



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



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RZAG-NV1

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1 Features

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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



Infrastructure cooling



Vertical auto swing



Auto cooling-heating changeover

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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	Type	WF fin						
		Treatment	Anti-corrosion treatment (PE)						
Fan	Type		Propeller						
	Discharge direction		Horizontal						
	Quantity		1						
	Air flow rate	Cooling	Nom.	m ³ /min	68	67	80	87	
Heating			Nom.	m ³ /min	75	82	80	87	
		Partial	m ³ /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		
	Charge		TCO2Eq	2.16			2.50		
Refrigerant	Control		Expansion valve (electronic type)						
	GWP		675						
	Circuits	Quantity	1						
Refrigerant oil	Type		FW68DA						
	Charged volume		l	0.9			1.4		
Piping connections	Liquid	Quantity		1					
		Type		Flare connection					
		OD	mm	9.52					
	Gas	Quantity		1					
		Type		Flare connection					
		OD	mm	15.9					
	Drain	Quantity		8					
		Type		Hole					
	Piping length	OU - IU	Min.	m	3				
			Max.	m	55		85		
	Additional refrigerant charge	Level difference	IU - OU	Max.	m	30			
				IU - IU	m	0.5			
	Heat insulation		Both liquid and gas pipes						
	Defrost control		Sensor for outdoor heat exchanger temperature						
Capacity control	Method		Inverter controlled						
	Category		Category II						
PED	Most critical part	Name		Accumulator					
		P _s *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;

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

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	198 264			
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

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	kW	6.80		9.50		12.1	13.4
	SEER		7.90	7.05	7.70	7.49	8.02	7.93
	ηs,c	%	-				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	kW	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
	ηs,h	%	-				178	175
	Annual energy consumption	kWh/a	1,427	1,567	2,805	2,836	2,943	3,002
	Required back up heating cap at design conditions	kW	0.00					
Space cooling	A Condi- Pdc	kW	6.80		9.50		12.10	13.40
	tion (35°C EERd		4.13	4.14	4.23	4.04	3.84	3.68
	- 27/19) Power input	kW	1.65	1.64	2.25	2.35	3.15	3.64
	B Condi- Pdc	kW	5.01	5.03	7.00	7.03	8.92	9.88
	tion (30°C EERd		5.96	6.00	6.14	5.96	5.81	5.77
	- 27/19) Power input	kW	0.84		1.14	1.18	1.54	1.71
	C Condi- Pdc	kW	3.22	3.20	4.50	4.46	5.74	6.35
	tion (25°C EERd		10.19	8.66	9.32	9.12	9.63	9.37
	- 27/19) Power input	kW	0.32	0.37	0.48	0.49	0.60	0.68
	D Condi- Pdc	kW	2.64	2.72	3.71	3.59	3.61	
	tion (20°C EERd		14.60	10.83	12.87	12.38	13.99	14.07
	- 27/19) Power input	kW	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
		Pdh (declared heating cap)	4.16	4.14	8.42	8.38	8.42	
		COPd (declared COP)	3.32	3.30	3.14	3.13	2.84	2.80
		Power input	1.25		2.69	2.68	2.97	3.01
		Pdh (declared heating cap)	2.53	2.54	5.13	5.14	5.13	
		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
		Pdh (declared heating cap)	1.79	1.89	3.30	3.33	3.30	
		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	
		Pdh (declared heating cap)	2.01	2.11	2.58		2.60	
	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		

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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	Crank-case 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				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	
	ηs,c		%	-						
	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		
	ηs,h		%	-						
Annual energy consumption		kWh/a	1,560	1,479	2,413	2,343	3,071			
Required back up heating cap at design conditions			kW	0.00						
Space cooling	A Condi- tion (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	
	B Condi- tion (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	
	C Condi- tion (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	
	D Condi- tion (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	
	TOL	Tol (temperature operating limit)		°C	-10					
		Pdh (declared heating cap)		kW	4.70		7.80		9.52	
	TBivalent	COPd (declared COP)			2.54	2.88	2.51	2.73	1.91	1.93
		Power input		kW	1.85	1.63	3.11	2.85	4.98	4.93
A Con- dition (-7°C)	Tbiv (bivalent temperature)		°C	-10						
	Pdh (declared heating cap)		kW	4.70		7.80		9.52		
COPd (declared COP)				2.54	2.88	2.51	2.73	1.91	1.93	
	Power input		kW	1.85	1.63	3.11	2.85	4.98	4.93	
Pdh (declared heating cap)			kW	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	

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Technical specifications				FCAG71B + RZAG71NV1	FCAG100B + RZAG71NV1	FCAG100B + RZAG100NV1	FCAG140B + RZAG100NV1	FCAG125B + RZAG125NV1	FCAG140B + RZAG140NV1	
Space heating (Average climate)	A Con- dition (-7°C)	Power input	kW	1.40	1.27	2.39	2.26	3.25	3.34	
	B Condi- tion (2°C)	Pdh (declared heating cap)	kW	2.54		4.21		5.12		
		COPd (declared COP)		4.23	4.46	4.37	4.65	4.29	4.33	
	C Condi- tion (7°C)	Power input	kW	0.60	0.57	0.96	0.91	1.20	1.18	
		Pdh (declared heating cap)	kW	1.77	1.80	2.73		3.29		
		COPd (declared COP)		5.11	5.30	6.01	5.82	5.92		
	D Condi- tion (12°C)	Power input	kW	0.35	0.34	0.45	0.47	0.56		
		Pdh (declared heating cap)	kW	1.96	2.02	2.47	2.51	2.52		
		COPd (declared COP)		6.01	6.60	7.75	7.16	6.94		
	Power consump- tion in other than active mode	Crank- case 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 appli- cation)		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	
	ηs,c		%	-		-		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	
	ηs,h		%	-		-		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				0.00						
Space cooling	A Condi- tion (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	
	B Condi- tion (30°C - 27/19)	Power input	kW	2.00	1.64	2.58	2.27	3.70	4.69	
		Pdc	kW	5.03		7.03		8.92	9.88	
	C Condi- tion (25°C - 27/19)	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	
	D Condi- tion (20°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	
	E Condi- tion (15°C - 27/19)	Power input	kW	0.40	0.45	0.57	0.59	0.77	0.85	
		Pdc	kW	2.44	2.68	3.33	3.66	3.34	3.50	
F Condi- tion (10°C - 27/19)	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			

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Technical specifications				FBA71A9 + RZAG71NV1	FBA100A + RZAG71NV1	FBA100A + RZAG100NV1	FBA140A + RZAG100NV1	FBA125A + RZAG125NV1	FBA140A + RZAG140NV1	
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		
	TBivalent	Power input kW	1.88	1.75	3.17	3.09	4.83	4.74		
		Tbiv (bivalent temperature) °C	-10							
		Pdh (declared heating cap) kW	4.70		7.80		9.52			
	A Condi-tion (-7°C)	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		
		Pdh (declared heating cap) kW	4.14		6.87		6.86		8.42	8.43
	Space heating (Average climate)	A Condi-tion (-7°C)	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		
B Condi-tion (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 Condi-tion (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 Condi-tion (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			
Power consump-tion in other than active mode	Crank-case 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 appli-cation)	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	
	Required back up heating cap at design conditions	kW	0.00	

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Technical specifications				FDA125A + RZAG125NV1	
Space cooling	A Condition (35°C -27/19)	Pdc	kW	12.10	
		EERd		3.25	
	B Condition (30°C -27/19)	Power input	kW	3.73	
		Pdc	kW	8.92	
	C Condition (25°C -27/19)	EERd		4.99	
		Power input	kW	1.79	
	D Condition (20°C -27/19)	Pdc	kW	5.73	
		EERd		7.67	
		Power input	kW	0.75	
					3.34
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
	Power consumption in other than active mode	Crank-case 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	
Thermostat-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 (1)		9.50 (1)
Heating capacity	Nom.	kW		7.50 (2)		10.8 (2)
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

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Technical specifications				FAA71B + RZAG71NV1	FAA100B + RZAG71NV1	FAA100B + RZAG100NV1		
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		
	Annual energy consumption	kWh/a		1,567	1,605	2,723		
	Required back up heating cap at design conditions	kW		0.00				
Space cooling	A Condi- tion (35°C - 27/19)	Pdc	kW	6.80		9.50		
		EERd		3.27	3.47	3.24		
		Power input	kW	2.08	1.96	2.93		
	B Condi- tion (30°C - 27/19)	Pdc	kW	5.03		7.03		
		EERd		4.54	5.22	4.86		
		Power input	kW	1.11	0.96	1.45		
	C Condi- tion (25°C - 27/19)	Pdc	kW	3.22		4.46		
		EERd		9.30	7.90	7.86		
		Power input	kW	0.35	0.40	0.57		
	D Condi- tion (20°C - 27/19)	Pdc	kW	2.40		3.43		
		EERd		11.11	10.59	11.31		
		Power input	kW	0.22	0.23	0.30		
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	
		Power input	kW		1.88	1.71	3.57	
	TBivalent	Tbiv (bivalent temperature) °C		-10				
		Pdh (declared heating cap)	kW		4.70		7.80	
		COPd (declared COP)			2.51	2.74	2.19	
		Power input	kW		1.88	1.71	3.57	
	A Condi- tion (-7°C)	Pdh (declared heating cap)	kW		4.14		6.86	
		COPd (declared COP)			2.91	3.07	2.53	
		Power input	kW		1.42	1.35	2.71	
	B Condi- tion (2°C)	Pdh (declared heating cap)	kW		2.54		4.21	
	Space heating (Average climate)	B Condi- tion (2°C)	COPd (declared COP)			4.20	4.11	3.94
			Power input	kW		0.60	0.62	1.07
		C Condi- tion (7°C)	Pdh (declared heating cap)	kW		1.76	1.79	2.73
			COPd (declared COP)			5.14	4.81	5.19
			Power input	kW		0.34	0.37	0.53
		D Condi- tion (12°C)	Pdh (declared heating cap)	kW		1.96	2.02	2.47
COPd (declared COP)					6.09	5.94	6.61	
		Power input	kW		0.32	0.34	0.37	
Power consump- tion in other than active mode	Crank- case 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 appli- cation)	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				

(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)

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Technical specifications				FHA71A9 + RZAG71NV1	FHA100A + RZAG71NV1	FHA100A + RZAG100NV1	FHA140A + RZAG100NV1	FHA125A + RZAG125NV1	FHA140A + RZAG140NV1	
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		%	-				283	254	
	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		%	-				165	169	
	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						
Space cooling	A Condi- tion (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 Condi- tion (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 Condi- tion (25°C -27/19)	Pdc	kW	3.20		4.47		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 Condi- tion (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)		-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	
TBivalent		Tbiv (bivalent temperature)		-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 Condi- tion (-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 Condi- tion (-7°C)	Power input	kW	1.40	1.27	2.27	2.18	3.30	3.11
		B Condi- tion (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 Condi- tion (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 Condi- tion (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	Crank-case 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						

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(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				
Space cooling	A Condi- tion (35°C - 27/19)	Pdc EERd Power input	kW	6.80 3.83 1.77	4.02 1.69	9.50 3.57 2.66	12.10 3.02 4.00	
	B Condi- tion (30°C - 27/19)	Pdc EERd Power input	kW	5.03 5.34 0.94	5.65 0.89	7.03 4.93 1.43	8.91 5.08 1.76	
	C Condi- tion (25°C - 27/19)	Pdc EERd Power input	kW	3.20 8.83 0.36	3.19 8.54 0.37	4.46 7.75 0.58	5.74 7.22 0.79	
	D Condi- tion (20°C - 27/19)	Pdc EERd Power input	kW	2.59 12.48 0.21	2.64 10.88 0.24	3.36 10.65 0.32	3.23 10.56 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
	Space heating (Average climate)		COPd (declared COP)		2.58	2.95	2.62	1.97
			Power input	kW	1.82	1.59	2.97	4.83
		A Con- dition (-7°C)	Pdh (declared heating cap)	kW	4.14		6.86	8.43
		COPd (declared COP)		2.99	3.31	3.00	2.66	
		Power input	kW	1.38	1.25	2.29	3.17	
B Condi- tion (2°C)		Pdh (declared heating cap)	kW	2.54		4.21	5.12	
		COPd (declared COP)		4.27	4.36	4.53	4.31	
		Power input	kW	0.60	0.58	0.93	1.19	
C Condi- tion (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		
Space heating (Average climate)	D Con- dition (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 input	kW	1.38	1.25	2.29	3.17	
Power consump- tion in other than active mode	Crank- case 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 appli- cation)	Back-up capacity	Heating elbu	kW	0.0			
Cooling	Cdc (Degradation cooling)			0.25				
Heating	Cdh (Degradation heating)			0.25				
Cooling function included				Yes				

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Technical specifications	FUA71A + RZAG71NV1	FUA100A + RZAG71NV1	FUA100A + RZAG100NV1	FUA125A + RZAG125NV1
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	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
	η _{s,c} %	-					
	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
	η _{s,h} %	-					
	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					
Space cooling	A Condi- tion (35°C -27/19)	6.80		9.50		12.10	13.40
	Pdc 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 Condi- tion (30°C -27/19)	5.03		7.03		8.92	9.87
	Pdc 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 Condi- tion (25°C -27/19)	3.20		4.46		5.73	6.35
	Pdc 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 Condi- tion (20°C -27/19)	2.33		3.20		3.23	3.24
	Pdc 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 Condi- tion (-7°C)	4.14		6.86		8.43	8.42
	Pdh (declared heating cap) kW	2.83	3.18	2.82	2.84	2.55	2.42
	COPd (declared COP)						
Space heating (Average climate)	A Condi- tion (-7°C)	1.46	1.30	2.43	2.42	3.30	3.48
	Power input kW						
	B Condi- tion (2°C)	2.54		4.21		5.12	
	Pdh (declared heating cap) kW	4.07	4.11	4.21	4.11	4.20	3.99
	COPd (declared COP)	0.62		1.00	1.02	1.22	1.28
	Power input kW						
	C Condi- tion (7°C)	1.76	1.88	2.73		3.29	
	Pdh (declared heating cap) kW	4.92	4.54	5.13	4.77	5.42	5.12
	COPd (declared COP)						
	Power input kW	0.36	0.41	0.53	0.57	0.61	0.64
	D Condi- tion (12°C)	1.96	2.10	2.56	2.60	2.57	2.61
	Pdh (declared heating cap) kW	5.77	5.48	6.22	5.58	6.00	5.67
	COPd (declared COP)						
	Power input kW	0.34	0.38	0.41	0.47	0.43	0.46
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					

2 Specifications

1 - 1 RZAG-NV1

Technical specifications		FVA71A + RZAG71NV1	FVA100A + RZAG71NV1	FVA100A + RZAG100NV1	FVA140A + RZAG100NV1	FVA125A + RZAG125NV1	FVA140A + RZAG140NV1
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		

(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-NV1

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

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RZAG-NV1

		Compressor										Compressor																	
		OFM					IFM					OFM					IFM												
Indoor	Outdoor	Power supply	Voltage range		MCA	TOCA	MFA	MSC	RLA	kW	FLA	kW	FLA	Indoor	Outdoor	Power supply	Voltage range		MCA	TOCA	MFA	MSC	RLA	kW	FLA	kW	FLA		
FCAG71HVEB	RZAG71N7V1B	50Hz ~ 220-240V	Minimum: ·198 V· Maximum: ·264 V·	17,7	--	20	--	15,5	0,234	0,8	0,091	0,7		FCAG712SHVEB	RZAG12SN7V1B	50Hz ~ 220-240V	Minimum: ·198 V· Maximum: ·264 V·	27,5	--	32	--	23,8	0,234	1,2	0,244	1,4			
FCAG358BVEB	x2 RZAG71N7V1B			17,6	--	20	--	15,5	0,234	0,8	0,044	x2	0,3	x2	FCAG358BVEB			x4 RZAG12SN7V1B	27,2	--	32	--	23,8	0,234	1,2	0,044	x4	0,3	x4
FCAG718BVEB	RZAG71N7V1B			17,4	--	20	--	15,5	0,234	0,8	0,054	0,4			FCAG50BVEB			x3 RZAG12SN7V1B	26,9	--	32	--	23,8	0,234	1,2	0,039	x3	0,3	x3
FFA35A2VEB	x2 RZAG71N7V1B			17,4	--	20	--	15,5	0,234	0,8	0,050	x2	0,2	x2	FCAG60BVEB			x2 RZAG12SN7V1B	26,6	--	32	--	23,8	0,234	1,2	0,044	x2	0,3	x2
FBA35A2VEB	x2 RZAG71N7V1B			19,9	--	20	--	15,5	0,234	0,8	0,089	x2	1,4	x2	FCAG125BVEB			RZAG12SN7V1B	27,0	--	32	--	23,8	0,234	1,2	0,168	1,0		
FBA71A2VEB	RZAG71N7V1B			18,3	--	20	--	15,5	0,234	0,8	0,070	1,3			FFA35A2VEB			x4 RZAG12SN7V1B	26,8	--	32	--	23,8	0,234	1,2	0,050	x4	0,2	x4
FNA35A2VEB	x2 RZAG71N7V1B			18,0	--	20	--	15,5	0,234	0,8	0,034	x2	0,5	x2	FFA50A2VEB			x3 RZAG12SN7V1B	27,2	--	32	--	23,8	0,234	1,2	0,050	x3	0,4	x3
FUA71AVEB9	RZAG71N7V1B			17,9	--	20	--	15,5	0,234	0,8	0,046	0,9			FFA60A2VEB			x2 RZAG12SN7V1B	27,2	--	32	--	23,8	0,234	1,2	0,050	x2	0,6	x2
FAA71BUV1B	RZAG71N7V1B			17,5	--	20	--	15,5	0,234	0,8	0,048	0,5			FBA35A2VEB			x4 RZAG12SN7V1B	31,8	--	32	--	23,8	0,234	1,2	0,089	x4	1,4	x4
FVA71AMVBE	RZAG71N7V1B			17,8	--	20	--	15,5	0,234	0,8	0,117	0,8			FBA50A2VEB			x3 RZAG12SN7V1B	30,4	--	32	--	23,8	0,234	1,2	0,089	x3	1,4	x3
FDXM35F3V1B	x2 RZAG71N7V1B			17,6	--	20	--	15,5	0,234	0,8	0,034	x2	0,3	x2	FBA60A2VEB			x2 RZAG12SN7V1B	28,7	--	32	--	23,8	0,234	1,2	0,070	x2	1,3	x2
FHA35AVEB99	x2 RZAG71N7V1B	18,2	--	20	--	15,5	0,234	0,8	0,060	x2	0,6	x2	FBA125A2VEB	RZAG12SN7V1B	30,1	--	32	--	23,8	0,234	1,2	0,187	3,9						
FHA71AVEB99	RZAG71N7V1B	17,8	--	20	--	15,5	0,234	0,8	0,091	0,8			FNA35A2VEB	x4 RZAG12SN7V1B	28,1	--	32	--	23,8	0,234	1,2	0,034	x4	0,5	x4				
FCAG100HVEB	RZAG100N7V1B	50Hz ~ 220-240V	Minimum: ·198 V· Maximum: ·264 V·	22,2	--	32	--	18,8	0,234	1,2	0,221	1,3		FNA50A2VEB	x3 RZAG12SN7V1B	27,6	--	32	--	23,8	0,234	1,2	0,060	x3	0,5	x3			
FCAG358BVEB	x3 RZAG100N7V1B			21,7	--	32	--	18,8	0,234	1,2	0,044	x3	0,3	x3	FNA60A2VEB	x2 RZAG12SN7V1B	27,2	--	32	--	23,8	0,234	1,2	0,060	x2	0,6	x2		
FCAG50BVEB	x2 RZAG100N7V1B			21,4	--	32	--	18,8	0,234	1,2	0,039	x2	0,3	x2	FUA125AVEB9	RZAG12SN7V1B	27,5	--	32	--	23,8	0,234	1,2	0,106	1,4				
FCAG100BVEB	RZAG100N7V1B			21,5	--	32	--	18,8	0,234	1,2	0,117	0,7			FDA125AVEB	RZAG12SN7V1B	28,2	--	32	--	23,8	0,234	1,2	0,350	2,1				
FFA35A2VEB	x3 RZAG100N7V1B			21,4	--	32	--	18,8	0,234	1,2	0,050	x3	0,4	x3	FVA125AMVBE	RZAG12SN7V1B	27,6	--	32	--	23,8	0,234	1,2	0,238	1,5				
FFA50A2VEB	x3 RZAG100N7V1B			21,6	--	32	--	18,8	0,234	1,2	0,050	x2	0,4	x2	FDXM35F3V1B	x4 RZAG12SN7V1B	27,2	--	32	--	23,8	0,234	1,2	0,034	x4	0,3	x4		
FBA35A2VEB	x3 RZAG100N7V1B			25,2	--	32	--	18,8	0,234	1,2	0,089	x3	1,4	x3	FDXM50F3V1B	x3 RZAG12SN7V1B	28,8	--	32	--	23,8	0,234	1,2	0,060	x3	0,9	x3		
FBA50A2VEB	x2 RZAG100N7V1B			23,7	--	32	--	18,8	0,234	1,2	0,089	x2	1,4	x2	FDXM60F3V1B	x2 RZAG12SN7V1B	27,9	--	32	--	23,8	0,234	1,2	0,060	x2	0,9	x2		
FBA100A2VEB	RZAG100N7V1B			24,4	--	32	--	18,8	0,234	1,2	0,127	3,5			FHA35AVEB99	x4 RZAG12SN7V1B	28,5	--	32	--	23,8	0,234	1,2	0,060	x4	0,6	x4		
FNA35A2VEB	x3 RZAG100N7V1B			22,4	--	32	--	18,8	0,234	1,2	0,040	x3	0,5	x3	FHA50AVEB99	x3 RZAG12SN7V1B	27,9	--	32	--	23,8	0,234	1,2	0,060	x3	0,6	x3		
FNA50A2VEB	x2 RZAG100N7V1B			21,8	--	32	--	18,8	0,234	1,2	0,060	x2	0,5	x2	FHA60AVEB99	x2 RZAG12SN7V1B	27,2	--	32	--	23,8	0,234	1,2	0,091	x2	0,6	x2		
FUA100AVEB9	RZAG100N7V1B	22,2	--	32	--	18,8	0,234	1,2	0,106	1,3			FHA125AVEB9	x4 RZAG12SN7V1B	27,6	--	32	--	23,8	0,234	1,2	0,150	1,5						
FAA100BUV1B	RZAG100N7V1B	21,3	--	32	--	18,8	0,234	1,2	0,064	0,5			FCAG71HVEB	x2 RZAG140N7V1B	27,5	--	32	--	23,6	0,234	1,4	0,091	x2	0,7	x2				
FVA100AMVBE	RZAG100N7V1B	22,4	--	32	--	18,8	0,234	1,2	0,238	1,5			FCAG140HVEB	RZAG140N7V1B	27,5	--	32	--	23,6	0,234	1,4	0,244	1,4						
FDXM35F3V1B	x3 RZAG100N7V1B	21,7	--	32	--	18,8	0,234	1,2	0,034	x3	0,3	x3	FCAG358BVEB	x4 RZAG140N7V1B	27,2	--	32	--	23,6	0,234	1,4	0,044	x4	0,3	x4				
FDXM50F3V1B	x2 RZAG100N7V1B	22,7	--	32	--	18,8	0,234	1,2	0,060	x2	0,3	x2	FCAG50BVEB	x2 RZAG140N7V1B	26,9	--	32	--	23,6	0,234	1,4	0,039	x2	0,3	x2				
FHA35AVEB99	x3 RZAG100N7V1B	22,7	--	32	--	18,8	0,234	1,2	0,040	x3	0,5	x3	FCAG718BVEB	x2 RZAG140N7V1B	26,8	--	32	--	23,6	0,234	1,4	0,054	x2	0,4	x2				
FHA50AVEB99	x2 RZAG100N7V1B	22,0	--	32	--	18,8	0,234	1,2	0,060	x2	0,6	x2	FCAG140BVEB	RZAG140N7V1B	27,4	--	32	--	23,6	0,234	1,4	0,168	1,3						
FHA100AVEB9	RZAG100N7V1B	22,2	--	32	--	18,8	0,234	1,2	0,150	1,3			FFA35A2VEB	x4 RZAG140N7V1B	26,8	--	32	--	23,6	0,234	1,4	0,050	x4	0,2	x4				

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]

* Use a separate power supply for the indoor unit. The value between brackets is the MCA of the outdoor unit. For the MCA of the indoor unit, see the installation manual of the indoor unit.

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4 Options

4 - 1 Options

4

RZAG-NV1
RZAG-NY1

Available options for ·RZAG· models

Option	Option kit			
	RZAG71N7V1B	RZAG100N7V1B	RZAG125N7V1B	RZAG140N7V1B
	RZAG71N7Y1B	RZAG100N7Y1B	RZAG125N7Y1B	RZAG140N7Y1B
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 enclosure	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·

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5 Combination table

5 - 1 Combination Table

RZAG-NV1

RZAG-NY1

Possible combinations

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

OU_IO_ID	FAA71BUV1B	FAA100BUV1B	FBA100A2VEB	FBA140A2VEB	FBA35A2VEB9	FBA50A2VEB9	FBA71A2VEB9	FCAG35BVEB	FCAG50BVEB	FCAG71BVEB	FCAG100BVEB	FCAG140BVEB	FCAHG71HVEB	FCAHG100HVEB	FCAHG140HVEB	FDXM35F3V1B9	FDXM50F3V1B9	FFA35A2VEB9	FFA50A2VEB9	FHA100AVEB9	FHA140AVEB9	FHA35AVEB99	FHA50AVEB99	FHA71AVEB99	FUA71AVEB9	FUA100AVEB9	FVA100AMVEB	FVA140AMVEB
RZAG71N7V1B		P	P		3	2		3	2		P			P		3	2	3	2	P		3	2			P	P	
RZAG100N7V1B	2			P	4	3	2	4	3	2		P	2		P	4	3	4	3		P	4	3	2	2			P
RZAG125N7V1B	2			P	4	3	2	4	3	2		P	2		P	4	3	4	3		P	4	3	2	2			P
RZAG140N7V1B	2			P	4	3	2	4	3	2		P	2		P	4	3	4	3		P	4	3	2	2			P
RZAG71N7Y1B		P	P		3	2		3	2		P			P		3	2	3	2	P		3	2			P	P	
RZAG100N7Y1B	2			P	4	3	2	4	3	2		P	2		P	4	3	4	3		P	4	3	2	2			P
RZAG125N7Y1B	2			P	4	3	2	4	3	2		P	2		P	4	3	4	3		P	4	3	2	2			P
RZAG140N7Y1B	2			P	4	3	2	4	3	2		P	2		P	4	3	4	3		P	4	3	2	2			P

Notes

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

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RZAG-NV1

RZAG-NY1

Possible combinations

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

OU_IO_ID	FAA71BUV1B	FAA100BUV1B	FBA100A2VEB	FBA125A2VEB	FBA140A2VEB	FBA35A2VEB9	FBA50A2VEB9	FBA60A2VEB9	FBA71A2VEB9	FCAG35BVEB	FCAG50BVEB	FCAG60BVEB	FCAG71BVEB	FCAG100BVEB	FCAG125BVEB	FCAG140BVEB	FCAHG71HVEB	FCAHG100HVEB	FCAHG125HVEB	FCAHG140HVEB	FDXM35F3V1B9	FDXM50F3V1B9	FDXM60F3V1B9	FFA35A2VEB9	FFA50A2VEB9	FFA60A2VEB9	FHA100AVEB9	FHA125AVEB9	FHA140AVEB9	FHA35AVEB99	FHA50AVEB99	FHA60AVEB99	FHA71AVEB99	FNA35A2VEB9	FNA50A2VEB9	FNA60A2VEB9	FUA71AVEB9	FUA100AVEB9	FUA125AVEB9	FUA140AVEB9	FVA100AMVEB	FVA125AMVEB	FVA140AMVEB					
RZAG71N7V1B	P				2				P	2			P				P			2																												
RZAG100N7V1B		P	P		3	2			3	2			P				P			3	2																											
RZAG125N7V1B			P		4	3	2		4	3	2		P				P			4	3	2																										
RZAG140N7V1B	2			P	4	3	2		4	3	2		P	2			P			4	3	2																										
RZAG71N7Y1B	P				2				P	2			P				P			2																												
RZAG100N7Y1B		P	P		3	2			3	2			P				P			3	2																											
RZAG125N7Y1B			P		4	3	2		4	3	2		P				P			4	3	2																										
RZAG140N7Y1B	2			P	4	3	2		4	3	2		P	2			P			4	3	2																										

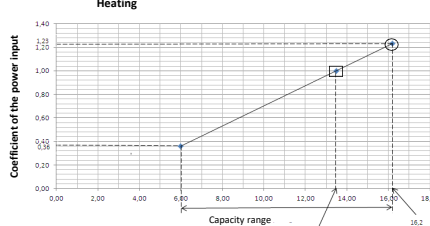
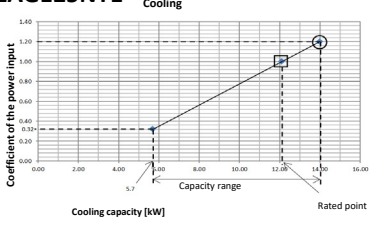
Notes

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

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6 Capacity tables
6 - 1 Cooling/Heating Capacity Tables

RZAG125NV1
RZAG125NY1



Symbols
AFR: Air flow rate [m³/min]
BF: Bypass factor
EWB: Entering wet-bulb temperature [°C WB]
EDB: Entering dry-bulb temperature [°C DB]
TC: Maximum total cooling/heating capacity [kW]
SHC: Sensible heat capacity [kW]
CPI: Coefficient of the power input
Pi: Power input [kW]
compressor + indoor and outdoor fan motors

Table with columns for Indoor and Outdoor temperature (25, 30, 35, 40) and rows for TC, SHC, CPI.

Table with columns for Outdoor temperature (°C WB) (-15.0, -10.0, -5.0, 0.0, 6.0, 11.0, 16.0) and rows for TC, CPI.

- Notes
1. The ratings shown are net capacities which include a deduction for indoor fan motor heat.
2. Max at standard conditions
3. SHC is based on indoor units -EWB & EDB.
4. 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.

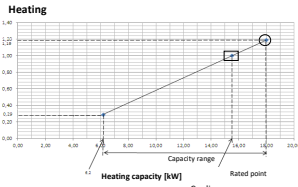
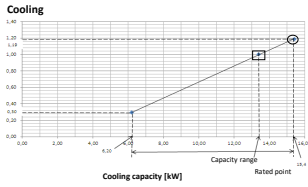
- Notes
5. CPI is a percentage value compared to the rated value which is -1.00.
6. The error rate for this value is less than -5% and depends on the indoor unit type.
7. The heating performance takes into account the drop that occurs during defrost operation.

Pair, Twin, Triple, Double twin configuration tables for RZAG125 models.

Pair, Twin, Triple, Double twin configuration tables for RZAG125 models.

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RZAG140NV1
RZAG140NY1



Symbols
AFR: Air flow rate [m³/min]
BF: Bypass factor
EWB: Entering wet-bulb temperature [°C WB]
EDB: Entering dry-bulb temperature [°C DB]
TC: Maximum total cooling/heating capacity [kW]
SHC: Sensible heat capacity [kW]
CPI: Coefficient of the power input
Pi: Power input [kW]
compressor + indoor and outdoor fan motors

Table with columns for Indoor and Outdoor temperature (25, 30, 35, 40) and rows for TC, SHC, CPI.

Table with columns for Outdoor temperature (°C WB) (-15, -10, -5, 0, 6, 10) and rows for TC, CPI.

- Notes
1. The ratings shown are net capacities which include a correction for indoor fan motor heat.
2. Max at standard conditions
3. SHC is based on indoor units -EWB & EDB.
4. 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.

- Notes
5. CPI is a percentage value compared to the rated value which is -1.00.
6. The error rate for this value is less than -5% and depends on the indoor unit type.
7. The heating performance takes into account the drop that occurs during defrost operation.

Pair, Twin, Triple, Double twin configuration tables for RZAG140 models.

Pair, Twin, Triple, Double twin configuration tables for RZAG140 models.

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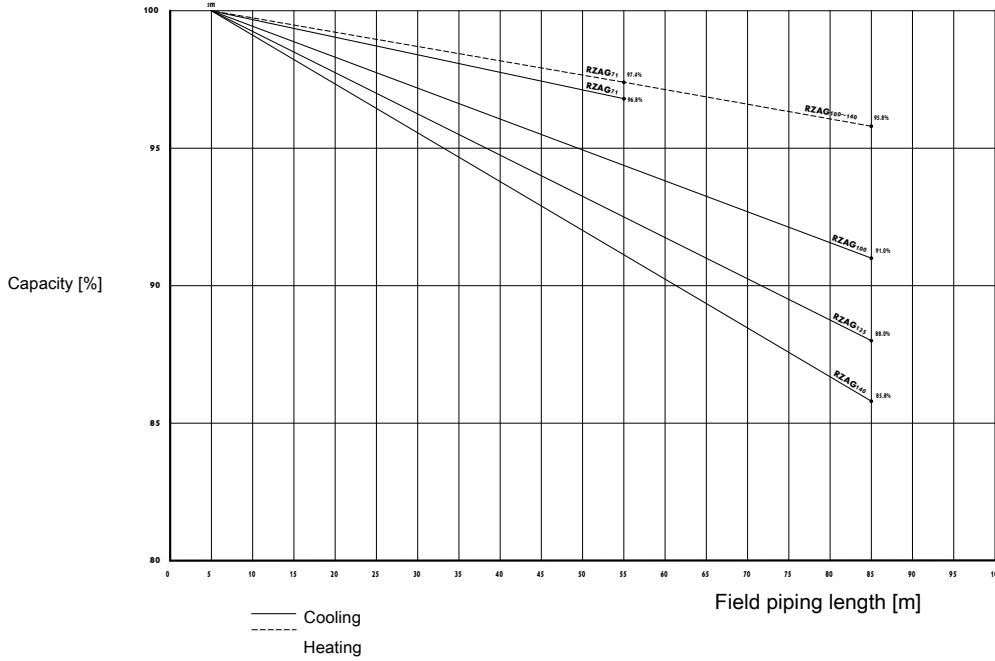
6 Capacity tables

6 - 2 Capacity Correction Factor

6

RZAG-NV1
RZAG-NY1

Capacity in function of field piping length

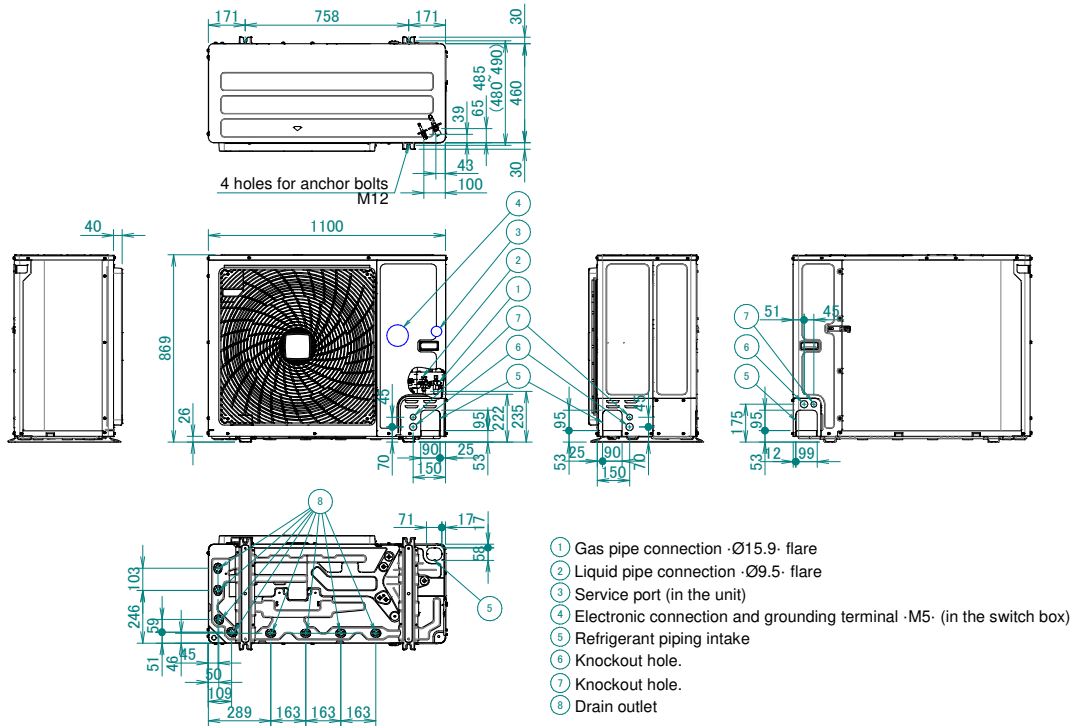


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7 Dimensional drawings

7 - 1 Dimensional Drawings

RZAG-NV1
RZAG-NY1



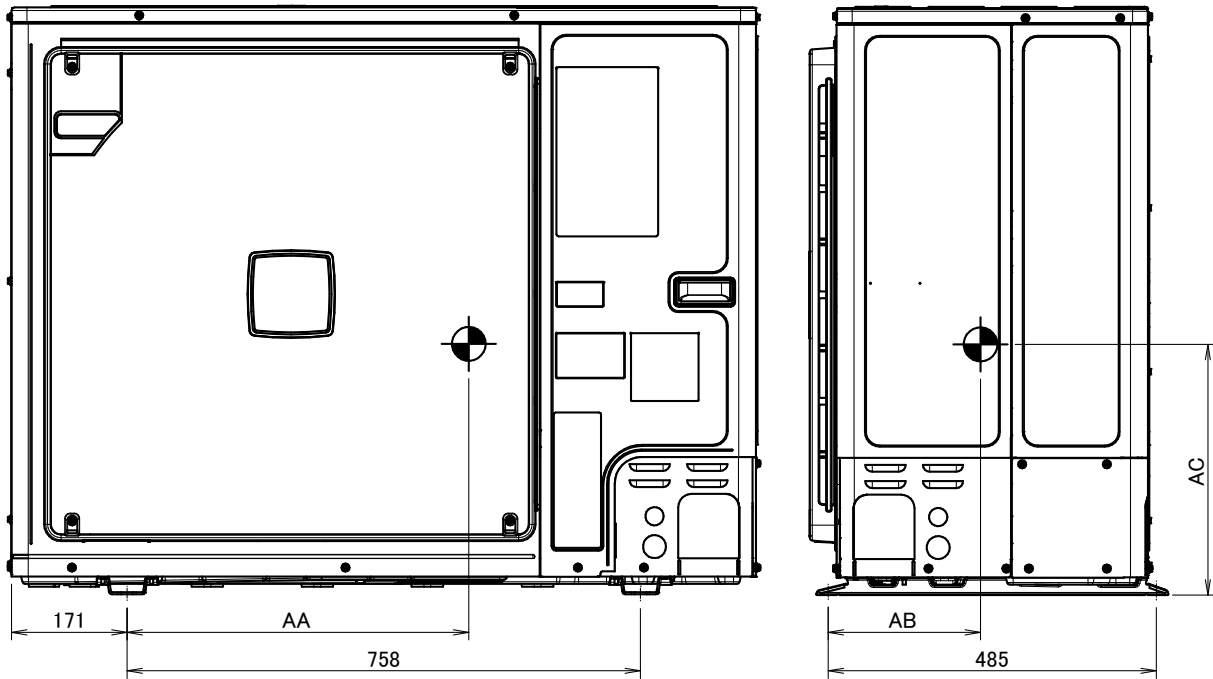
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8 Centre of gravity

8 - 1 Centre of Gravity

8

RZAG-NV1 RZAG-NY1



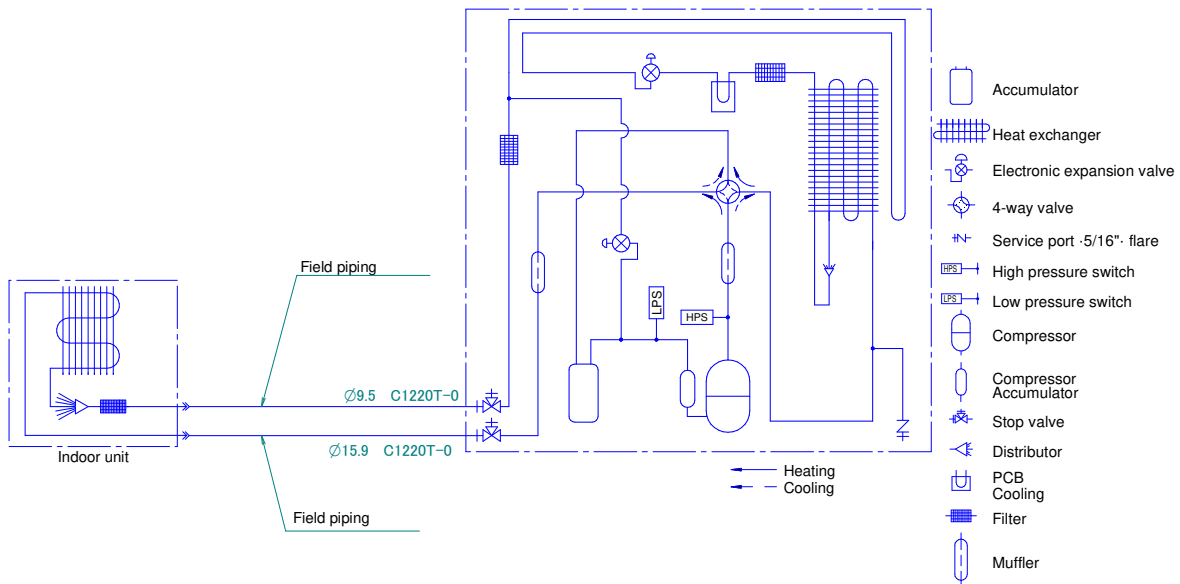
Model	AA	AB	AC
RZAG71N7V1B	520.3	238.7	357.8
RZAG71N7Y1B	525.9	224.7	359.8
RZAG100N7V1B	499.7	239.3	367.6
RZAG100N7Y1B	511.2	223.5	362.5
RZAG125/140N7V1B	486.3	229.2	371.8
RZAG125/140N7Y1B	493.4	215.8	372.2
RXYSA4/5/6A7V1B	530.4	249.9	389.0
RXYSA4/5/6A7Y1B			

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9 Piping diagrams

9 - 1 Piping Diagrams

RZAG-NV1
RZAG-NY1



Notes

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

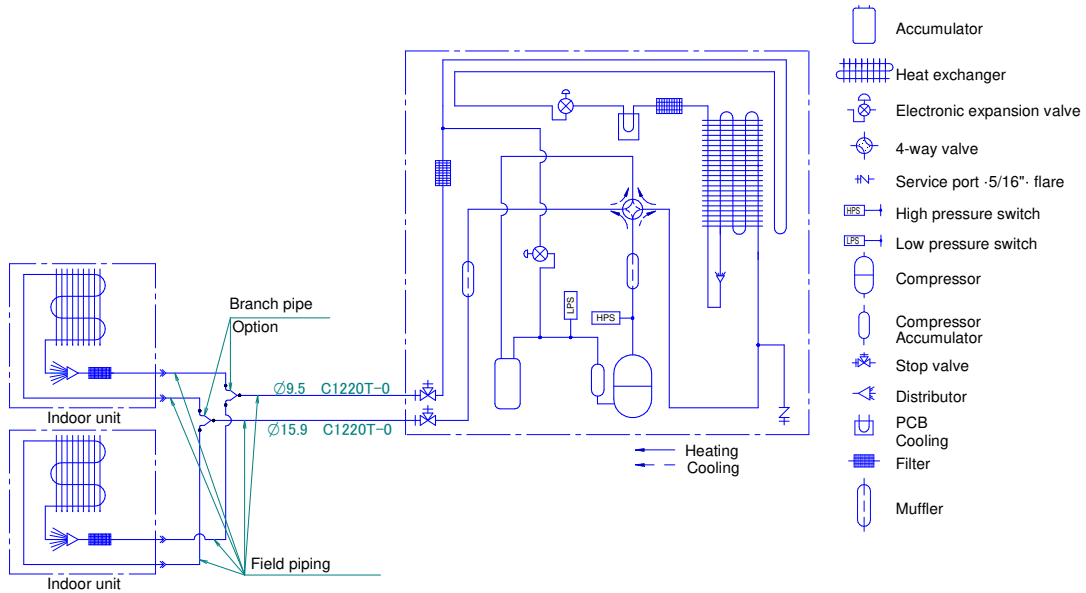
3D120907

9 Piping diagrams

9 - 2 Piping Diagram Twin Application

9

RZAG-NV1
RZAG-NY1



Notes

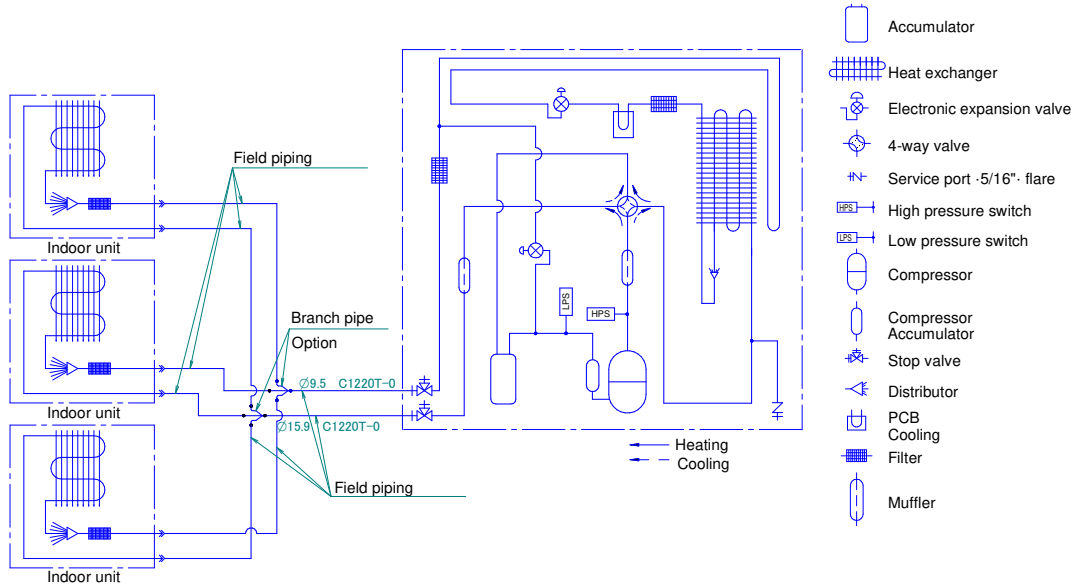
1. The pipes between the branch and the indoor units should have the same size as the indoor connections.

3D120913

9 Piping diagrams

9 - 3 Piping Diagram Triple Application

RZAG100-140NV1
RZAG100-140NY1



Notes

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

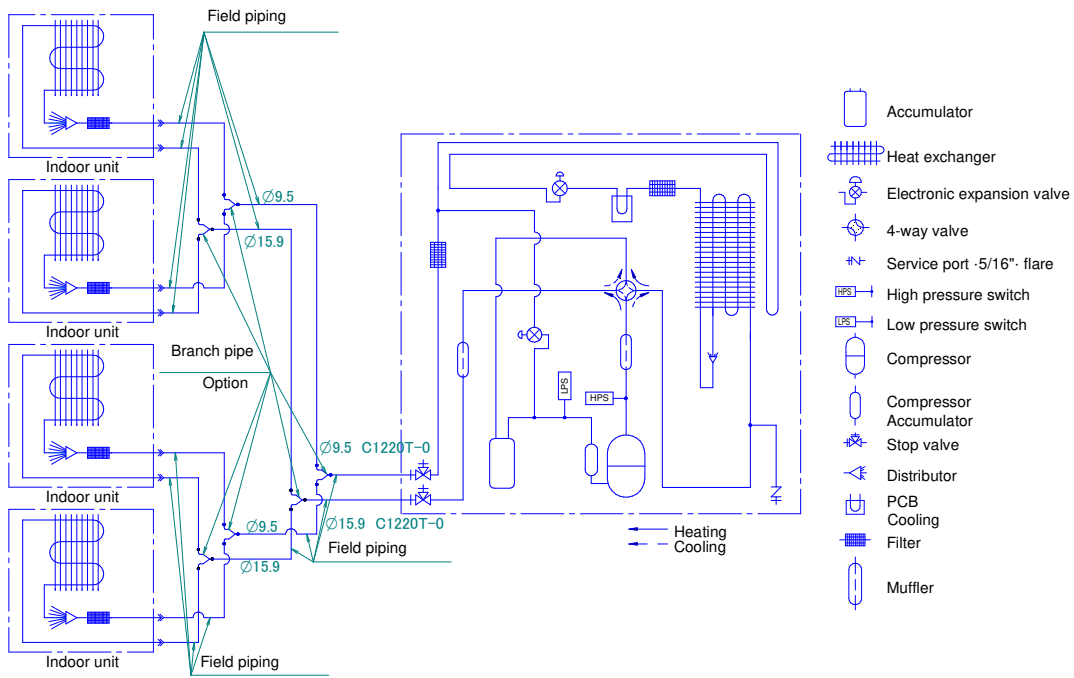
3D120914

9 Piping diagrams

9 - 4 Piping Diagram Double Twin Application

9

RZAG125-140NV1
RZAG125-140NY1



Notes

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

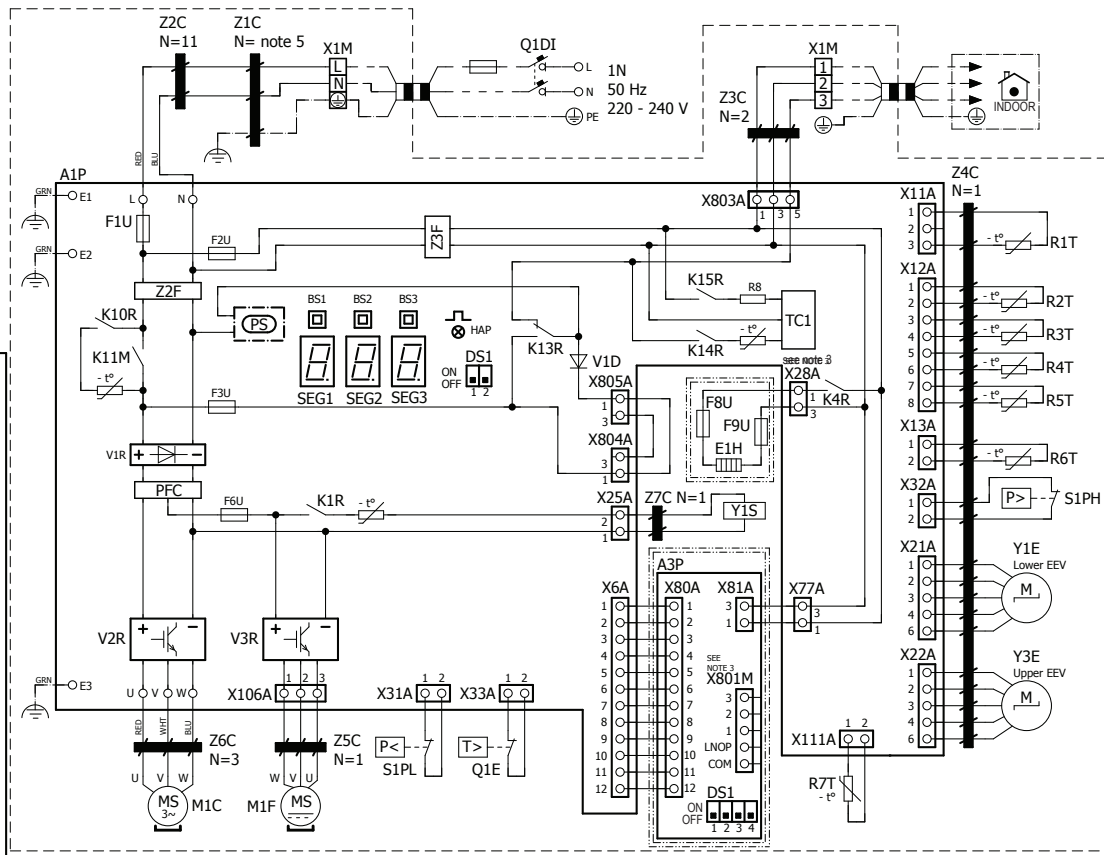
3D120915

10 Wiring diagrams

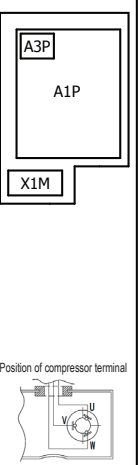
10 - 1 Wiring Diagrams - Single Phase

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

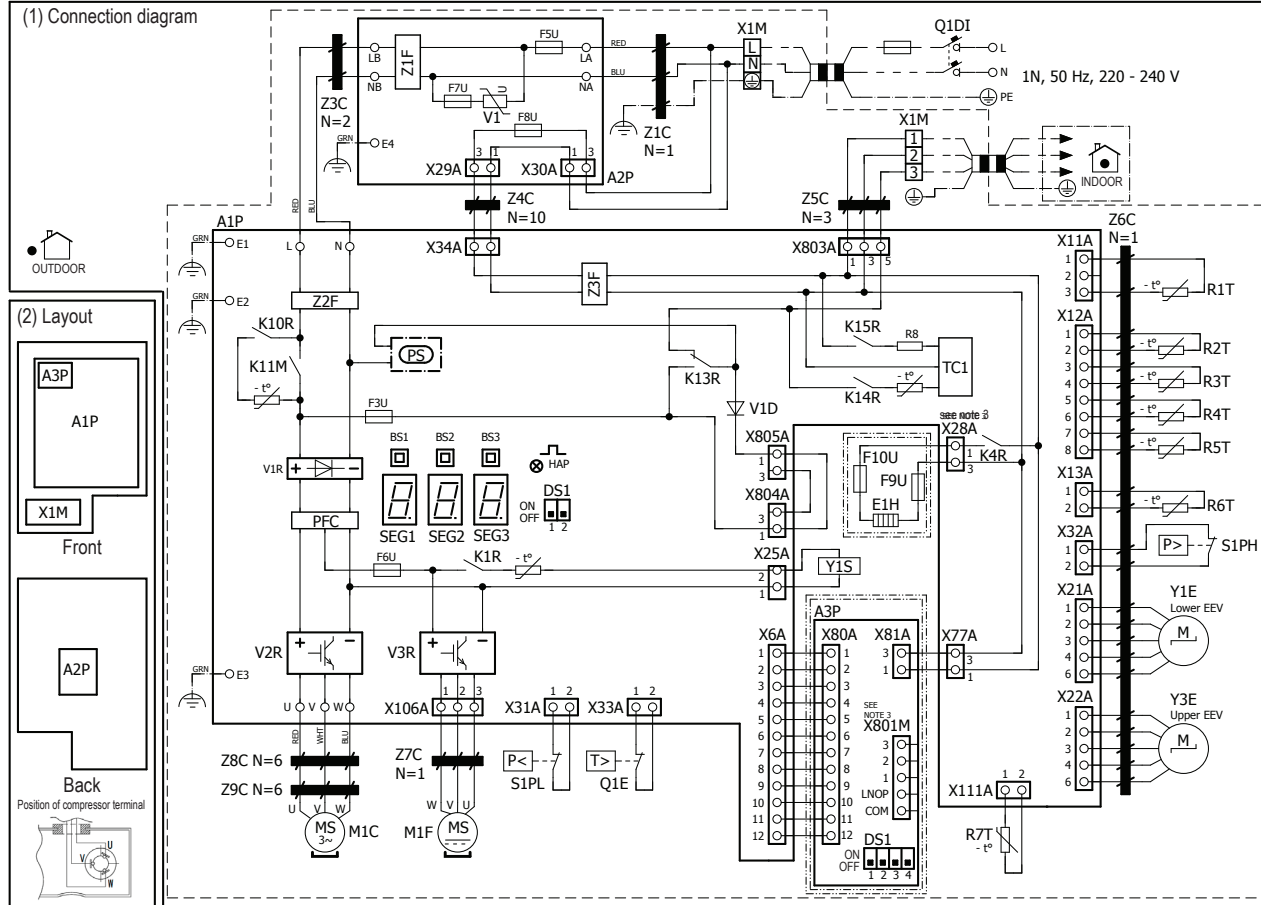
4D120909

10 Wiring diagrams

10 - 1 Wiring Diagrams - Single Phase

10

RZAG125-140NV1



(3) NOTES



(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

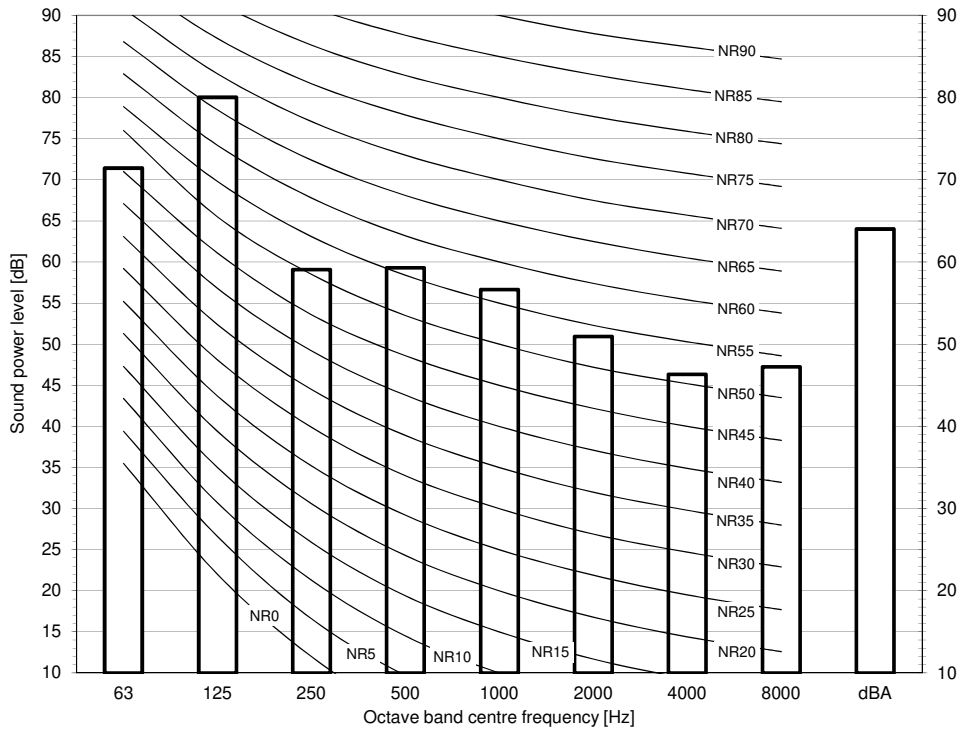
1. Refer to the wiring diagram sticker (on the back of the front plate) for how to use the BS1-BS3 and DS1 switches.
2. When operating, do not short-circuit protection device(s) S1PH, S1PL and Q1E.
3. Refer to the combination table and the option manual for how to connect the wiring to X28A and X801M.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

4D120910

11 Sound data

11 - 1 Sound Power Spectrum

RZAG71NV1
RZAG71NY1

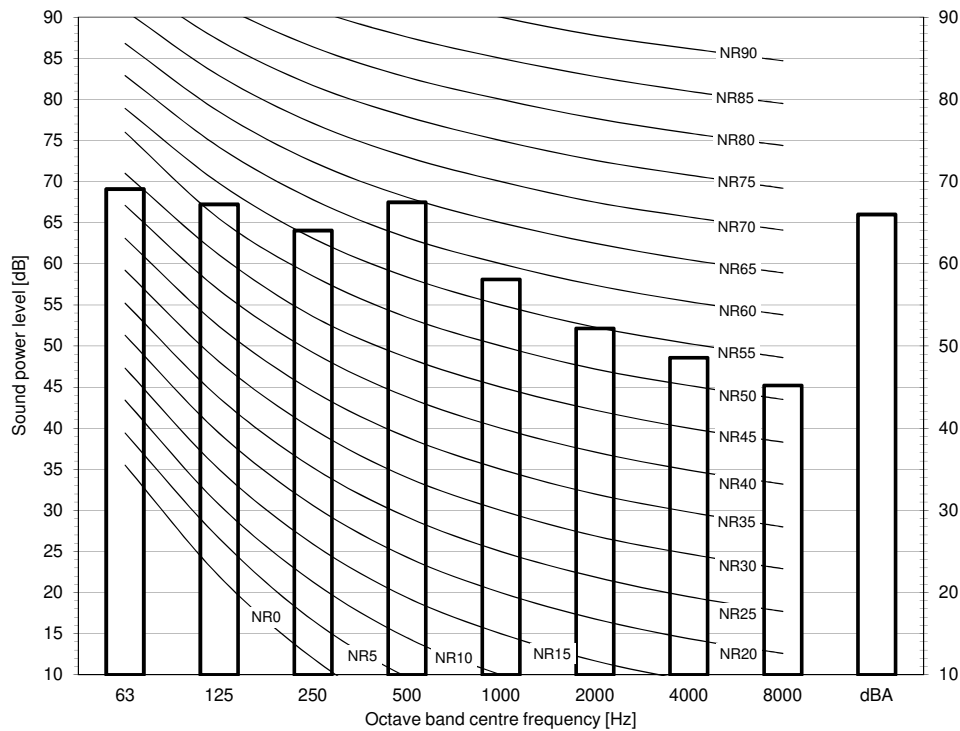


Notes

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

3D125149

RZAG100NV1
RZAG100NY1



Notes

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

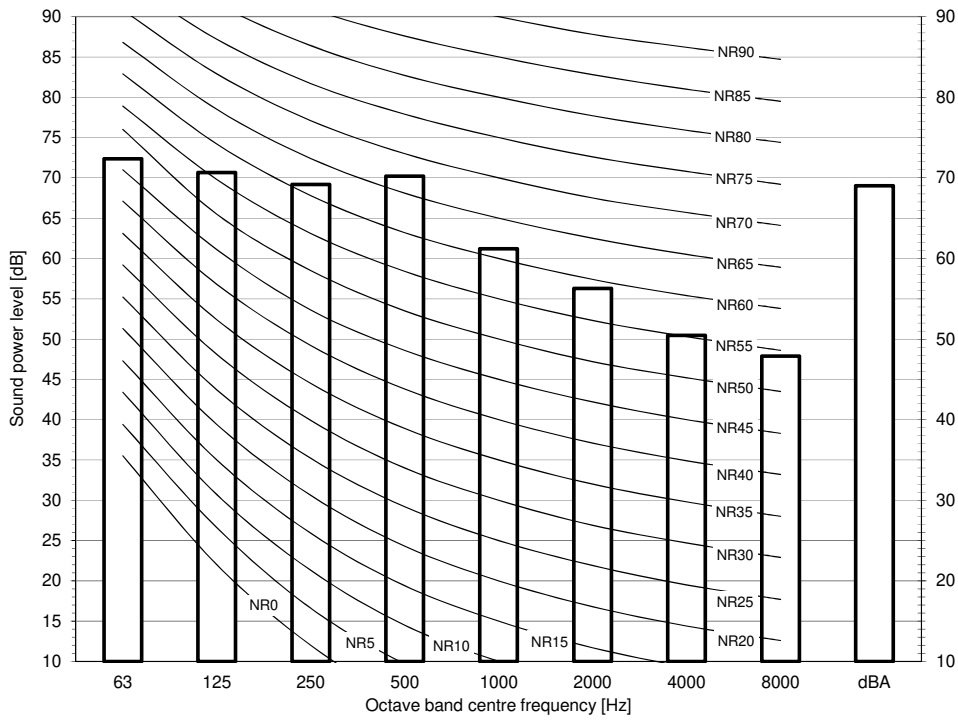
3D125155

11 Sound data

11 - 1 Sound Power Spectrum

11

RZAG125NV1
RZAG125NY1

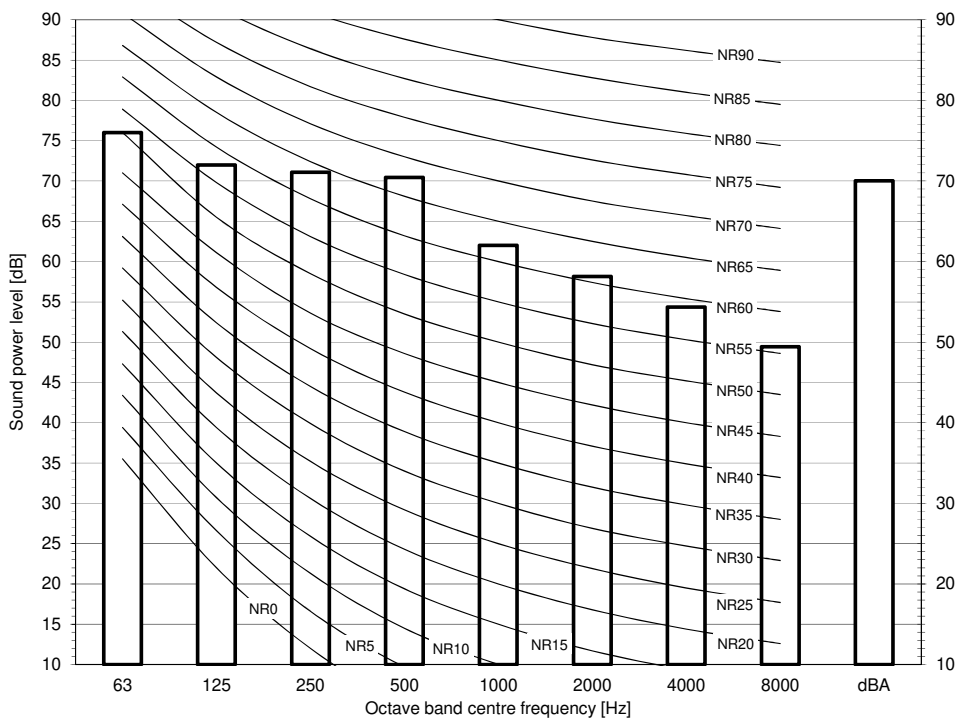


Notes

- 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

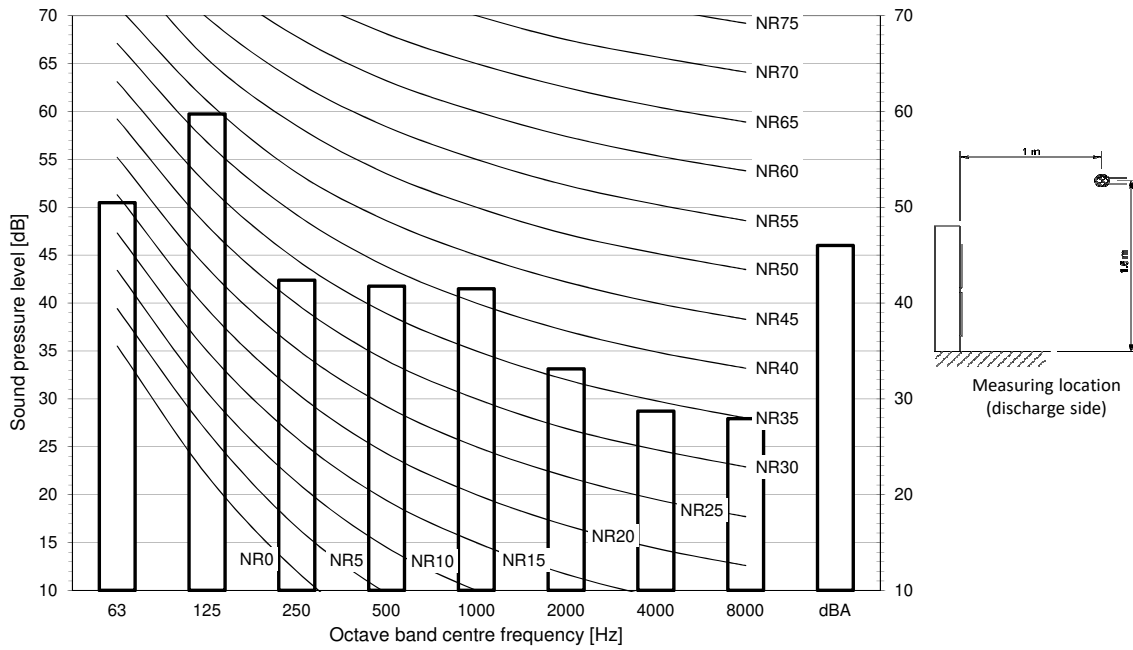
3D125167

11 Sound data

11 - 2 Sound Pressure Spectrum - Cooling

RZAG71NV1

RZAG71NY1



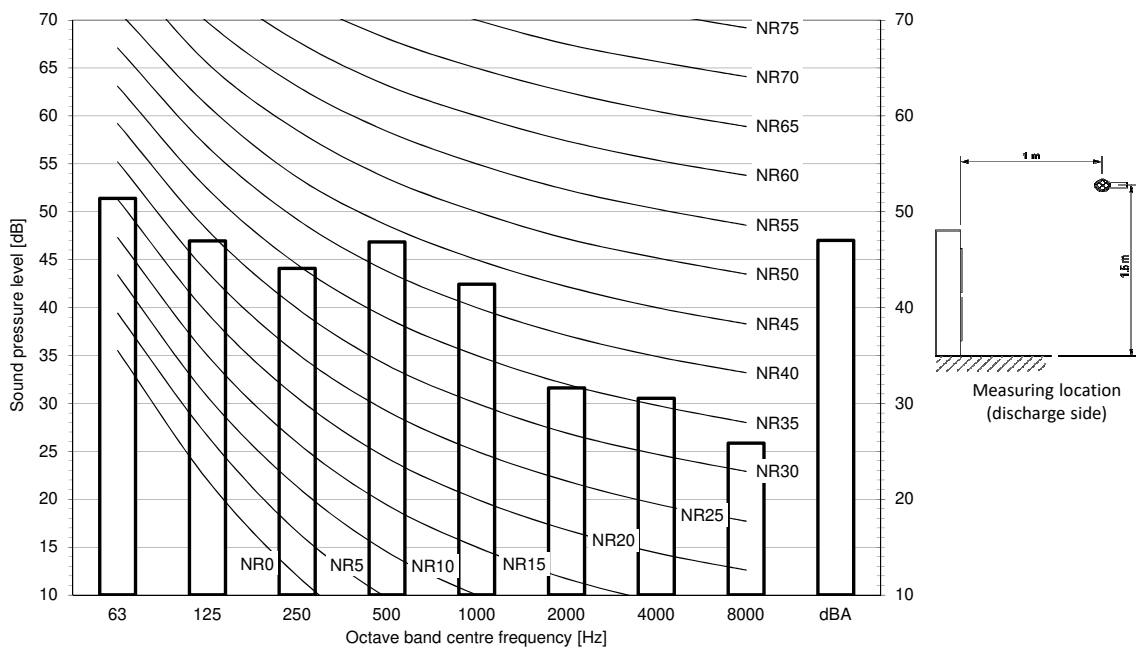
Notes

- 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

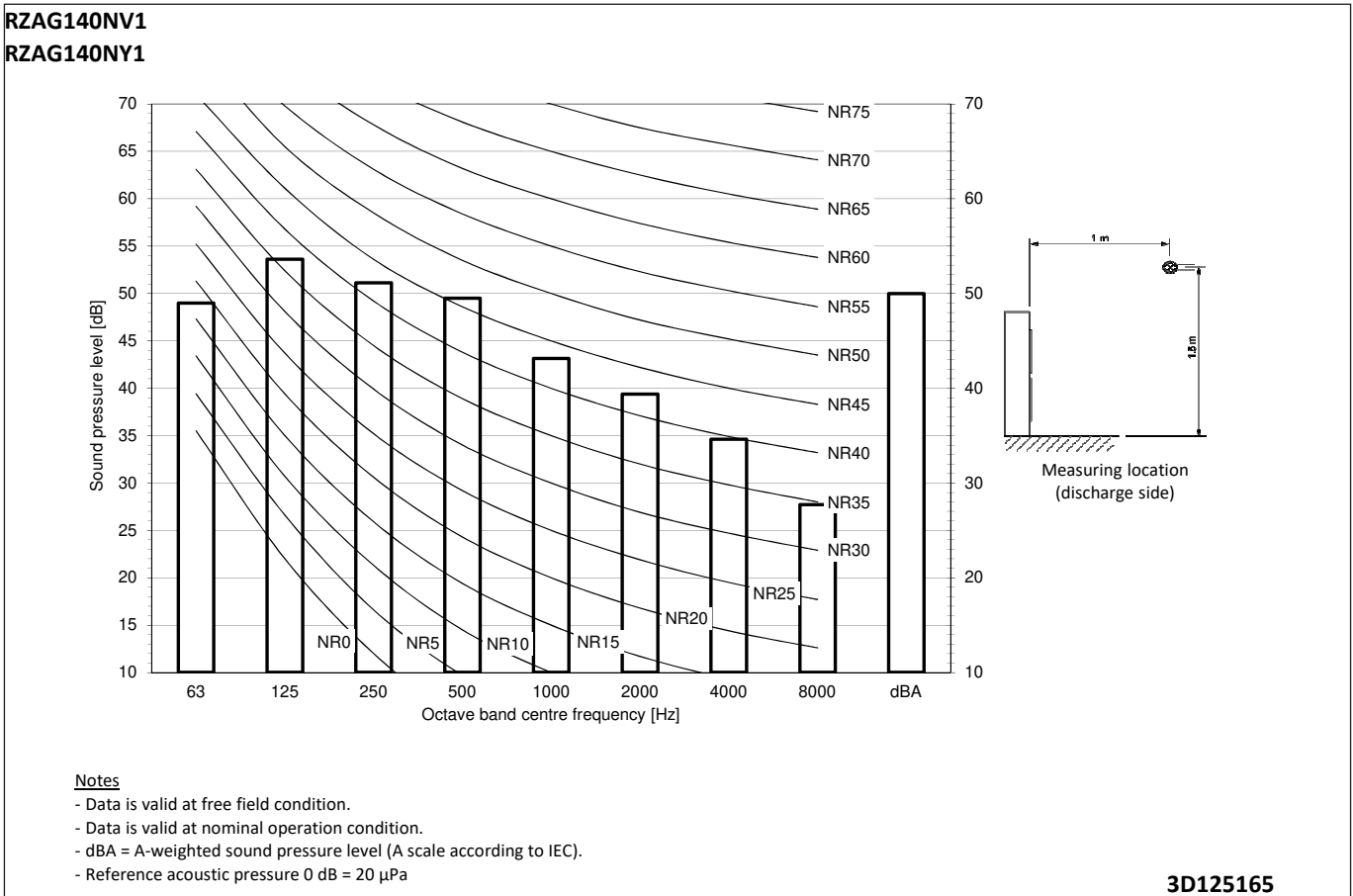
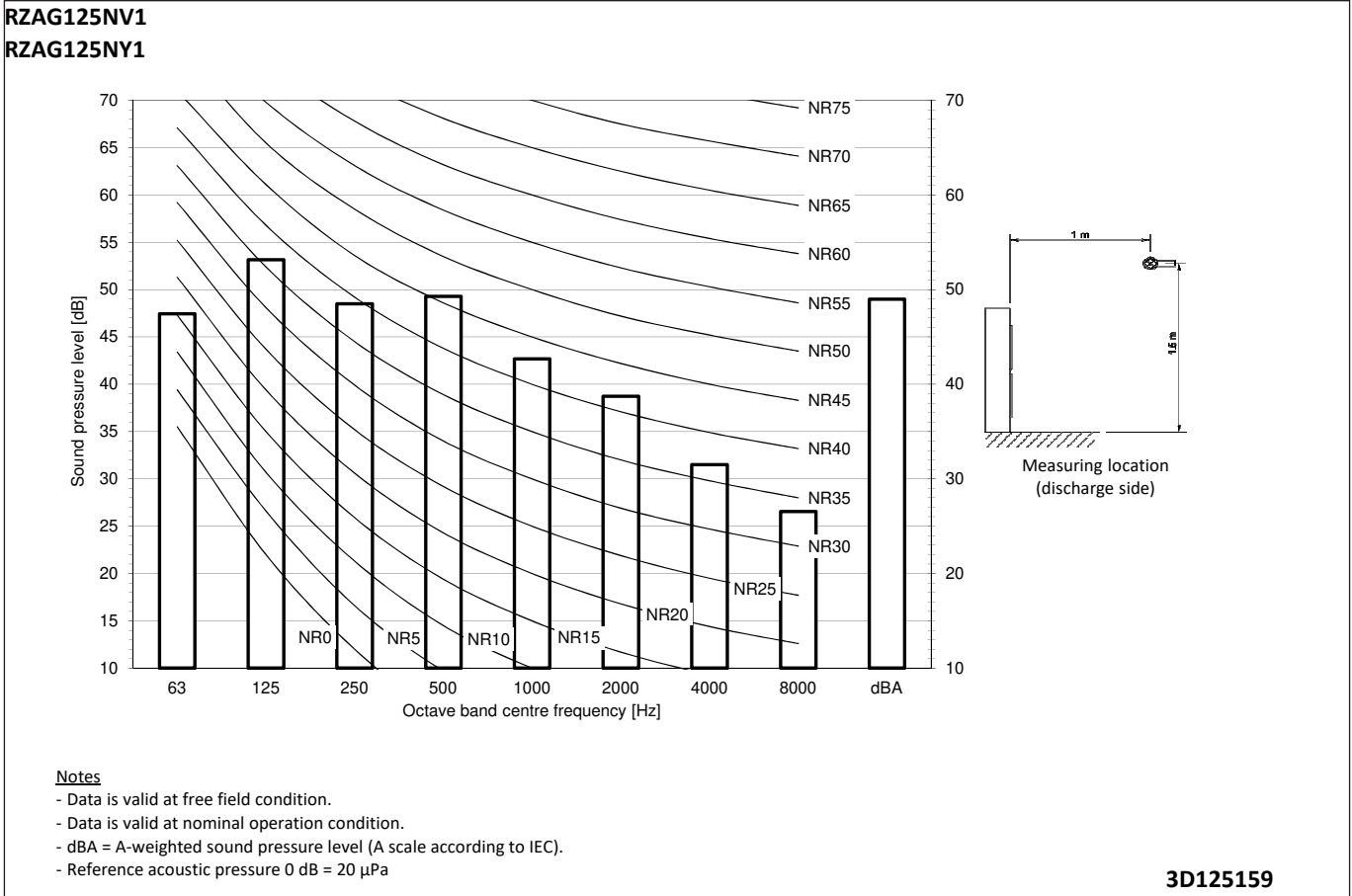
- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 µPa

3D125153

11 Sound data

11 - 2 Sound Pressure Spectrum - Cooling

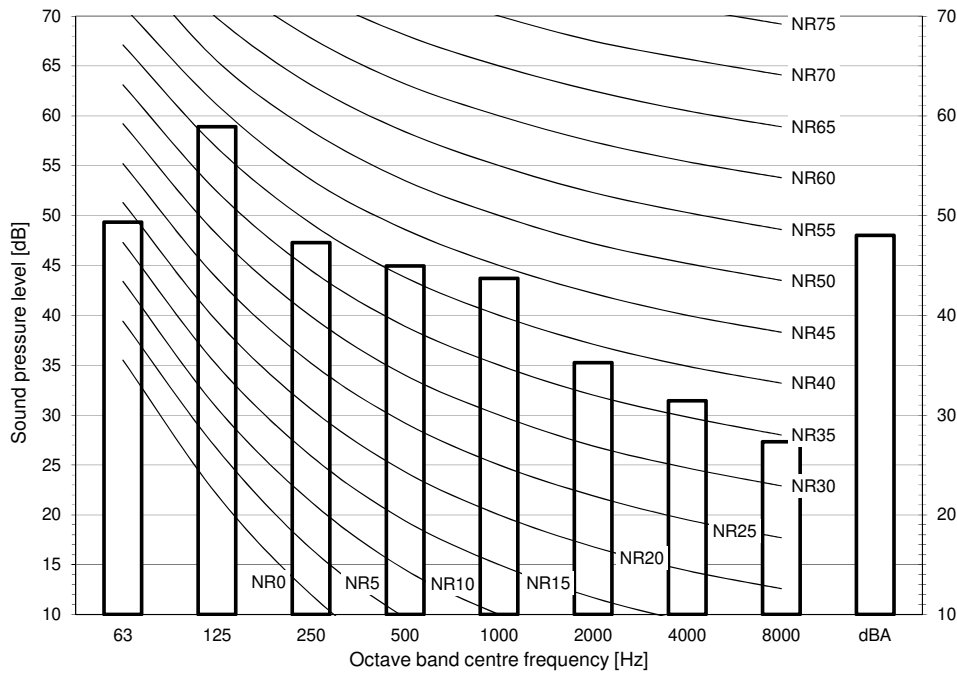
11



11 Sound data

11 - 3 Sound Pressure Spectrum - Heating

RZAG71NV1
RZAG71NY1

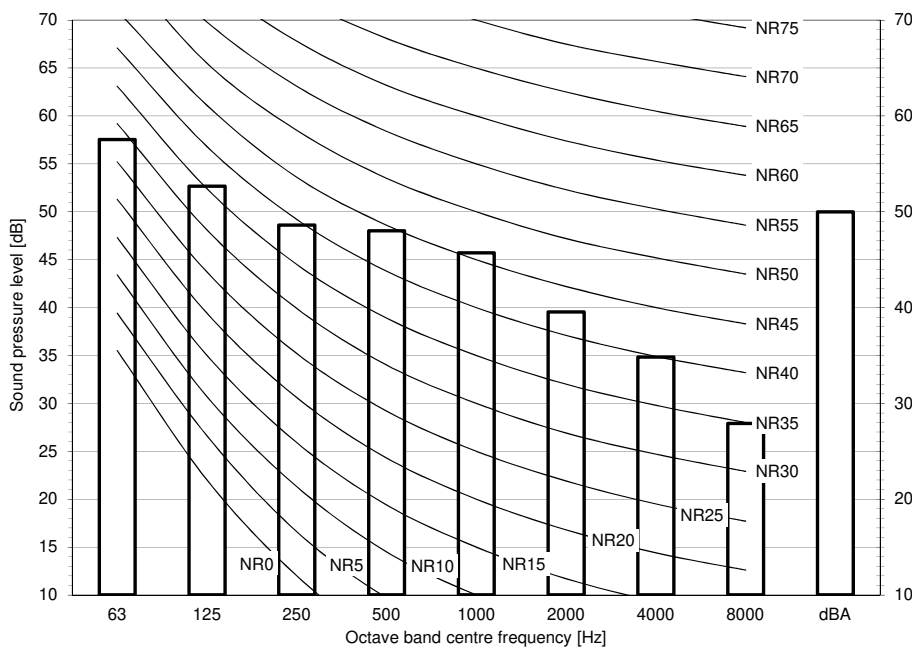


Notes

- 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

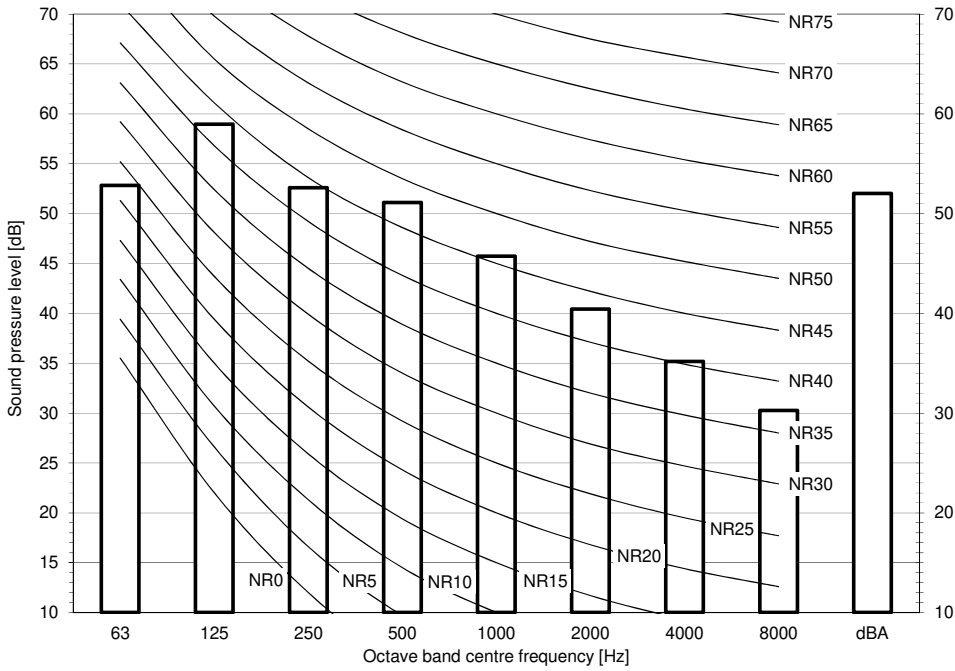
3D125154

11 Sound data

11 - 3 Sound Pressure Spectrum - Heating

11

RZAG125NV1
RZAG125NY1

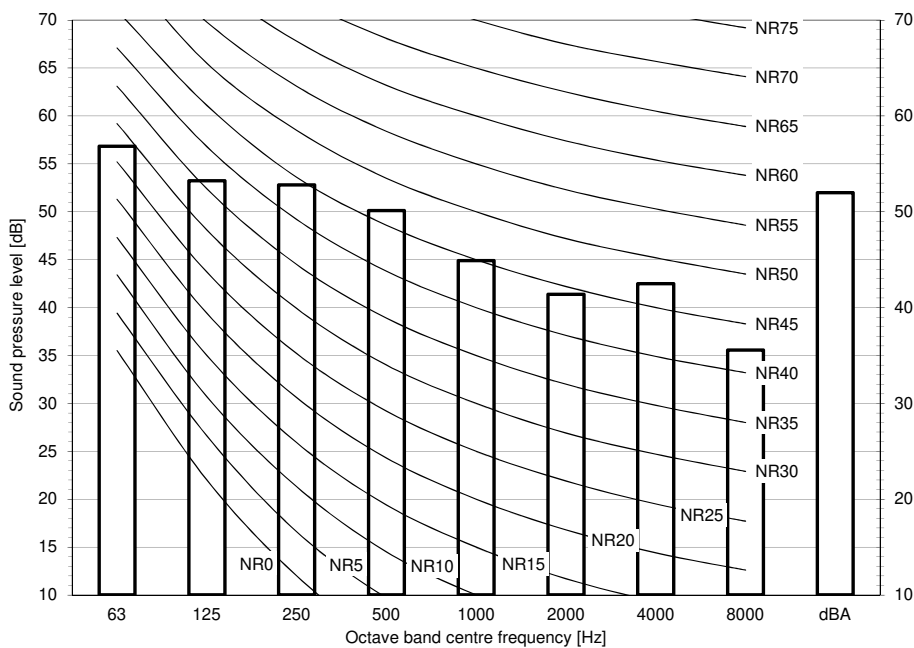


Notes

- 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

3D125160

RZAG140NV1
RZAG140NY1



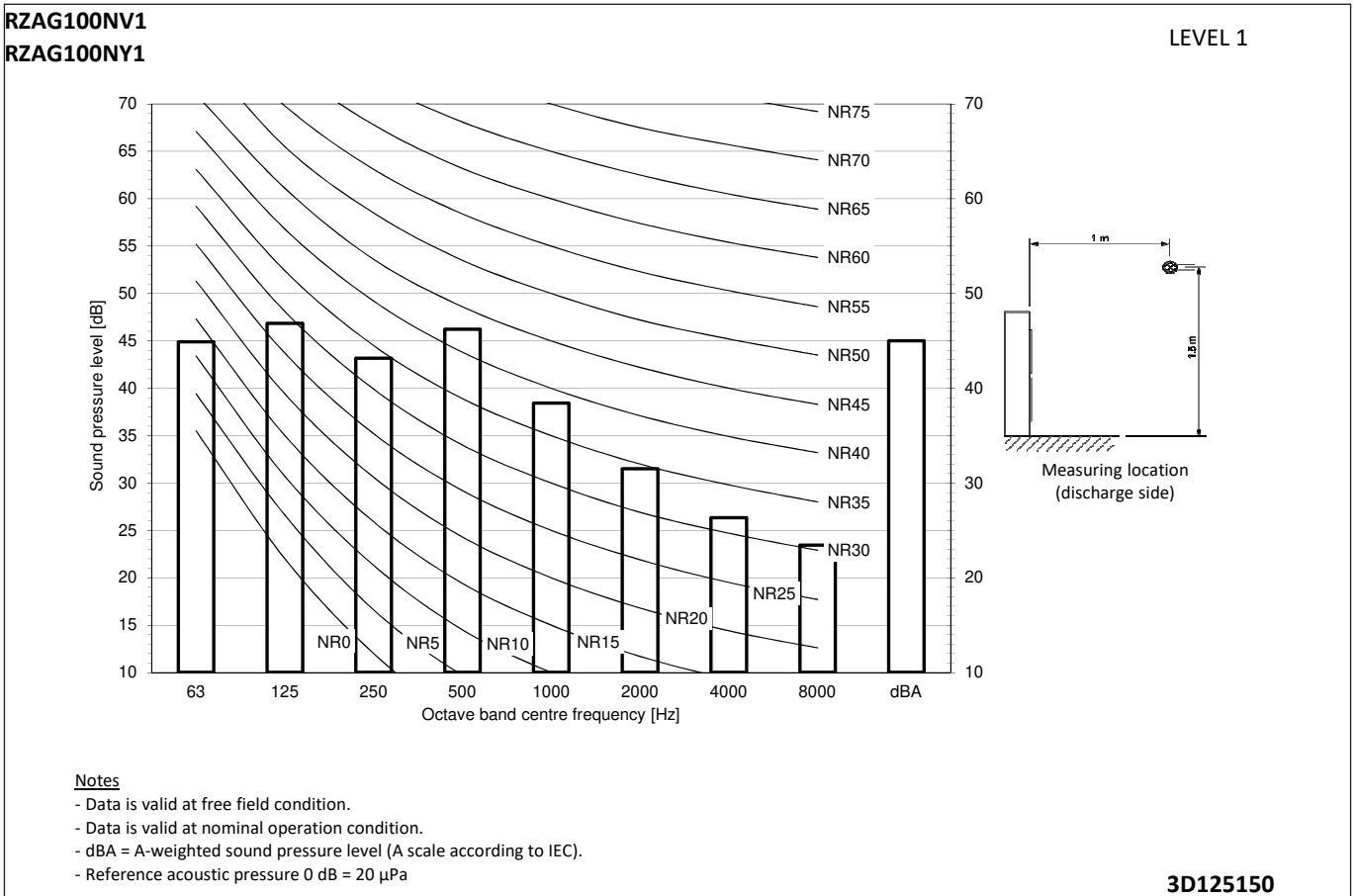
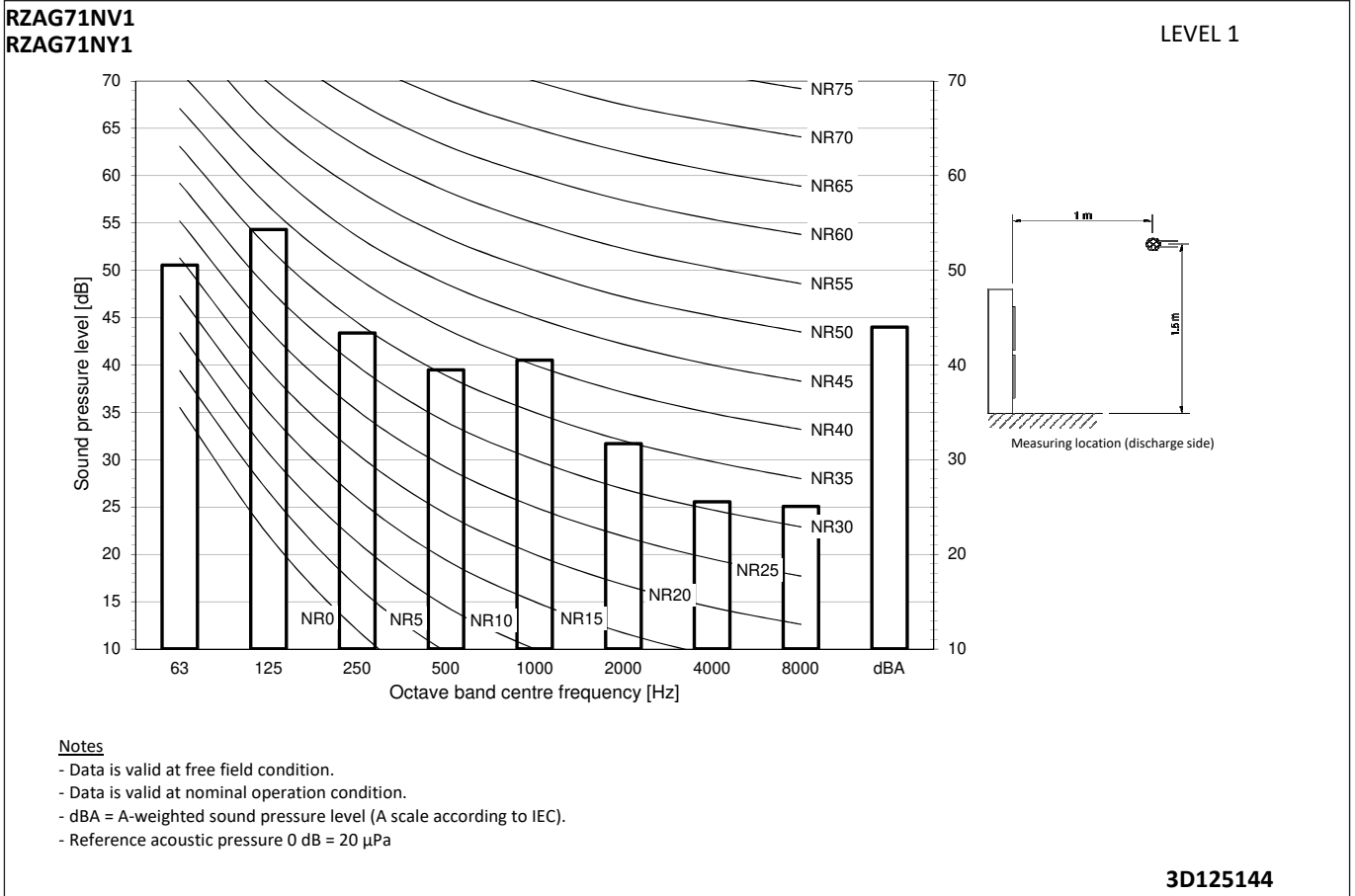
Notes

- 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

3D125166

11 Sound data

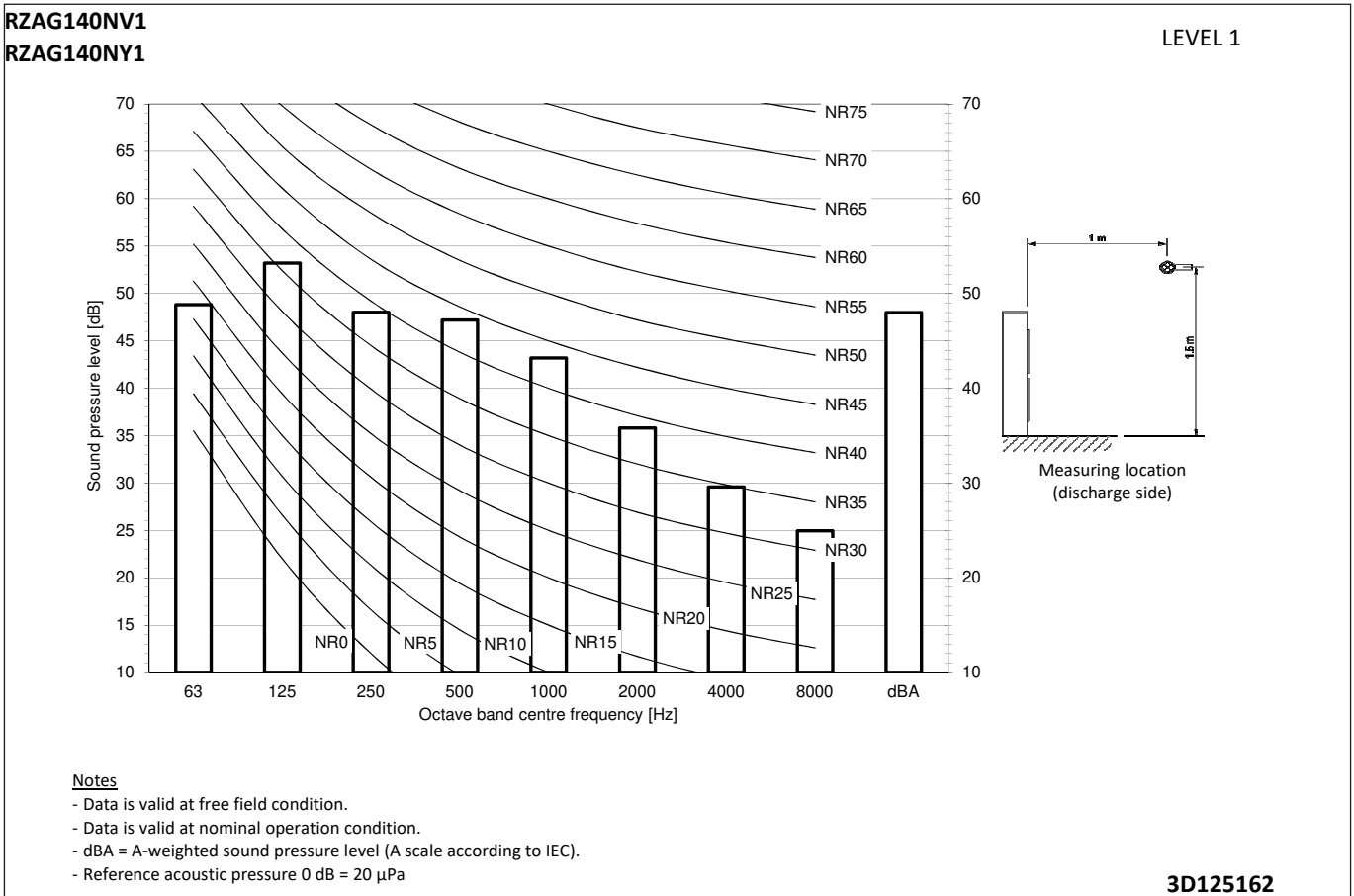
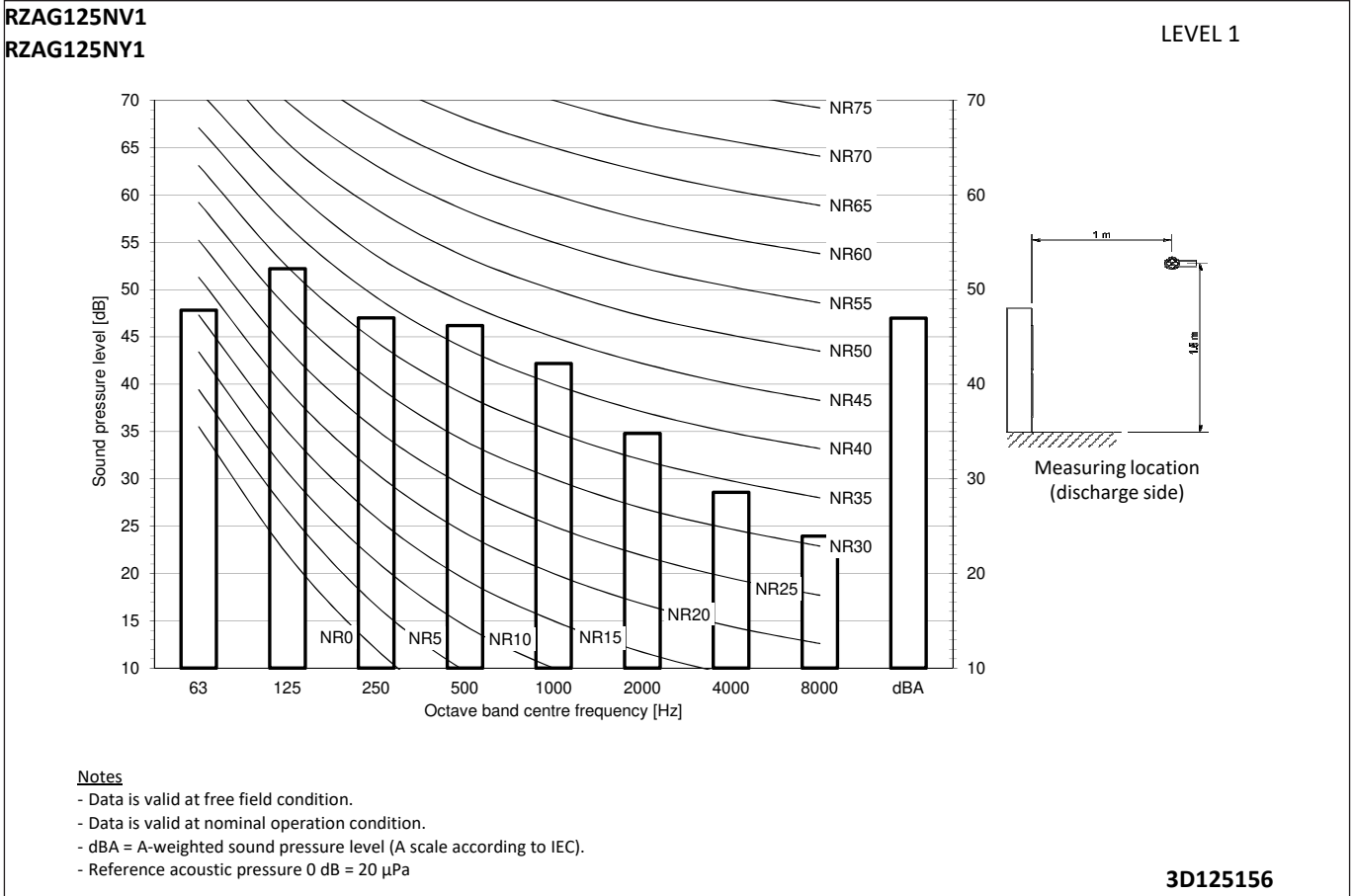
11 - 4 Sound Pressure Spectrum Quiet Mode Level 1



11 Sound data

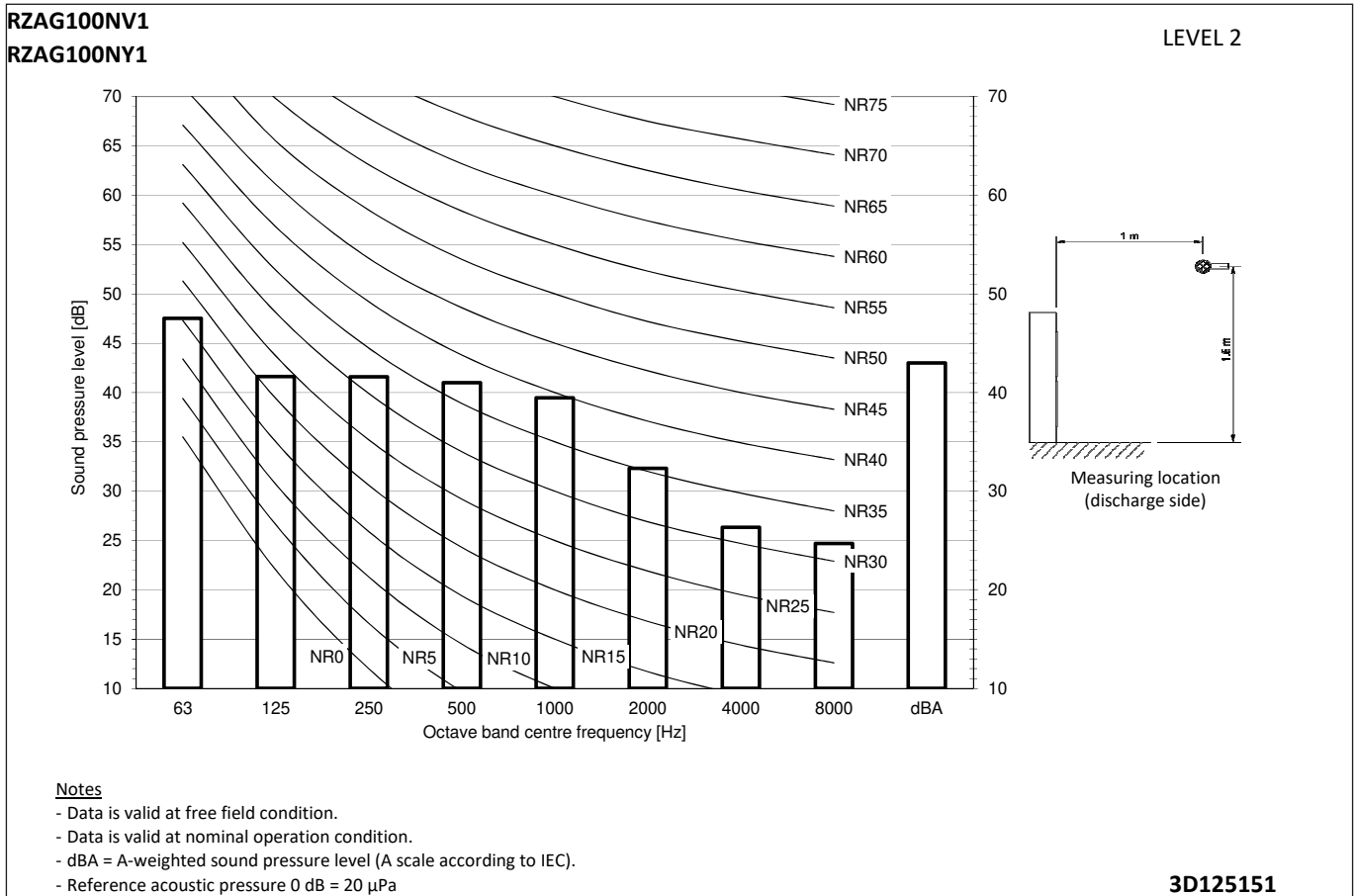
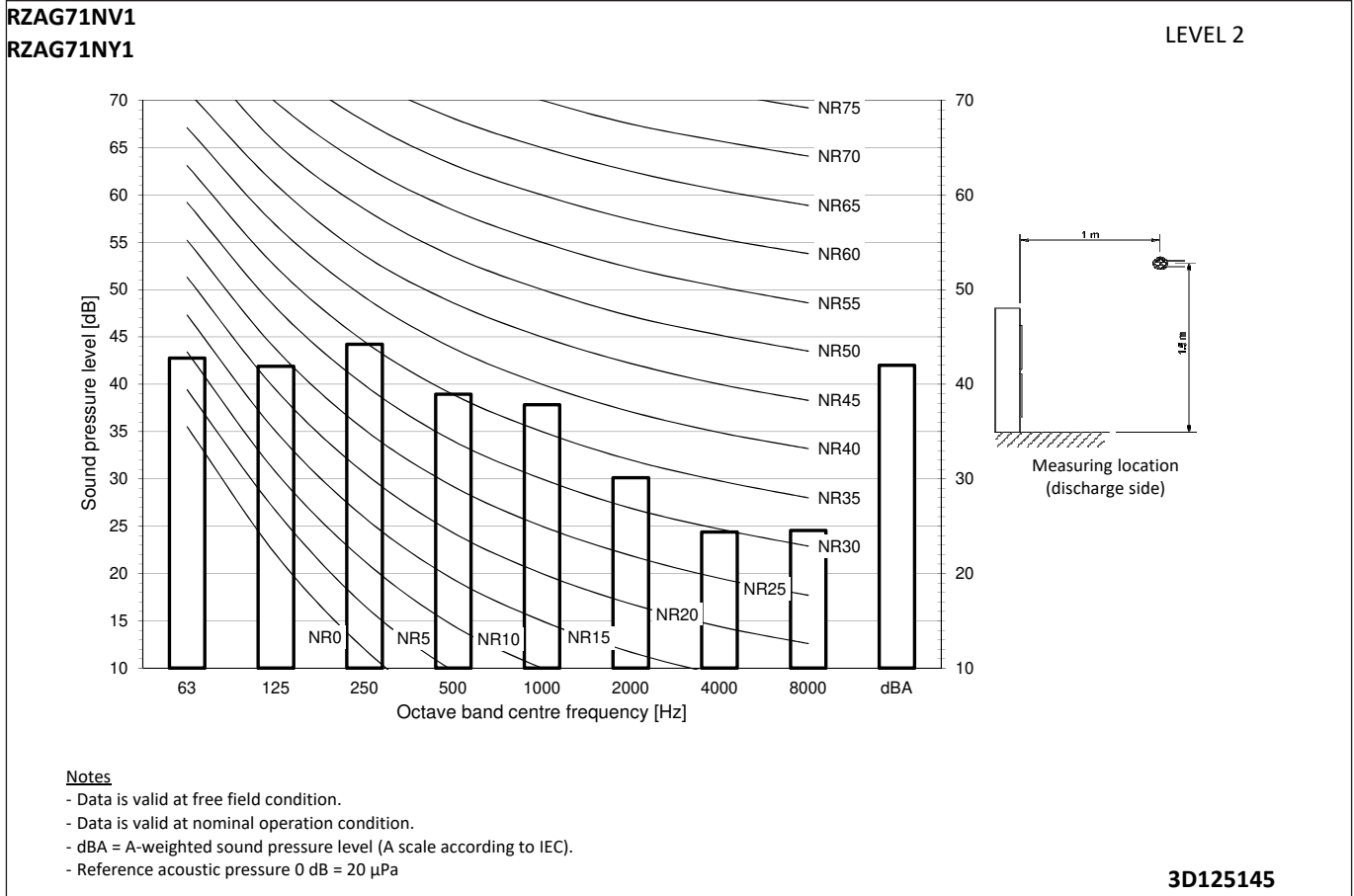
11 - 4 Sound Pressure Spectrum Quiet Mode Level 1

11



11 Sound data

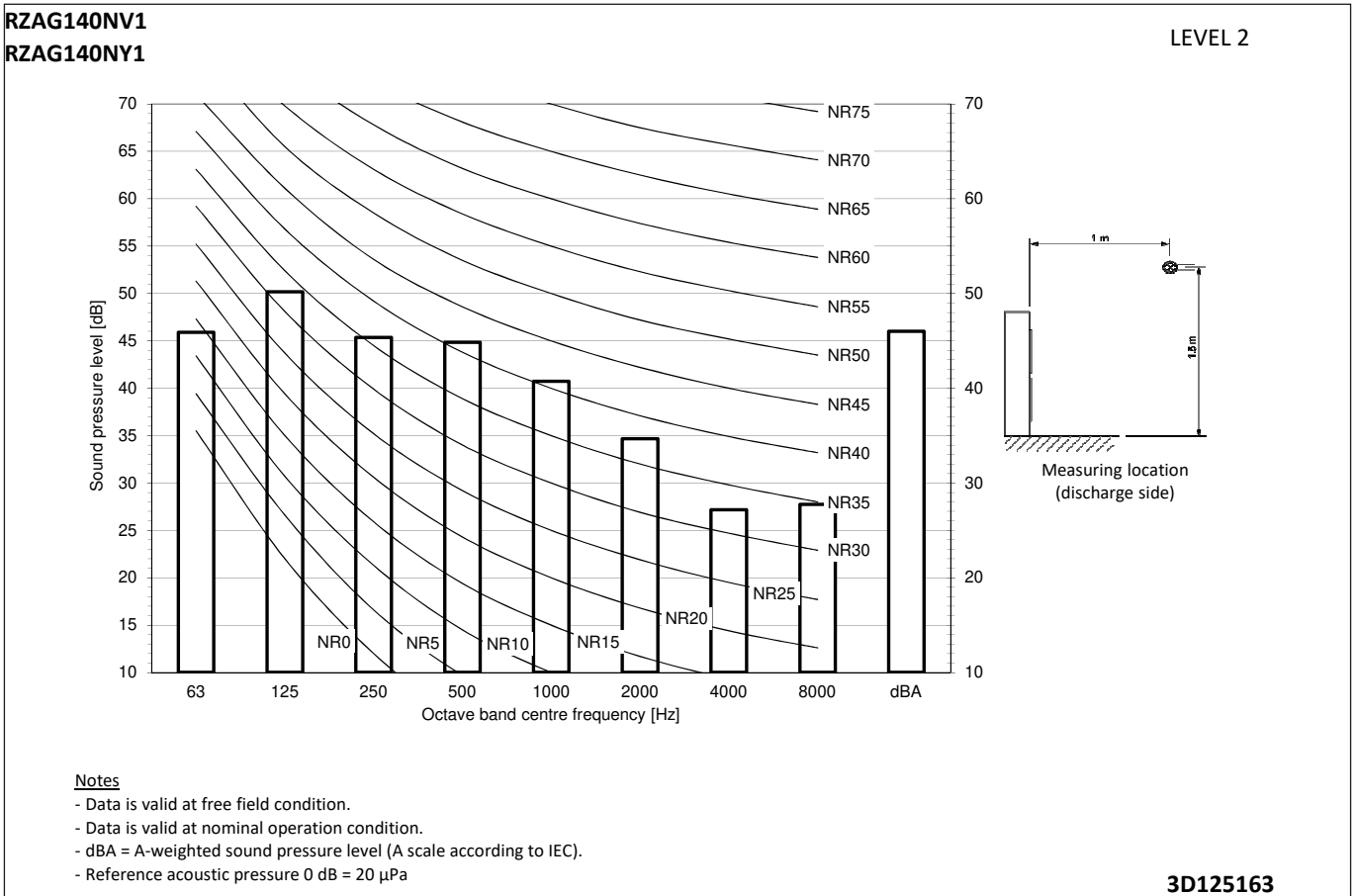
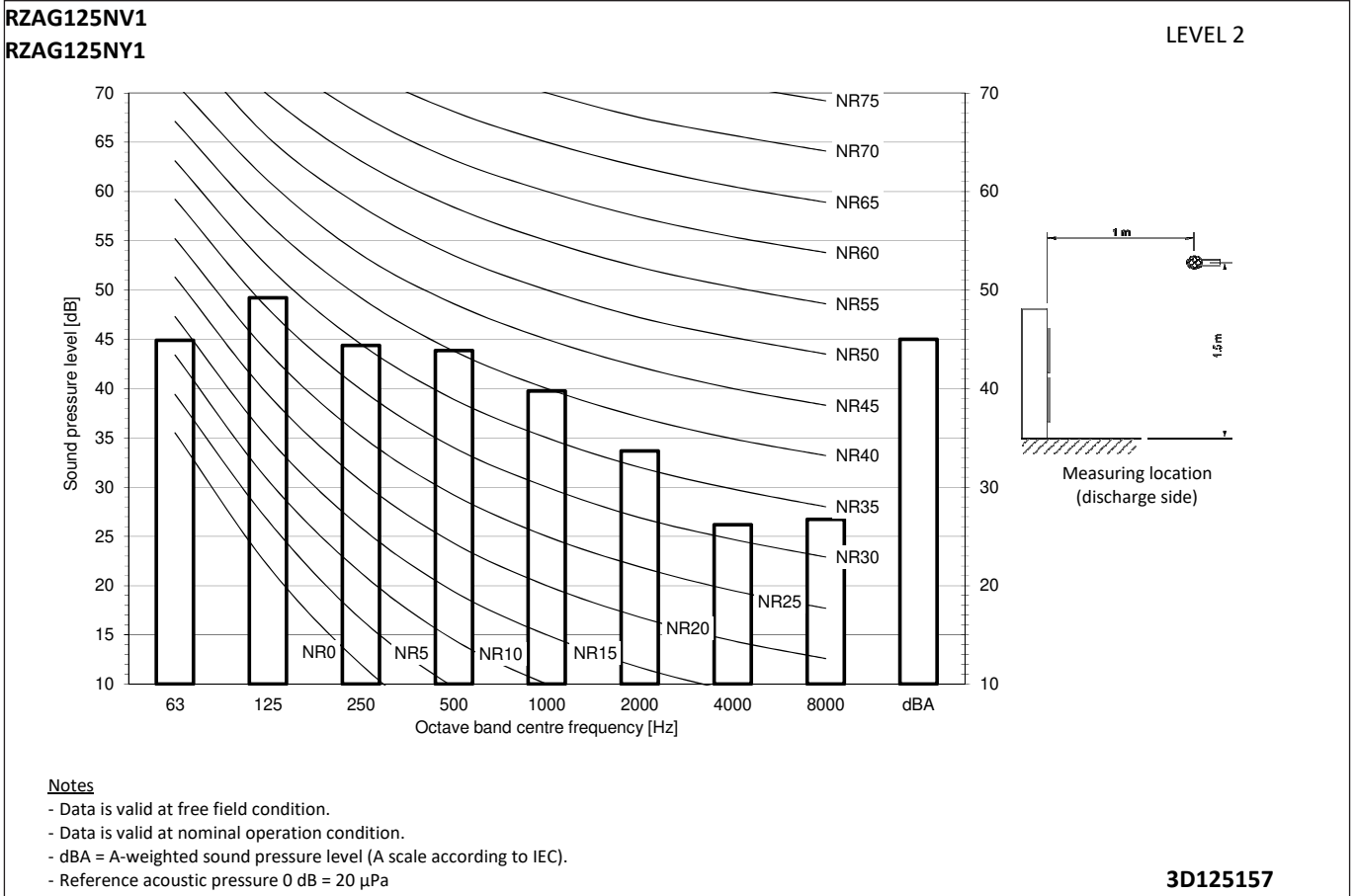
11 - 5 Sound Pressure Spectrum Quiet Mode Level 2



11 Sound data

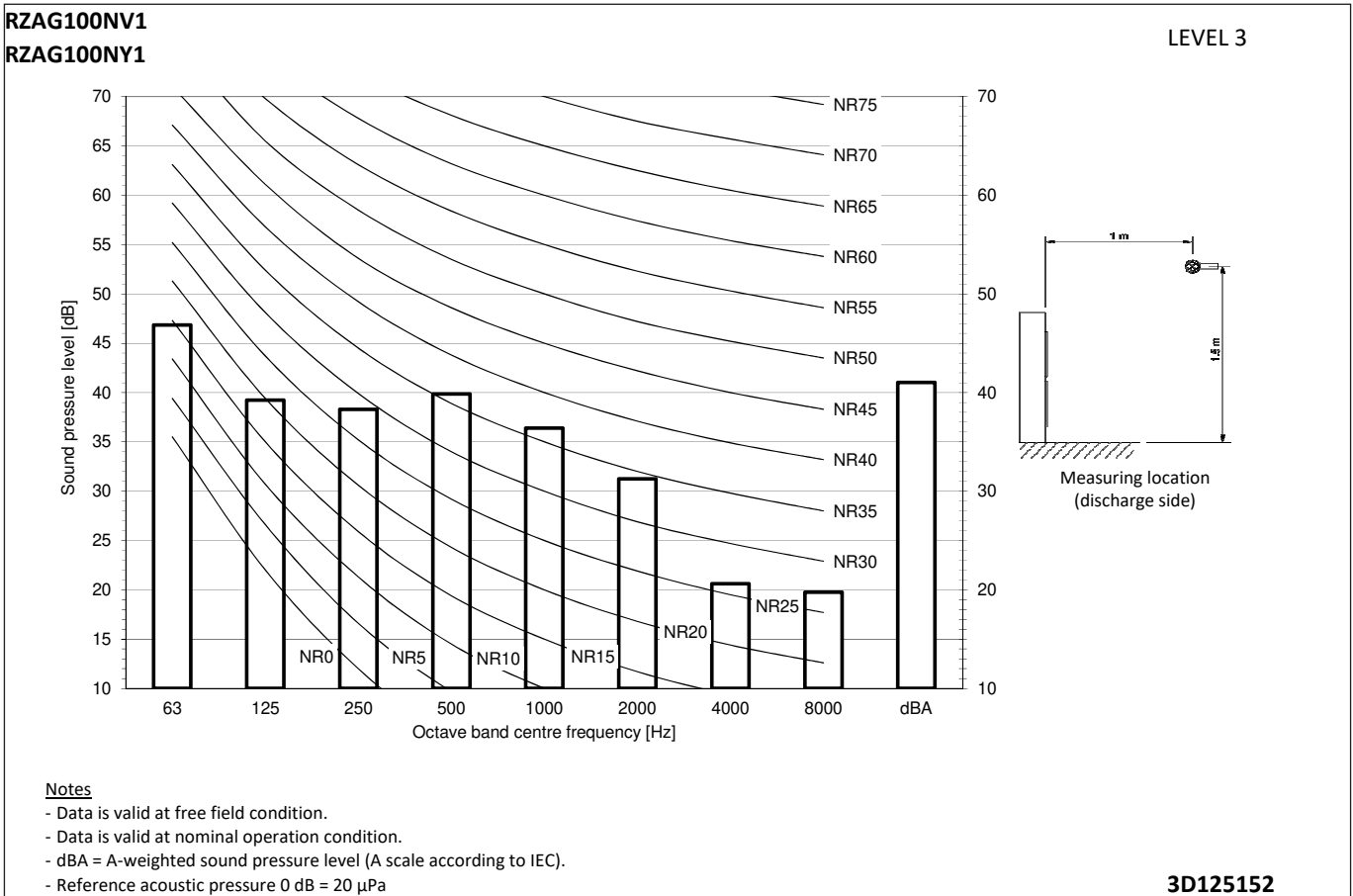
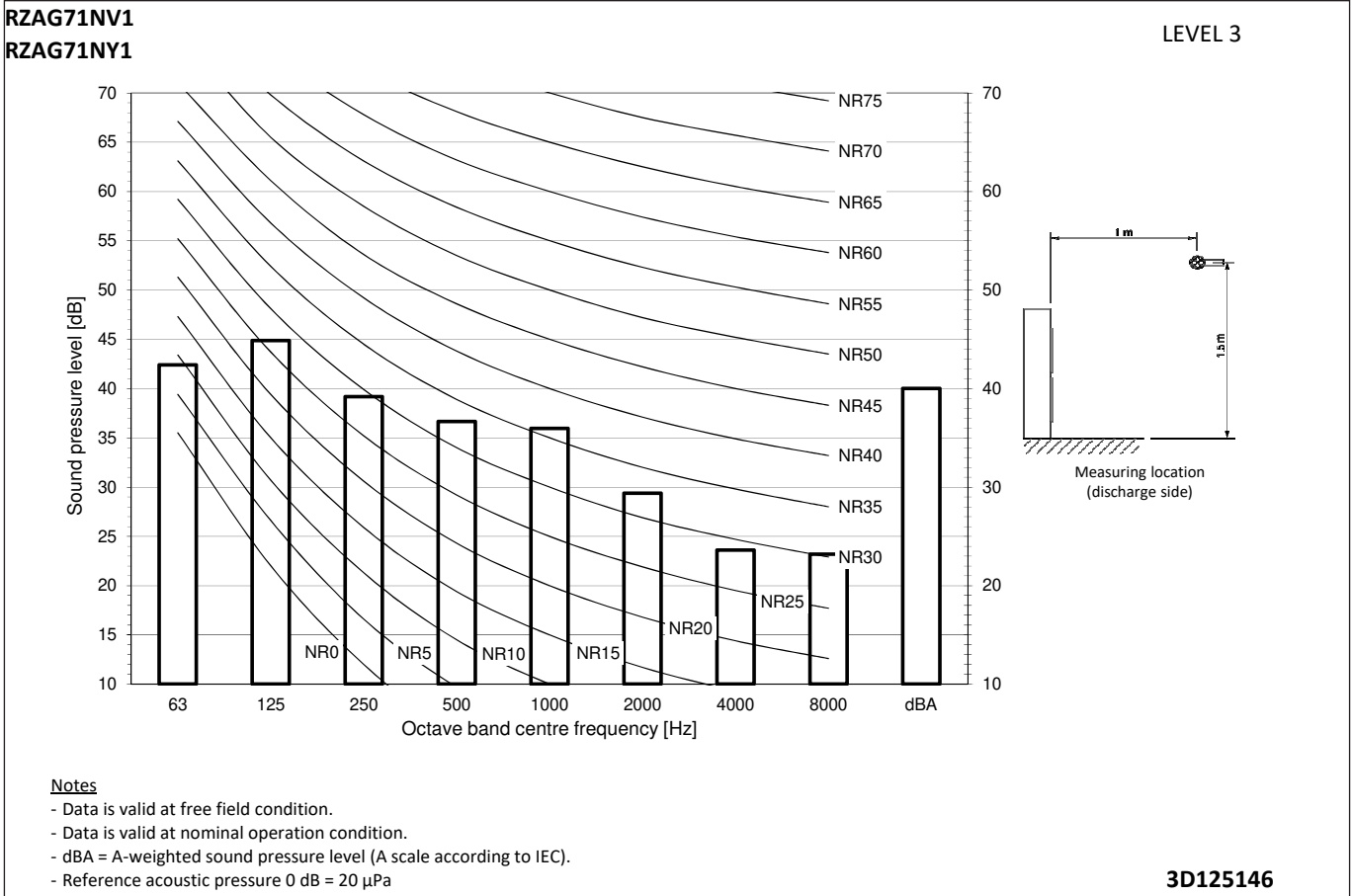
11 - 5 Sound Pressure Spectrum Quiet Mode Level 2

11



11 Sound data

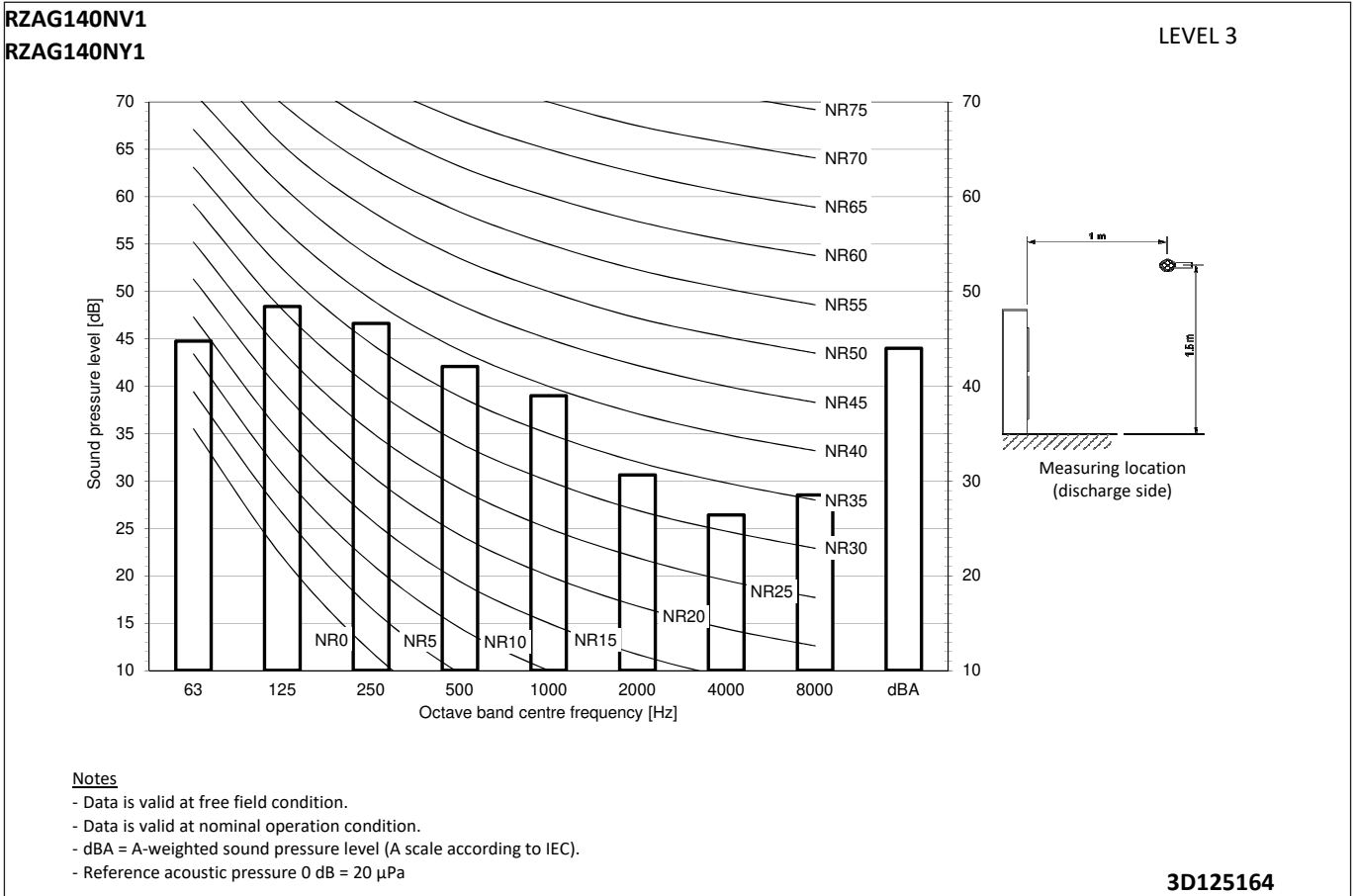
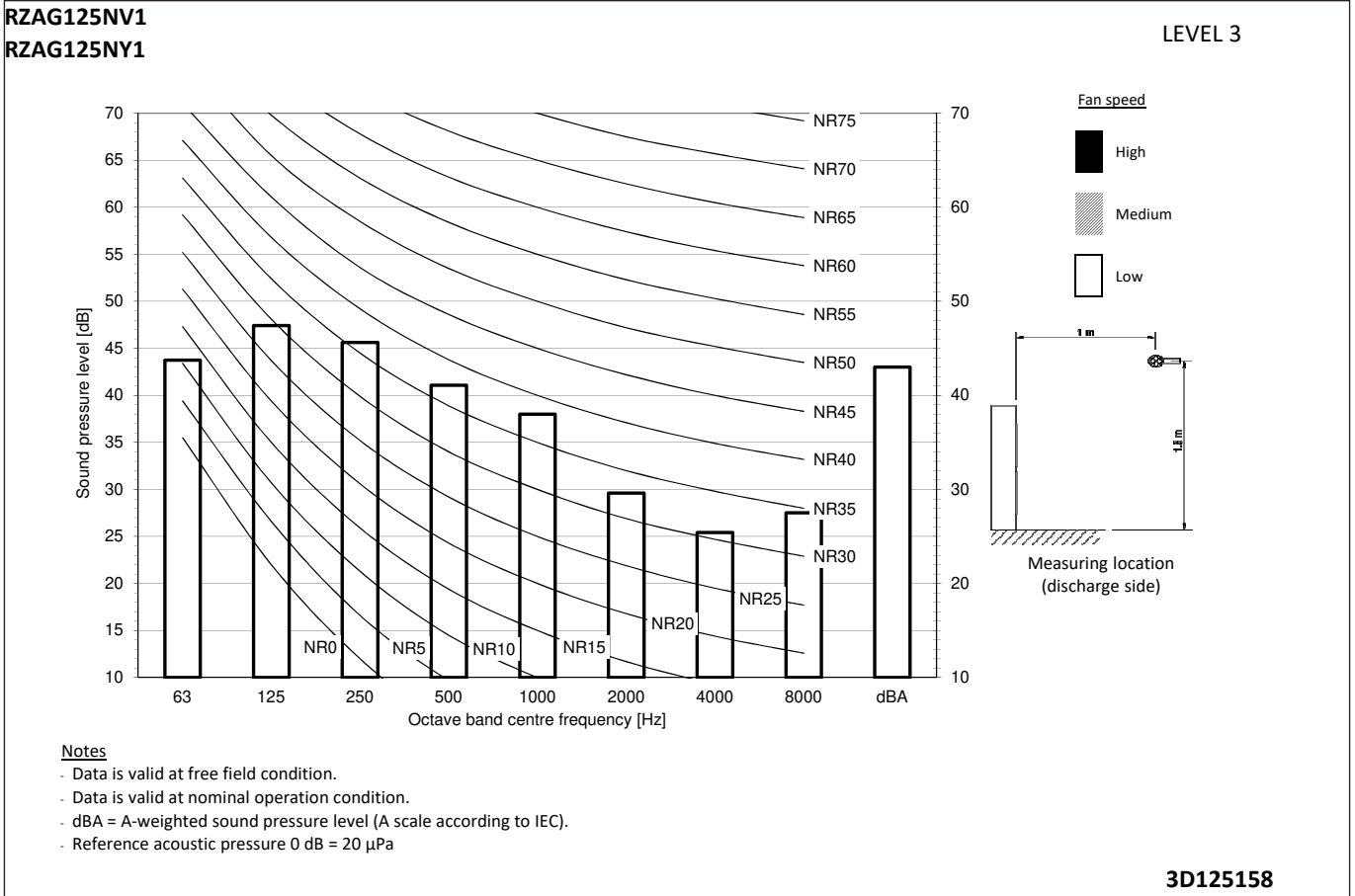
11 - 6 Sound Pressure Spectrum Quiet Mode Level 3



11 Sound data

11 - 6 Sound Pressure Spectrum Quiet Mode Level 3

11



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 _B	e _D			
	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					
		Hd ≤ Hu	Hd ≤ ½Hu		≥ 250		≥ 1500					
			½Hu < Hd ≤ Hu		≥ 300		≥ 1500					
	B,D,E	Hd > Hu	Hb ≤ ½Hu		≥ 300		≥ 1000	≥ 1000	≤ 500		1+2	
			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_B Maximum distance between the unit and the edge of obstacle E, in the direction of obstacle B
- e_D 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

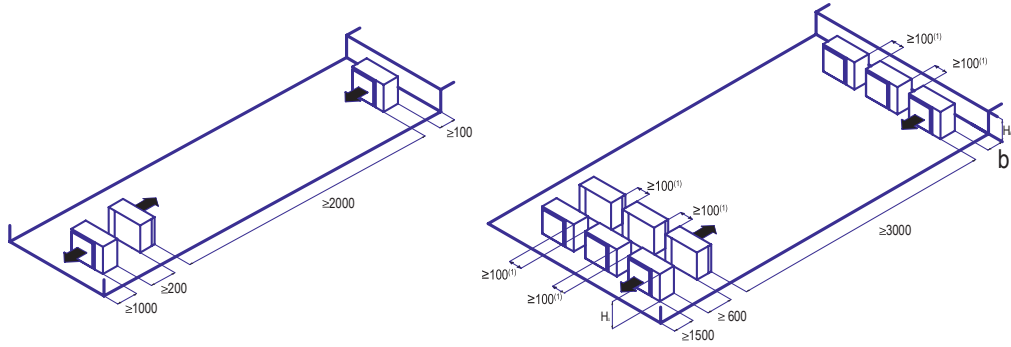
12 - 1 Installation Method

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 ≥ 250 mm
- ⊘ Not allowed


1D128513

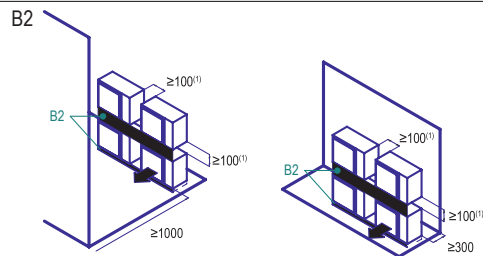
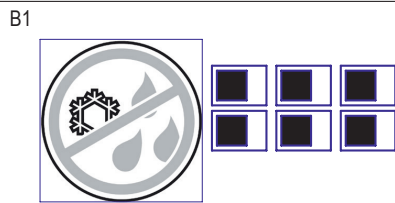
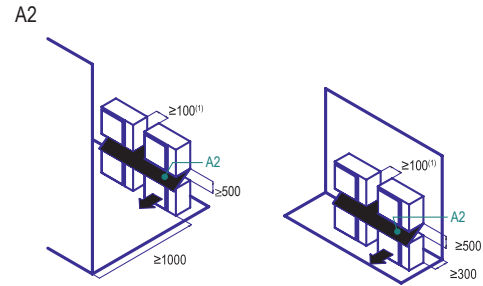
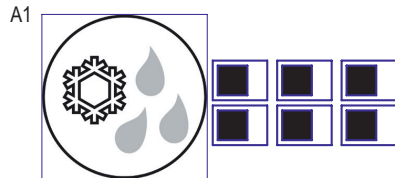
12 Installation

12 - 1 Installation Method

RZAG-NV1
RZAG-NY1

Stacked units (max.2 levels) 

Stacked units (max.2 levels) 



- (1) For better serviceability, use a distance ≥ 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.

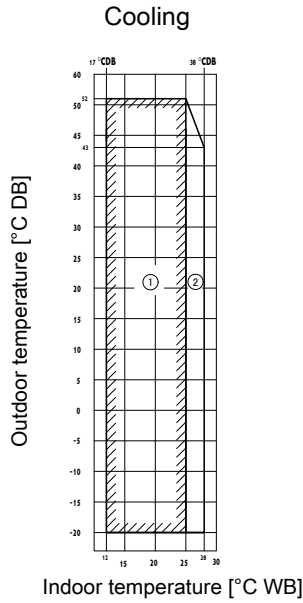
1D128513

13 Operation range

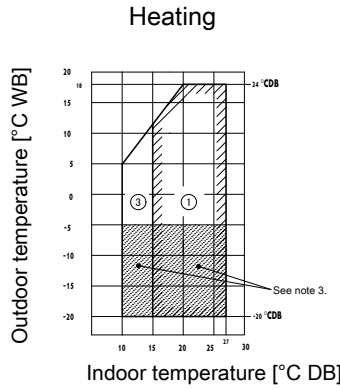
13 - 1 Operation Range

13

RZAG-NV1
RZAG-NY1



- ① Operation range
- ② Pull-down operation range
- ③ Warm-up operation range

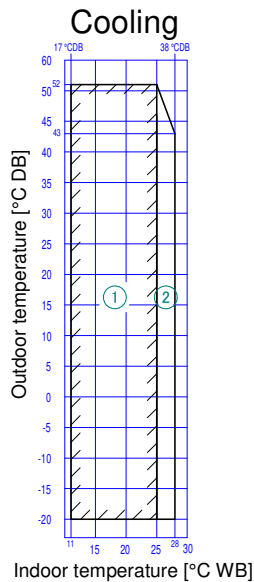


Notes

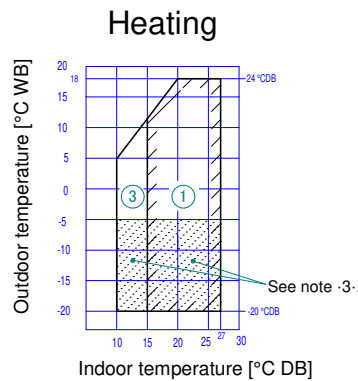
1. Depending on operation and installation conditions, the indoor unit can change over to freeze-up operation (indoor de-icing).
2. To reduce the freeze-up operation (indoor de-icing) frequency, it is recommended to install the outdoor unit in a location not exposed to wind.
3. If the unit is selected 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



- ① Operation range
- ② Pull-down operation range
- ③ Warm-up operation range



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

RZAG-NV1

RZAG-NY1

ENER Lot 21

Appropriate indoor units

Connectable to RZAG125N7V1B / RZAG125N7Y1B 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 RZAG140N7V1B / RZAG140N7Y1B 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	-

ENER Lot 10

Appropriate indoor units

Connectable to RZAG71N7V1B / RZAG71N7Y1B and covered by ENER Lot 10:

FCAHG71	FCAG35	FFA35	FBA35	FNA35	FUA71	FAA71	-	FVA71	FDXM35	FHA35	-
-	FCAG71	-	FBA71	-	-	-	-	-	-	FHA71	-

Connectable to RZAG100N7V1B / RZAG100N7Y1B and covered by ENER Lot 10:

FCAHG100	FCAG35	FFA35	FBA35	FNA35	FUA100	FAA100	-	FVA100	FDXM35	FHA35	-
-	FCAG50	FFA50	FBA50	FNA50	-	-	-	-	FDXM50	FHA50	-
-	FCAG100	-	FBA100	-	-	-	-	-	-	FHA100	-

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RZAG125-140NV1

RZAG125-140NY1

ENER Lot 21

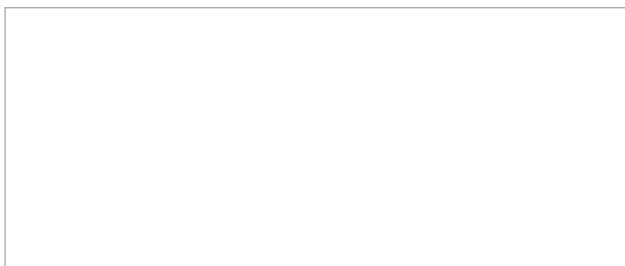
Recommended combinations

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)								
	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		
RZAG125N7V1B	RZAG125N7Y1B		P		4										4																	P
RZAG140N7V1B	RZAG140N7Y1B			P	4										4																	P

Sky Air	Floor standing type				Slim duct		Ceiling-suspended				Floor standing type					
	FVA71	FVA100	FVA125	FVA140	FDXM85	FDXM60	FHA35	FHA50	FHA60	FHA71	FHA100	FHA125	FHA140	AVA125		
RZAG125N7V1B	RZAG125N7Y1B			P											P	
RZAG140N7V1B	RZAG140N7Y1B				P											P

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

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