cooling	Ambient	Min.	°CDB	-20				
			Max.	°CDB	52				
	Heating	Ambient	Min.	°CWB	-20				
			Max.	°CWB	18				
Sound power level	Cooling		dBA	64	66	69	70		
	Heating		dBA	-		68 (1)	71 (1)		
Sound pressure level	Cooling	Nom.	dBA	46	47	49	50		
	Heating	Nom.	dBA	48	50	52			
Refrigerant	Type	R-32							
	Charge	kg	3.20			3.70			
	Control	Expansion valve (electronic type)							
Refrigerant	GWP	675							
	Circuits	Quantity	1						
Refrigerant oil	Type	FW68DA							
	Charged volume	l	0.9			1.4			
Piping connections	Liquid	Quantity	1						
		Type	Flare connection						
	Gas	Quantity	1						
		Type	Flare connection						
	Drain	Quantity	8						
		Type	Hole						
	Piping length	OU - IU	Min.	m	3				
			Max.	m	55	85			
		System	Equivalent	m	75	100			
			Chargeless	m	40				
		Additional refrigerant charge	kg/m	See installation manual					
	Level difference	IU - OU	Max.	m	30				
		IU - IU		m	0.5				
Heat insulation	Both liquid and gas pipes								
Defrost method	Reversed cycle								
Defrost control	Sensor for outdoor heat exchanger temperature								
Capacity control	Inverter controlled								
PED	Category	Category II							
	Most critical part	Name	Accumulator						
		Ps*V	Bar*l	136.5	143.0				
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: General safety precautions;Quantity: 1;

Standard accessories: Peel off F-gas label;Quantity: 1;

## 2 Specifications

### 2 - 1 Specifications

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

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Electrical Specifications			RZAG71NV1	RZAG100NV1	RZAG125NV1	RZAG140NV1
Power supply	Name				V1	
	Phase				1~	
	Frequency	Hz			50	
	Voltage	V			220-240	
	Voltage range	V			198	
		V			264	
Current	Zmax	List			Complies to EN61000-3-11	
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	
Current - 50Hz	Maximum fuse amps (MFA)	A	20		32	

(1)According to ENER Lot 21

## 2 Specifications

### 2 - 1 Specifications

Technical specifications			FCAHG71H + RZAG71NV1	FCAHG100H + RZAG71NV1	FCAHG100H + RZAG100NV1	FCAHG140H + RZAG100NV1	FCAHG125H + RZAG125NV1	FCAHG140H + RZAG140NV1
Cooling capacity	Nom.	kW	6.80 (1)		9.50 (1)		12.1 (1)	13.4 (1)
Heating capacity	Nom.	kW	7.50 (2)		10.8 (2)		13.5 (2)	15.5 (2)
Space cooling	Energy efficiency class		A++				-	
	Capacity	Pdesign	6.80		9.50		12.1	13.4
	SEER		7.90	7.05	7.70	7.49	8.02	7.93
	η <sub>s,c</sub>	%	-				318	314
	Annual energy consumption	kWh/a	301	338	432	444	905	1,014
Space heating (Average climate)	Energy efficiency class		A++	A+	A++		-	
	Capacity	Pdesign	4.70		9.52			
	SCOP/A		4.61	4.20	4.75	4.70	4.53	4.44
	SCOPnet/A		4.61	4.20	4.75	4.70	4.53	4.44
	η <sub>s,h</sub>	%	-				178	175
	Annual energy consumption	kWh/a	1,427	1,567	2,805	2,836	2,943	3,002
Space cooling	Required back up heating cap at design conditions		0.00					
	A Condition	Pdc	6.80		9.50		12.10	13.40
	(35°C - 27/19)	EERd	4.13	4.14	4.23	4.04	3.84	3.68
		Power input	1.65	1.64	2.25	2.35	3.15	3.64
	B Condition	Pdc	5.01	5.03	7.00	7.03	8.92	9.88
		(30°C - 27/19) EERd	5.96	6.00	6.14	5.96	5.81	5.77
		Power input	0.84		1.14	1.18	1.54	1.71
		C Condition	Pdc	3.22	3.20	4.50	4.46	5.74
	(25°C - 27/19)	EERd	10.19	8.66	9.32	9.12	9.63	9.37
		Power input	0.32	0.37	0.48	0.49	0.60	0.68
	D Condition	Pdc	2.64	2.72	3.71	3.59	3.61	
		(20°C - 27/19) EERd	14.60	10.83	12.87	12.38	13.99	14.07
		Power input	0.18	0.25	0.29		0.26	
		Space heating (Average climate) TOL	Tol (temperature operating limit)	-10				
	Pdh (declared heating cap)		4.70		9.52			
	COPd (declared COP)		2.97	2.94	2.79	2.77	2.22	2.23
	Power input		1.58	1.60	3.42	3.43	4.29	4.27
TBivalent	Tbiv (bivalent temperature)	-10						
	Pdh (declared heating cap)	4.70		9.52				
	COPd (declared COP)	2.97	2.94	2.79	2.77	2.22	2.23	
	Power input	1.58	1.60	3.42	3.43	4.29	4.27	
A Condition	Pdh (declared heating cap)	4.16	4.14	8.42	8.38	8.42		
	(-7°C) COPd (declared COP)	3.32	3.30	3.14	3.13	2.84	2.80	
Space heating (Average climate)	A Condition	Power input	1.25		2.69	2.68	2.97	3.01
	B Condition	Pdh (declared heating cap)	2.53	2.54	5.13	5.14	5.13	
		(2°C) COPd (declared COP)	4.57	4.30	4.79	4.76	4.58	4.42
		Power input	0.55	0.59	1.07	1.08	1.12	1.16
	C Condition	Pdh (declared heating cap)	1.79	1.89	3.30	3.33	3.30	
		(7°C) COPd (declared COP)	5.48	4.73	5.81	5.71	5.79	5.78
		Power input	0.33	0.40	0.57	0.58	0.57	
	D Condition	Pdh (declared heating cap)	2.01	2.11	2.58	2.60		
		(12°C) COPd (declared COP)	7.02	5.75	6.86	6.64	6.62	6.60
		Power input	0.29	0.37	0.38	0.39		

## 2 Specifications

### 2 - 1 Specifications

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Technical specifications					FCAHG71H + RZAG71NV1	FCAHG100H + RZAG71NV1	FCAHG100H + RZAG100NV1	FCAHG140H + RZAG100NV1	FCAHG125H + RZAG125NV1	FCAHG140H + RZAG140NV1
Power consumption in other than active mode	Crankcase heater mode	Cooling	PCK	kW						0.000
		Heating	PCK	kW						0.000
Off mode	Cooling	POFF		kW						0.009
		POFF		kW						0.009
Standby mode	Cooling	PSB		kW						0.009
		PSB		kW						0.009
Thermo-stat-off mode	Cooling	PTO		kW						0.005
		PTO		kW						0.013
Indication if the heater is equipped with a supplementary heater (pair application)										No
Supplementary heater (pair application)	Back-up capacity	Heating	elbu	kW						0.0
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

(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.

Technical specifications					FCAG71B + RZAG71NV1	FCAG100B + RZAG71NV1	FCAG100B + RZAG100NV1	FCAG140B + RZAG100NV1	FCAG125B + RZAG125NV1	FCAG140B + RZAG140NV1	
Cooling capacity	Nom.			kW	6.80 (1)		9.50 (1)		12.1 (1)	13.4 (1)	
Heating capacity	Nom.			kW	7.50 (2)		10.8 (2)		13.5 (2)	15.5 (2)	
Space cooling	Energy efficiency class				A++						
	Capacity	Pdesign		kW	6.80		9.50		12.1	13.4	
	SEER				6.83	7.50	7.14	7.86	7.15	6.80	
	η <sub>s,c</sub>			%	-						
	Annual energy consumption			kWh/a	348	317	466	423	1,016	1,182	
Space heating (Average climate)	Energy efficiency class				A+		A++		-		
	Capacity	Pdesign		kW	4.70		7.80		9.52		
	SCOP/A				4.22	4.45	4.53	4.66	4.34		
	SCOPnet/A				4.22	4.45	4.53	4.66	4.34		
	η <sub>s,h</sub>			%	-						
Annual energy consumption			kWh/a	1,560	1,479	2,413	2,343	3,071			
Required back up heating cap at design conditions										0.00	
Space cooling	A Condition (35°C - 27/19)	Pdc		kW	6.80		9.50		12.10	13.40	
		EERd			3.54	4.14	3.59	4.13	3.32	3.12	
		Power input		kW	1.92	1.64	2.65	2.30	3.65	4.29	
	B Condition (30°C - 27/19)	Pdc		kW	5.03		7.03		8.92	9.88	
		EERd			5.43	5.65	5.83	5.76	5.65	4.47	
		Power input		kW	0.93	0.89	1.21	1.22	1.58	2.21	
	C Condition (25°C - 27/19)	Pdc		kW	3.20		4.46		5.74	6.35	
		EERd			8.32	9.57	8.18	9.72	7.87	8.17	
		Power input		kW	0.38	0.33	0.55	0.46	0.73	0.78	
	D Condition (20°C - 27/19)	Pdc		kW	2.40		3.31		3.61	3.25	3.32
		EERd			12.31	13.42	13.03	14.70	12.77	13.55	
		Power input		kW	0.20				0.25		
Space heating (Average climate)	TOL	Tol (temperature operating limit)						-10			
		Pdh (declared heating cap)			4.70		7.80		9.52		
		COPd (declared COP)			2.54	2.88	2.51	2.73	1.91	1.93	
		Power input			1.85	1.63	3.11	2.85	4.98	4.93	
	TBivalent	Tbiv (bivalent temperature)						-10			
		Pdh (declared heating cap)			4.70		7.80		9.52		
		COPd (declared COP)			2.54	2.88	2.51	2.73	1.91	1.93	
		Power input			1.85	1.63	3.11	2.85	4.98	4.93	
	A Condition (-7°C)	Pdh (declared heating cap)			4.13	4.14	6.86		8.43	8.42	
		COPd (declared COP)			2.96	3.25	2.87	3.04	2.59	2.52	
	Space heating (Average climate)	A Condition (-7°C)	Power input			1.40	1.27	2.39	2.26	3.25	3.34
			B Condition (2°C)	Pdh (declared heating cap)			2.54		4.21		5.12
COPd (declared COP)				4.23	4.46	4.37	4.65	4.29	4.33		
Power input				0.60	0.57	0.96	0.91	1.20	1.18		
C Condition (7°C)		Pdh (declared heating cap)			1.77	1.80	2.73		3.29		
		COPd (declared COP)			5.11	5.30	6.01	5.82	5.92		
		Power input			0.35	0.34	0.45	0.47	0.56		
D Condition (12°C)		Pdh (declared heating cap)			1.96	2.02	2.47	2.51	2.52		
		COPd (declared COP)			6.01	6.60	7.75	7.16	6.94		
		Power input			0.33	0.31	0.32	0.35	0.36		

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## 2 Specifications

### 2 - 1 Specifications

Technical specifications					FCAG71B + RZAG71NV1	FCAG100B + RZAG71NV1	FCAG100B + RZAG100NV1	FCAG140B + RZAG100NV1	FCAG125B + RZAG125NV1	FCAG140B + RZAG140NV1
Power consumption in other than active mode	Crankcase heater	Cooling	PCK	kW						0.000
		Heating	PCK	kW						0.000
Off mode		Cooling	POFF	kW						0.009
		Heating	POFF	kW						0.009
Standby mode		Cooling	PSB	kW						0.009
		Heating	PSB	kW						0.009
Thermo-stat-off mode		Cooling	PTO	kW						0.005
		Heating	PTO	kW						0.013
Indication if the heater is equipped with a supplementary heater (pair application)										No
Supplementary heater (pair application)	Back-up capacity	Heating	elbu	kW						0.0
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

(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.

Technical specifications					FBA71A9 + RZAG71NV1	FBA100A + RZAG71NV1	FBA100A + RZAG100NV1	FBA140A + RZAG100NV1	FBA125A + RZAG125NV1	FBA140A + RZAG140NV1	
Cooling capacity	Nom.			kW	6.80 (1)		9.50 (1)		12.1 (1)	13.4 (1)	
Heating capacity	Nom.			kW	7.50 (2)		10.8 (2)		13.5 (2)	15.5 (2)	
Space cooling	Energy efficiency class				A++	A+	A++		-		
	Capacity	Pdesign		kW	6.80		9.50		12.1	13.4	
	SEER				6.50	5.81	6.47	6.39	6.56	6.42	
	η <sub>s,c</sub>			%	-		-		259	254	
	Annual energy consumption				kWh/a	366	410	514	520	1,107	1,252
Space heating (Average climate)	Energy efficiency class				A+		-		-		
	Capacity	Pdesign		kW	4.70		7.80		9.52		
	SCOP/A				4.20	4.06	4.36	4.20	4.37	4.34	
	SCOPnet/A				4.20	4.06	4.36	4.20	4.37	4.34	
	η <sub>s,h</sub>			%	-		-		172	171	
	Annual energy consumption				kWh/a	1,566	1,621	2,505	2,600	3,050	3,070
	Required back up heating cap at design conditions				kW	0.00					
Space cooling	A Condition (35°C - 27/19)	Pdc		kW	6.80		9.50		12.10	13.40	
		EERd			3.40	4.15	3.69	4.18	3.27	2.86	
		Power input		kW	2.00	1.64	2.58	2.27	3.70	4.69	
	B Condition (30°C - 27/19)	Pdc		kW	5.03		7.03		8.92	9.88	
		EERd			5.07	4.39	4.92	4.69	4.95	4.64	
		Power input		kW	0.99	1.15	1.43	1.50	1.80	2.13	
	C Condition (25°C - 27/19)	Pdc		kW	3.20		4.46		4.47	5.74	6.35
		EERd			7.94	7.06	7.80	7.62	7.45	7.47	
		Power input		kW	0.40	0.45	0.57	0.59	0.77	0.85	
	D Condition (20°C - 27/19)	Pdc		kW	2.44	2.68	3.33	3.66	3.34	3.50	
		EERd			12.41	9.51	11.22	11.10	11.49	12.13	
		Power input		kW	0.20	0.28	0.30	0.33	0.29		
	Space heating (Average climate)	TOL	Tol (temperature operating limit)		°C	-10					
			Pdh (declared heating cap)		kW	4.70		7.80		9.52	
			COPd (declared COP)			2.50	2.69	2.46	2.52	1.97	2.01
Power input			kW	1.88	1.75	3.17	3.09	4.83	4.74		
TBivalent			Tbiv (bivalent temperature)		°C	-10					
Pdh (declared heating cap)		kW	4.70		7.80		9.52				
COPd (declared COP)			2.50	2.69	2.46	2.52	1.97	2.01			
Power input		kW	1.88	1.75	3.17	3.09	4.83	4.74			
A Condition (-7°C)		Pdh (declared heating cap)		kW	4.14		6.87		8.42		8.43
		COPd (declared COP)			2.92	3.04	2.82	2.80	2.67	2.58	
		Power input		kW	1.42	1.36	2.43	2.45	3.15	3.26	
Space heating (Average climate)		B Condition (2°C)	Pdh (declared heating cap)		kW	2.54		4.21		5.12	
			COPd (declared COP)			4.21	4.10	4.33	4.20	4.37	4.32
			Power input		kW	0.60	0.62	0.97	1.00	1.17	1.18
		C Condition (7°C)	Pdh (declared heating cap)		kW	1.76	1.83	2.73		3.29	
	COPd (declared COP)			5.12	4.74	5.47	5.16	5.76	5.83		
	Power input		kW	0.34	0.39	0.50	0.53	0.57			
	D Condition (12°C)	Pdh (declared heating cap)		kW	1.96	2.05	2.51	2.55		2.56	
		COPd (declared COP)			6.12	5.85	6.91	6.28	6.73	6.86	
		Power input		kW	0.32	0.35	0.36	0.41	0.38	0.37	

## 2 Specifications

### 2 - 1 Specifications

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Technical specifications					FBA71A9 + RZAG71NV1	FBA100A + RZAG71NV1	FBA100A + RZAG100NV1	FBA140A + RZAG100NV1	FBA125A + RZAG125NV1	FBA140A + RZAG140NV1
Power consumption in other than active mode	Crankcase heater mode	Cooling	PCK	kW						0.000
		Heating	PCK	kW						0.000
	Off mode	Cooling	POFF	kW						0.011
		Heating	POFF	kW						0.011
	Standby mode	Cooling	PSB	kW						0.011
		Heating	PSB	kW						0.011
	Thermo-stat-off mode	Cooling	PTO	kW						0.005
		Heating	PTO	kW						0.015
Indication if the heater is equipped with a supplementary heater (pair application)									No	
Supplementary heater (pair application)	Back-up capacity	Heating	elbu	kW						0.0
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	

(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.

Technical specifications					FDA125A + RZAG125NV1						
Cooling capacity	Nom.			kW							12.1 (1)
Heating capacity	Nom.			kW							13.5 (2)
Space cooling	Capacity	Pdesign		kW							12.1
	SEER										6.59
	ηs,c			%							261
	Annual energy consumption			kWh/a							1,102
Space heating (Average climate)	Capacity	Pdesign		kW							9.52
	SCOP/A										4.35
	SCOPnet/A										4.35
	ηs,h			%							171
	Annual energy consumption			kWh/a							3,064
Space cooling	Required back up heating cap at design conditions			kW							0.00
	A Condition (35°C - 27/19)	Pdc		kW							12.10
		EERd									3.25
		Power input		kW							3.73
	B Condition (30°C - 27/19)	Pdc		kW							8.92
		EERd									4.99
		Power input		kW							1.79
	C Condition (25°C - 27/19)	Pdc		kW							5.73
		EERd									7.67
		Power input		kW							0.75
	D Condition (20°C - 27/19)	Pdc		kW							3.34
		EERd									11.04
		Power input		kW							0.30
Space heating (Average climate)	TOL	Tol (temperature operating limit)		°C							-10
		Pdh (declared heating cap)		kW							9.52
		COPd (declared COP)									1.99
	TBivalent	Power input		kW							4.78
		Tbiv (bivalent temperature)		°C							-10
		Pdh (declared heating cap)		kW							9.52
	A Condition (-7°C)	COPd (declared COP)									1.99
		Power input		kW							4.78
		Pdh (declared heating cap)		kW							8.42
	B Condition (2°C)	COPd (declared COP)									2.69
		Power input		kW							3.13
		Pdh (declared heating cap)		kW							5.12
Space heating (Average climate)	B Condition (2°C)	COPd (declared COP)									4.33
		Power input		kW							1.18
	C Condition (7°C)	Pdh (declared heating cap)		kW							3.29
		COPd (declared COP)									5.73
	D Condition (12°C)	Power input		kW							0.58
		Pdh (declared heating cap)		kW							2.58
	COPd (declared COP)									6.68	
	Power input		kW							0.39	

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Technical specifications					FD125A + RZAG125NV1
Power consumption in other than active mode	Crankcase heater mode	Cooling	PCK	kW	0.000
		Heating	PCK	kW	0.000
	Off mode	Cooling	POFF	kW	0.012
		Heating	POFF	kW	0.012
	Standby mode	Cooling	PSB	kW	0.012
		Heating	PSB	kW	0.012
	Thermo-stat-off mode	Cooling	PTO	kW	0.005
		Heating	PTO	kW	0.016
Indication if the heater is equipped with a supplementary heater (pair application)					No
Supplementary heater (pair application)	Back-up capacity	Heating	elbu	kW	0.0
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

(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.

Technical specifications					FAA71B + RZAG71NV1	FAA100B + RZAG71NV1	FAA100B + RZAG100NV1
Cooling capacity	Nom.		kW	6.80	6.80 (1)	9.50	
	Nom.		Btu/h	23,200	-	32,400	
	Nom.		kcal/h	5,847	-	8,169	
Heating capacity	Nom.		kW	7.50	7.50 (2)	10.80	
	Nom.		Btu/h	25,600	-	36,900	
	Nom.		kcal/h	6,449	-	9,286	
Power input	Cooling	Nom.	kW	2.08	-	2.93	
	Heating	Nom.	kW	2.19	-	3.41	
Nominal efficiency	EER			3.27	-	3.24	
	COP			3.42	-	3.17	
	Annual energy consumption		kWh	1,040	-	1,466	
	Energy labeling	Cooling		A	-	A	
	Heating		B	-	D		
Space cooling	Energy efficiency class				A++		
	Capacity	Pdesign	kW	6.80		9.50	
	SEER			6.58	6.43	6.42	
	Annual energy consumption		kWh/a	362	370	518	
Space heating (Average climate)	Energy efficiency class				A+		
	Capacity	Pdesign	kW	4.70		7.80	
	SCOP/A			4.20	4.10	4.01	
	SCOPnet/A			4.20	4.10	4.01	
	PdH Heating capacity at -10°		kW	4.70	-	7.80	
	Annual energy consumption		kWh/a	1,567	1,605	2,725	
Space cooling	Required back up heating cap at design conditions		kW		0.00		
	A Condition	Pdc	kW	6.80		9.50	
	(35°C - 27/19)	EERd		3.27	3.47	3.24	
		Power input	kW	2.08	1.96	2.93	
	B Condition	Pdc	kW	5.02	5.03	7.00	
	(30°C - 27/19)	EERd		5.04	5.22	4.59	
		Power input	kW	1.00	0.96	1.53	
	C Condition	Pdc	kW	3.23	3.20	4.51	
	(25°C - 27/19)	EERd		8.40	7.90	7.56	
		Power input	kW	0.38	0.40	0.60	
	D Condition	Pdc	kW	2.59	2.48	3.10	
	(20°C - 27/19)	EERd		11.70	10.59	13.20	
		Power input	kW	0.22		0.23	

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Technical specifications				FAA71B + RZAG71NV1	FAA100B + RZAG71NV1	FAA100B + RZAG100NV1	
Space heating (Average climate)	TOL	Tol (temperature operating limit) °C		-10			
		Pdh (declared heating cap) kW		4.70		7.80	
		COPd (declared COP)		2.51	2.74	2.19	
	TBivalent	Power input kW		1.87	1.71	3.56	
		Tbiv (bivalent temperature) °C		-10			
		Pdh (declared heating cap) kW		4.70		7.80	
	A Condition (-7°C)	COPd (declared COP)		2.51	2.74	2.19	
		Power input kW		1.87	1.71	3.56	
		Pdh (declared heating cap) kW		4.16	4.14	6.91	
	B Condition (2°C)	COPd (declared COP)		2.60	3.07	2.32	
		Power input kW		1.60	1.35	2.98	
		Pdh (declared heating cap) kW		2.57	2.54	4.20	
	C Condition (7°C)	COPd (declared COP)		4.28	4.11	4.06	
		Power input kW		0.60	0.62	1.03	
		Pdh (declared heating cap) kW		1.83	1.79	2.70	
	D Condition (12°C)	COPd (declared COP)		5.26	4.81	5.24	
		Power input kW		0.35	0.37	0.52	
		Pdh (declared heating cap) kW		2.23	2.02	2.43	
Power consumption in other than active mode	Crankcase heater mode	Cooling PCK	kW	0.000			
		Heating PCK	kW	0.000			
	Off mode	Cooling POFF	kW	0.009			
		Heating POFF	kW	0.009			
	Standby mode	Cooling PSB	kW	0.009			
		Heating PSB	kW	0.009			
	Thermo-stat-off mode	Cooling PTO	kW	0.005			
		Heating PTO	kW	0.013			
	Indication if the heater is equipped with a supplementary heater (pair application)				-	No	-
	Supplementary heater (pair application) Back-up Heating elbu capacity kW				-	0.0	-
	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			
Eurovent	Sound power level outdoor	Cooling	Nom. dBA	64	-	66	
		Heating	Nom. dBA	61	-	65	
	Piping length	Cooling	Measuring condition m	7.50	-	-	

(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.

Technical specifications				FHA71A9 + RZAG71NV1	FHA100A + RZAG71NV1	FHA100A + RZAG100NV1	FHA140A + RZAG100NV1	FHA125A + RZAG125NV1	FHA140A + RZAG140NV1
Cooling capacity	Nom.	kW		6.80 (1)		9.50 (1)		12.1 (1)	13.4 (1)
Heating capacity	Nom.	kW		7.50 (2)		10.8 (2)		13.5 (2)	15.5 (2)
Space cooling	Energy efficiency class			A++					
	Capacity	Pdesign	kW	6.80		9.50		12.1	13.4
	SEER			7.11	6.69	6.42	7.35	7.14	6.42
	ηs,c		%	-					
	Annual energy consumption		kWh/a	335	356	518	453	1,017	1,253
Space heating (Average climate)	Energy efficiency class			A+		A++		A+	
	Capacity	Pdesign	kW	4.70		7.80		9.52	
	SCOP/A			4.32	4.26	4.61	4.50	4.20	4.30
	SCOPnet/A			4.32	4.26	4.61	4.50	4.20	4.30
	ηs,h		%	-					
	Annual energy consumption		kWh/a	1,523	1,545	2,369	2,429	3,174	3,100
	Required back up heating cap at design conditions kW				0.00				

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Technical specifications				FHA71A9 + RZAG71NV1	FHA100A + RZAG71NV1	FHA100A + RZAG100NV1	FHA140A + RZAG100NV1	FHA125A + RZAG125NV1	FHA140A + RZAG140NV1		
Space cooling	A Condition (35°C - 27/19)	Pdc	kW	6.80		9.50		12.10	13.40		
		EERd		3.75	4.02	4.10	4.05	3.40	3.11		
		Power input	kW	1.81	1.69	2.31	2.34	3.56	4.31		
	B Condition (30°C - 27/19)	Pdc	kW	5.03		7.03		8.92	9.87		
		EERd		5.46	5.34	4.92	6.03	5.55	4.94		
		Power input	kW	0.92	0.94	1.43	1.17	1.61	2.00		
	C Condition (25°C - 27/19)	Pdc	kW	3.20		4.47		4.46	5.73	6.35	
		EERd		8.99	8.27	7.62	8.88	8.20	7.48		
		Power input	kW	0.36	0.39	0.59	0.50	0.70	0.85		
	D Condition (20°C - 27/19)	Pdc	kW	2.48	2.62	3.54	3.61	3.36	3.35		
		EERd		12.58	10.71	10.27	11.63	12.00	10.13		
		Power input	kW	0.20	0.24	0.34	0.31	0.28	0.33		
Space heating (Average climate)	TOL	Tol (temperature operating limit)	°C			-10					
		Pdh (declared heating cap)	kW	4.70		7.80		9.52			
		COPd (declared COP)		2.43	2.90	2.65	2.85	1.87	2.13		
	TBivalent	Power input	kW	1.93	1.62	2.94	2.73	5.10	4.47		
		Tbiv (bivalent temperature)	°C			-10					
		Pdh (declared heating cap)	kW	4.70		7.80		9.52			
		COPd (declared COP)		2.43	2.90	2.65	2.85	1.87	2.13		
		Power input	kW	1.93	1.62	2.94	2.73	5.10	4.47		
		A Condition (-7°C)	Pdh (declared heating cap)	kW	4.14		6.86		8.42		
		COPd (declared COP)		2.95	3.26	3.03	3.15	2.55	2.70		
		Space heating (Average climate)	A Condition (-7°C)	Power input	kW	1.40	1.27	2.27	2.18	3.30	3.11
			B Condition (2°C)	Pdh (declared heating cap)	kW	2.54		4.21		5.12	
COPd (declared COP)				4.44	4.32	4.61	4.57	4.26	4.33		
Power input	kW			0.57	0.59	0.91	0.92	1.20	1.18		
C Condition (7°C)	Pdh (declared heating cap)		kW	1.79	1.84	2.73		3.29			
	COPd (declared COP)			5.15	4.90	5.70	5.30	5.49	5.54		
	Power input		kW	0.35	0.38	0.48	0.52	0.60	0.59		
D Condition (12°C)	Pdh (declared heating cap)		kW	1.97	2.07	2.54	2.60	2.55	2.64		
	COPd (declared COP)			5.99	6.00	7.06	6.21	6.13	6.25		
	Power input		kW	0.33	0.34	0.36		0.42			
Power consumption in other than active mode	Crankcase heater mode		Cooling PCK	kW			0.000				
			Heating PCK	kW			0.000				
	Off mode	Cooling POFf	kW			0.009					
		Heating POFf	kW			0.009					
	Standby mode	Cooling PSB	kW			0.009					
		Heating PSB	kW			0.009					
	Thermo-stat-off mode	Cooling PTO	kW			0.005					
		Heating PTO	kW			0.013					
Indication if the heater is equipped with a supplementary heater (pair application)						No					
Supplementary heater (pair application)	Back-up capacity	Heating elbu	kW			0.0					
		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					

(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.

Technical specifications				FUA71A + RZAG71NV1	FUA100A + RZAG71NV1	FUA100A + RZAG100NV1	FUA125A + RZAG125NV1	
Cooling capacity	Nom.	kW	6.80 (1)		9.50 (1)		12.1 (1)	
Heating capacity	Nom.	kW	7.50 (2)		10.8 (2)		13.5 (2)	
Space cooling	Energy efficiency class					A++		-
	Capacity	Pdesign	kW	6.80		9.50		12.1
	SEER			7.02	6.89	6.42	6.39	
	ηs,c	%				-		253
	Annual energy consumption		kWh/a	339	345	518	1,136	
Space heating (Average climate)	Energy efficiency class					A+		-
	Capacity	Pdesign	kW	4.70		7.80		9.52
	SCOP/A			4.20	4.28	4.50	4.26	
	SCOPnet/A			4.20	4.28	4.50	4.26	
	ηs,h	%				-		167
	Annual energy consumption		kWh/a	1,567	1,538	2,427	3,129	
	Required back up heating cap at design conditions		kW			0.00		

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Technical specifications				FUA71A + RZAG71NV1	FUA100A + RZAG71NV1	FUA100A + RZAG100NV1	FUA125A + RZAG125NV1	
Space cooling	A Condition (35°C - 27/19)	Pdc	kW	6.80		9.50	12.10	
		EERd		3.83	4.02	3.57	3.02	
		Power input	kW	1.77	1.69	2.66	4.00	
	B Condition (30°C - 27/19)	Pdc	kW	5.03		7.03	8.91	
		EERd		5.34	5.65	4.93	5.08	
		Power input	kW	0.94	0.89	1.43	1.76	
	C Condition (25°C - 27/19)	Pdc	kW	3.20		4.46	5.74	
		EERd		8.83	8.54	7.75	7.22	
		Power input	kW	0.36	0.37	0.58	0.79	
	D Condition (20°C - 27/19)	Pdc	kW	2.59		3.36	3.23	
		EERd		12.48	10.88	10.65	10.56	
		Power input	kW	0.21	0.24	0.32	0.31	
Space heating (Average climate)	TOL	Tol (temperature operating limit)	°C			-10		
		Pdh (declared heating cap)	kW	4.70		7.80	9.52	
		COPd (declared COP)		2.58	2.95	2.62	1.97	
		Power input	kW	1.82	1.59	2.97	4.83	
	TBivalent	Tbiv (bivalent temperature)	°C			-10		
		Pdh (declared heating cap)	kW	4.70		7.80	9.52	
		COPd (declared COP)		2.58	2.95	2.62	1.97	
		Power input	kW	1.82	1.59	2.97	4.83	
	A Condition (-7°C)	Pdh (declared heating cap)	kW	4.14		6.86	8.43	
		COPd (declared COP)		2.99	3.31	3.00	2.66	
	Space heating (Average climate)	A Condition (-7°C)	Power input	kW	1.38	1.25	2.29	3.17
			B Condition (2°C)	Pdh (declared heating cap)	kW	2.54		4.21
COPd (declared COP)					4.27	4.36	4.53	4.31
Power input		kW		0.60	0.58	0.93	1.19	
C Condition (7°C)		Pdh (declared heating cap)	kW	1.80	1.86	2.73	3.29	
		COPd (declared COP)		5.03	4.87	5.47		
		Power input	kW	0.36	0.38	0.50	0.60	
D Condition (12°C)		Pdh (declared heating cap)	kW	2.00	2.09	2.55	2.58	
		COPd (declared COP)		6.00	5.94	6.76	6.18	
		Power input	kW	0.33	0.35	0.38	0.42	
Power consumption in other than active mode		Crankcase heater mode	Cooling PCK	kW			0.000	
			Heating PCK	kW			0.000	
	Off mode	Cooling POFF	kW			0.009		
		Heating POFF	kW			0.009		
	Standby mode	Cooling PSB	kW			0.009		
		Heating PSB	kW			0.009		
	Thermo-stat-off mode	Cooling PTO	kW			0.005		
		Heating PTO	kW			0.013		
Indication if the heater is equipped with a supplementary heater (pair application)						No		
Supplementary heater (pair application)	Back-up capacity	Heating elbu	kW			0.0		
		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		

(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.

Technical specifications				FVA71A + RZAG71NV1	FVA100A + RZAG71NV1	FVA100A + RZAG100NV1	FVA140A + RZAG100NV1	FVA125A + RZAG125NV1	FVA140A + RZAG140NV1
Cooling capacity	Nom.	kW	6.80 (1)		9.50 (1)		12.1 (1)	13.4 (1)	
Heating capacity	Nom.	kW	7.50 (2)		10.8 (2)		13.5 (2)	15.5 (2)	
Space cooling	Energy efficiency class			A++				-	
	Capacity	Pdesign	kW	6.80		9.50		12.1	13.4
	SEER			6.34	6.41	6.40	6.43	6.41	6.12
	ηs,c		%			-		253	242
	Annual energy consumption		kWh/a	376	371	520	517	1,133	1,314
Space heating (Average climate)	Energy efficiency class			A+				-	
	Capacity	Pdesign	kW	4.70		7.80		9.52	
	SCOP/A			4.05	4.03	4.20	4.05	4.15	3.94
	SCOPnet/A			4.05	4.03	4.20	4.05	4.15	3.94
	ηs,h		%			-		163	155
	Annual energy consumption		kWh/a	1,625	1,634	2,600	2,697	3,209	3,383
	Required back up heating cap at design conditions		kW			0.00			

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Technical specifications				FVA71A + RZAG71NV1	FVA100A + RZAG71NV1	FVA100A + RZAG100NV1	FVA140A + RZAG100NV1	FVA125A + RZAG125NV1	FVA140A + RZAG140NV1	
Space cooling	A Condition (35°C - 27/19)	Pdc	kW	6.80		9.50		12.10	13.40	
		EERd		3.27	3.95	3.57	3.93	3.21	3.03	
		Power input	kW	2.08	1.72	2.66	2.42	3.77	4.42	
	B Condition (30°C - 27/19)	Pdc	kW	5.03		7.03		8.92	9.87	
		EERd		5.15	5.40	5.21	5.13	5.23	4.89	
		Power input	kW	0.98	0.93	1.35	1.37	1.70	2.02	
	C Condition (25°C - 27/19)	Pdc	kW	3.20		4.46		4.47	5.73	6.35
		EERd		7.53	7.81	7.67	7.63	7.07	6.90	
		Power input	kW	0.42	0.41	0.58	0.59	0.81	0.92	
	D Condition (20°C - 27/19)	Pdc	kW	2.33	2.61	3.20	3.54	3.23	3.24	
		EERd		11.27	9.56	9.85	10.01	10.28	9.46	
		Power input	kW	0.21	0.27	0.33	0.35	0.31	0.34	
Space heating (Average climate)	TOL	Tol (temperature operating limit)	°C	-10						
		Pdh (declared heating cap)	kW	4.70		7.80		9.52		
		COPd (declared COP)		2.42	2.85	2.45	2.57	1.86		
		Power input	kW	1.94	1.65	3.19	3.04	5.11		
	TBivalent	Tbiv (bivalent temperature)	°C	-10						
		Pdh (declared heating cap)	kW	4.70		7.80		9.52		
		COPd (declared COP)		2.42	2.85	2.45	2.57	1.86		
		Power input	kW	1.94	1.65	3.19	3.04	5.11		
	A Condition (-7°C)	Pdh (declared heating cap)	kW	4.14		6.86		8.43	8.42	
		COPd (declared COP)		2.83	3.18	2.82	2.84	2.55	2.42	
	Space heating (Average climate)	A Condition (-7°C)	Power input	kW	1.46	1.30	2.43	2.42	3.30	3.48
			B Condition (2°C)	Pdh (declared heating cap)	kW	2.54		4.21		5.12
COPd (declared COP)					4.07	4.11	4.21	4.11	4.20	3.99
C Condition (7°C)		Power input	kW	0.62		1.00		1.02	1.22	1.28
		Pdh (declared heating cap)	kW	1.76	1.88	2.73		3.29		
			COPd (declared COP)		4.92	4.54	5.13	4.77	5.42	5.12
D Condition (12°C)		Power input	kW	0.36	0.41	0.53	0.57	0.61	0.64	
		Pdh (declared heating cap)	kW	1.96	2.10	2.56	2.60	2.57	2.61	
			COPd (declared COP)		5.77	5.48	6.22	5.58	6.00	5.67
Power consumption in other than active mode		Crankcase heater mode	Cooling PCK	kW	0.000					
			Heating PCK	kW	0.000					
		Off mode	Cooling POFF	kW	0.009					
	Heating POFF		kW	0.009						
	Standby mode	Cooling PSB	kW	0.009						
		Heating PSB	kW	0.009						
	Thermo-stat-off mode	Cooling PTO	kW	0.005						
		Heating PTO	kW	0.013						
	Indication if the heater is equipped with a supplementary heater (pair application)				No					
	Supplementary heater (pair application)	Back-up capacity	Heating elbu	kW	0.0					
			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						

(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.





# 3 Electrical data

## 3 - 1 Electrical Data

### RZAG-NV1

### RZAG-NY1

#### 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

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.
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

**3D120944F**



## 4 Options

### 4 - 1 Options

**RZAG-NV1**
**RZAG-NY1**

Available options for ·RZAG· models

Option		Option kit			
		RZAG71N7V1B	RZAG100N7V1B	RZAG125N7V1B	RZAG140N7V1B
		RZAG71N7Y1B	RZAG100N7Y1B	RZAG125N7Y1B	RZAG140N7Y1B
		RZAG71N2V1B	RZAG100N2V1B	RZAG125N2V1B	RZAG140N2V1B
		RZAG71N2Y1B	RZAG100N2Y1B	RZAG125N2Y1B	RZAG140N2Y1B
Bottom plate heater		EKBPH140N			
Refrigerant branch piping	Twin	KHRQ(M)58T			
	Triple	KHRQ(M)58H			
	Double twin	-		KHRQ(M)58T (3x)	
Demand adaptor kit (1)		SB.KRP58M52 (KRP58M51 + EKMKA2)			
Sound reduction kit		EKLN140A1			

**Notes**

- (1) To mount ·KRP58M51·, an additional mounting kit (·EKMKA2·) needs to be used (obligatory).  
This will be offered as sales bom SB.·KRP58M52· = ·KRP58M51· + ·EKMKA2·

**3D120932C**

# 5 Combination table

## 5 - 1 Combination Table

5

**RZAG-NV1**  
**RZAG-NY1**

Possible combinations	
Pair	P
Twin	2
Triple	3
Double twin	4

OU_IO_ID	FAA71B	FAA100B	FBA100A	FBA125A	FBA140A	FBA35A	FBA50A	FBA60A	FBA71A	FCAG35B	FCAG50B	FCAG60B	FCAG71B	FCAG100B	FCAG125B	FCAG140B	FCAHG71H	FCAHG100H	FCAHG125H	FCAHG140H	FDA125A	FDX35F	FDX50F	FDX60F	FDX100F	FFA35A	FFA50A	FHA100A	FHA125A	FHA140A	FHA35A	FHA50A	FHA60A	FHA71A	FNA35A	FNA50A	FNA60A	FUA71A	FUA100A	FUA125A	FVA71A	FVA100A	FVA125A	FVA140A					
RZAG71N2V1B	P					2			P	2			P				P					2				2																							
RZAG100N2V1B	P	P				3	2			3	2			P				P					3	2		3	2		P																				
RZAG125N2V1B			P			4	3	2		4	3	2			P			P				P	4	3	2	4	3	2		P																			
RZAG140N2V1B	2			P		4	3	2		2	4	3	2			P	2				P	4	3	2	4	3	2		P																				
RZAG71N2Y1B	P					2			P	2			P				P					2					2																						
RZAG100N2Y1B		P	P			3	2			3	2			P			P					3	2		3	2		P																					
RZAG125N2Y1B			P			4	3	2		4	3	2			P			P			P	4	3	2	4	3	2		P																				
RZAG140N2Y1B	2			P		4	3	2		2	4	3	2			P	2				P	4	3	2	4	3	2		P																				

Notes

1 When combining multiple indoor units, designate the unit whose remote controller is equipped with the most functions as the master unit.

**4D140332A**

**RZAG-NV1**  
**RZAG-NY1**

Possible combinations	
Pair	P
Twin	2
Triple	3
Double twin	4

OU_IO_ID	FAA71B	FAA100B	FBA100A	FBA140A	FBA35A	FBA50A	FBA71A	FCAG35B	FCAG50B	FCAG71B	FCAG100B	FCAG140B	FCAHG71H	FCAHG100H	FCAHG140H	FDX35F	FDX50F	FFA35A	FFA50A	FHA100A	FHA140A	FHA35A	FHA50A	FHA60A	FHA71A	FUA71A	FUA100A	FVA71A	FVA100A	FVA140A																		
RZAG71N2V1B		P	P		3	2		3	2		P					P						3	2	3	2	P																						
RZAG100N2V1B	2			P	4	3	2	4	3	2			P	2		P	4	3	4	3		P	4	3		P	4	3	2	2																		
RZAG125N2V1B	2			P	4	3	2	4	3	2			P	2		P	4	3	4	3		P	4	3		P	4	3	2	2																		
RZAG140N2V1B	2			P	4	3	2	4	3	2			P	2		P	4	3	4	3		P	4	3		P	4	3	2	2																		
RZAG71N2Y1B		P	P		3	2		3	2		P				P			3	2	3	2	P																										
RZAG100N2Y1B	2			P	4	3	2	4	3	2			P	2		P	4	3	4	3		P	4	3		P	4	3	2	2																		
RZAG125N2Y1B	2			P	4	3	2	4	3	2			P	2		P	4	3	4	3		P	4	3		P	4	3	2	2																		
RZAG140N2Y1B	2			P	4	3	2	4	3	2			P	2		P	4	3	4	3		P	4	3		P	4	3	2	2																		

Notes

1 When combining multiple indoor units, designate the unit whose remote controller is equipped with the most functions as the master unit.

**4D140333A**





6 Capacity tables
6 - 1 Cooling/Heating Capacity Tables

RZAG71NV1
RZAG71NY1

Performance characteristics for ·EDP· room

Table with columns for Indoor (RH [%], °CWB, °CDB) and Outdoor temperature [°C DB] (-20 to 40). Rows show capacity (kW) and COP for various indoor conditions and outdoor temperatures.

Symbols
TC: Maximum total cooling capacity [kW]
SHC: Sensible heat capacity [kW]
CPI: Coefficient of the power input
PI: Power input [kW]
compressor + indoor and outdoor fan motors
RH: Relative humidity [%]

Pair table with columns: Pair, FCAGH100H, FCAG100B, FFA100B, FVA100A, FHA100A, FUA100A, FBA100A. Cooling values: 1.64, 1.64, 1.96, 1.72, 1.69, 1.69, 1.64.

Twin table with columns: Twin, FCAGS0B x 2, FHASOA x 2, FFA50A x 2, FDXM50F x 2, FBA50A x 2. Cooling values: 1.56, 1.70, 1.79, 1.44, 1.67.

Triple table with columns: Triple, FCAG35B x 3, FHA35A x 3, FFA35A x 3, FDXM35F x 3, FBA35A x 3. Cooling values: 1.51, 1.51, 1.62, 1.51, 1.64.

- Notes
1. The ratings shown are net capacities which include a deduction for indoor fan motor heat.
2. The capacities are based on the following conditions: Outdoor air: 85% RH; Corresponding refrigerant piping length: 5.0 m; Level difference: 0 m.
3. For ·EDP· applications, it is recommended to use outdoor unit setting: 2-57-2.
4. ·CPI· is a percentage value compared to the rated value which is 1.00.
5. The error rate for this value is less than 5% and depends on the indoor unit type.
6. The rated power input for each model is mentioned in the table below.

3D125184B

RZAG100NV1
RZAG100NY1

Performance characteristics for ·EDP· room

Table with columns for Indoor (RH [%], °CWB, °CDB) and Outdoor temperature [°C DB] (-20 to 40). Rows show capacity (kW) and COP for various indoor conditions and outdoor temperatures.

Symbols
TC: Maximum total cooling capacity [kW]
SHC: Sensible heat capacity [kW]
CPI: Coefficient of the power input
PI: Power input [kW]
compressor + indoor and outdoor fan motors
RH: Relative humidity [%]

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

Pair table with columns: Pair, FCAGH140H, FCAG140B, FVA140A, FHA140A, FBA140A. Cooling values: 2.35, 2.28, 2.39, 2.32, 2.25.

Twin table with columns: Twin, FCAGH71H x 2, FCAG71B x 2, FHA71A x 2, FUA71A x 2, FFA71B x 2, FBA71A x 2. Cooling values: 2.02, 2.15, 2.10, 2.11, 2.19, 2.06.

Triple table with columns: Triple, FCAGS0B x 3, FHASOA x 3, FFA50A x 3, FDXM50F x 3, FBA50A x 3. Cooling values: 2.03, 2.18, 2.25, 1.88, 2.18.

Double twin table with columns: Double twin, FCAG35B x 4, FHA35A x 4, FFA35A x 4, FDXM35F x 4, FBA35A x 4. Cooling values: 2.00, 2.01, 2.12, 2.00, 2.18.

- Notes
1. The ratings shown are net capacities which include a deduction for indoor fan motor heat.
2. The capacities are based on the following conditions: Outdoor air: 85% RH; Corresponding refrigerant piping length: 5.0 m; Level difference: 0 m.
3. For ·EDP· applications, it is recommended to use outdoor unit setting: 2-57-2.
4. ·CPI· is a percentage value compared to the rated value which is 1.00.
5. The error rate for this value is less than 5% and depends on the indoor unit type.

3D125185A

6 Capacity tables
6 - 1 Cooling/Heating Capacity Tables

6

RZAG125NV1
RZAG125NY1

Performance characteristics for ·EDP· room

Main performance table with columns for Indoor (RH, °CWB, °CDB) and Outdoor temperature (°C DB) from -20 to 40. Rows include various indoor conditions and corresponding capacity values for cooling and heating.

Symbols

- TC: Maximum total cooling capacity [kW]
SHC: Sensible heat capacity [kW]
CPI: Coefficient of the power input
PI: Power input [kW]
compressor + indoor and outdoor fan motors
RH: Relative humidity [%]

Notes

- 1. The ratings shown are net capacities which include a deduction for indoor fan motor heat.
2. The capacities are based on the following conditions:
Outdoor air: 85% RH
Corresponding refrigerant piping length: ·5.0 m
Level difference: 0m
3. For EDP applications, it is recommended to use outdoor unit setting 2-57-2.
4. CPI is a percentage value compared to the rated value which is 1.00.
5. The error rate for this value is less than 5% and depends on the indoor unit type.
6. The rated power input for each model is mentioned in the table below.

Pair table with columns for Pair, FCAHG140H, FCAHG140B, FVA140A, FFA140A, FBA140A and Cooling capacity values (3.09, 3.07, 3.17, 3.05, 2.99).

Twin table with columns for Twin, FCAHG71Hx2, FCAHG71Bx2, FHA71Ax2, FUA71Ax2, FFA71Bx2, FBA71Ax2 and Cooling capacity values (2.57, 2.79, 2.68, 2.69, 2.88, 2.64).

Triple table with columns for Triple, FCAGS0Bx3, FFA50Ax3, FFA50Ax3, FDXM50Fv3, FBA50Ax3 and Cooling capacity values (2.57, 2.79, 2.97, 2.36, 2.74).

Double table with columns for Double, FCAG35Bx4, FHA35Ax4, FFA35Ax4, FDXM35Fv4, FBA35Ax4 and Cooling capacity values (2.51, 2.45, 2.71, 2.55, 2.96).

3D125186A

RZAG140NV1
RZAG140NY1

Performance characteristics for ·EDP· room

Main performance table for RZAG140 series with columns for Indoor (RH, °CWB, °CDB) and Outdoor temperature (°C DB) from -20 to 40. Rows include various indoor conditions and corresponding capacity values.

Symbols

- TC: Maximum total cooling capacity [kW]
SHC: Sensible heat capacity [kW]
CPI: Coefficient of the power input
PI: Power input [kW]
compressor + indoor and outdoor fan motors
RH: Relative humidity [%]

Notes

- 1. The ratings shown are net capacities which include a deduction for indoor fan motor heat.
2. The capacities are based on the following conditions:
Outdoor air: 85% RH
Corresponding refrigerant piping length: ·5.0 m
Level difference: 0m
3. For EDP applications, it is recommended to use outdoor unit setting 2-57-2.
4. CPI is a percentage value compared to the rated value which is 1.00.
5. The error rate for this value is less than 5% and depends on the indoor unit type.
6. The rated power input for each model is mentioned in the table below.

Pair table with columns for Pair, FCAHG140H, FCAHG140B, FVA140A, FFA140A, FBA140A and Cooling capacity values (3.64, 4.29, 4.42, 4.31, 4.69).

Twin table with columns for Twin, FCAHG71Hx2, FCAHG71Bx2, FHA71Ax2, FUA71Ax2, FFA71Bx2, FBA71Ax2 and Cooling capacity values (2.89, 3.15, 3.01, 3.02, 3.27, 2.97).

Triple table with columns for Triple, FCAGS0Bx3, FFA50Ax3, FFA50Ax3, FDXM50Fv3, FBA50Ax3 and Cooling capacity values (2.88, 3.04, 3.37, 2.65, 3.06).

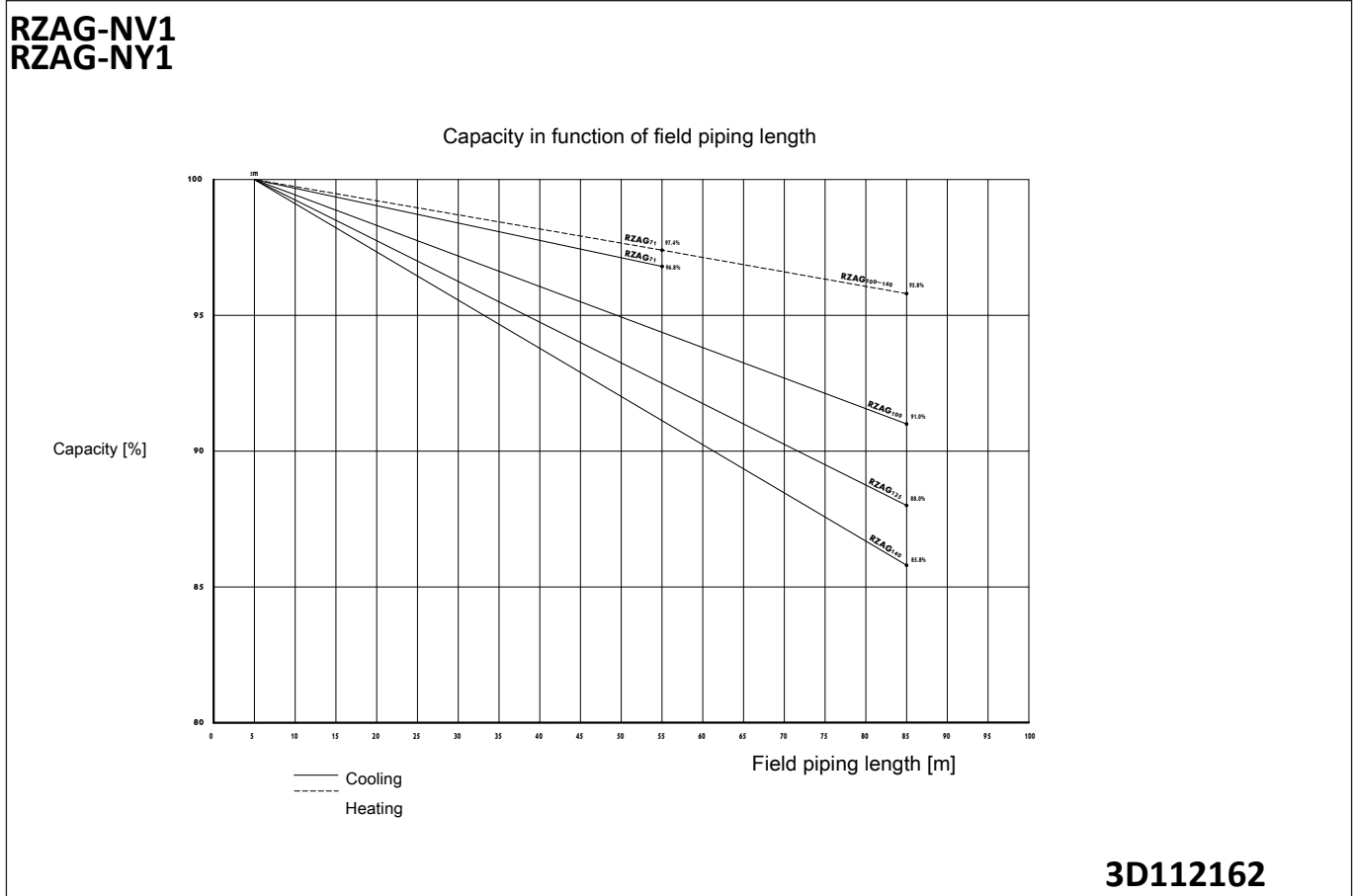
Double twin table with columns for Double twin, FCAG35Bx4, FHA35Ax4, FFA35Ax4, FDXM35Fv4, FBA35Ax4 and Cooling capacity values (3.08, 2.73, 3.04, 2.87, 3.32).

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# 6 Capacity tables

## 6 - 2 Capacity Correction Factor

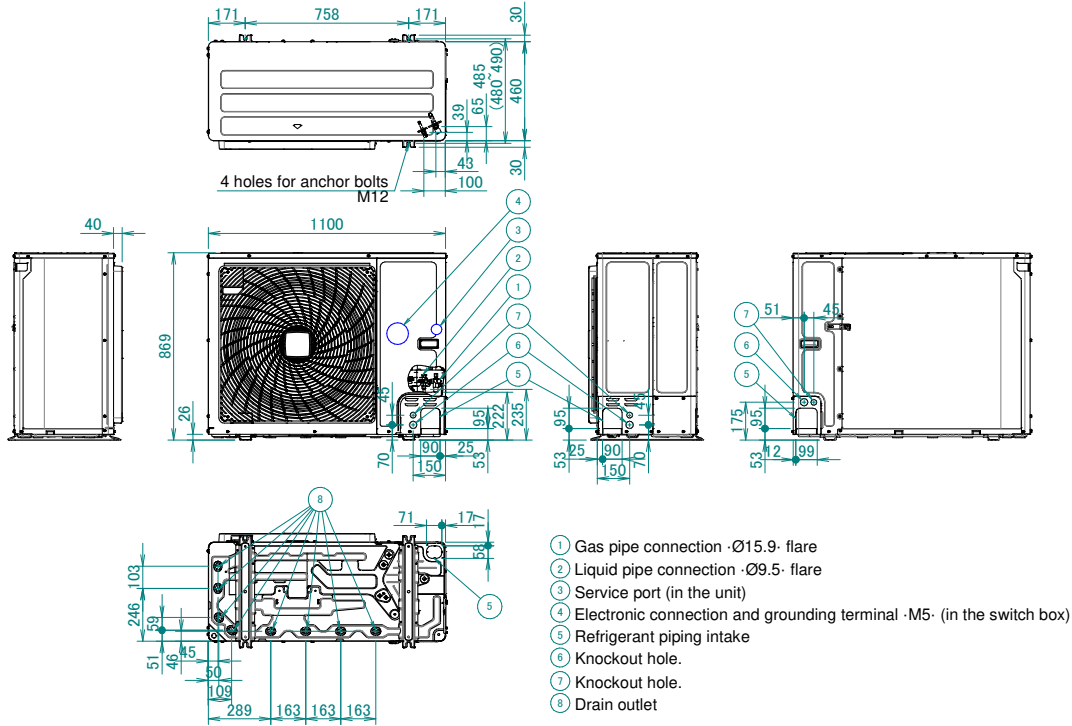


# 7 Dimensional drawings

## 7 - 1 Dimensional Drawings

7

RZAG-NV1  
RZAG-NY1

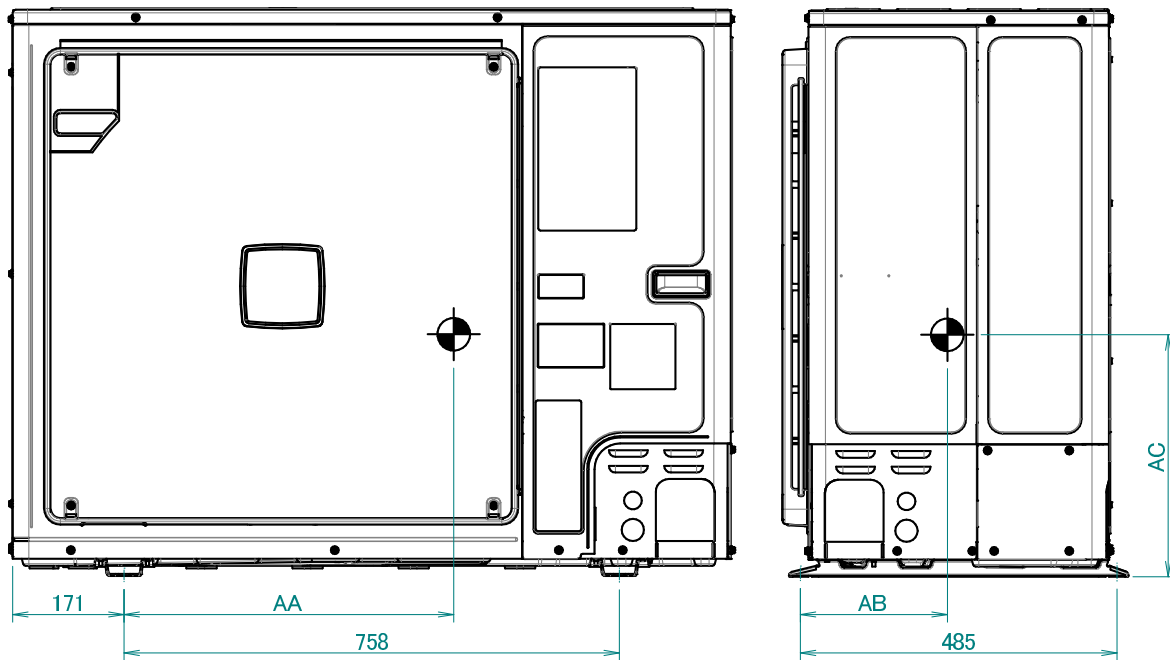


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# 8 Centre of gravity

## 8 - 1 Centre of Gravity

### RZAG-NV1 RZAG-NY1



Model	AA	AB	AC
RZAG71N2/7V1B	520.3	238.7	357.8
RZAG71N2/7Y1B	525.9	224.7	359.8
RZAG100N2/7V1B	499.7	239.3	367.6
RZAG100N2/7Y1B	511.2	223.5	362.5
RZAG125/140N2/7V1B	486.3	229.2	371.8
RZAG125/140N2/7Y1B	493.4	215.8	372.2
RXYSA4/5/6A7V1B	530.4	249.9	389.0
RXYSA4/5/6A7Y1B			

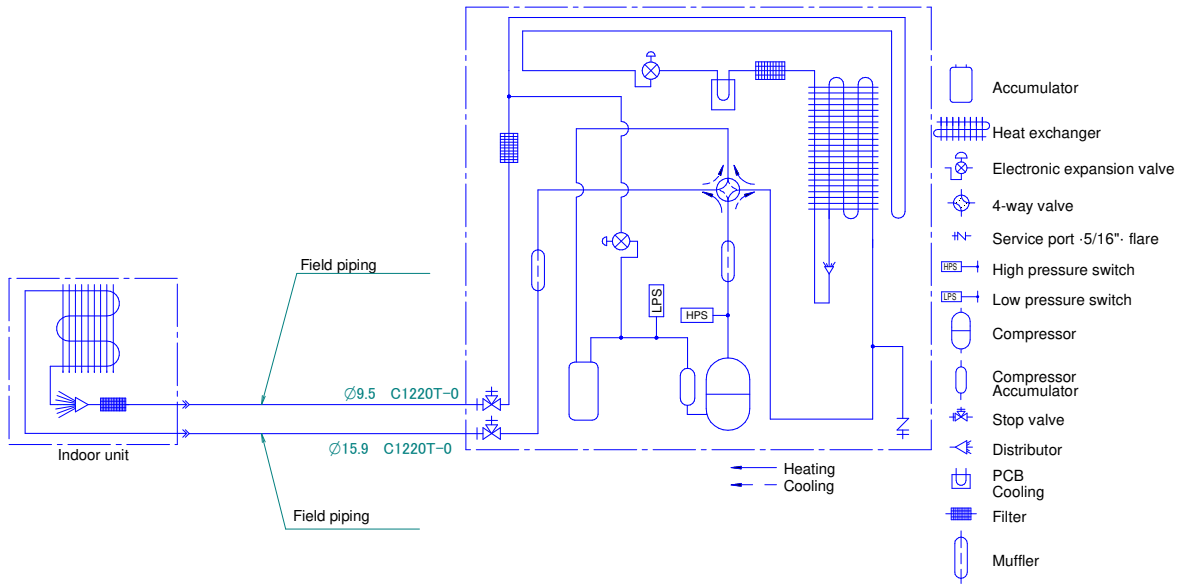
**4D120933C**

# 9 Piping diagrams

## 9 - 1 Piping Diagrams

9

RZAG-NV1  
RZAG-NY1



Notes

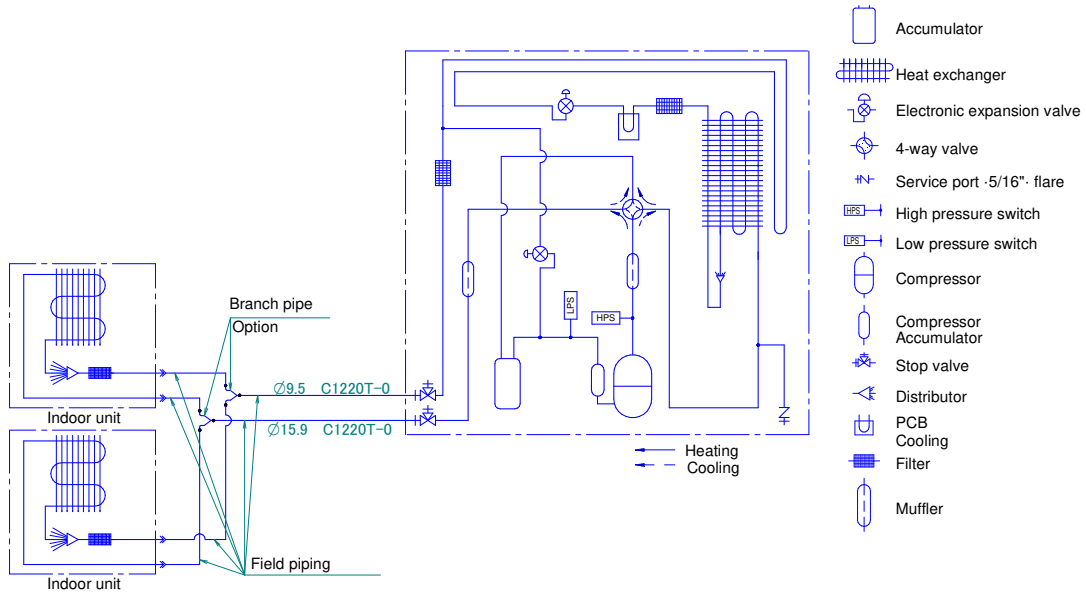
1. The pipes between the branch and the indoor units should have the same size as the indoor connections.

3D120907

# 9 Piping diagrams

## 9 - 2 Piping Diagram Twin Application

RZAG-NV1  
RZAG-NY1



Notes

1. The pipes between the branch and the indoor units should have the same size as the indoor connections.

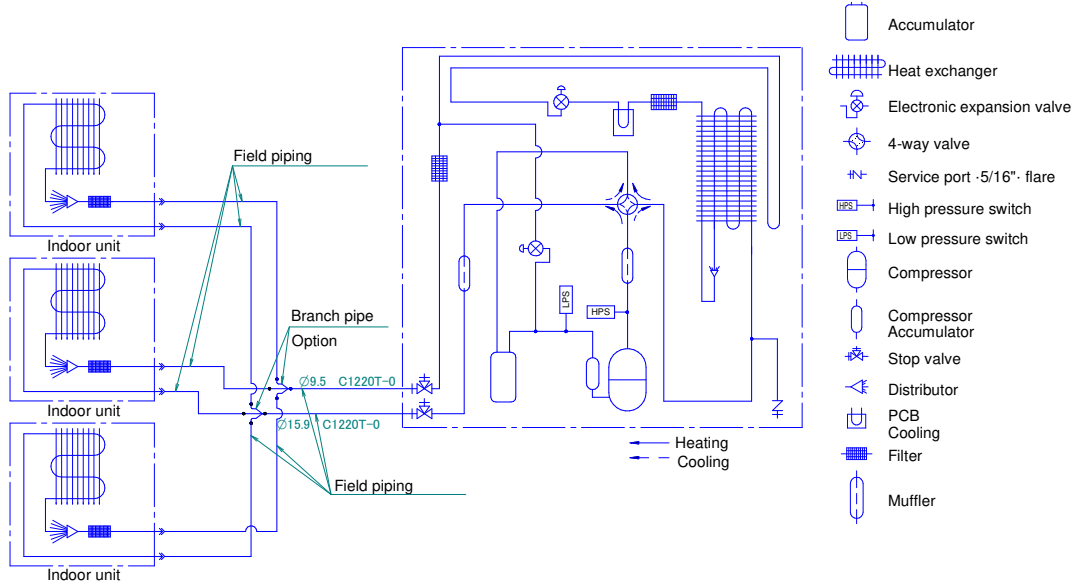
3D120913

# 9 Piping diagrams

## 9 - 3 Piping Diagram Triple Application

9

RZAG100-140NV1  
RZAG100-140NY1



**Notes**

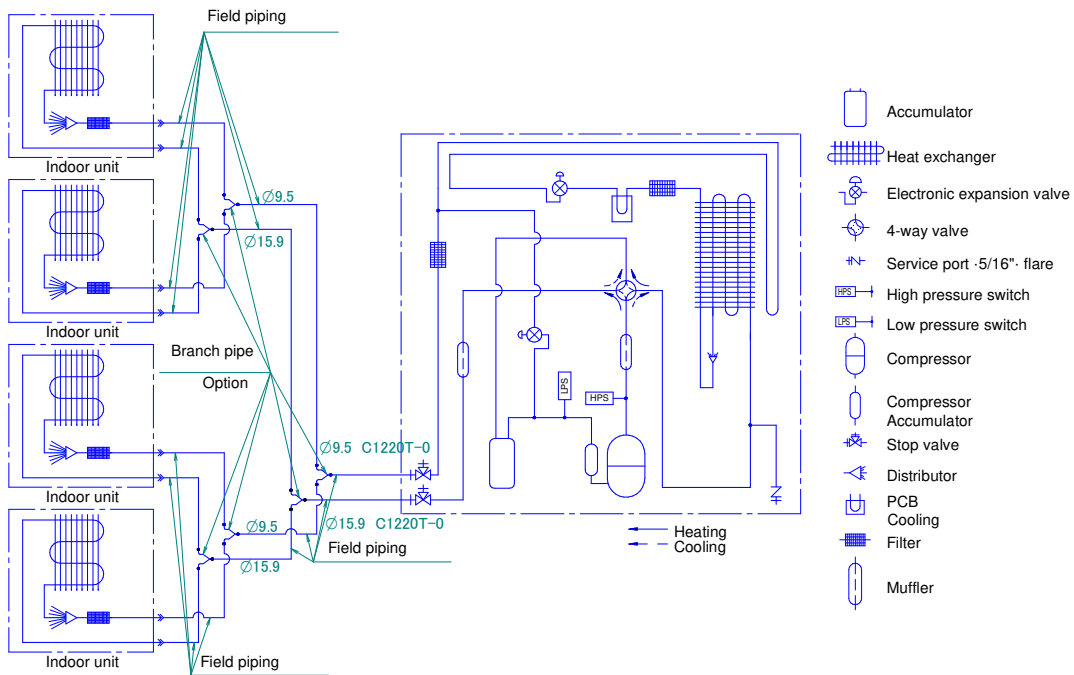
1. The pipes between the branch and the indoor units should have the same size as the indoor connections.

**3D120914**

# 9 Piping diagrams

## 9 - 4 Piping Diagram Double Twin Application

RZAG125-140NV1  
RZAG125-140NY1



**Notes**

1. The pipes between the branch and the indoor units should have the same size as the indoor connections.

3D120915

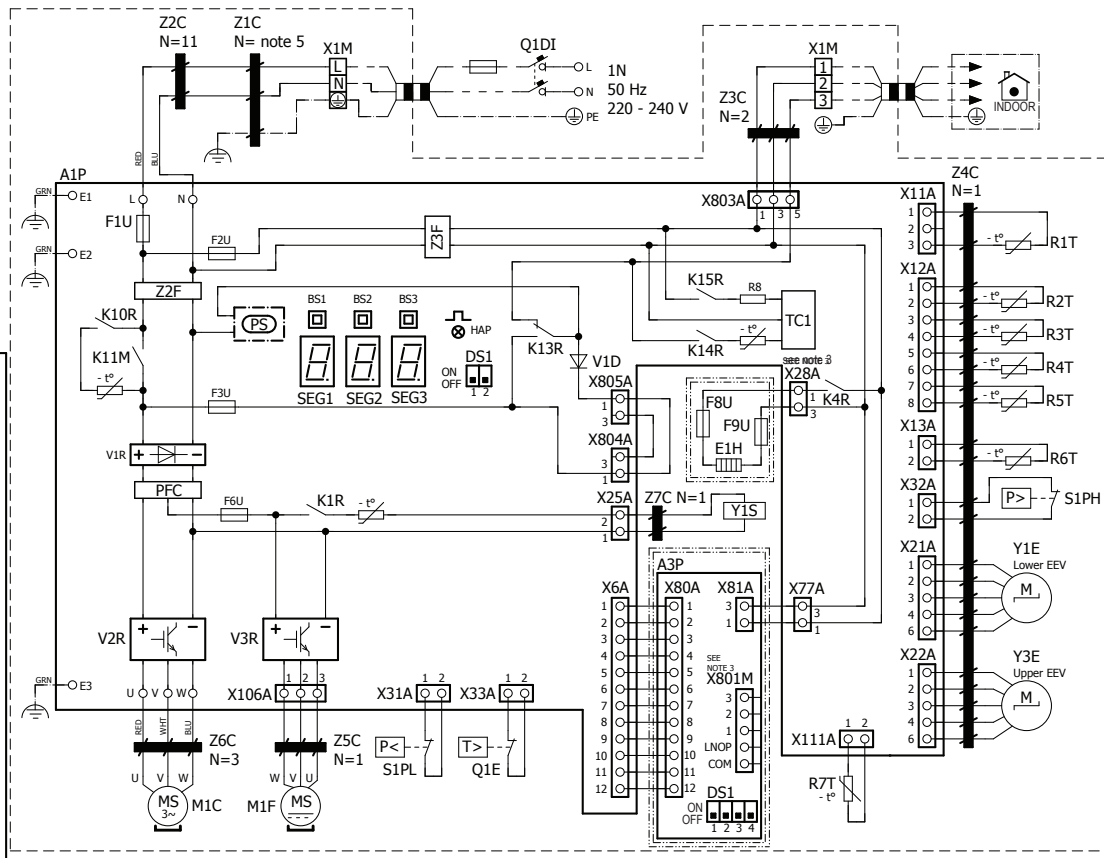
# 10 Wiring diagrams

## 10 - 1 Wiring Diagrams - Single Phase

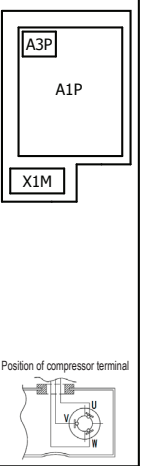
10

### RZAG71-100NV1

(1) Connection diagram



(2) Layout



### (3) NOTES

- : Connection
- : Earth wiring
- : Field supply
- : Option
- : switch box
- : PCB
- : Wiring depending on model
- : Protective earth
- : Field wire

### (4) LEGEND

Part n°	Description
A1P	Printed circuit board (main)
A3P	* Printed circuit board (demand)
BS1-3 (A1P)	Push-button switch
DS1 (A1-2P)	Dipswitch
E1-3 (A1P)	Connector
E1H	* Bottom plate heater
F1U (A1P)	Fuse T 31,5 A 250 V
F2U (A1P)	Fuse T 6,3 A 250 V
F3U (A1P)	Fuse T 6,3 A 250 V
F6U (A1P)	Fuse T 5 A 250V
F8-9U	* Fuse F 1 A 250 V
HAP (A1P)	Light-emitting diode (service monitor is green)
K1R (A1P)	Magnetic relay (Y1S)
K4R (A1P)	Magnetic relay (E1H)
K13-15R, K10R (A1P)	Magnetic relay
K11M (A1P)	Magnetic contactor
L (A1P)	Connector
M1C	Compressor motor
M1F	Fan motor
N (A1P)	Connector
PFC (A1P)	Power factor correction
PS (A1P)	Switching power supply

Part n°	Description
Q1DI	Earth leakage circuit breaker (30mA)
Q1E	Overload protection
R1T	Thermistor (air)
R2T	Thermistor (discharge)
R3T	Thermistor (suction)
R4T	Thermistor (heat exchanger)
R5T	Thermistor (heat exchanger middle)
R6T	Thermistor (liquid)
R7T	Thermistor (fin)
R8 (A1P)	Resistor
S1PH	High pressure switch
S1PL	Low pressure switch
SEG1-3 (A1P)	7-segment display
TC1 (A1P)	Signal transceiver circuit
U, V, W (A1P)	Connector
V1D (A1P)	Diode
V*R (A1P)	Diode module
X*A (A1P)	Connector
X1M	Terminal strip
Y1E, Y3E	Electronic expansion valve
Y1S	Solenoid valve (4-way valve)
Z*C	Noise filter (ferrite core)
Z*F (A1P)	Noise filter

\* : optional  
# : field supply

### NOTES

- Refer to the wiring diagram sticker (on the back of the front plate) for how to use the BS1-BS3 and DS1 switches.
- When operating, do not short-circuit protection device(s) S1PH, S1PL and Q1E.
- Refer to the combination table and the option manual for how to connect the wiring to X28A and X801M.
- Colours: BLK:black; RED:red; BLU:blue; WHT:white; GRN:green
- Windings: L-N: 2 - Earth: 1

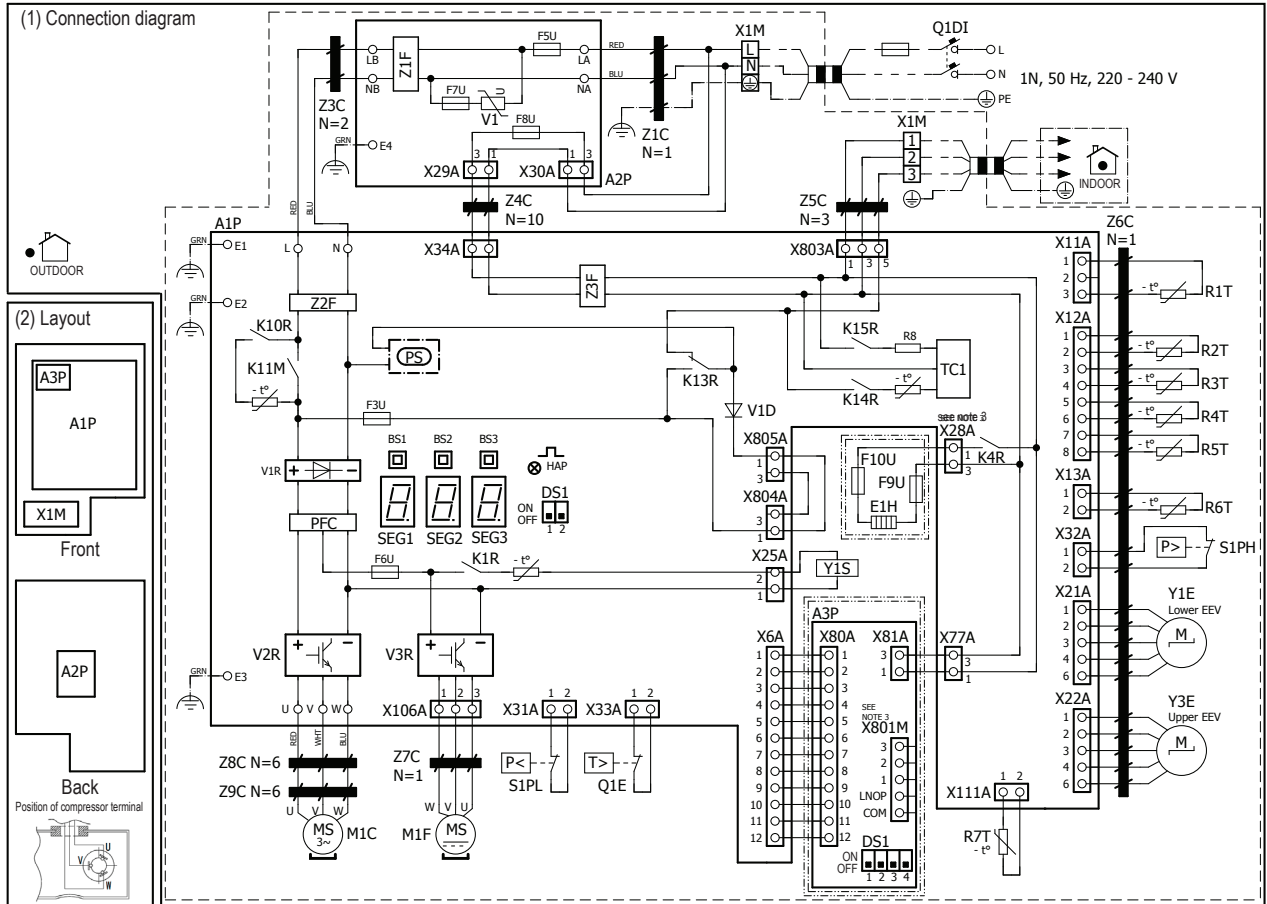
4D120909



# 10 Wiring diagrams

## 10 - 1 Wiring Diagrams - Single Phase

### RZAG125-140NV1



#### (3) NOTES

- ⬇ : Connection
- X1M : Main terminal
- : Earth wiring
- : Field supply
- ⊕ : Protective earth
- ⊞ : Option
- ⎓ : switch box
- ⎓ : PCB
- ⎓ : Wiring depending on model
- ⊕ : Protective earth
- ⊞ : Field wire

#### (4) LEGEND

Part n°	Description
A1P	Printed circuit board (main)
A2P	Printed circuit board (noise filter)
A3P	* Printed circuit board (demand)
BS1-3 (A1P)	Push-button switch
DS1(A1P,A3P)	Dipswitch
E1-3 (A1~2P)	Connector
E1H	* Bottom plate heater
F3U (A1P)	Fuse T 6.3 A 250 V
F5U (A2P)	Fuse T 56 A 250V
F6U (A1P)	Fuse T 5 A 250V
F7U (A2P)	Fuse T 6.3 A 250 V
F8U (A2P)	Fuse T 6.3 A 250 V
F9-10U	Fuse F 1 A 250 V
HAP (A1P)	Light-emitting diode (service monitor is green)
K1R (A1P)	Magnetic relay (Y1S)
K4R (A1P)	Magnetic relay (E1H)
K13-15R, K10R (A1P)	Magnetic relay
K11M (A1P)	Magnetic contactor
L* (A1-2P)	Connector
M1C	Compressor motor
M1F	Fan motor
PFC (A1P)	Power factor correction

Part n°	Description
PS (A1P)	Switching power supply
Q1DI	Earth leakage circuit breaker (30mA)
Q1E	Overload protection
R1T	Thermistor (air)
R2T	Thermistor (discharge)
R3T	Thermistor (suction)
R4T	Thermistor (heat exchanger)
R5T	Thermistor (heat exchanger middle)
R6T	Thermistor (liquid)
R7T	Thermistor (fin)
R8 (A1P)	Resistor
S1PH	High pressure switch
S1PL	Low pressure switch
SEG1-3 (A1P)	7-segment display
TC1 (A1P)	Signal transceiver circuit
U, V, W (A1P)	Connector
V1 (A2P)	Varistor
V1D (A1P)	Diode
V*R (A1P)	Diode module
X*A (A1-2P)	Connector
X1M	Terminal strip
Y1E, Y3E	Electronic expansion valve
Y1S	Solenoid valve (4-way valve)
Z*C	Noise filter (ferrite core)
Z*F (A1-2P)	Noise filter

\* : optional  
# : field supply

#### NOTES

- Refer to the wiring diagram sticker (on the back of the front plate) for how to use the BS1-BS3 and DS1 switches.
- When operating, do not short-circuit protection device(s) S1PH, S1PL and Q1E.
- Refer to the combination table and the option manual for how to connect the wiring to X28A and X801M.
- Colours: BLK:black; RED:red; BLU:blue; WHT:white; GRN:green

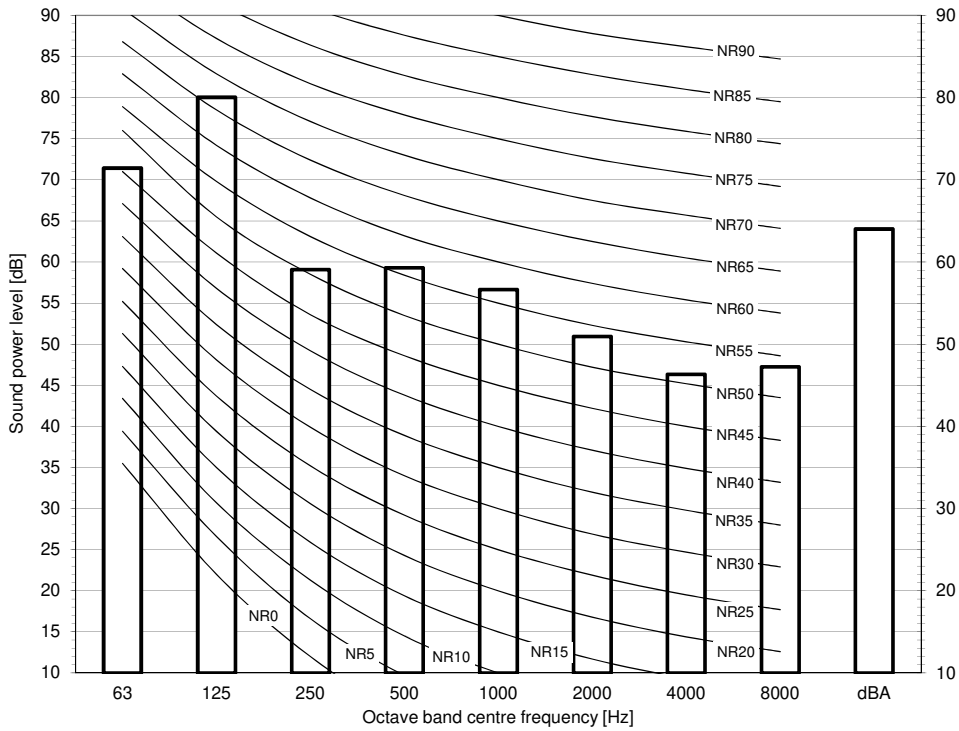
**4D120910**

# 11 Sound data

## 11 - 1 Sound Power Spectrum

11

RZAG71NV1  
RZAG71NY1

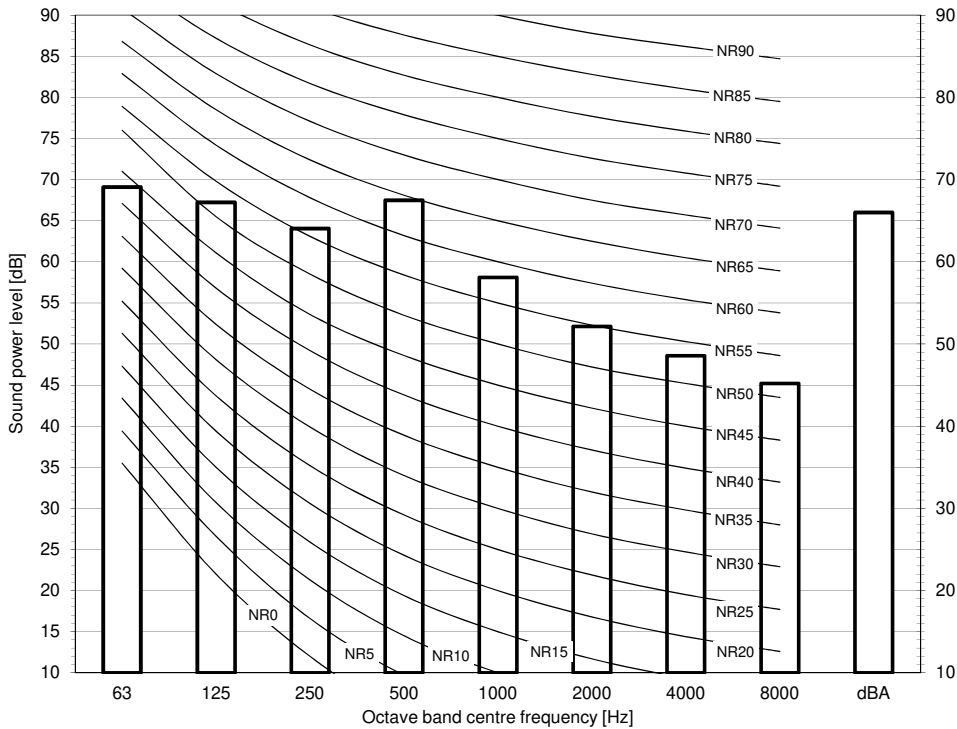


**Notes**

- 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

3D125149

RZAG100NV1  
RZAG100NY1



**Notes**

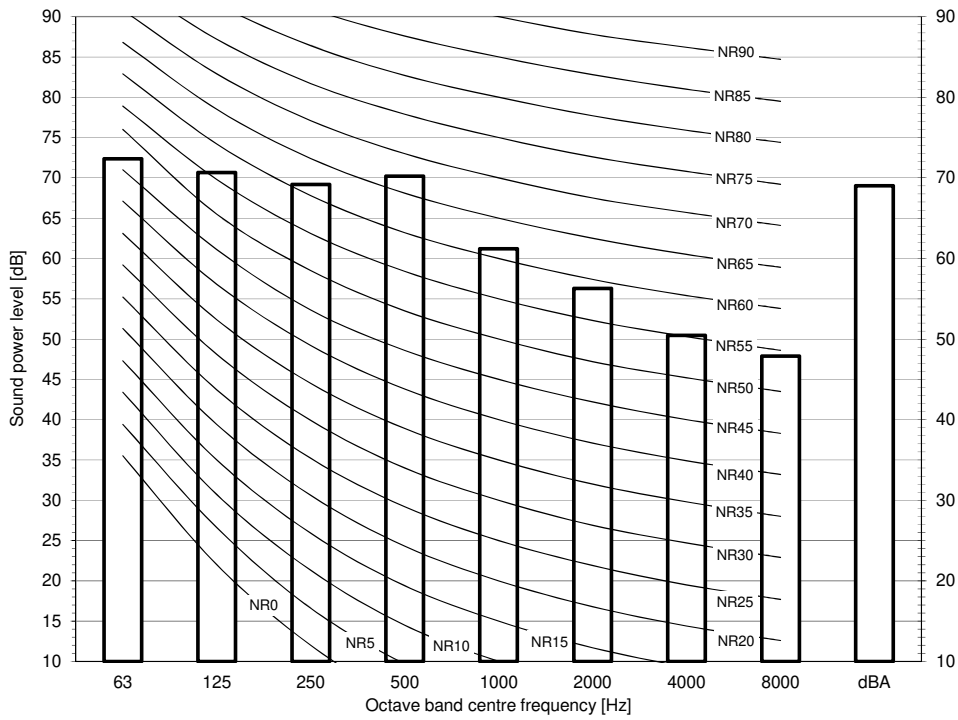
- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity  $O_{dB} = 10E-6 \mu W/m^2$ .
- Measured according to ISO 3744

3D125155

# 11 Sound data

## 11 - 1 Sound Power Spectrum

RZAG125NV1  
RZAG125NY1

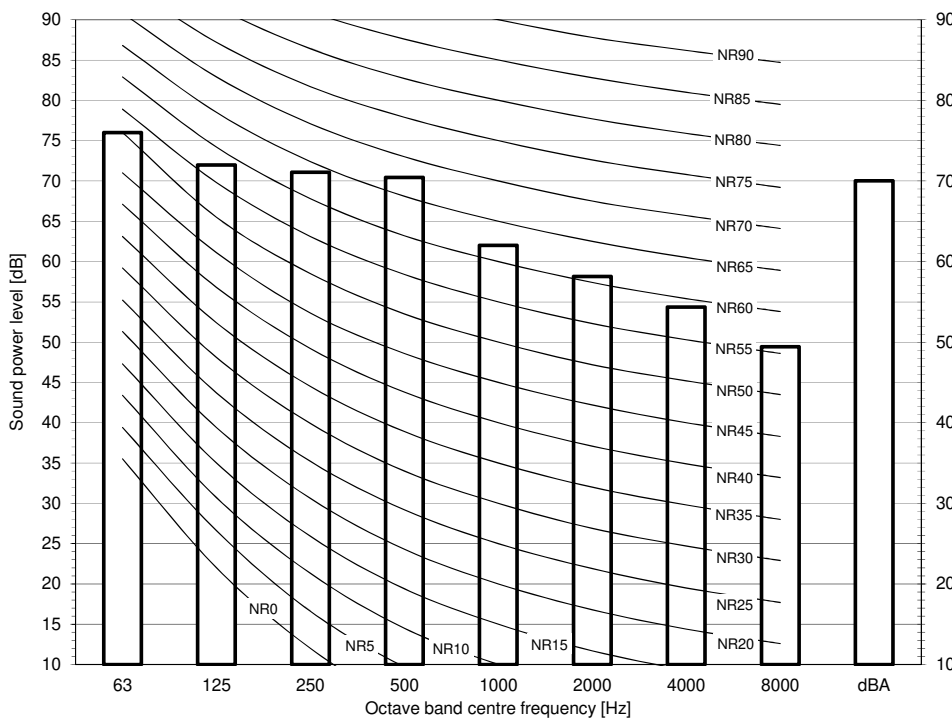


**Notes**

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

3D125161

RZAG140NV1  
RZAG140NY1



**Notes**

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

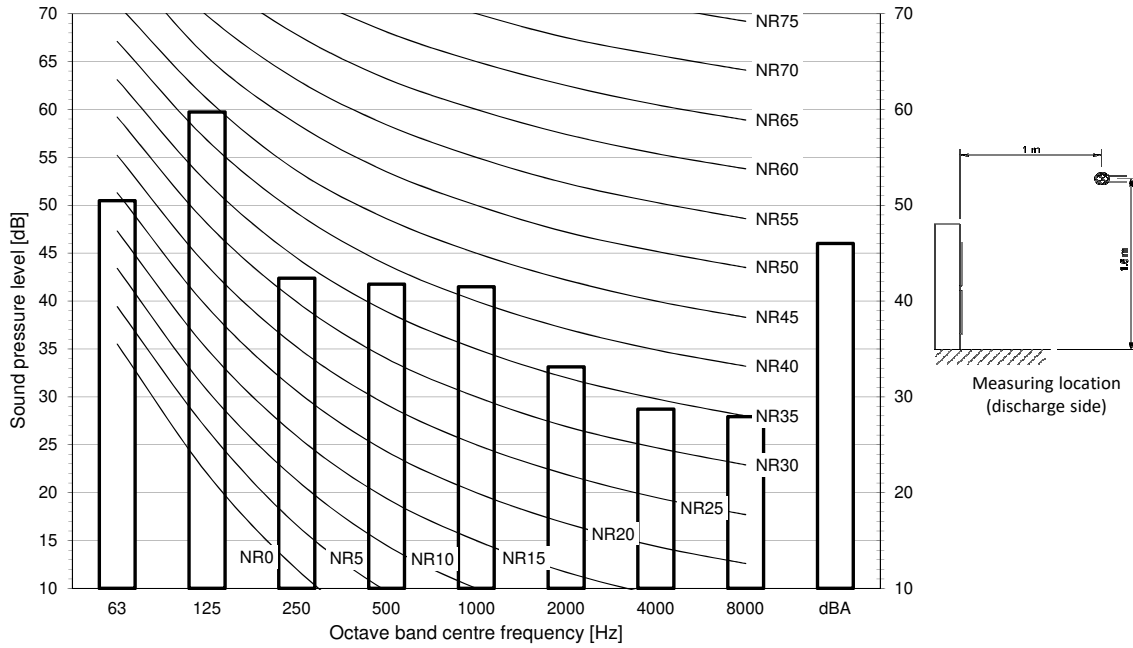
3D125167

# 11 Sound data

## 11 - 2 Sound Pressure Spectrum - Cooling

11

RZAG71NV1  
RZAG71NY1

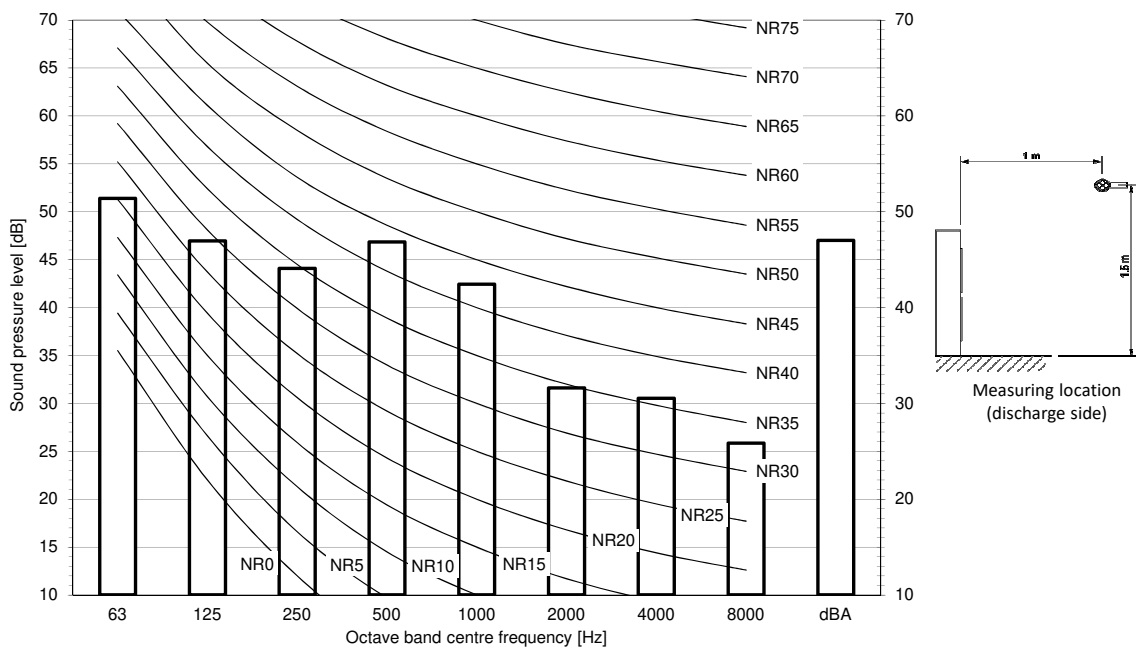


**Notes**

- 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

3D125147

RZAG100NV1  
RZAG100NY1



**Notes**

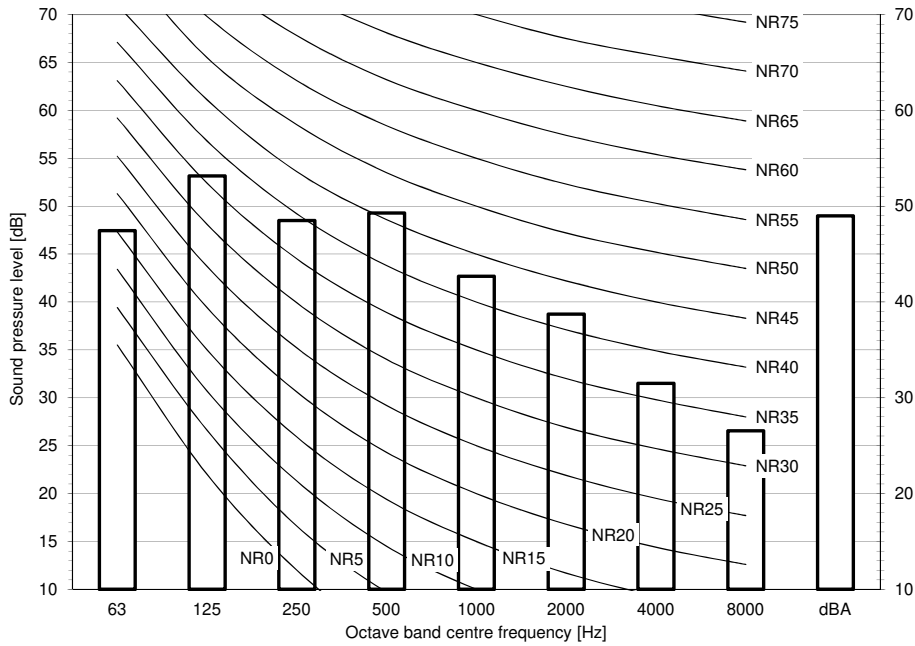
- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 µPa

3D125153

# 11 Sound data

## 11 - 2 Sound Pressure Spectrum - Cooling

RZAG125NV1  
RZAG125NY1

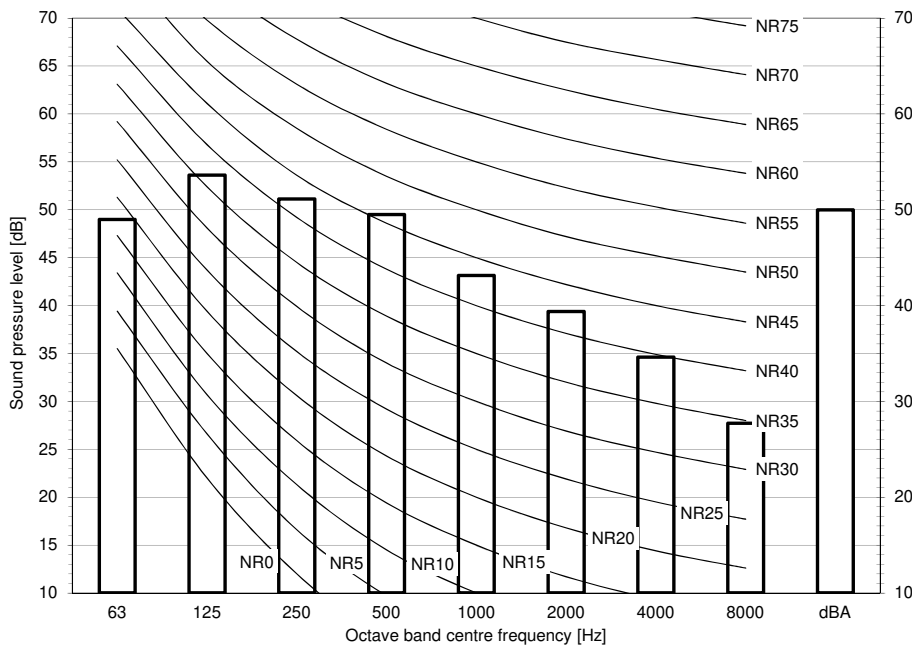


**Notes**

- 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

3D125159

RZAG140NV1  
RZAG140NY1



**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

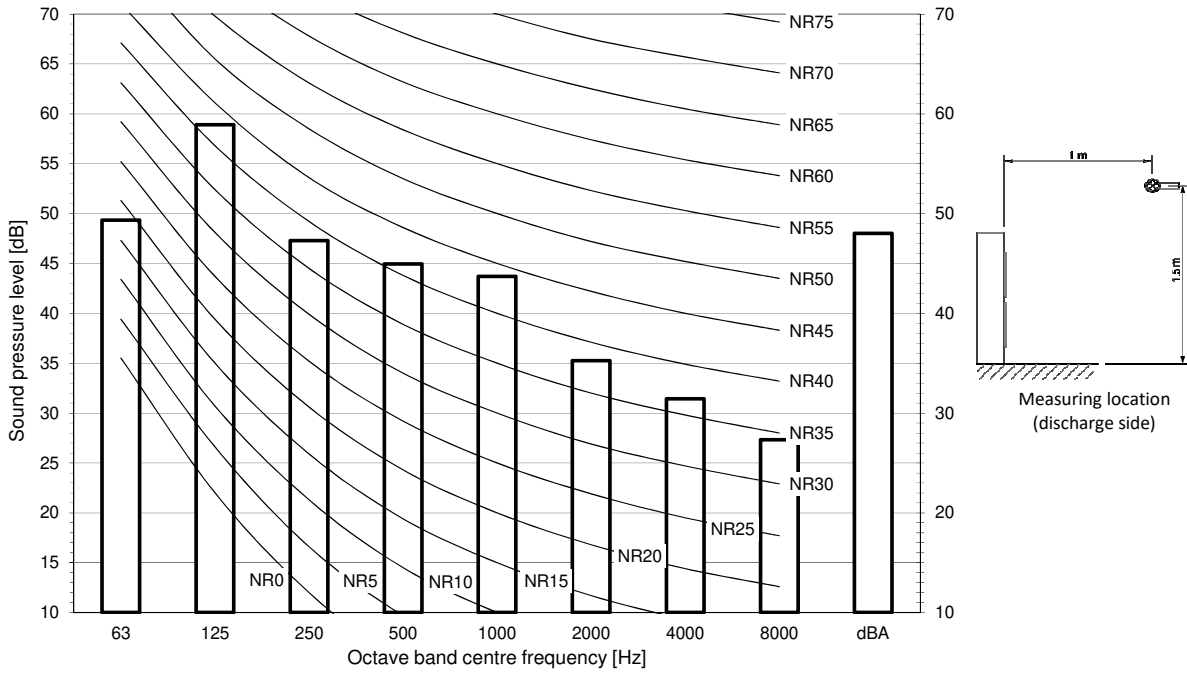
3D125165

# 11 Sound data

## 11 - 3 Sound Pressure Spectrum - Heating

11

RZAG71NV1  
RZAG71NY1

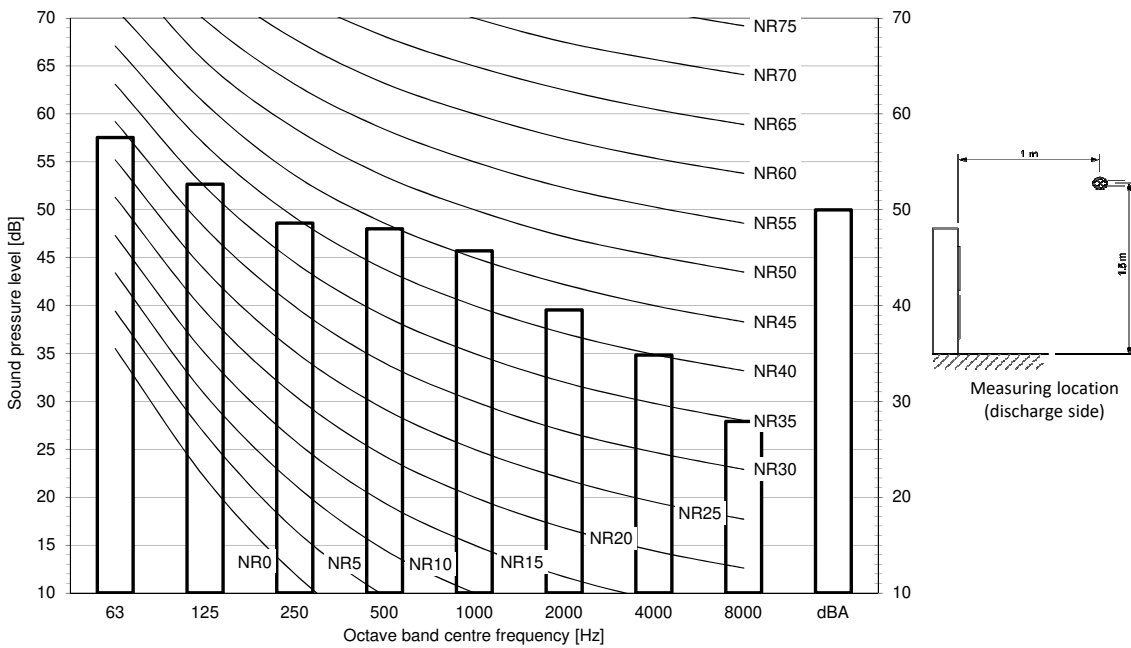


**Notes**

- 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

3D125148

RZAG100NV1  
RZAG100NY1



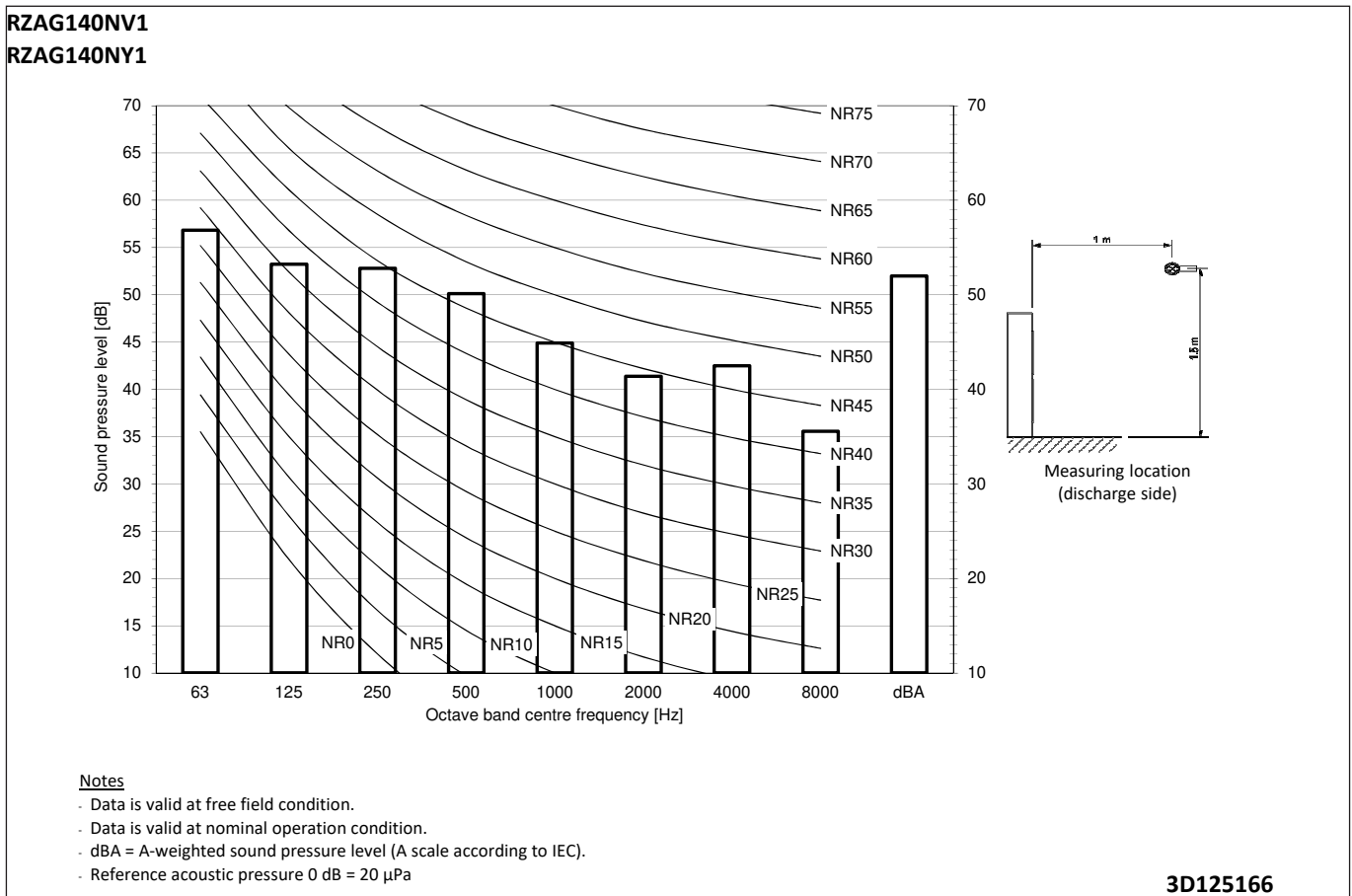
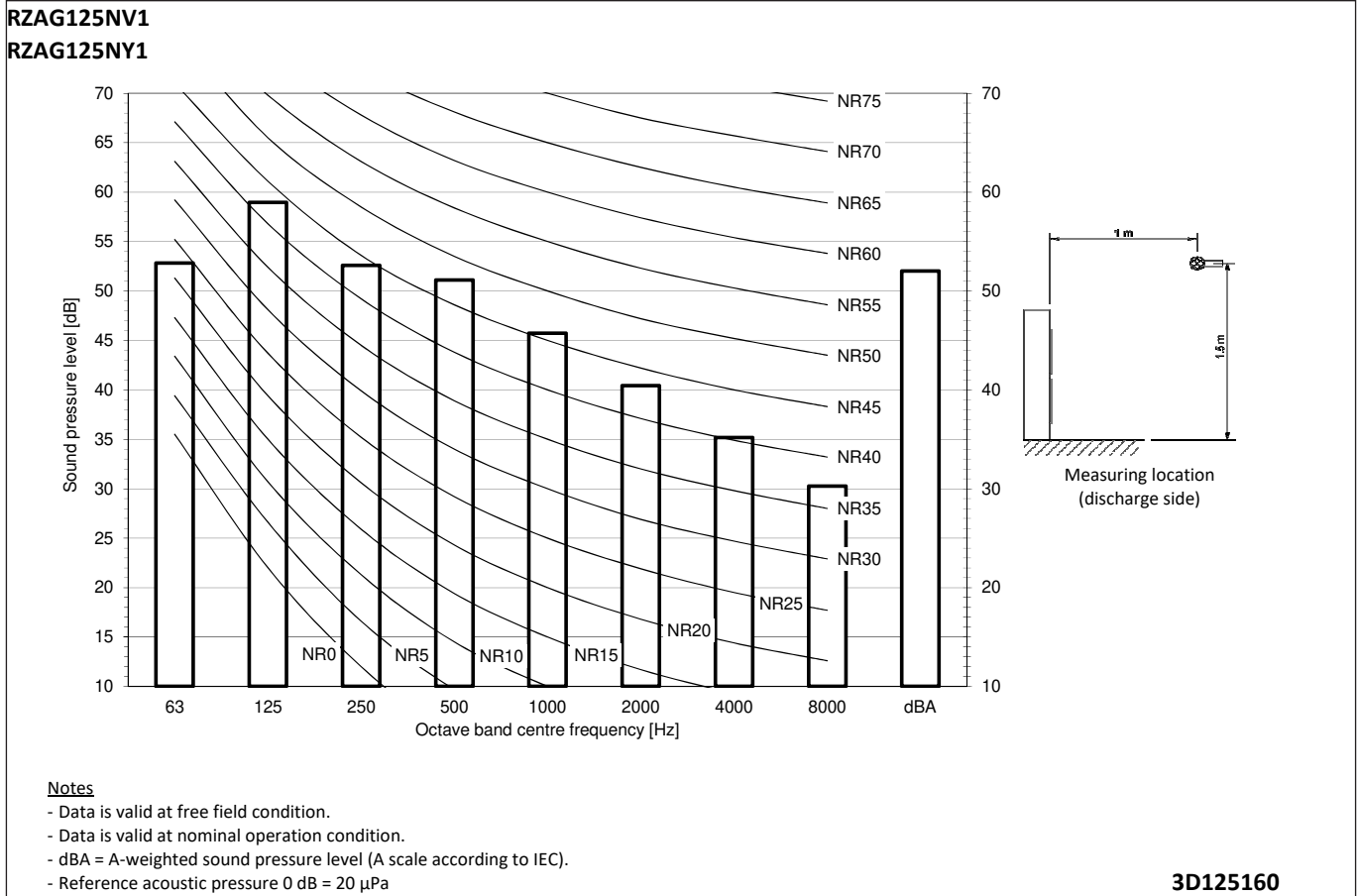
**Notes**

- 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

3D125154

# 11 Sound data

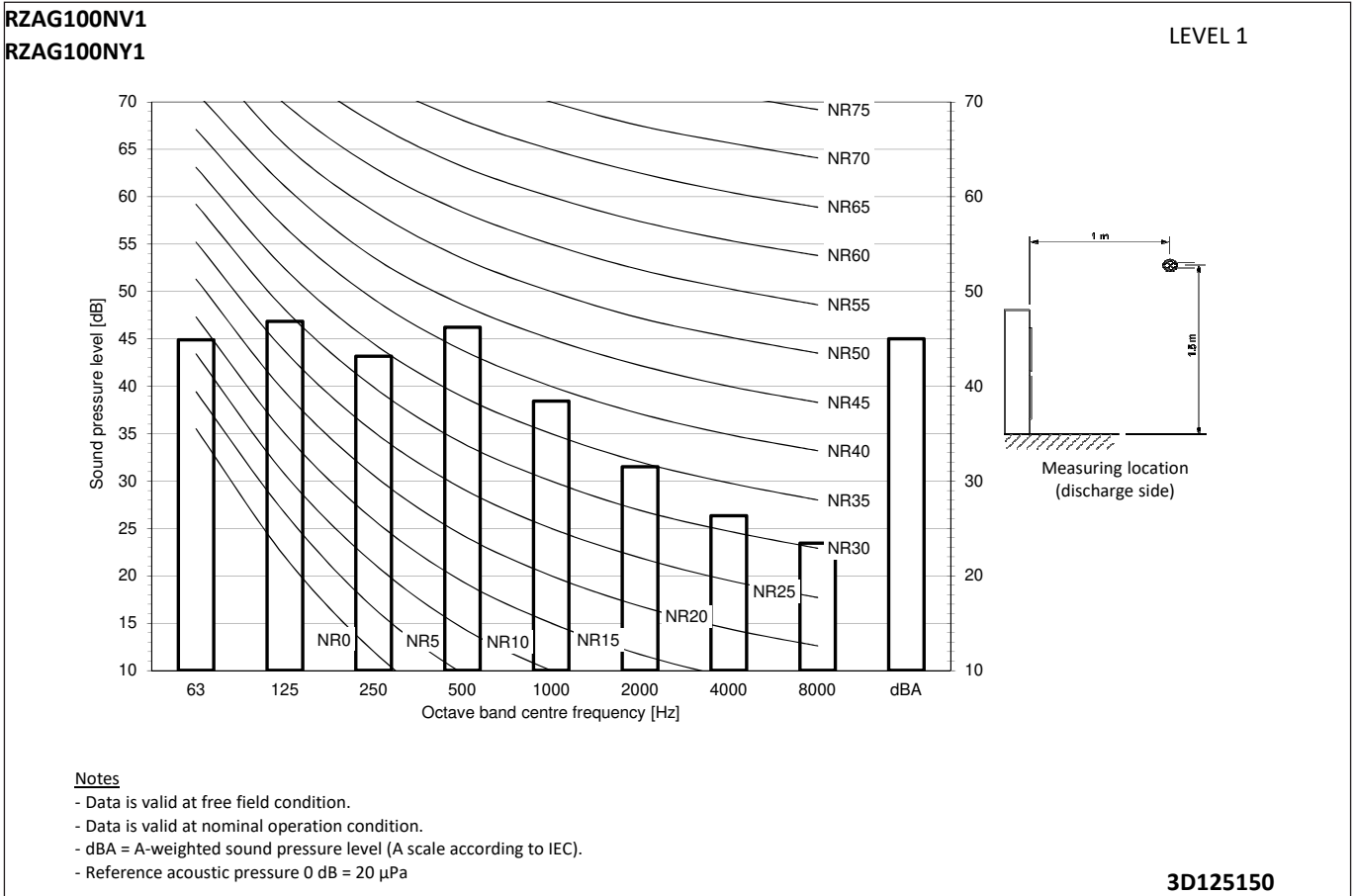
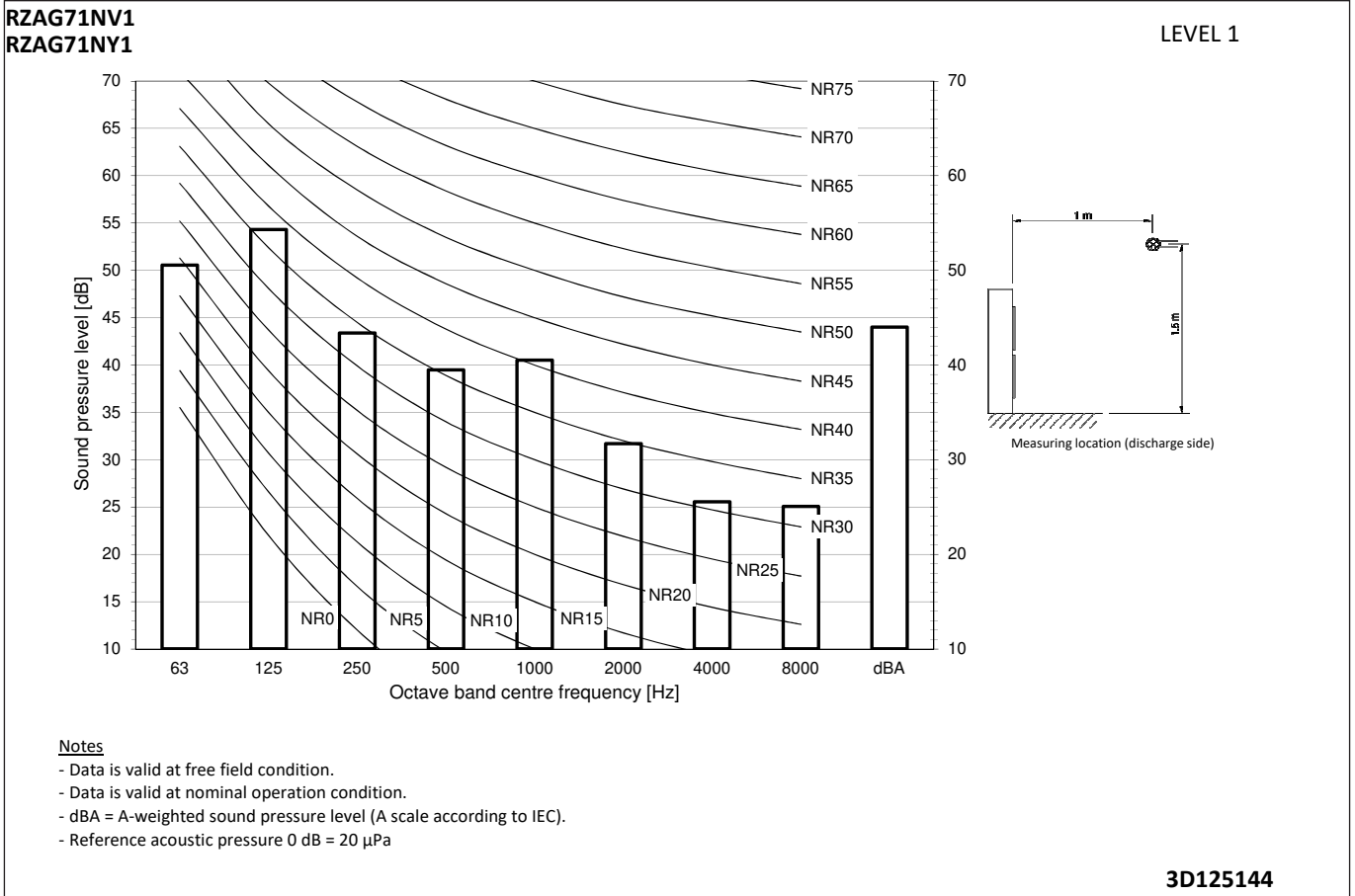
## 11 - 3 Sound Pressure Spectrum - Heating



# 11 Sound data

## 11 - 4 Sound Pressure Spectrum Quiet Mode Level 1

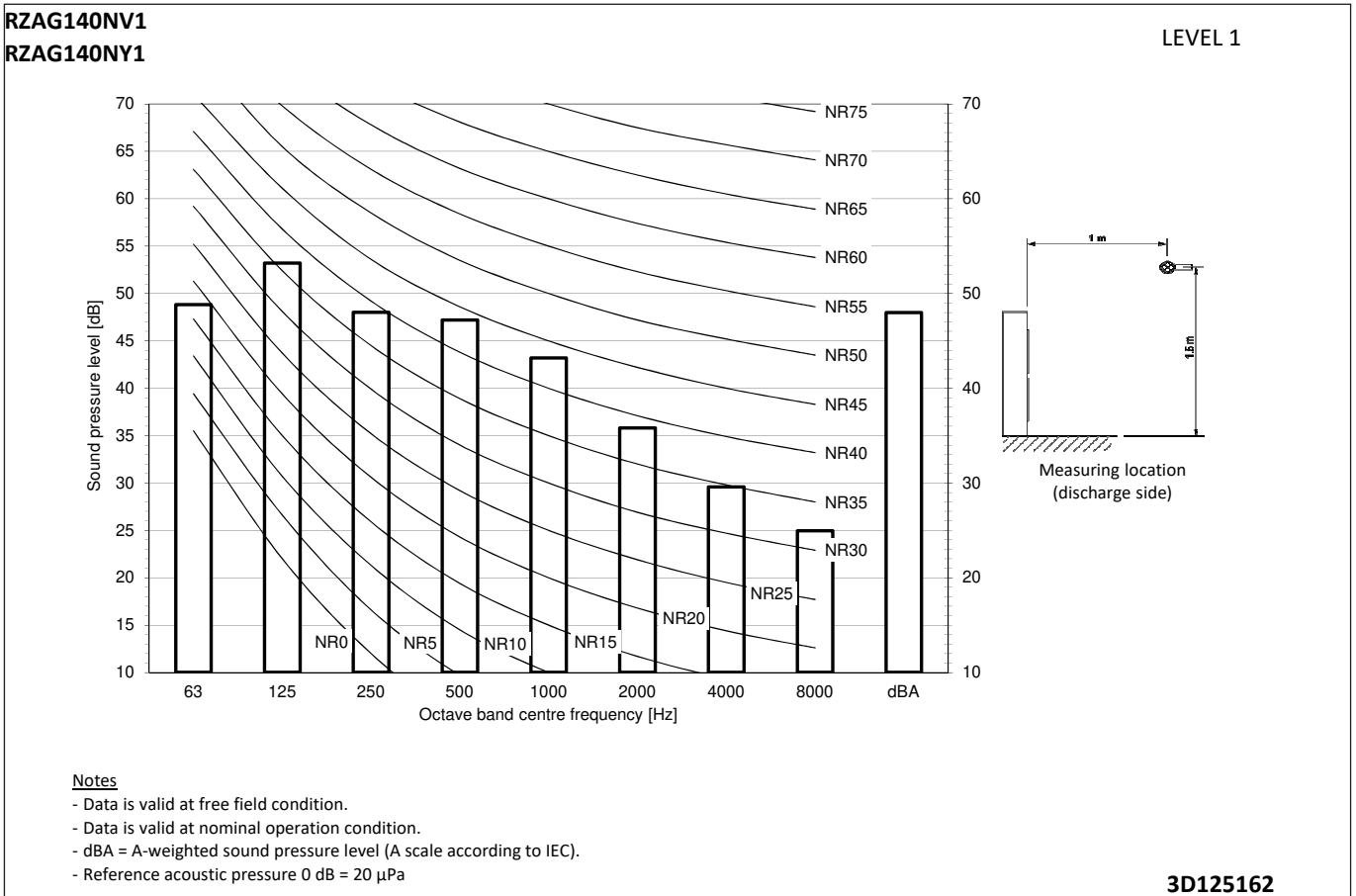
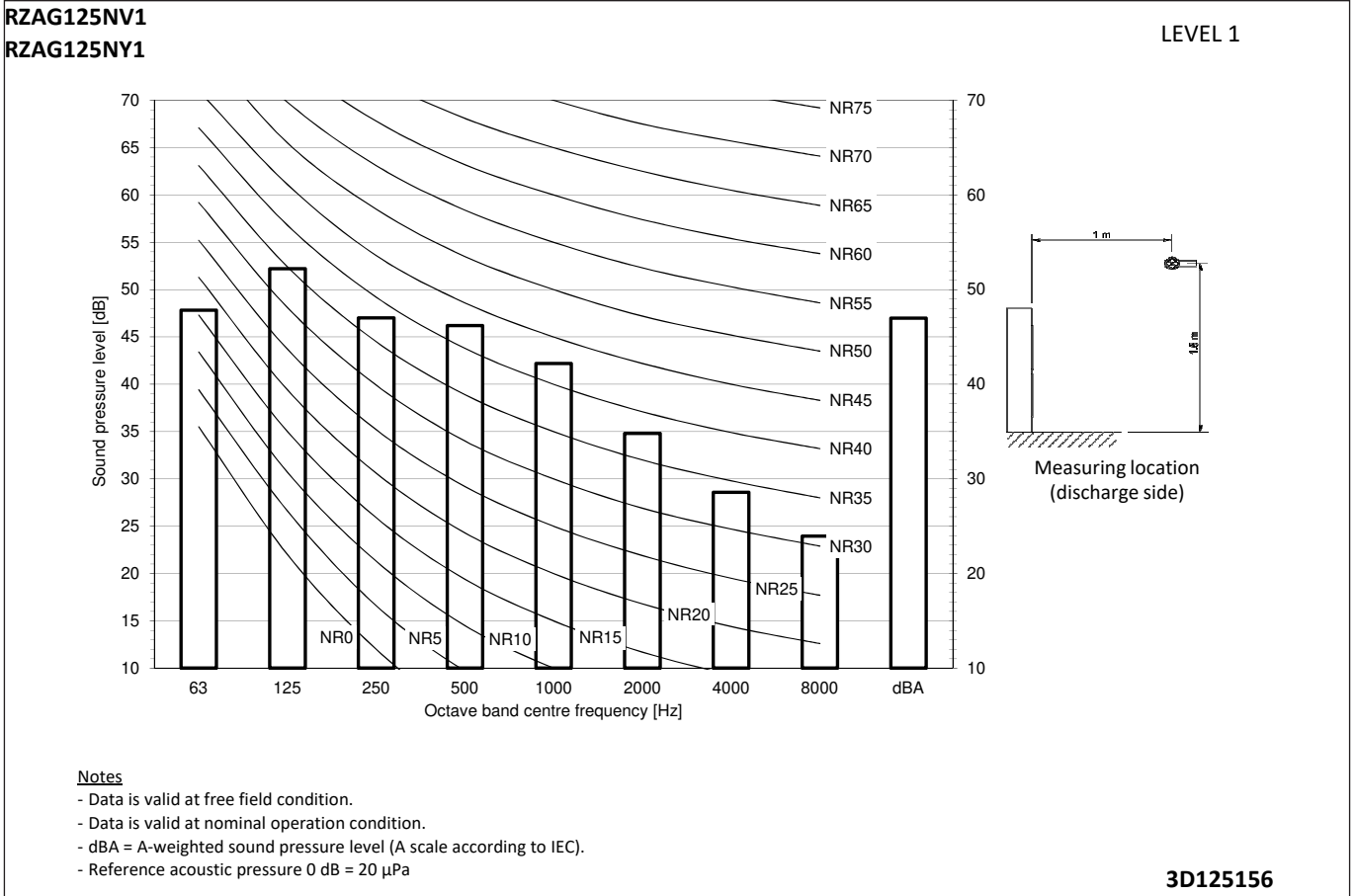
11





# 11 Sound data

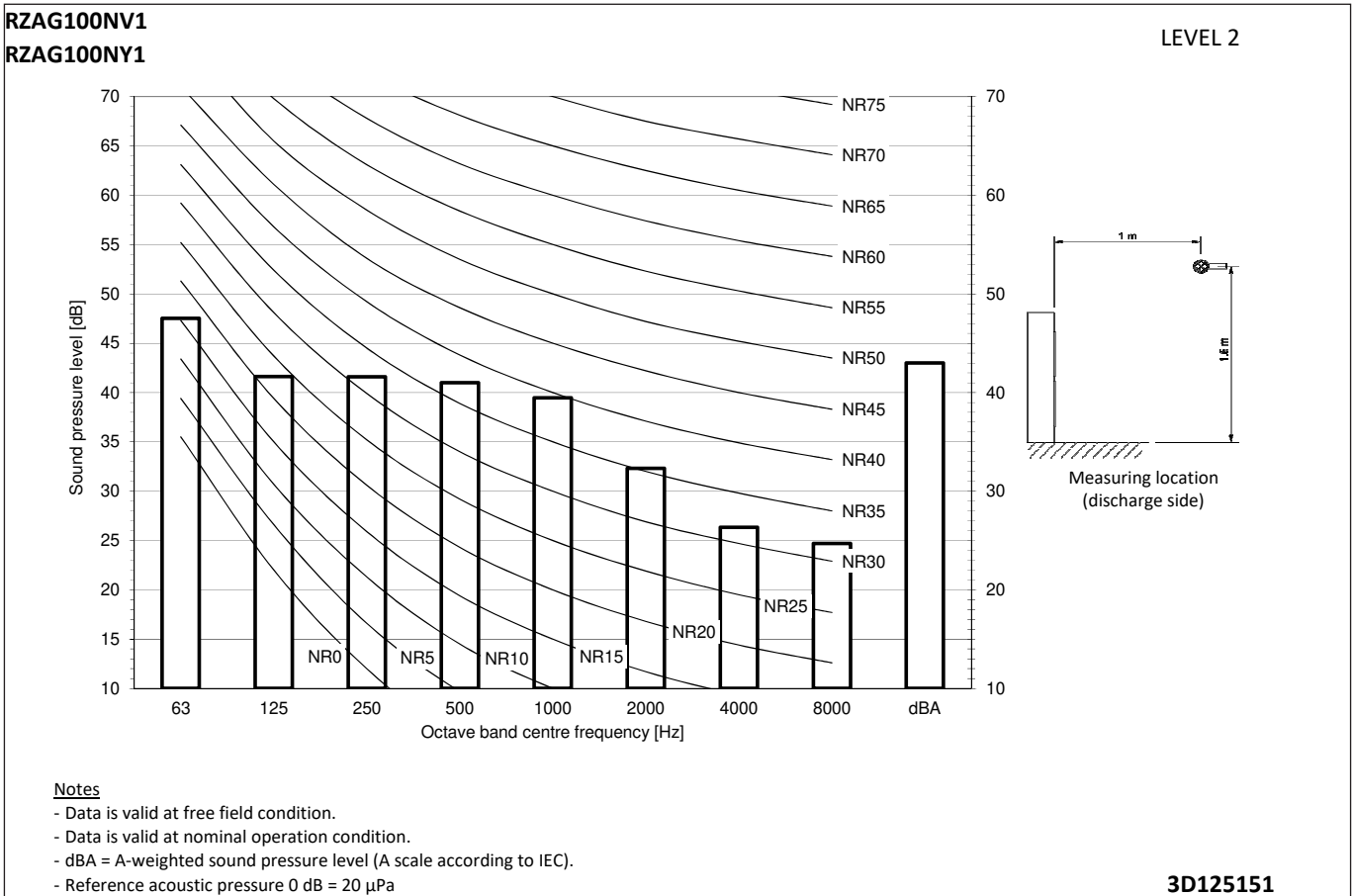
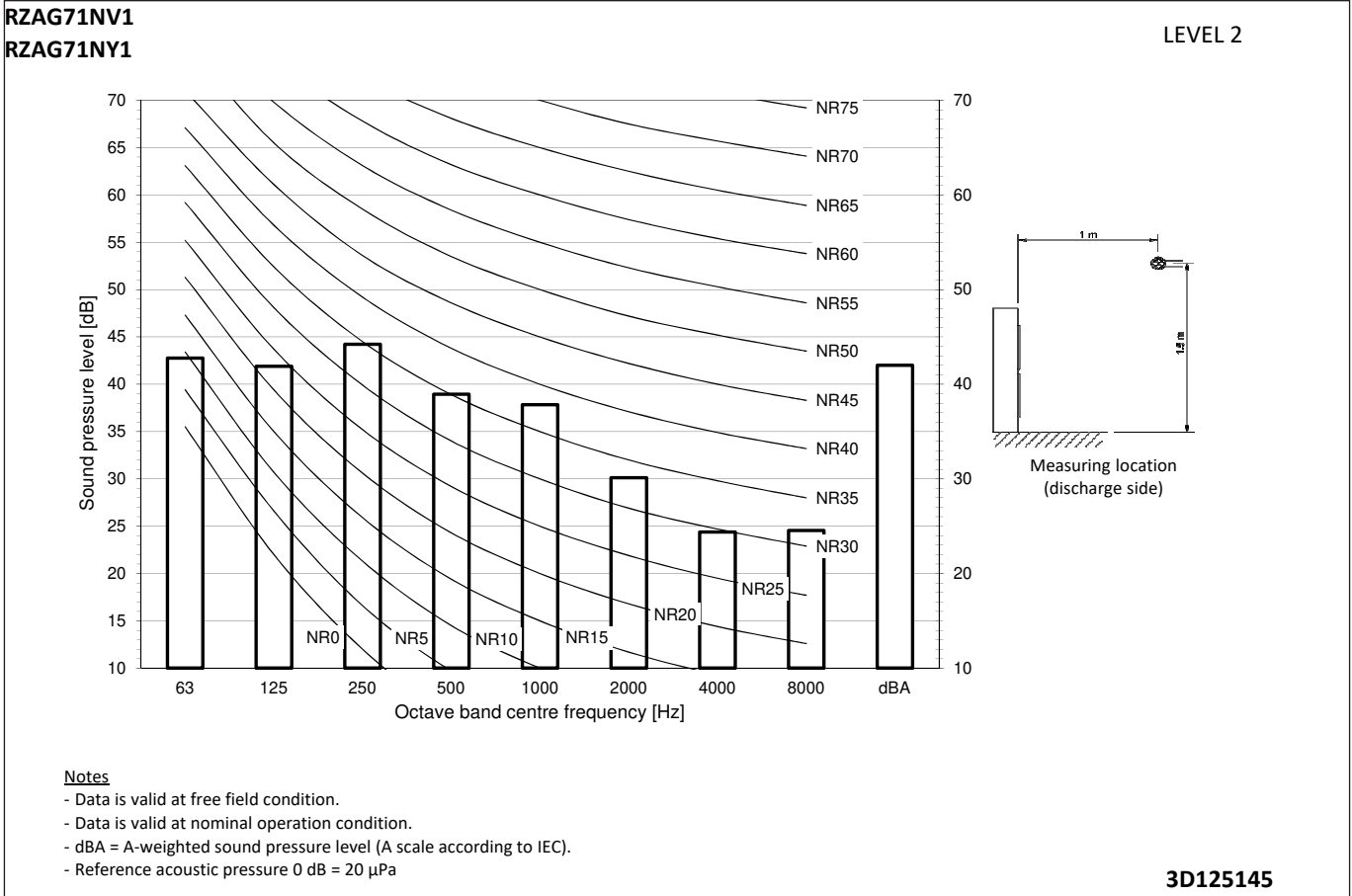
## 11 - 4 Sound Pressure Spectrum Quiet Mode Level 1



# 11 Sound data

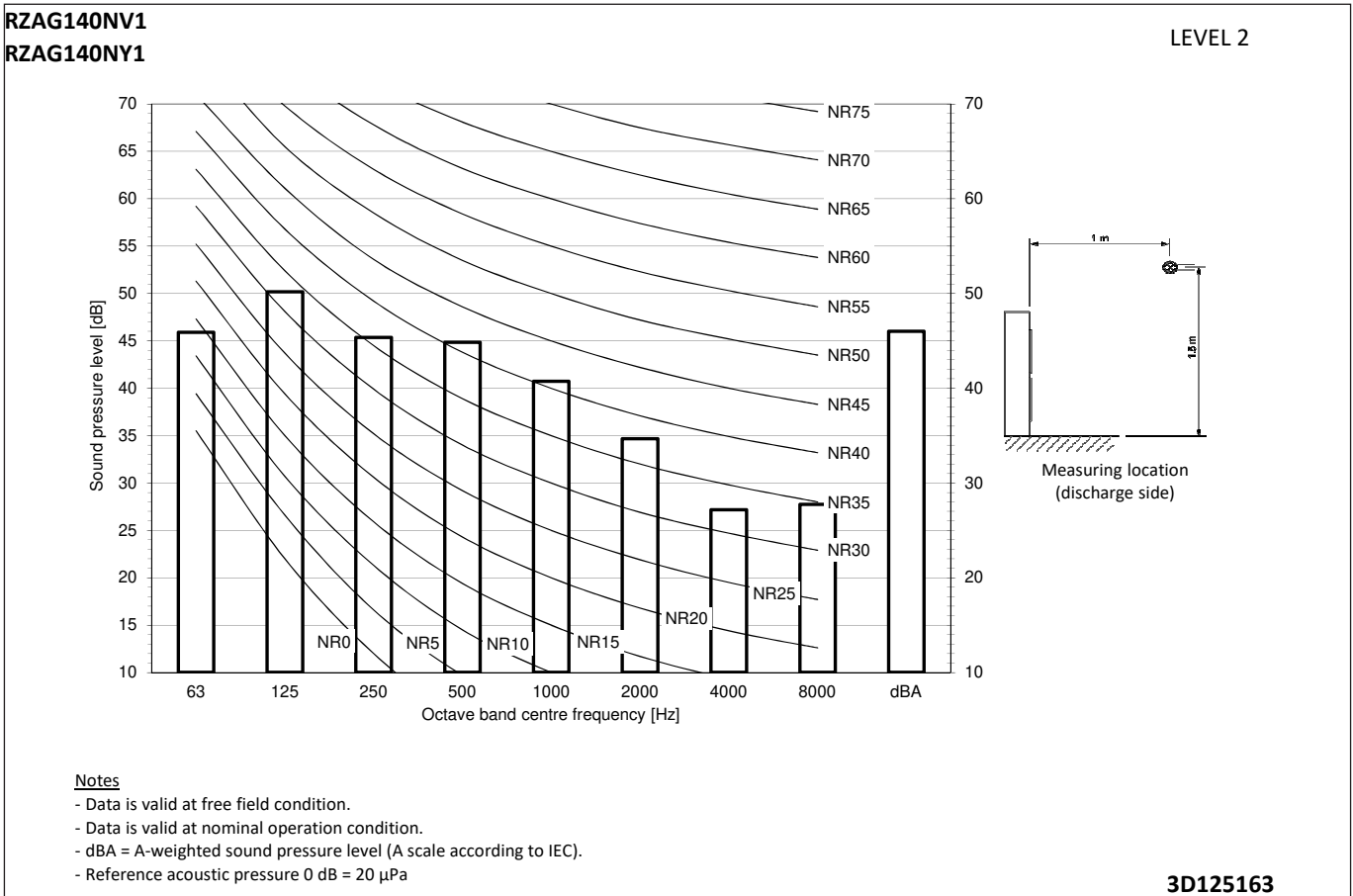
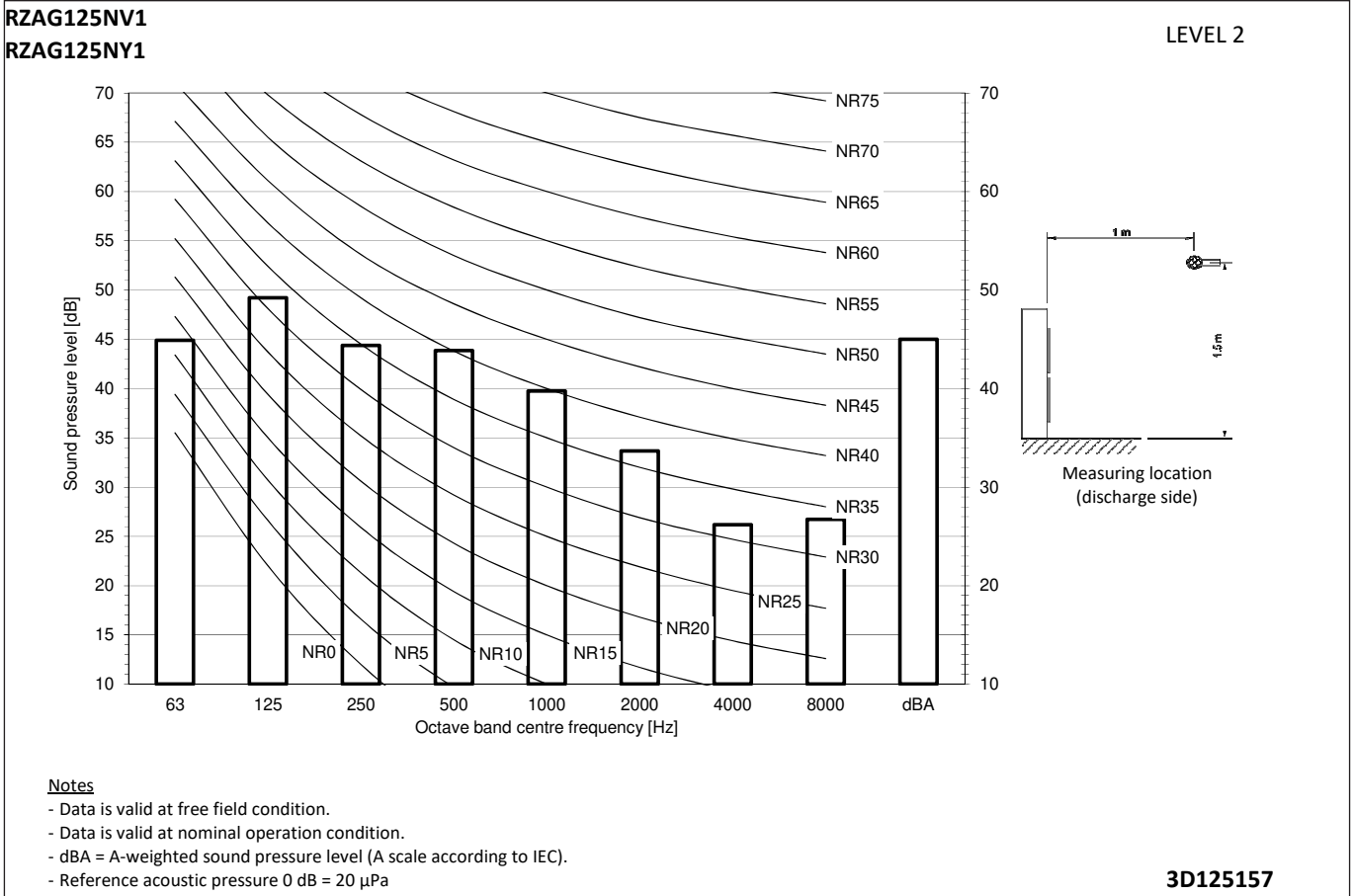
## 11 - 5 Sound Pressure Spectrum Quiet Mode Level 2

11



# 11 Sound data

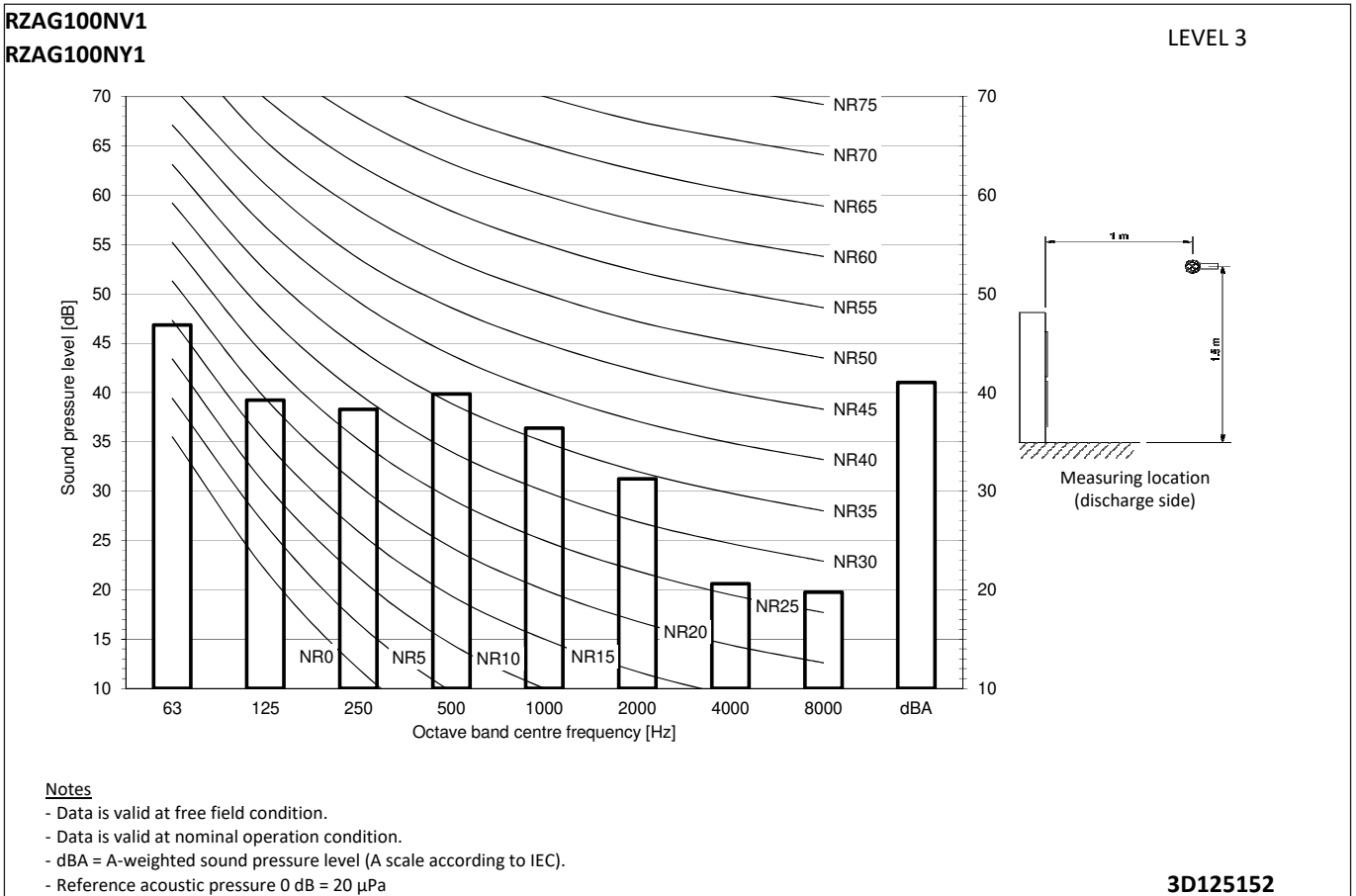
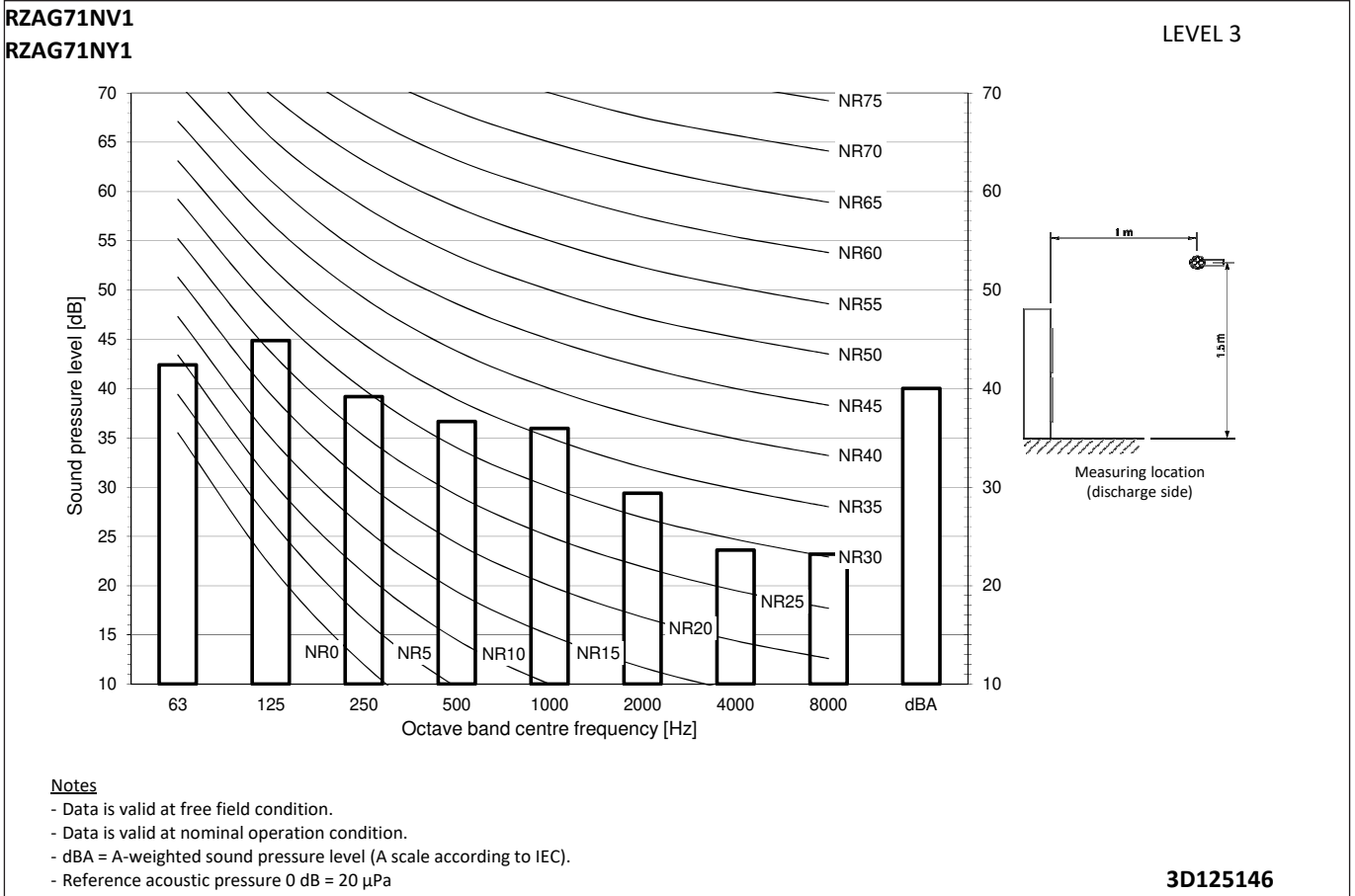
## 11 - 5 Sound Pressure Spectrum Quiet Mode Level 2



# 11 Sound data

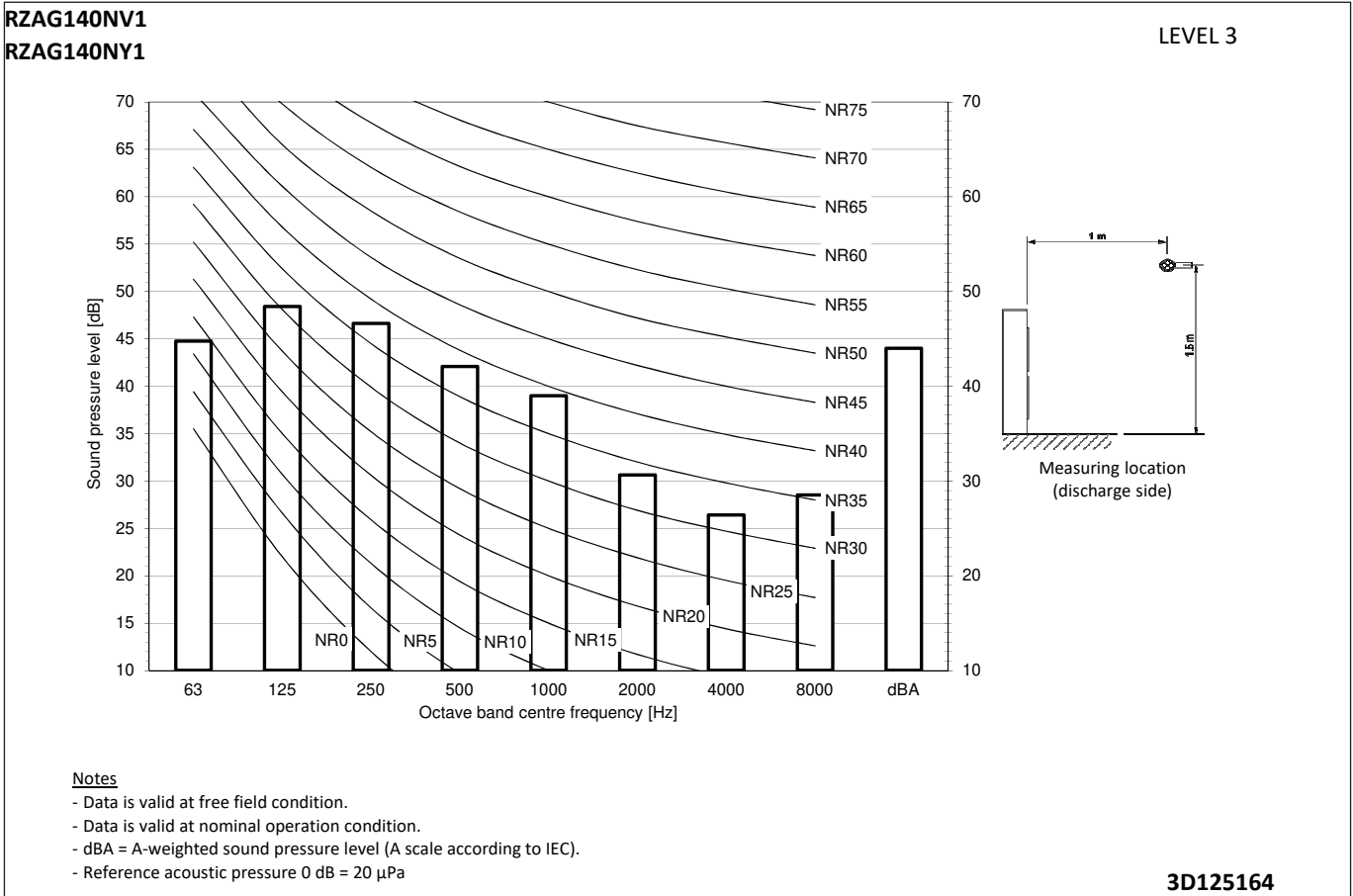
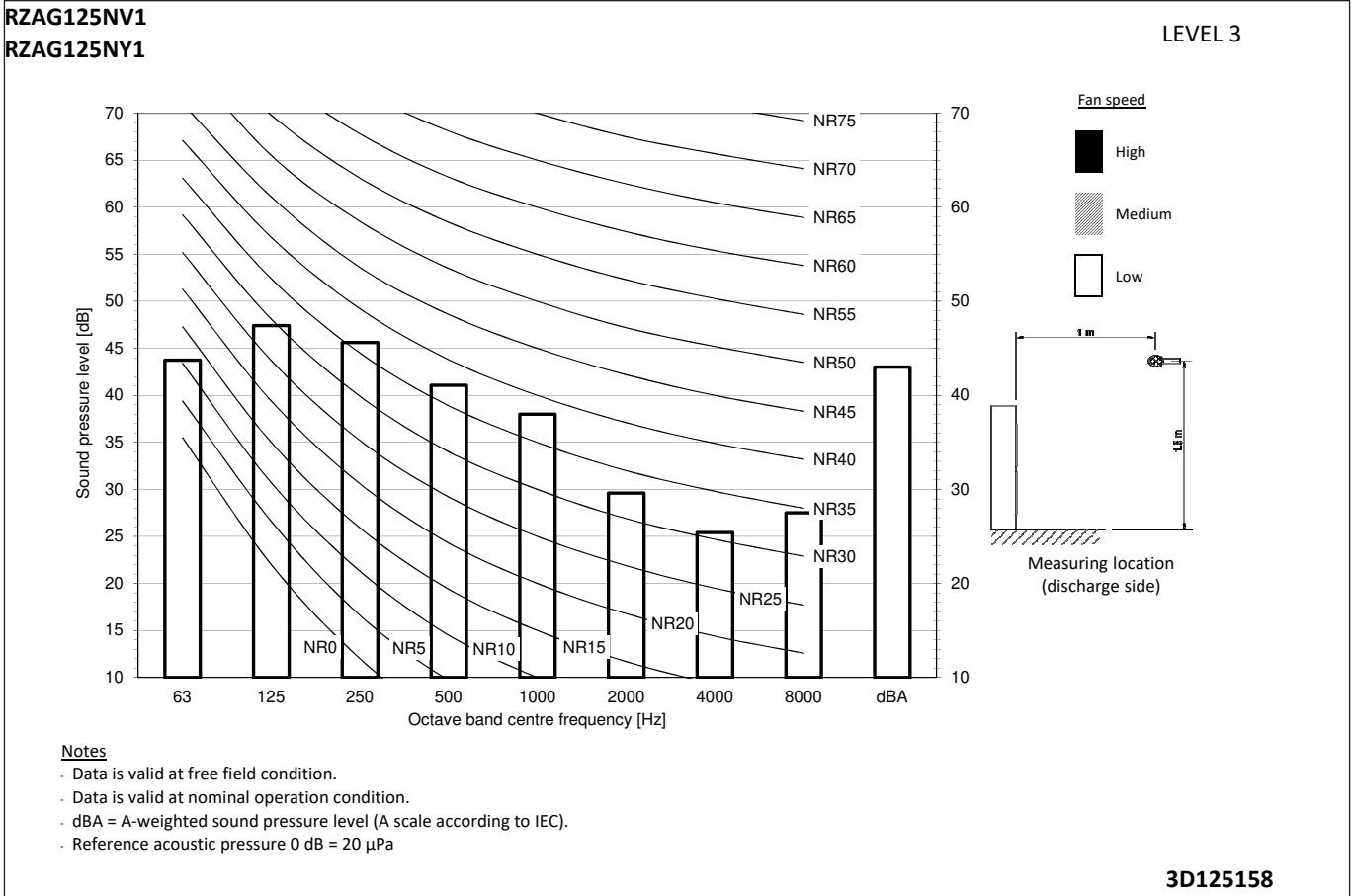
## 11 - 6 Sound Pressure Spectrum Quiet Mode Level 3

11



# 11 Sound data

## 11 - 6 Sound Pressure Spectrum Quiet Mode Level 3



# 12 Installation

## 12 - 1 Installation Method

RZAG-NV1  
RZAG-NY1

Single unit (■) | Single row of units (■ ■ ■)

### Suction side

In the illustration below, the service space at the suction side is based on 35°C DB and cooling operation. Foresee more space in the following cases:

- When the suction side temperature regularly exceeds this temperature.
- When the heat load of the outdoor units is expected to regularly exceed the maximum operating capacity.

### Discharge side

Take refrigerant piping work into account when positioning the units. If your lay out does not match with any of the layouts below, contact your dealer.

Single unit (■) | Single row of units (■ ■ ■)

	A-E	Hb Hd Hu	(mm)									
			a	b	c	d	e	e <sub>B</sub>	e <sub>D</sub>			
	B	-		≥ 100								
	A,B,C	-	≥ 100(1)	≥ 100	≥ 100							
	B,E	-		≥ 100			≥ 1000		≤ 500			
	A,B,C,E	-	≥ 150(1)	≥ 150	≥ 150		≥ 1000		≤ 500			
	D	-					≥ 500					
	D,E	-					≥ 500	≥ 1000	≤ 500			
	B,D	Hd > Hu			≥ 100		≥ 500					
		Hd ≤ Hu			≥ 100		≥ 500					
	B,D,E	Hd > Hu	Hb ≤ ½Hu		≥ 250		≥ 750	≥ 1000	≤ 500			1
			½Hu < Hb ≤ Hu		≥ 250		≥ 1000	≥ 1000	≤ 500			
Hb > Hu					⊘							
Hd ≤ Hu		Hd ≤ ½Hu		≥ 100		≥ 1000	≥ 1000	≤ 500				
		½Hu < Hd ≤ Hu		≥ 200		≥ 1000	≥ 1000	≤ 500				
Hd > Hu							⊘					
	A,B,C	-	≥ 200(1)	≥ 300	≥ 1000							
	A,B,C,E	-	≥ 200(1)	≥ 300	≥ 1000		≥ 1000		≤ 500			
	D	-					≥ 1000					
	D,E	-					≥ 1000	≥ 1000	≤ 500			
	B,D	Hd > Hu			≥ 300		≥ 1000					1+2
		Hd ≤ Hu	Hd ≤ ½Hu		≥ 250		≥ 1500					
			½Hu < Hd ≤ Hu		≥ 300		≥ 1500					
	B,D,E	Hd > Hu	Hb ≤ ½Hu		≥ 300		≥ 1000	≥ 1000	≤ 500			
			½Hu < Hb ≤ Hu		≥ 300		≥ 1250	≥ 1000	≤ 500			
		Hb > Hu					⊘					
Hd ≤ Hu		Hd ≤ ½Hu		≥ 250		≥ 1500	≥ 1000	≤ 500				
	½Hu < Hd ≤ Hu		≥ 300		≥ 1500	≥ 1000	≤ 500					
Hd > Hu								⊘				

(1) For better serviceability, use a distance ≥ 250 mm

A,B,C,D Obstacles (walls/baffle plates)

E Obstacle (roof)

a,b,c,d,e Minimum service space between the unit and obstacles A, B, C, D and E

e<sub>B</sub> Maximum distance between the unit and the edge of obstacle E, in the direction of obstacle B

e<sub>D</sub> Maximum distance between the unit and the edge of obstacle E, in the direction of obstacle D

Hu Height of the unit

Hb,Hd Height of obstacles B and D

1 Seal the bottom of the installation frame to prevent discharged air from flowing back to the suction side through the bottom of the unit.

2 Maximum two units can be installed.

⊘ Not allowed

1D128513


# 12 Installation

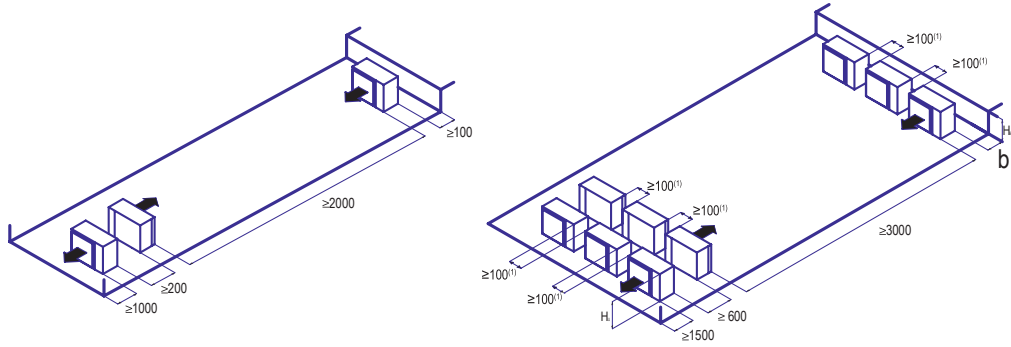
## 12 - 1 Installation Method

12

RZAG-NV1  
RZAG-NY1

Multiple rows of units (  )

Multiple rows of units (  )



Hb Hu	b (mm)
$Hb \leq \frac{1}{2}Hu$	$b \geq 250$
$\frac{1}{2}Hu < Hb \leq Hu$	$b \geq 300$
$Hb > Hu$	⊘

- (1) For better serviceability, use a distance  $\geq 250$  mm
- ⊘ Not allowed

1D128513


# 12 Installation

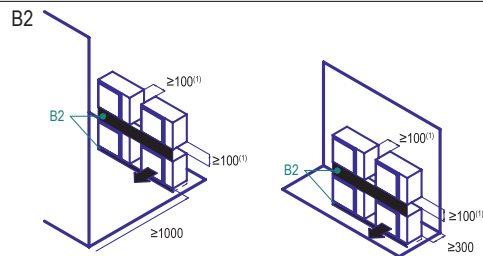
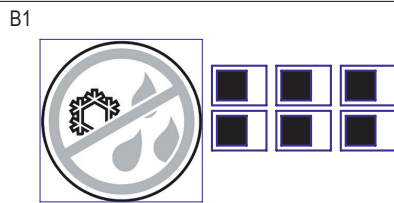
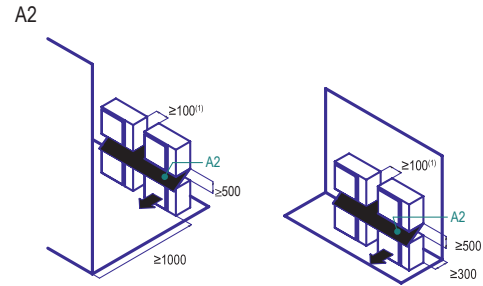
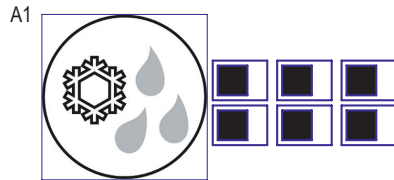
## 12 - 1 Installation Method

12

RZAG-NV1  
RZAG-NY1

Stacked units (max.2 levels) 

Stacked units (max.2 levels) 



- (1) For better serviceability, use a distance  $\geq 250$  mm
- A1=>A2 (A1) If there is danger of drainage dripping and freezing between the upper and lower units...
  - (A2) Then install a roof between the upper and lower units. Install the upper unit high enough above the lower unit to prevent ice buildup at the upper unit's bottom plate.
- B1=>B2 (B1) If there is no danger of drainage dripping and freezing between the upper and lower units...
  - (B2) Then it is not required to install a roof, but seal the gap between the upper and lower units to prevent discharged air from flowing back to the suction side through the bottom of the unit.

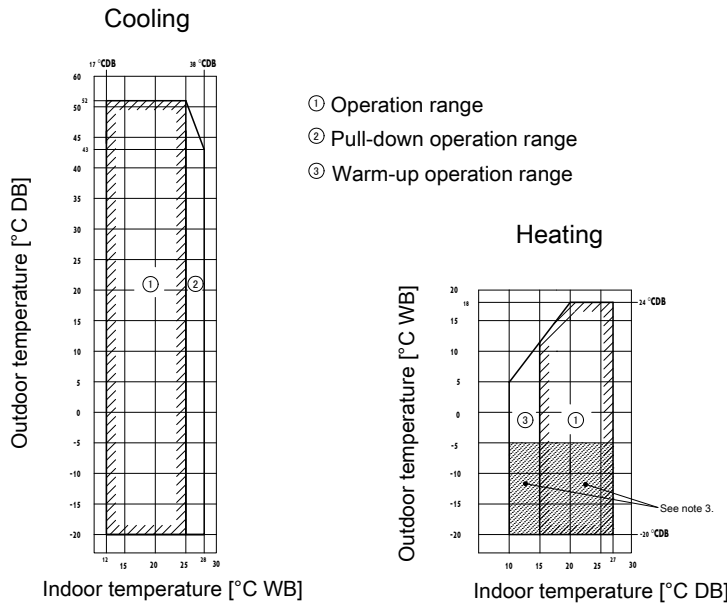
1D128513



# 13 Operation range

## 13 - 1 Operation Range

### RZAG-NV1 RZAG-NY1

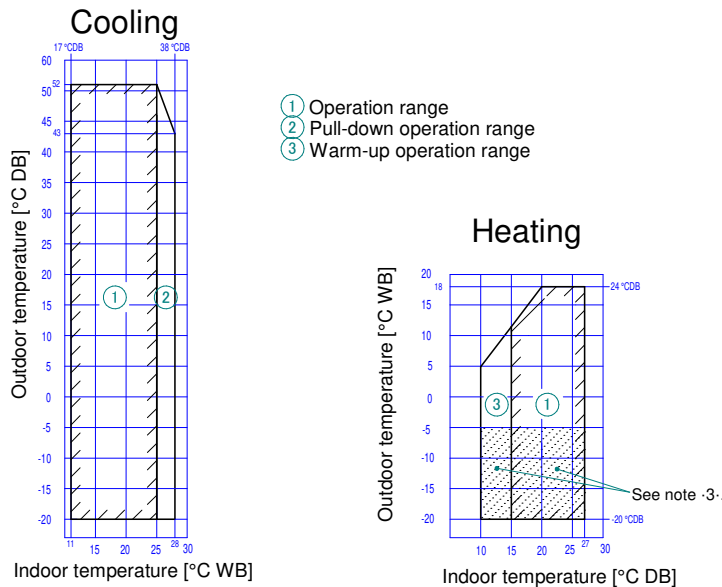


**Notes**

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. If the unit is selected to operate at ambient temperature < -5°C for 5 days or more, with relative humidity of 100%, it is required to install the optional bottom plate heater.

**3D110020A**

### RZAG-NV1 RZAG-NY1



**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. If the unit is selected to operate at ambient temperature < -5°C for -5- days or more, with relative humidity of 100%, it is required to install the optional bottom plate heater.

**3D110022**

# 14 Appropriate Indoors

## 14 - 1 Appropriate Indoors

14

RZAG-NV1

RZAG-NY1

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		FCAHG71	FCAHG100	FCAHG125	FCAHG140	FCAG35	FCAG50	FCAG60	FCAG71	FCAG100	FCAG125	FCAG140	FFA35	FFA50	FFA60	FBA35	FBA50	FBA60	FBA71	FBA100	FBA125	FBA140	FNA35	FNA50	FNA60	FUA71	FUA100	FUA125	FAA71	FAA100	FDA125	
RZAG125N2V1B	RZAG125N2Y1B			P		4										4						P										P
RZAG140N2V1B	RZAG140N2Y1B			P		4						P				4						P										

Sky Air		Floor standing type				Slim duct			Ceiling-suspended						Floor standing type	
Model		FVA71	FVA100	FVA125	FVA140	FDXM35	FDXM50	FDXM60	FHA35	FHA50	FHA60	FHA71	FHA100	FHA125	FHA140	AVA125
RZAG125N2V1B	RZAG125N2Y1B			P											P	
RZAG140N2V1B	RZAG140N2Y1B				P										P	

4D140340

RZAG-NV1

RZAG-NY1

ENER Lot 21

Appropriate indoor units

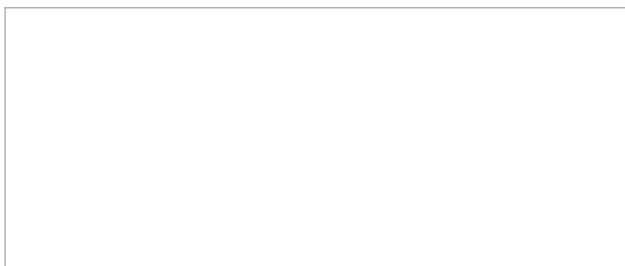
Connectable to **·RZAG125N2V1B/RZAG125N2Y1B·** and covered by **·ENER Lot 21·**

FCAHG125	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 **·RZAG140N2V1B/RZAG140N2Y1B·** and covered by **·ENER Lot 21·**

FCAHG71	FCAG35	FFA35	FBA35	FNA35	FUA71	FAA71	-	FVA71	FDXM35	FHA35	-
FCAHG140	FCAG50	FFA50	FBA50	FNA50	-	-	-	FVA140	FDXM50	FHA50	-
-	FCAG71	-	FBA71	-	-	-	-	-	-	FHA71	-
-	FCAG140	-	FBA140	-	-	-	-	-	-	FHA140	-

4D140340



EEEDEN23

05/2023



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