

Air Conditioning Technical Data

RXYQQ-U



- > RXYQQ8U7Y1B
- > RXYQQ10U7Y1B
- > RXYQQ12U7Y1B
- > RXYQQ14U7Y1B
- > RXYQQ16U7Y1B
- > RXYQQ18U7Y1B

- > RXYQQ20U7Y1B

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RXYQQ-U

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1 Features

Quick & quality replacement for R-22 and R-407C systems

- Cost effective and fast replacement as only the outdoor and indoor unit needs to be replaced, meaning almost no work has to be carried out inside the building
- Efficiency gains of more than 70% can be realized, by virtue of technological developments in heat pump technology and the more efficient R-410A refrigerant
- Less intrusive and time consuming installation compared to installing a new system, as the refrigerant piping can be maintained
- Unique automatic refrigerant charge eliminates the need to calculate refrigerant volume and allows safe replacement of competitor replacement
- Automatic cleaning of refrigerant piping ensures a clean piping network, even when a compressor breakdown has occurred
- Accurate temperature control, fresh air provision, air handling units and Biddle air curtains all integrated in a single system requiring only one single point of contact
- Incorporates VRV IV standards & technologies: Variable Refrigerant Temperature and full inverter compressors
- Customize your VRV for best seasonal efficiency & comfort with the weather dependant Variable Refrigerant Temperature function. Increased seasonal efficiency with up to 28%. No more cold draft by supply of high outblow temperatures
- VRV configurator software for the fastest and most accurate commissioning, configuration and customisation
- Outdoor unit display for quick on-site settings and easy read out of errors together with the indication of service parameters for checking basic functions.
- Possibility to add indoor units and increase capacity without changing the refrigerant piping
- Possibility to spread the various stages of replacement thanks to the modular design of the VRV system
- Keep your system in top condition via the Daikin Cloud Service: 24/7 monitoring for maximum efficiency, extended lifetime and immediate service support thanks to failure prediction



Inverter

2 Specifications

2-1 Technical Specifications					RXYQQ8U	RXYQQ10U	RXYQQ12U	RXYQQ14U	RXYQQ16U	RXYQQ18U	RXYQQ20U
Recommended combination					4 x FXFQ50AV EB	4 x FXFQ63AV EB	6 x FXFQ50AV EB	1 x FXFQ50AV EB + 5 x FXFQ63AV EB	4 x FXFQ63AV EB + 2 x FXFQ80AV EB	3 x FXFQ50AV EB + 5 x FXFQ63AV EB	2 x FXFQ50AV EB + 6 x FXFQ63AV EB
Recommended combination 2					4 x FXSQ50A2 VEB	4 x FXSQ63A2 VEB	6 x FXSQ50A2 VEB	1 x FXSQ50A2 VEB + 5 x FXSQ63A2 VEB	4 x FXSQ63A2 VEB + 2 x FXSQ80A2 VEB	3 x FXSQ50A2 VEB + 5 x FXSQ63A2 VEB	2 x FXSQ50A2 VEB + 6 x FXSQ63A2 VEB
Recommended combination 3					4 x FXMQ50P7 VEB	4 x FXMQ63P7 VEB	6 x FXMQ50P7 VEB	1 x FXMQ50P7 VEB + 5 x FXMQ63P7 VEB	4 x FXMQ63P7 VEB + 2 x FXMQ80P7 VEB	3 x FXMQ50P7 VEB + 5 x FXMQ63P7 VEB	2 x FXMQ50P7 VEB + 6 x FXMQ63P7 VEB
Cooling capacity	Prated,c			kW	22.4 (1)	28.0 (1)	33.5 (1)	40.0 (1)	45.0 (1)	50.4 (1)	52.0 (1)
Heating capacity	Prated,h			kW	13.7	16.0	18.4	20.6	23.2	27.9	31.0
	Max.	6°CWB		kW	25.0 (2)	31.5 (2)	37.5 (2)	45.0 (2)	50.0 (2)	56.5 (2)	63.0 (2)
SEER					7.6	6.8	6.3		6.0		5.9
SEER recommended combination 2					6.9	6.8	5.9	6.3	5.9	6.0	5.9
SEER recommended combination 3					7.5	6.8	6.2		5.8	6.0	5.9
SCOP					4.3		4.1	4.0		4.2	4.0
SCOP recommended combination 2					4.2	4.3	4.1	4.0	4.1	4.2	4.0
SCOP recommended combination 3					4.2	4.1		4.0		4.1	3.9
ηs,c				%	302.4	267.6	247.8	250.7	236.5	238.3	233.7
ηs,c recommended combination 2					273.6	270.5	233.5	250.0	234.2	236.8	233.9
ηs,c recommended combination 3					295.2	267.1	246.3	246.7	230.4	238.2	233.1
ηs,h				%	167.9	168.2	161.4	155.4	157.8	163.1	156.6
ηs,h recommended combination 2					165.4	170.6	161.3	157.2	159.5	164.8	158.2
ηs,h recommended combination 3					165.6	162.0	160.6	155.7	156.8	159.6	153.4
Capacity range				HP	8	10	12	14	16	18	20
Maximum number of connectable indoor units					64 (3)						
Indoor index connection	Min.				100.0	125.0	150.0	175.0	200.0	225.0	250.0
	Max.				260.0	325.0	390.0	455.0	520.0	585.0	650.0
Dimensions	Unit	Height	mm		1,685						
		Width	mm		930			1,240			
		Depth	mm		765						
	Packed unit	Height	mm		1,820						
		Width	mm		995			1,305			
		Depth	mm		860						
Weight	Unit			kg	198			275		308	
	Packed unit			kg	211			291		324	
Packing	Material				Carton						
	Weight				kg	1.8			2.2		
Packing 2	Material				Wood						
	Weight				kg	11.0			14.0		
Packing 3	Material				Plastic						
	Weight				kg	0.5			0.6		
Capacity control	Method				Inverter controlled						
Casing	Colour				Daikin White						
	Material				Painted galvanized steel plate						
Heat exchanger	Type				Cross fin coil						
	Indoor side				Air						
	Outdoor side				Air						
	Air flow rate	Cooling	Rated	m³/h	9,720	10,500	11,100	13,380	15,600	15,060	15,660
		Heating	Rated	m³/h	9,720	10,500	11,100	13,380	15,600	15,060	15,660
Compressor	Quantity				1			2			
	Type				Hermetically sealed scroll compressor						
	Crankcase heater			W	33						

2 Specifications

2-1 Technical Specifications					RXYQQ8U	RXYQQ10U	RXYQQ12U	RXYQQ14U	RXYQQ16U	RXYQQ18U	RXYQQ20U	
Fan	Quantity				1			2				
	External static pressure	Max.	Pa		78							
Fan motor	Quantity				1			2				
	Type				DC motor							
	Output			W	550			750				
Sound power level	Cooling	Nom.	dBA		78.0 (4)	79.1 (4)	83.4 (4)	80.9 (4)	85.6 (4)	83.8 (4)	87.9 (4)	
	Heating	Nom.	dBA		62.7 (4)	64.8 (4)	64.9 (4)	68.3 (4)	68.6 (4)	66.3 (4)	67.0 (4)	
Sound pressure level	Cooling	Nom.	dBA		57.0 (5)		61.0 (5)	60.0 (5)	63.0 (5)	62.0 (5)	65.0 (5)	
Operation range	Cooling	Min.~Max.	°CDB		-5.0~43.0							
	Heating	Min.~Max.	°CWB		-20.0~15.5							
Refrigerant	Type				R-410A							
	GWP				2,087.5							
	Charge			TCO _{2eq}	12.3	12.5	13.2	21.5	23.6	24.4	24.6	
				kg	5.9	6.0	6.3	10.3	11.3	11.7	11.8	
Refrigerant oil	Type				Synthetic (ether) oil FVC68D							
Piping connections	Liquid	Type			Braze connection							
		OD		mm	9,52		12,7			15,9		
	Gas	Type			Braze connection							
		OD		mm	19.1	22.2	28.6					
	Total piping length	System	Actual	m		300 (6)						
Defrost method					Reversed cycle							
Safety devices	Item	01			High pressure switch							
		02			Fan driver overload protector							
		03			Inverter overload protector							
		04			PC board fuse							
		05			Leakage current detector							
PED	Category				Category II							
	Most critical part	Name			Accumulator							
		Ps*V	Bar*I		325			415		493		
Space cooling	A Condition (35°C - 27/19)	EERd			3.0	2.3	2.4	2.6	2.1	1.9		
		Pdc	kW		22.4	28.0	33.5	40.0	45.0	50.4	52.0	
	B Condition (30°C - 27/19)	EERd			5.2	4.7	4.3	4.1	3.9	3.8	3.7	
		Pdc	kW		16.5	20.6	24.7	29.5	33.2	37.1	38.3	
	C Condition (25°C - 27/19)	EERd			9.5	8.3	7.7	7.8	7.7	7.5	7.3	
		Pdc	kW		10.6	13.3	15.9	18.9	21.3	23.9	24.6	
	D Condition (20°C - 27/19)	EERd			18.8	17.0	13.9	14.3	14.2	18.3		
		Pdc	kW		8.0	9.3	9.4	8.4	9.5	11.5		
	Space cooling recommended combination 2	A Condition (35°C - 27/19)	EERd			2.6	2.4		2.6	2.1	1.9	
			Pdc	kW		22.4	28.0	33.5	40.0	45.0	50.4	52.0
B Condition (30°C - 27/19)		EERd			4.9	4.7	4.0	4.1	3.8	3.7	3.6	
		Pdc	kW		16.5	20.6	24.7	29.5	33.2	37.1	38.3	
C Condition (25°C - 27/19)		EERd			8.8	8.5	7.1	7.9	7.6	7.5	7.3	
		Pdc	kW		10.6	13.3	15.9	18.9	21.3	23.9	24.6	
D Condition (20°C - 27/19)		EERd			15.1	17.2	13.1	14.0		18.1	18.9	
		Pdc	kW		8.8	9.3	9.1	8.4	9.5	11.4	10.9	
Space cooling recommended combination 3		A Condition (35°C - 27/19)	EERd			3.0	2.3	2.4	2.6	2.1	1.9	
			Pdc	kW		22.4	28.0	33.5	40.0	45.0	50.4	52.0
	B Condition (30°C - 27/19)	EERd			5.1	4.7	4.2	4.0	3.7		3.6	
		Pdc	kW		16.5	20.6	24.7	29.5	33.2	37.1	38.3	
	C Condition (25°C - 27/19)	EERd			9.6	8.4	7.7		7.4	7.6	7.3	
		Pdc	kW		10.6	13.3	15.9	19.0	21.3	23.9	24.6	
	D Condition (20°C - 27/19)	EERd			16.0	16.9	13.7	14.0	14.1	18.3		
		Pdc	kW		9.1	9.3	9.4	8.4	9.5	11.6		

2 Specifications

2-1 Technical Specifications				RXYQQ8U	RXYQQ10U	RXYQQ12U	RXYQQ14U	RXYQQ16U	RXYQQ18U	RXYQQ20U
Space heating (Average climate)	TBivalent	COPd (declared COP)		2.5	2.4	2.0	2.3	2.2	1.9	1.8
		Pdh (declared heating cap)	kW	13.7	16.0	18.4	20.6	23.2	27.9	31.0
		Tbiv (bivalent temperature)	°C	-10						
	TOL	COPd (declared COP)		2.5	2.4	2.0	2.3	2.2	1.9	1.8
		Pdh (declared heating cap)	kW	13.7	16.0	18.4	20.6	23.2	27.9	31.0
		Tol (temperature operating limit)	°C	-10						
	A Condition (-7°C)	COPd (declared COP)		2.7	2.6	2.4	2.6		2.4	2.1
		Pdh (declared heating cap)	kW	12.1	14.2	16.3	18.2	20.5	24.7	27.4
	B Condition (2°C)	COPd (declared COP)		3.9			3.5		3.7	3.6
		Pdh (declared heating cap)	kW	7.4	8.6	9.9	11.1	12.5	15.0	16.7
	C Condition (7°C)	COPd (declared COP)		6.3	6.4	6.1		6.3	6.7	6.5
		Pdh (declared heating cap)	kW	5.0	5.5	6.4	7.1	8.0	9.7	10.7
	D Condition (12°C)	COPd (declared COP)		7.9	8.2	7.9	8.5	8.6	9.0	9.1
		Pdh (declared heating cap)	kW	5.9		6.3	4.9		7.1	
Space heating (Average climate) recommended combination 2	A Condition (-7°C)	COPd (declared COP)		2.7		2.4	2.6		2.4	2.2
		Pdh (declared heating cap)	kW	12.1	14.2	16.3	18.2	20.5	24.7	27.4
	B Condition (2°C)	COPd (declared COP)		3.9	4.0	3.9	3.5		3.8	3.7
		Pdh (declared heating cap)	kW	7.4	8.6	9.9	11.1	12.2	15.0	16.7
	C Condition (7°C)	COPd (declared COP)		6.3	6.5	6.1		6.3	6.8	6.5
		Pdh (declared heating cap)	kW	5.0	5.5	6.4	7.1	8.0	9.7	10.7
	D Condition (12°C)	COPd (declared COP)		7.8	8.3	7.9	8.6	8.7	9.1	9.2
		Pdh (declared heating cap)	kW	5.9	6.0	6.4	4.9	5.0	7.2	
	TBivalent	COPd (declared COP)		2.4		1.9	2.3	2.2	1.9	1.8
		Pdh (declared heating cap)	kW	13.7	16.0	18.4	20.6	23.2	27.9	31.0
		Tbiv (bivalent temperature)	°C	-10						
	TOL	COPd (declared COP)		2.4		1.9	2.3	2.2	1.9	1.8
		Pdh (declared heating cap)	kW	13.7	16.0	18.4	20.6	23.2	27.9	31.0
		Tol (temperature operating limit)	°C	-10						

2 Specifications

2

2-1 Technical Specifications					RXYQQ8U	RXYQQ10U	RXYQQ12U	RXYQQ14U	RXYQQ16U	RXYQQ18U	RXYQQ20U	
Space heating (Average climate) recommended combination 3	A Condition (-7°C)	COPd (declared COP)			2.7	2.6	2.4	2.6		2.4	2.1	
		Pdh (declared heating cap)	kW	12.1	14.2	16.3	18.2	20.5	24.7	27.4		
	B Condition (2°C)	COPd (declared COP)			3.9	3.7	3.9	3.5		3.7	3.6	
		Pdh (declared heating cap)	kW	7.4	8.6	9.9	11.1	12.5	15.0	16.7		
	C Condition (7°C)	COPd (declared COP)			6.2	6.4	6.0	6.1	6.2	6.5	6.3	
		Pdh (declared heating cap)	kW	4.9	5.5	6.4	7.1	8.0	9.7	10.7		
	D Condition (12°C)	COPd (declared COP)			7.8	8.1	7.8	8.5	8.6	8.7		
		Pdh (declared heating cap)	kW	5.8	5.9	6.2	4.9		6.9			
	TBivalent	COPd (declared COP)			2.5	2.4	2.0	2.3	2.2	1.9	1.8	
		Pdh (declared heating cap)	kW	13.7	16.0	18.4	20.6	23.2	27.9	31.0		
		Tbiv (bivalent temperature)	°C	-10								
	TOL	COPd (declared COP)			2.5	2.4	2.0	2.3	2.2	1.9	1.8	
		Pdh (declared heating cap)	kW	13.7	16.0	18.4	20.6	23.2	27.9	31.0		
		Tol (temperature operating limit)	°C	-10								
Cooling	Cdc (Degradation cooling)				0.25							
Heating	Cdh (Degradation heating)				0.25							
Power consumption in other than active mode	Crankcase heater mode	Cooling	PCK	kW	0.000							
		Heating	PCK	kW	0.052			0.077		0.089		
	Off mode	Cooling	POFF	kW	0.041			0.074		0.075		
		Heating	POFF	kW	0.052			0.077		0.089		
	Standby mode	Cooling	PSB	kW	0.041			0.074		0.075		
		Heating	PSB	kW	0.052			0.077		0.089		
	Thermostat-off mode	Cooling	PTO	kW	0.005			0.010				
		Heating	PTO	kW	0.056			0.097		0.098		
Indication if the heater is equipped with a supplementary heater					no							
Supplementary heater	Back-up capacity	Heating	elbu	kW	0.0							

Standard Accessories : Installation manual; Quantity : 1;

Standard Accessories : Operation manual; Quantity : 1;

Standard Accessories : Connection pipes; Quantity : 1;

2-2 Electrical Specifications				RXYQQ8U	RXYQQ10U	RXYQQ12U	RXYQQ14U	RXYQQ16U	RXYQQ18U	RXYQQ20U
Power supply	Name			Y1						
	Phase			3N~						
	Frequency		Hz	50						
	Voltage		V	380-415						
Voltage range	Min.		%	-10						
	Max.		%	10						
Current	Nominal running current (RLA) - 50Hz	Cooling	A	7.2 (7)	10.2 (7)	12.7 (7)	15.4 (7)	18.0 (7)	20.8 (7)	26.9 (7)
Current - 50Hz	Starting current (MSC) - remark			(8)						
	Zmax	List		No requirements						
	Minimum circuit amps (MCA)		A	16.1 (9)	22.0 (9)	24.0 (9)	27.0 (9)	31.0 (9)	35.0 (9)	39.0 (9)
	Maximum fuse amps (MFA)		A	20 (10)	25 (10)	32 (10)		40 (10)		50 (10)
	Full load amps (FLA)	Total	A	1.2 (11)	1.3 (11)	1.5 (11)	1.8 (11)	2.6 (11)		
Wiring connections - 50Hz	For power supply	Quantity		5G						
	For connection with indoor	Quantity		2						
		Remark		F1,F2						
Power supply intake				Both indoor and outdoor unit						

2 Specifications

Notes

- (1) Cooling: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB; equivalent piping length: 7.5m; level difference: 0m
- (2) Heating: indoor temp. 20°CDB; outdoor temp. 7°CDB, 6°CWB; equivalent refrigerant piping: 7.5m; level difference: 0m
- (3) Actual number of connectable indoor units depends on the indoor unit type (VRV indoor, Hydrobox, RA indoor, etc.) and the connection ratio restriction for the system (50% ≤ CR ≤ 130%)
- (4) Sound power level is an absolute value that a sound source generates.
- (5) Sound pressure level is a relative value, depending on the distance and acoustic environment. For more details, please refer to the sound level drawings.
- (6) Refer to refrigerant pipe selection or installation manual
- (7) RLA is based on following conditions: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB
- (8) MSC means the maximum current during start up of the compressor. VRV IV uses only inverter compressors. Starting current is always ≤ max. running current.
- (9) MCA must be used to select the correct field wiring size. The MCA can be regarded as the maximum running current.
- (10) MFA is used to select the circuit breaker and the ground fault circuit interrupter (earth leakage circuit breaker).
- (11) FLA means the nominal running current of the fan

In accordance with EN/IEC 61000-3-12, it may be necessary to consult the distribution network operator to ensure that the equipment is connected only to a supply with Ssc ≥ minimum Ssc value

Maximum allowable voltage range variation between phases is 2%.

Voltage range: units are suitable for use on electrical systems where voltage supplied to unit terminal is not below or above listed range limits.

The AUTOMATIC ESEER value corresponds with normal VRV4 Heat Pump operation, taking into account advanced energy saving operation functionality (variable refrigerant temperature)

The STANDARD ESEER value corresponds with normal VRV4 Heat Pump operation, not taking into account advanced energy saving operation functionality

Sound values are measured in a semi-anechoic room.

Soundpressure system [dBA] = $10 \cdot \log[10^{(A/10)} + 10^{(B/10)} + 10^{(C/10)}]$, with Unit A = A dBA, Unit B = B dBA, Unit C = C dBA

EN/IEC 61000-3-12: European/international technical standard setting the limits for harmonic currents produced by equipment connected to public low-voltage system with input current I_N > 16A and ≤ 75A per phase

Ssc: Short-circuit power

For detailed contents of standard accessories, see installation/operation manual

Multi combination (22~54HP) data is corresponding with the standard multi combination

2-3 Technical Specifications		RXYQQ22 U	RXYQQ24 U	RXYQQ26 U	RXYQQ28 U	RXYQQ30 U	RXYQQ32 U	RXYQQ34 U	RXYQQ36 U	RXYQQ38 U
System	Outdoor unit module 1	RXYQQ1 0U	RXYQQ8 U	RXYQQ12U			RXYQQ16U			RXYQQ8 U
	Outdoor unit module 2	RXYQQ1 2U	RXYQQ1 6U	RXYQQ1 4U	RXYQQ1 6U	RXYQQ1 8U	RXYQQ1 6U	RXYQQ1 8U	RXYQQ2 0U	RXYQQ1 0U
	Outdoor unit module 3	-								RXYQQ2 0U
Recommended combination		6 x FXFQ50 AVEB + 4 x FXFQ63 AVEB	4 x FXFQ50 AVEB + 4 x FXFQ63 AVEB + 2 x FXFQ80 AVEB	7 x FXFQ50 AVEB + 5 x FXFQ63 AVEB	6 x FXFQ50 AVEB + 4 x FXFQ63 AVEB + 2 x FXFQ80 AVEB	9 x FXFQ50 AVEB + 5 x FXFQ63 AVEB	8 x FXFQ63 AVEB + 4 x FXFQ80 AVEB	3 x FXFQ50 AVEB + 9 x FXFQ63 AVEB + 2 x FXFQ80 AVEB	2 x FXFQ50 AVEB + 10 x FXFQ63 AVEB + 2 x FXFQ80 AVEB	6 x FXFQ50 AVEB + 10 x FXFQ63 AVEB
Recommended combination 2		6 x FXSQ50 A2VEB + 4 x FXSQ63 A2VEB	4 x FXSQ50 A2VEB + 4 x FXSQ63 A2VEB + 2 x FXSQ80 A2VEB	7 x FXSQ50 A2VEB + 5 x FXSQ63 A2VEB	6 x FXSQ50 A2VEB + 4 x FXSQ63 A2VEB + 2 x FXSQ80 A2VEB	9 x FXSQ50 A2VEB + 5 x FXSQ63 A2VEB	8 x FXSQ63 A2VEB + 4 x FXSQ80 A2VEB	3 x FXSQ50 A2VEB + 9 x FXSQ63 A2VEB + 2 x FXSQ80 A2VEB	2 x FXSQ50 A2VEB + 10 x FXSQ63 A2VEB + 2 x FXSQ80 A2VEB	6 x FXSQ50 A2VEB + 10 x FXSQ63 A2VEB

2 Specifications

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2-3 Technical Specifications					RXYQQ22 U	RXYQQ24 U	RXYQQ26 U	RXYQQ28 U	RXYQQ30 U	RXYQQ32 U	RXYQQ34 U	RXYQQ36 U	RXYQQ38 U	
Recommended combination 3					6 x FXMQ50 P7VEB + 4 x FXMQ63 P7VEB	4 x FXMQ50 P7VEB + 4 x FXMQ63 P7VEB + 2 x FXMQ80 P7VEB	7 x FXMQ50 P7VEB + 5 x FXMQ63 P7VEB	6 x FXMQ50 P7VEB + 4 x FXMQ63 P7VEB + 2 x FXMQ80 P7VEB	9 x FXMQ50 P7VEB + 5 x FXMQ63 P7VEB	8 x FXMQ63 P7VEB + 4 x FXMQ80 P7VEB	3 x FXMQ50 P7VEB + 9 x FXMQ63 P7VEB + 2 x FXMQ80 P7VEB	2 x FXMQ50 P7VEB + 10 x FXMQ63 P7VEB + 2 x FXMQ80 P7VEB	6 x FXMQ50 P7VEB + 10 x FXMQ63 P7VEB	
Cooling capacity	Prated,c		kW		61.5 (1)	67.4 (1)	73.5 (1)	78.5 (1)	83.9 (1)	90.0 (1)	95.4 (1)	97.0 (1)	102.4 (1)	
Heating capacity	Prated,h		kW		34.4	36.9	39.0	41.6	46.3	46.4	51.1	54.2	60.7	
	Max.	6°CWB	kW		69.0 (2)	75.0 (2)	82.5 (2)	87.5 (2)	94.0 (2)	100.0 (2)	106.5 (2)	113.0 (2)	119.5 (2)	
SEER					6.9	6.8	6.7	6.5		6.4		6.3	6.9	
SEER recommended combination 2					6.7	6.6	6.5	6.3						6.8
SEER recommended combination 3					6.9	6.7	6.6	6.4	6.5	6.2	6.3		6.9	
SCOP					4.4	4.3	4.2		4.3	4.2		4.1	4.3	
SCOP recommended combination 2					4.4	4.3	4.2		4.3	4.2	4.3	4.2	4.3	
SCOP recommended combination 3					4.3	4.2			4.3	4.1	4.2	4.1	4.2	
ηs,c			%		274.5	269.9	264.2	257.8	256.8	251.7	253.3	250.8	272.4	
ηs,c recommended combination 2					266.5	262.6	256.1	249.3	249.8	248.3	250.9	248.7	269.2	
ηs,c recommended combination 3					273.3	265.3	261.1	253.1	256.1	244.2	249.8	247.2	272.2	
ηs,h			%		171.2	167.0	164.6	166.0	169.8	163.1	166.2	162.4	167.5	
ηs,h recommended combination 2					172.3	167.1	165.4	166.8	170.6	164.6	167.7	164.1	168.4	
ηs,h recommended combination 3					170.2	165.5	164.5	165.0	167.0	161.9	164.2	159.9	164.8	
Capacity range			HP		22	24	26	28	30	32	34	36	38	
Maximum number of connectable indoor units					64 (3)									
Indoor index connection	Min.				275.0	300.0	325.0	350.0	375.0	400.0	425.0	450.0	475.0	
	Max.				715.0	780.0	845.0	910.0	975.0	1,040.0	1,105.0	1,170.0	1,235.0	
Heat exchanger	Indoor side				Air									
	Outdoor side				Air									
	Air flow rate	Cooling	Rated	m³/h	21,600	25,320	24,480	26,700	26,160	31,200	30,660	31,260	35,880	
		Heating	Rated	m³/h	21,600	25,320	24,480	26,700	26,160	31,200	30,660	31,260	35,880	
Sound power level	Cooling	Nom.		dBA	84.8 (4)	86.3 (4)	85.3 (4)	87.6 (4)	86.6 (4)	88.6 (4)	87.8 (4)	89.9 (4)	88.8 (4)	
	Heating	Nom.		dBA	67.8 (4)	69.6 (4)	69.9 (4)	70.1 (4)	68.7 (4)	71.6 (4)	70.6 (4)	70.9 (4)	69.9 (4)	
Sound pressure level	Cooling	Nom.		dBA	62.5 (5)	64.0 (5)	63.5 (5)	65.1 (5)	64.5 (5)	66.0 (5)	65.5 (5)	67.1 (5)	66.2 (5)	
Refrigerant	Type				R-410A									
	GWP				2,087.5									
Refrigerant oil	Type				Synthetic (ether) oil FVC68D									
Piping connections	Liquid	Type			Braze connection									
		OD		mm	15.9			19.1						
	Gas	Type			Braze connection									
		OD		mm	28.6	34.9						41.3		
	Total piping length		System	Actual	m	300 (6)								
PED	Category				Category II									
Space cooling	A Condition (35°C - 27/19)	EERd			2.6	2.5	2.6	2.3	2.1	2.3	2.1		2.4	
		Pdc		kW	61.5	67.4	73.5	78.5	83.9	90.0	95.4	97.0	102.4	
	B Condition (30°C - 27/19)	EERd			4.8	4.6		4.4	4.3		4.2	4.1	4.5	
		Pdc		kW	45.3	49.7	54.2	57.8	61.8	66.3	70.3	71.5	75.5	
	C Condition (25°C - 27/19)	EERd			8.5	8.6	8.2	8.1	8.2	8.1		7.9	8.5	
		Pdc		kW	29.1	31.9	34.8	37.2	39.7	42.6	45.2	45.9	48.5	
	D Condition (20°C - 27/19)	EERd			16.0	15.2	14.2	14.3	16.8	14.3	16.8	16.7	17.9	
		Pdc		kW	18.8	15.8	16.2	16.5	21.0	19.0	20.1	20.4	21.6	

2 Specifications

2-3 Technical Specifications			RXYQQ22 U	RXYQQ24 U	RXYQQ26 U	RXYQQ28 U	RXYQQ30 U	RXYQQ32 U	RXYQQ34 U	RXYQQ36 U	RXYQQ38 U
Space cooling recommended combination 2	A Condition (35°C - 27/19)	EERd	2.6	2.4	2.6	2.3	2.1	2.2	2.1		2.3
		Pdc kW	61.5	67.4	73.5	78.5	83.9	90.0	95.4	97.0	102.4
	B Condition (30°C - 27/19)	EERd	4.6	4.5	4.4	4.3	4.2			4.1	4.5
		Pdc kW	45.3	49.7	54.1	57.8	61.8	66.3	70.3	71.5	75.4
	C Condition (25°C - 27/19)	EERd	8.2	8.4	7.9	7.8	7.9	8.0	8.1	7.9	8.4
		Pdc kW	29.1	31.9	34.8	37.2	39.7	42.6	45.2	45.9	48.5
	D Condition (20°C - 27/19)	EERd	15.6	14.7	13.6	13.8	16.1	14.0	16.5		17.8
		Pdc kW	18.4	15.4	15.7	16.5	20.5	18.9	20.1	20.4	21.6
	A Condition (35°C - 27/19)	EERd	2.5			2.3	2.1	2.2	2.1		2.4
		Pdc kW	61.5	67.4	73.5	78.5	83.9	90.0	95.4	97.0	102.4
Space cooling recommended combination 3	B Condition (30°C - 27/19)	EERd	4.8	4.5		4.3		4.1		4.0	4.5
		Pdc kW	45.3	49.7	54.2	57.8	61.8	66.3	70.3	71.5	75.5
	C Condition (25°C - 27/19)	EERd	8.5	8.4	8.1	8.0	8.2	7.8	8.0	7.8	8.5
		Pdc kW	29.1	31.9	34.8	37.2	39.7	42.6	45.2	45.9	48.5
	D Condition (20°C - 27/19)	EERd	15.8	15.2	14.0	14.1	16.6	13.8	16.6	16.5	17.9
		Pdc kW	18.8	15.7	16.0	16.6	21.0	19.0	20.1	20.4	21.6
Space heating (Average climate)	TBivalent	COPd (declared COP)	2.3	2.5	2.3	2.2	2.1	2.4	2.2	2.1	2.2
		Pdh (declared heating cap) kW	34.4	36.9	39.0	41.6	46.3	46.4	51.1	54.2	60.7
		Tbiv (bivalent temperature) °C	-10								
	TOL	COPd (declared COP)	2.3	2.5	2.3	2.2	2.1	2.4	2.2	2.1	2.2
		Pdh (declared heating cap) kW	34.4	36.9	39.0	41.6	46.3	46.4	51.1	54.2	60.7
		Tol (temperature operating limit) °C	-10								
	A Condition (-7°C)	COPd (declared COP)	2.6	2.8	2.6			2.7	2.6	2.5	
		Pdh (declared heating cap) kW	30.4	32.6	34.5	36.8	41.0		45.2	47.9	53.7
	B Condition (2°C)	COPd (declared COP)	4.0	3.7	3.8		3.9	3.6	3.7		3.9
		Pdh (declared heating cap) kW	18.5	19.9	21.0	22.4	24.9	25.0	27.5	29.2	32.7
	C Condition (7°C)	COPd (declared COP)	6.3		6.1	6.2	6.5	6.3	6.5	6.4	6.5
		Pdh (declared heating cap) kW	11.9	13.0	13.5	14.4	16.0	16.1	17.7	18.8	21.3
	D Condition (12°C)	COPd (declared COP)	8.2	8.9	8.8	9.0			8.8	8.6	8.7
		Pdh (declared heating cap) kW	6.0	5.7	6.0	6.4	7.1		7.9	8.3	13.1
Space heating (Average climate) recommended combination 2	A Condition (-7°C)	COPd (declared COP)	2.6	2.7	2.6			2.7	2.6	2.5	
		Pdh (declared heating cap) kW	30.4	32.6	34.5	36.8	41.0		45.2	47.9	53.7
	B Condition (2°C)	COPd (declared COP)	4.1	3.7	3.8		3.9	3.6	3.8	3.7	3.9
		Pdh (declared heating cap) kW	18.5	19.9	21.0	22.4	24.9	25.0	27.5	29.2	32.7
	C Condition (7°C)	COPd (declared COP)	6.3		6.1	6.3	6.6	6.3	6.6	6.5	
		Pdh (declared heating cap) kW	11.9	13.1		14.4	16.0	16.1	17.7	18.8	21.3
	D Condition (12°C)	COPd (declared COP)	8.4	9.0	8.9	9.1			8.9	8.8	
		Pdh (declared heating cap) kW	6.0	5.7	6.0	6.4	7.2	7.1	7.9	8.3	13.2
	TBivalent	COPd (declared COP)	2.2	2.4	2.2		2.1	2.4	2.2		2.3
		Pdh (declared heating cap) kW	34.4	36.9	39.0	41.6	46.3	46.4	51.1	54.2	60.7
		Tbiv (bivalent temperature) °C	-10								
	TOL	COPd (declared COP)	2.2	2.4	2.2		2.1	2.4	2.2		2.3
		Pdh (declared heating cap) kW	34.4	36.9	39.0	41.6	46.3	46.4	51.1	54.2	60.7
		Tol (temperature operating limit) °C	-10								

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2-3 Technical Specifications					RXYQQ22 U	RXYQQ24 U	RXYQQ26 U	RXYQQ28 U	RXYQQ30 U	RXYQQ32 U	RXYQQ34 U	RXYQQ36 U	RXYQQ38 U	
Space heating (Average climate) recommended combination 3	A Condition (-7°C)	COPd (declared COP)			2.6	2.7	2.6		2.5	2.7	2.6	2.4	2.5	
		Pdh (declared heating cap)	kW		30.4	32.6	34.5	36.8	41.0		45.2	47.9	53.7	
	B Condition (2°C)	COPd (declared COP)			4.0	3.7	3.8		3.9	3.6	3.7	3.6	3.8	
		Pdh (declared heating cap)	kW		18.5	19.9	21.0	22.4	24.9	25.0	27.5	29.2	32.7	
	C Condition (7°C)	COPd (declared COP)			6.2	6.3	6.1	6.2	6.3		6.4	6.3		
		Pdh (declared heating cap)	kW		11.9	12.9	13.5	14.4	16.0	16.1	17.7	18.8	21.2	
	D Condition (12°C)	COPd (declared COP)			8.2	8.9	8.8	9.0	8.6	9.0	8.9	8.3	8.5	
		Pdh (declared heating cap)	kW		6.0	5.7	6.0	6.4	7.1		7.9	8.3	12.9	
	TBivalent	COPd (declared COP)			2.3	2.4	2.2		2.1	2.4	2.2	2.1	2.2	
		Pdh (declared heating cap)	kW		34.4	36.9	39.0	41.6	46.3	46.4	51.1	54.2	60.7	
		Tbiv (bivalent temperature)	°C		-10									
	TOL	COPd (declared COP)			2.3	2.4	2.2		2.1	2.4	2.2	2.1	2.2	
		Pdh (declared heating cap)	kW		34.4	36.9	39.0	41.6	46.3	46.4	51.1	54.2	60.7	
		Tol (temperature operating limit)	°C		-10									
Cooling	Cdc (Degradation cooling)				0.25									
Heating	Cdh (Degradation heating)				0.25									
Power consumption in other than active mode	Off mode	Cooling	POFF	kW	0.081	0.115			0.116	0.149	0.150		0.157	
		Heating	POFF	kW	0.103	0.129			0.141	0.154	0.166		0.192	
	Standby mode	Cooling	PSB	kW	0.081	0.115			0.116	0.149	0.150		0.157	
		Heating	PSB	kW	0.103	0.129			0.141	0.154	0.166		0.192	
	Thermostat-off mode	Cooling	PTO	kW	0.009	0.014				0.019				
		Heating	PTO	kW	0.113	0.154			0.155	0.195	0.196		0.211	
Indication if the heater is equipped with a supplementary heater					no									
Supplementary heater	Back-up capacity	Heating	elbu	kW	0.0									

Standard Accessories : Installation manual; Quantity : 1;

Standard Accessories : Operation manual; Quantity : 1;

Standard Accessories : Connection pipes; Quantity : 1;

2-4 Technical Specifications				RXYQQ40U		RXYQQ42U	
System	Outdoor unit module 1			RXYQQ10U			
	Outdoor unit module 2			RXYQQ12U		RXYQQ16U	
	Outdoor unit module 3			RXYQQ18U		RXYQQ16U	
Recommended combination				9 x FXFQ50AVEB + 9 x FXFQ63AVEB		12 x FXFQ63AVEB + 4 x FXFQ80AVEB	
Recommended combination 2				9 x FXSQ50A2VEB + 9 x FXSQ63A2VEB		12 x FXSQ63A2VEB + 4 x FXSQ80A2VEB	
Recommended combination 3				9 x FXMQ50P7VEB + 9 x FXMQ63P7VEB		12 x FXMQ63P7VEB + 4 x FXMQ80P7VEB	
Cooling capacity	Prated,c		kW	111.9 (1)		118.0 (1)	
Heating capacity	Prated,h		kW	62.3		62.4	
	Max.	6°CWB	kW	125.5 (2)		131.5 (2)	
SEER				6.7		6.6	
SEER recommended combination 2				6.6			
SEER recommended combination 3				6.7		6.5	
SCOP				4.3		4.2	
SCOP recommended combination 2				4.4		4.3	
SCOP recommended combination 3				4.3		4.2	
ηs,c			%	263.5		261.2	
ηs,c recommended combination 2				259.2		259.3	
ηs,c recommended combination 3				263.2		255.4	
ηs,h			%	170.0		165.5	
ηs,h recommended combination 2				171.3		167.3	
ηs,h recommended combination 3				167.8		164.4	

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2-4 Technical Specifications					RXYQQ40U		RXYQQ42U		
Capacity range				HP	40		42		
Maximum number of connectable indoor units					64 (3)				
Indoor index connection	Min.				500.0		525.0		
	Max.				1,300.0		1,365.0		
Heat exchanger	Indoor side				Air				
	Outdoor side				Air				
	Air flow rate	Cooling	Rated	m³/h	36,660		41,700		
		Heating	Rated	m³/h	36,660		41,700		
Sound power level	Cooling	Nom.		dBA	87.3 (4)		89.1 (4)		
	Heating	Nom.		dBA	70.2 (4)		72.4 (4)		
Sound pressure level	Cooling	Nom.		dBA	65.2 (5)		66.5 (5)		
Refrigerant	Type				R-410A				
	GWP				2,087.5				
Refrigerant oil	Type				Synthetic (ether) oil FVC68D				
Piping connections	Liquid	Type			Braze connection				
		OD		mm	19,1				
	Gas	Type			Braze connection				
		OD		mm	41.3				
	Total piping length		System	Actual	m		300 (6)		
	PED	Category				Category II			
Space cooling	A Condition (35°C - 27/19)	EERd			2.2		2.3		
		Pdc		kW	111.9		118.0		
	B Condition (30°C - 27/19)	EERd			4.5		4.4		
		Pdc		kW	82.5		86.9		
	C Condition (25°C - 27/19)	EERd			8.3		8.2		
		Pdc		kW	53.0		55.9		
	D Condition (20°C - 27/19)	EERd			16.0		15.4		
		Pdc		kW	23.6		24.8		
Space cooling recommended combination 2	A Condition (35°C - 27/19)	EERd			2.2		2.3		
		Pdc		kW	111.9		118.0		
	B Condition (30°C - 27/19)	EERd			4.4				
		Pdc		kW	82.4		86.9		
	C Condition (25°C - 27/19)	EERd			8.1		8.2		
		Pdc		kW	53.0		55.9		
	D Condition (20°C - 27/19)	EERd			15.9		15.3		
		Pdc		kW	23.6		24.8		
Space cooling recommended combination 3	A Condition (35°C - 27/19)	EERd			2.2		2.3		
		Pdc		kW	111.9		118.0		
	B Condition (30°C - 27/19)	EERd			4.4		4.3		
		Pdc		kW	82.5		87.0		
	C Condition (25°C - 27/19)	EERd			8.4		8.0		
		Pdc		kW	53.0		55.9		
	D Condition (20°C - 27/19)	EERd			16.1		15.2		
		Pdc		kW	23.6		24.8		

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2-4 Technical Specifications				RXYQQ40U	RXYQQ42U
Space heating (Average climate)	TBivalent	COPd (declared COP)		2.2	2.4
		Pdh (declared heating cap)	kW	62.3	62.4
		Tbiv (bivalent temperature)	°C	-10	
	TOL	COPd (declared COP)		2.2	2.4
		Pdh (declared heating cap)	kW	62.3	62.4
		Tol (temperature operating limit)	°C	-10	
	A Condition (-7°C)	COPd (declared COP)		2.6	2.7
		Pdh (declared heating cap)	kW	55.1	55.2
	B Condition (2°C)	COPd (declared COP)		4.0	3.7
		Pdh (declared heating cap)	kW	33.5	33.6
	C Condition (7°C)	COPd (declared COP)		6.5	6.3
		Pdh (declared heating cap)	kW	21.6	
	D Condition (12°C)	COPd (declared COP)		8.7	8.6
		Pdh (declared heating cap)	kW	13.1	9.9
Space heating (Average climate) recommended combination 2	A Condition (-7°C)	COPd (declared COP)		2.6	2.7
		Pdh (declared heating cap)	kW	55.1	55.2
	B Condition (2°C)	COPd (declared COP)		4.0	3.7
		Pdh (declared heating cap)	kW	33.5	33.6
	C Condition (7°C)	COPd (declared COP)		6.5	6.4
		Pdh (declared heating cap)	kW	21.6	
	D Condition (12°C)	COPd (declared COP)		8.8	8.7
		Pdh (declared heating cap)	kW	13.2	10.0
	TBivalent	COPd (declared COP)		2.2	2.4
		Pdh (declared heating cap)	kW	62.3	62.4
		Tbiv (bivalent temperature)	°C	-10	
	TOL	COPd (declared COP)		2.2	2.4
		Pdh (declared heating cap)	kW	62.3	62.4
		Tol (temperature operating limit)	°C	-10	

2 Specifications

2-4 Technical Specifications					RXYQQ40U		RXYQQ42U	
Space heating (Average climate) recommended combination 3	A Condition (-7°C)	COPd (declared COP)			2.6		2.7	
		Pdh (declared heating cap)	kW		55.1		55.2	
	B Condition (2°C)	COPd (declared COP)			3.9		3.7	
		Pdh (declared heating cap)	kW		33.5		33.6	
	C Condition (7°C)	COPd (declared COP)			6.4		6.3	
		Pdh (declared heating cap)	kW		21.6			
	D Condition (12°C)	COPd (declared COP)			8.4		8.6	
		Pdh (declared heating cap)	kW		12.8		9.9	
	TBivalent	COPd (declared COP)			2.2		2.4	
		Pdh (declared heating cap)	kW		62.3		62.4	
		Tbiv (bivalent temperature)	°C		-10			
	TOL	COPd (declared COP)			2.2		2.4	
		Pdh (declared heating cap)	kW		62.3		62.4	
		Tol (temperature operating limit)	°C		-10			
Cooling	Cdc (Degradation cooling)				0.25			
Heating	Cdh (Degradation heating)				0.25			
Power consumption in other than active mode	Off mode	Cooling	POFF	kW	0.157		0.190	
		Heating	POFF	kW	0.192		0.206	
	Standby mode	Cooling	PSB	kW	0.157		0.190	
		Heating	PSB	kW	0.192		0.206	
	Thermostat-off mode	Cooling	PTO	kW	0.019		0.024	
		Heating	PTO	kW	0.211		0.251	
Indication if the heater is equipped with a supplementary heater					no			
Supplementary heater	Back-up capacity	Heating	elbu	kW	0.0			

Standard Accessories : Installation manual; Quantity : 1;

Standard Accessories : Operation manual; Quantity : 1;

Standard Accessories : Connection pipes; Quantity : 1;

2-5 Electrical Specifications				RXYQQ22 U	RXYQQ24 U	RXYQQ26 U	RXYQQ28 U	RXYQQ30 U	RXYQQ32 U	RXYQQ34 U	RXYQQ36 U	RXYQQ38 U
Power supply	Name			Y1								
	Phase			3N~								
	Frequency		Hz	50								
	Voltage		V	380-415								
Voltage range	Min.		%	-10								
	Max.		%	10								
Current	Nominal running current (RLA) - 50Hz	Cooling	A	22.9 (7)	25.2 (7)	28.1 (7)	30.7 (7)	33.5 (7)	36.0 (7)	38.8 (7)	44.9 (7)	44.3 (7)
Current - 50Hz	Starting current (MSC) - remark			(8)								
	Zmax	List		No requirements								
	Minimum circuit amps (MCA)		A	46.0 (9)		51.0 (9)	55.0 (9)	59.0 (9)	62.0 (9)	66.0 (9)	70.0 (9)	76.0 (9)
	Maximum fuse amps (MFA)		A	63 (10)				80 (10)				100 (10)
Wiring connections - 50Hz	For power supply	Quantity		5G								
	For connection with indoor	Quantity		2								
		Remark		F1,F2								
Power supply intake				Both indoor and outdoor unit								

2-6 Electrical Specifications				RXYQQ40U		RXYQQ42U	
Power supply	Name			Y1			
	Phase			3N~			
	Frequency		Hz	50			
	Voltage		V	380-415			

2 Specifications

2-6 Electrical Specifications				RXYQQ40U	RXYQQ42U
Voltage range	Min.		%	-10	
	Max.		%	10	
Current	Nominal running current (RLA) - 50Hz	Cooling	A	43.7 (7)	46.2 (7)
Current - 50Hz	Starting current (MSC) - remark			(8)	
	Zmax	List		No requirements	
	Minimum circuit amps (MCA)		A	81.0 (9)	84.0 (9)
	Maximum fuse amps (MFA)		A	100 (10)	
Wiring connections - 50Hz	For power supply	Quantity		5G	
	For connection with indoor	Quantity		2	
		Remark		F1,F2	
Power supply intake				Both indoor and outdoor unit	

Notes

- (1) Cooling: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB; equivalent piping length: 7.5m; level difference: 0m
 - (2) Heating: indoor temp. 20°CDB; outdoor temp. 7°CDB, 6°CWB; equivalent refrigerant piping: 7.5m; level difference: 0m
 - (3) Actual number of connectable indoor units depends on the indoor unit type (VRV indoor, Hydrobox, RA indoor, etc.) and the connection ratio restriction for the system (50% ≤ CR ≤ 130%)
 - (4) Sound power level is an absolute value that a sound source generates.
 - (5) Sound pressure level is a relative value, depending on the distance and acoustic environment. For more details, please refer to the sound level drawings.
 - (6) Refer to refrigerant pipe selection or installation manual
 - (7) RLA is based on following conditions: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB
 - (8) MSC means the maximum current during start up of the compressor. VRV IV uses only inverter compressors. Starting current is always ≤ max. running current.
 - (9) MCA must be used to select the correct field wiring size. The MCA can be regarded as the maximum running current.
 - (10) MFA is used to select the circuit breaker and the ground fault circuit interrupter (earth leakage circuit breaker).
- In accordance with EN/IEC 61000-3-12, it may be necessary to consult the distribution network operator to ensure that the equipment is connected only to a supply with Ssc ≥ minimum Ssc value
- FLA means the nominal running current of the fan
- Maximum allowable voltage range variation between phases is 2%.
- Voltage range: units are suitable for use on electrical systems where voltage supplied to unit terminal is not below or above listed range limits.
- The AUTOMATIC ESEER value corresponds with normal VRV4 Heat Pump operation, taking into account advanced energy saving operation functionality (variable refrigerant temperature)
- The STANDARD ESEER value corresponds with normal VRV4 Heat Pump operation, not taking into account advanced energy saving operation functionality
- Sound values are measured in a semi-anechoic room.
- Soundpressure system [dBA] = $10 \cdot \log[10^{A/10} + 10^{B/10} + 10^{C/10}]$, with Unit A = A dBA, Unit B = B dBA, Unit C = C dBA
- EN/IEC 61000-3-12: European/international technical standard setting the limits for harmonic currents produced by equipment connected to public low-voltage system with input current > 16A and ≤ 75A per phase
- Ssc: Short-circuit power
- For detailed contents of standard accessories, see installation/operation manual
- Multi combination (22~54HP) data is corresponding with the standard multi combination

3 Options

3 - 1 Options

RXYQQ-U
RXYQ-U
RYYQ-U
RYMQ-U

No	Item	RXYQ8U RYYQ8U RXYQQ8U	RXYQ10-12U RYYQ10-12U RXYQQ10-12U	RXYQ14-18U RYYQ14-18U RXYQQ14-18U	RXYQ20U RYYQ20U RXYQQ20U	RYYQ22~54U RXYQ22~54U RXYQQ22~42U		
I.	Refnet header	KHRQ22M29H						
		KHRQ22M64H						
		---	---	---	KHRQ22M75H			
II.	Refnet joint	KHRQ22M20T						
		KHRQ22M29T9						
		KHRQ22M64T						
		---	---	---	KHRQ22M75T			
III.	Outdoor multi-connection kit	See note 2.	---	---	---	BHFQ22P1007		
IV.	Outdoor multi-connection kit	See note 2.	---	---	---	BHFQ22P1517		
No	Item	8HP	10HP	12HP	14HP	16HP	18HP	20HP
1a	Cool/heat selector (switch)	See note 4.	KRC19-26A					
1b	Cool/heat selector (PCB)	BRP2A81						
1c	Cool/heat selector (fixing box)	KJB111A						
2	VRV configurator	EKPCAB*						
3	Heater tape kit PCB	EKBPH012T7A			EKBPH020T7A			
4	Demand PCB	See note 5.	DTA104A61/62*					
5	Demand PCB mounting plate	See note 5.	---			KKS26B1*		

Notes

- 1 All options are kits
- 2 Only for multi units
- 3 To operate the cool/heat selector function, options 1a and 1b are both required.
- 4 To mount option 1a, option 1c is required.
- 5 To install the demand PCB on the large casing type, the demand PCB mounting plate is required.

Medium casing type VRV4 heat pump: modules 8~12HP
Large casing type VRV4 heat pump: modules 14~20HP

3D120006

4 Combination table

4 - 1 Combination Table

RXYQQ-U

VRV4-Q Heat Pump Indoor unit combination Restrictions

Indoor unit combination pattern	VRV* DX indoor	AHU
VRV* DX indoor	O	X
AHU	X	O

O: Allowed

X: Not allowed

Remarks

1) VRV* DX indoor

The non-R410A VRV DX indoor units that can be connected are mentioned in 3D085036

2) AHU

Connection of air handling unit through EKEQ* and EKEXV* kit to outdoor unit

Pair combination only

3D084966

RXYQQ-U

VRV4-Q Heat Pump non-R410A DX indoor unit compatibility list

Type of indoor unit	Unified models	R22 models
Concealed Ceiling	FXYP*KV19	FXYP*K*
	FXYS*KA7V19	FXYS*K*
	FXYP*KV19	FXYP*K*
Ceiling Mounted - 2way blow	FXYP*KV19	FXYP*K*
Ceiling Mounted - 4way blow	FXYP*KB7V19	FXYP*K*
Ceiling Mounted - corner cassette	FXYP*KV19	FXYP*K*
Ceiling Suspended	FXYP*KVE9	FXYP*K*
Floor Standing	FXYL(M)*KV19	FXYL(M)*K*
Wall Mounted	FXYP*KV19	FXYP*K*

Remark

Restrictions towards indoor unit connection:

(1) Only possible to use VRV4-Q if all the indoor units are corresponding to one of the following model groups:

- All R410A DX models
- All Unified models : refer to the limited table above. For some models special setting is required. Please contact your dealer for more information.
- All R22 DX models only models → connection only allowed upon SPN request

(2) If the indoor units are non-R410A models, a special setting on the outdoor unit is required (explained in the installation manual)

(3) Combination of

- Unified models with R410A models is not allowed
- Unified models with R22 models is not allowed
- R410A models with R22 models is not allowed

(4) Replacement of non-R410A AHU systems is possible, only if below requirements are met:

- in case of an existing ERX* system
- if AHU coil and field piping can cope with a design pressure of 33bar
- replacement of control box (EKEQ*) and expansion valve kit (EKEXV*) to R410A type is done
- AHU-installation in pair (1 outdoor to 1 AHU) is used

(5) Limitations on use of DX indoor units with VRV4 -Q Heat Pump is subject to rules mentioned in 3D084965 and 3D084966.

3D085036

4 Combination table

4 - 1 Combination Table

RXYQQ-U

RXYQ-U

RYYQ-U

RYMQ-U

Heat pump VRV4
Multi-unit standard combinations table

		8HP	10HP	12HP	14HP	16HP	18HP	20HP
Heat pump	RXYQ8* / RYYQ8* / RXYQ28*	1						
	RXYQ10* / RYYQ10* / RXYQ30*		1					
	RXYQ12* / RYYQ12* / RXYQ32*			1				
	RXYQ14* / RYYQ14* / RXYQ34*				1			
	RXYQ16* / RYYQ16* / RXYQ36*					1		
	RXYQ18* / RYYQ18* / RXYQ38*						1	
	RXYQ20* / RYYQ20* / RXYQ40*							1
Multi-combination with 2 outdoor units	RXYQ22* / RYYQ22* / RXYQ42*		1	1				
	RXYQ24* / RYYQ24* / RXYQ44*	1				1		
	RXYQ26* / RYYQ26* / RXYQ46*			1	1			
	RXYQ28* / RYYQ28* / RXYQ48*				1	1		
	RXYQ30* / RYYQ30* / RXYQ50*			1			1	
	RXYQ32* / RYYQ32* / RXYQ52*					2		
	RXYQ34* / RYYQ34* / RXYQ54*						1	1
	RXYQ36* / RYYQ36* / RXYQ56*						1	1
	RXYQ38* / RYYQ38* / RXYQ58*	1	1					1
Multi-combination with 3 outdoor units	RXYQ40* / RYYQ40* / RXYQ60*		1	1			1	
	RXYQ42* / RYYQ42* / RXYQ62*					2		
	RXYQ44* / RYYQ44*			1		2		
	RXYQ46* / RYYQ46*				1	2		
	RXYQ48* / RYYQ48*						3	
	RXYQ50* / RYYQ50*					2	1	
	RXYQ52* / RYYQ52*						1	2
	RXYQ54* / RYYQ54*							3
	RXYQ56* / RYYQ56*							4

Remark

- RXYQ8~20 = Single continuous heating
 RXYQ22~54 Multi continuous heating
 RXYQ8~20 = Single non-continuous heating
 RXYQ22~54 Multi non-continuous heating
 RXYQ8~20 Single non-continuous heating replacement (VRV4-Q)
 RXYQ22~54 Multi non-continuous heating replacement (VRV4-Q)
 1) For single unit installation RYYQ* units (continuous heating) and RXYQ* units (non-continuous heating)
 2) "Non-continuous heating" multi-outdoor-unit combinations consist of RXYQ8~20 units (e.g. RXYQ36*+RXYQ16*+RXYQ20*).
 3) "Continuous heating" multi-outdoor-unit combinations consist of RYMQ8~20 units (e.g. RYYQ36*+RYMQ16*+RYMQ20*).
 → RYMQ* units can only be used in multi-outdoor-unit combinations and cannot be used as standalone units.
 4) RYYQ8~20* units cannot be used in multi-outdoor-unit combinations.
 5) RYYQ8~20 "Continuous heating" multi-outdoor-unit combinations cannot contain RXYQ* units.
 6) RXYQ8~20 "Non-continuous heating" multi-outdoor-unit combinations cannot contain RYMQ* units.
 7) Multi "non-continuous heating" replacement models only consist of RXYQ8~20 modules (e.g. RXYQ36*=RXYQ16*+RXYQ20*).
 8) Replacement units cannot be combined with other units.
 9) T-series outdoor units and U-series outdoor units cannot share the same refrigerant circuit. When combining these units, make sure they are part of separate refrigerant circuits.

3D120060

REMQ5U

REYQ8-20U

RXYQQ8-20U

RXYTQ8-16UYF

RYYQ8-20U

RYMQ8-20U

Unit combination restrictions: VRV4 outdoor units (all models) + 15-class indoor units

Units in scope: FXZQ15A and FXAQ15A.

- In case the system contains these indoor units and the total connection ratio (CR) ≤ 100%: no special restrictions. Follow the restrictions that apply to regular VRV DX indoor units.
- In case the system contains these indoor units and the total connection ratio (CR) > 100%: special restrictions apply.
 - When the connection ratio (CR1) of the sum of all FXZQ15A and/or FXAQ15A units in the system ≤ 70%, and ALL other VRV DX indoor units have an individual capacity class > 50: no special restrictions.
 - When the connection ratio (CR1) of the sum of all FXZQ15A and/or FXAQ15A units in the system ≤ 70%, and NOT ALL other VRV DX indoor units have an individual capacity class > 50: the restrictions below apply.
 - 100% < CR ≤ 105% → CR1 of the sum of all FXZQ15A and/or FXAQ15A indoor units in the system must be ≤ 70%.
 - 105% < CR ≤ 110% → CR1 of the sum of all FXZQ15A and/or FXAQ15A indoor units in the system must be ≤ 60%.
 - 110% < CR ≤ 115% → CR1 of the sum of all FXZQ15A and/or FXAQ15A indoor units in the system must be ≤ 40%.
 - 115% < CR ≤ 120% → CR1 of the sum of all FXZQ15A and/or FXAQ15A indoor units in the system must be ≤ 25%.
 - 120% < CR ≤ 125% → CR1 of the sum of all FXZQ15A and/or FXAQ15A indoor units in the system must be ≤ 10%.
 - 125% < CR ≤ 130% → FXZQ15A and FXAQ15A cannot be used

REMARK

Only the 15-class indoor units explicitly mentioned on this page are in scope. Other indoor units follow the rules that apply to regular VRV DX indoor units.

3D104665

5 Capacity tables

5 - 1 Capacity Table Legend

In order to fulfill more your requirements on quick access of data in the format you require, we have developed a tool to consult capacity tables.

Below you can find the link to the capacity table database and an overview of all the tools we have to help you select the correct product:

- Capacity table database: lets you find back and export quickly the capacity information you are looking for based upon unit model, refrigerant temperature and connection ratio.

[Click here to access the capacity table viewer.](#)



- For more information about all our tools we offer [click here to see the overview](#) on my.daikin.eu



5 Capacity tables

5 - 2 Capacity Correction Factor

RXYQQ-U
RXYQ-U
RYYQ-U
RYMQ-U

VRV4

Heat pump

Integrated heating capacity coefficient

The heating capacity tables do not take into account the capacity reduction in case of frost accumulation or defrost operation.
The capacity values that take these factors into account, or in other words, the integrated heating capacity values, can be calculated as follows:

Formula

A = Integrated heating capacity
B = Capacity characteristics value (see table)
C = Integrated correction factor for frost accumulation (see table)
 $A = B \times C$

Inlet air temperature of heat exchanger

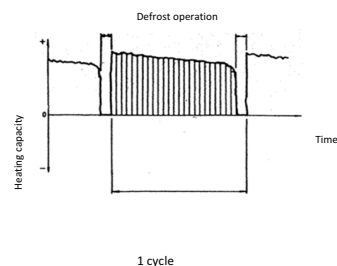
[°CDB/°CWB]	-7/-7,6 or less	-5/-5,6	-3/-3,7	0/-0,7	3/2,2	5/4,1	7/6
Integrated correction factor for frost accumulation C							
8HP	0,95	0,93	0,88	0,84	0,85	0,90	1,00
10HP	0,95	0,93	0,87	0,79	0,80	0,88	1,00
12HP	0,95	0,92	0,87	0,75	0,76	0,85	1,00
14HP	0,95	0,92	0,86	0,72	0,73	0,84	1,00
16HP	0,95	0,92	0,86	0,72	0,72	0,83	1,00
18HP	0,95	0,93	0,88	0,84	0,85	0,90	1,00
20HP	0,95	0,93	0,88	0,84	0,85	0,90	1,00
22HP	0,95	0,92	0,87	0,77	0,78	0,86	1,00
24HP	0,95	0,92	0,87	0,75	0,76	0,85	1,00
26HP	0,95	0,92	0,86	0,73	0,74	0,84	1,00
28HP	0,95	0,92	0,86	0,73	0,74	0,84	1,00
30HP	0,95	0,93	0,87	0,80	0,81	0,88	1,00
32HP	0,95	0,92	0,86	0,71	0,72	0,83	1,00
34HP	0,95	0,92	0,87	0,78	0,79	0,87	1,00
36HP	0,95	0,92	0,87	0,78	0,79	0,87	1,00
38HP	0,95	0,93	0,88	0,83	0,84	0,89	1,00
40HP	0,95	0,93	0,87	0,80	0,81	0,88	1,00
42HP	0,95	0,92	0,86	0,73	0,74	0,84	1,00
44HP	0,95	0,92	0,86	0,72	0,73	0,84	1,00
46HP	0,95	0,92	0,86	0,72	0,72	0,83	1,00
48HP	0,95	0,92	0,86	0,71	0,72	0,83	1,00
50HP	0,95	0,92	0,87	0,76	0,77	0,86	1,00
52HP	0,95	0,93	0,87	0,80	0,81	0,88	1,00
54HP	0,95	0,93	0,88	0,84	0,85	0,90	1,00

Notes

The figure shows the integrated heating capacity for a single cycle (from one defrost operation to the next).

When there is an accumulation of snow against the outdoor unit heat exchanger, there will always be a temporary reduction in capacity depending on the outdoor temperature (°C DB), relative humidity (RH) and the amount of frosting which occurs.

The multi-combination data 22~54HP corresponds with the standard multi-combination of drawing 3D079534.

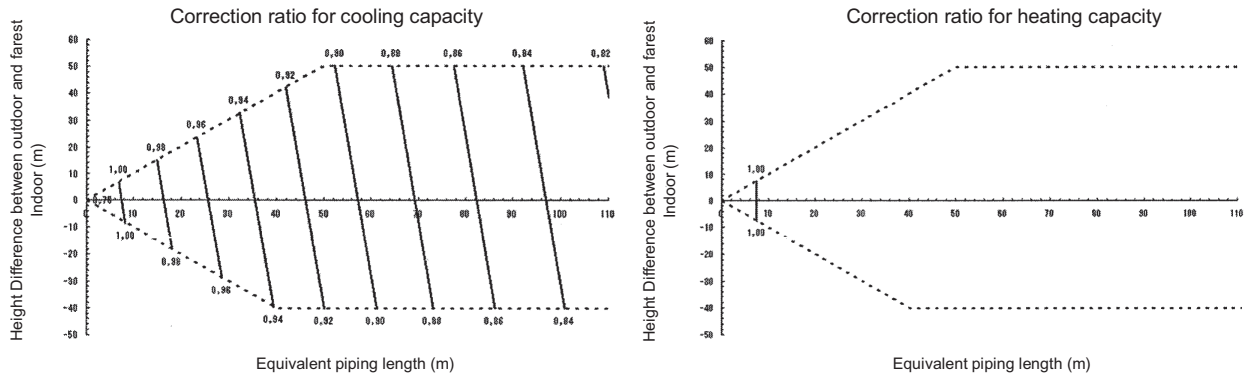


3D079898A

5 Capacity tables

5 - 2 Capacity Correction Factor

RXYQQ8U
RXYQ8U
RYYQ8U
RYMQ8U



NOTES

- These figures illustrate the correction ratio for piping length in capacity for a standard indoor unit system at maximum load (with the thermostat set to maximum) under standard conditions. Moreover, under partial load conditions, there is only a minor deviation for the capacity correction ratio, shown in the above figures.

- With this outdoor unit, constant evaporating pressure control when cooling and constant condensing pressure control when heating is carried out.

- Method of calculating the capacity of the outdoor units

The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity of the outdoor units as mentioned below, whichever is smaller.

Condition: Indoor connection ratio does not exceed 100%.

$$\begin{aligned} \text{Maximum capacity of outdoor units} &= \text{Capacity of outdoor units from capacity table at the 100\% connection ratio} \\ &\times \text{Correction ratio of piping to furthest indoor} \end{aligned}$$

Condition: Indoor connection ratio exceeds 100%.

$$\begin{aligned} \text{Maximum capacity of outdoor units} &= \text{Capacity of outdoor units from capacity table at installed connection ratio} \\ &\times \text{Correction ratio of piping to furthest indoor} \end{aligned}$$

- When level difference is 50 m or more (see installation manual and 3D079540 / 3D079543) and equivalent pipe length is 90 m or more, the diameter of the main gas and liquid pipes (outdoor unit - branch sections) must be increased.

For new diameters, see below.

Model	Gas	Liquid
8HP	22.2	12.7

- When the pipe length after the first refrigerant branch kit is more than 40 m, pipe size between first and final branch kit must be increased (only for VRV DX indoor units; details see installation manual).

*Refer to the installation manual for allowed system setups and rules for dedicated indoor connection types.

Diameter of main pipes (standard size)

Model	Gas	Liquid
8HP	19.1	9.5

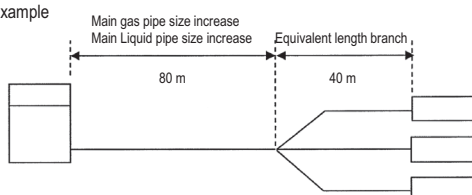
- Equivalent length used in the above figures is based upon the following equivalent length

$$\begin{aligned} \text{Equivalent piping length} &= \\ &\text{Equivalent length of main pipe} \times \text{Correction factor} \\ &+ \\ &\text{Equivalent length of branch pipes} \end{aligned}$$

Choose the correction factor from the following table. When cooling capacity is calculated: gas pipe size When heating capacity is calculated: liquid pipe size

	Correction factor	
	Standard size	Size increase
Cooling (gas pipe)	1.0	0.5
Heating (liquid pipe)	1.0	0.5

Example



In the above case (Cooling) Overall equivalent length = 80 m x 0.5 + 40 m = 80 m

(Heating) Overall equivalent length = 80 m x 0.5 + 40 m = 80 m

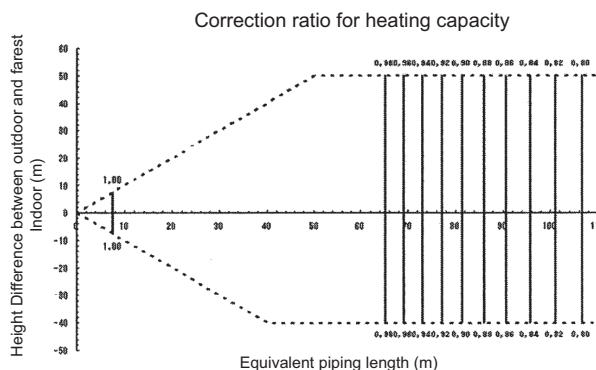
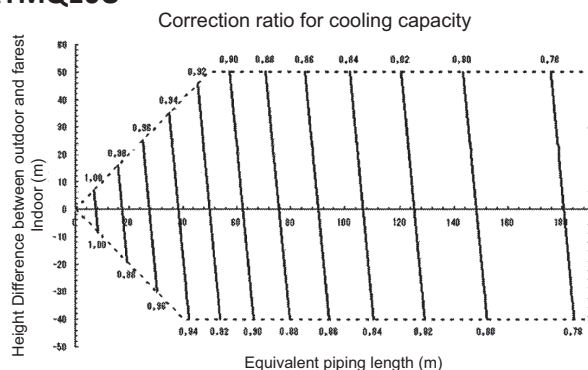
The rate of change in cooling capacity when height difference = 0 is thus approximately 0.86
heating capacity when height difference = 0 is thus approximately 1.0

3D079897A

5 Capacity tables

5 - 2 Capacity Correction Factor

RXYQQ10U
RXYQ10U
RYYQ10U
RYMQ10U



NOTES

- These figures illustrate the correction ratio for piping length in capacity for a standard indoor unit system at maximum load (with the thermostat set to maximum) under standard conditions. Moreover, under partial load conditions, there is only a minor deviation for the capacity correction ratio, shown in the above figures.

- With this outdoor unit, constant evaporating pressure control when cooling and constant condensing pressure control when heating is carried out.

- Method of calculating the capacity of the outdoor units

The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity of the outdoor units as mentioned below, whichever is smaller.

Condition: Indoor connection ratio does not exceed 100%.

$$\begin{aligned} \text{Maximum capacity of outdoor units} &= \text{Capacity of outdoor units from capacity table at the 100\% connection ratio} \\ &\times \text{Correction ratio of piping to furthest indoor} \end{aligned}$$

Condition: Indoor connection ratio exceeds 100%.

$$\begin{aligned} \text{Maximum capacity of outdoor units} &= \text{Capacity of outdoor units from capacity table at installed connection ratio} \\ &\times \text{Correction ratio of piping to furthest indoor} \end{aligned}$$

- When level difference is 50 m or more (see installation manual and 3D079540 / 3D079543) and equivalent pipe length is 90 m or more, the diameter of the main gas and liquid pipes (outdoor unit - branch sections) must be increased. For new diameters, see below.

Model	Gas	Liquid
RXYQ10P	25.4*	12.7

*If not available on site, do not increase. If not increased correction factor should be applied to the equivalent length (see note 6).

- When the pipe length after the first refrigerant branch kit is more than 40 m, pipe size between first and final branch kit must be increased (only for VRV DX indoor units; details see installation manual).

*Refer to the installation manual for allowed system setups and rules for dedicated indoor connection types.

Diameter of main pipes (standard size)

Model	Gas	Liquid
10 HP	22.2	9.5

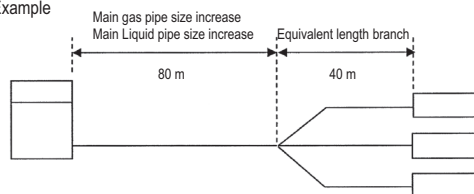
- Equivalent length used in the above figures is based upon the following equivalent length

$$\begin{aligned} \text{Equivalent piping length} &= \\ \text{Equivalent length of main pipe} &\times \text{Correction factor} \\ + \\ \text{Equivalent length of branch pipes} \end{aligned}$$

Choose the correction factor from the following table. When cooling capacity is calculated: gas pipe size When heating capacity is calculated: liquid pipe size

	Correction factor	
	Standard size	Size increase
Cooling (gas pipe)	1.0	0.5
Heating (liquid pipe)	1.0	0.5

Example



In the above case (Cooling) Overall equivalent length = $80 \text{ m} \times 0.5 + 40 \text{ m} = 80 \text{ m}$
(Heating) Overall equivalent length = $80 \text{ m} \times 0.5 + 40 \text{ m} = 80 \text{ m}$
The rate of change in cooling capacity when height difference = 0 is thus approximately 0.87
heating capacity when height difference = 0 is thus approximately 0.90

3D079897A

5 Capacity tables

5 - 2 Capacity Correction Factor

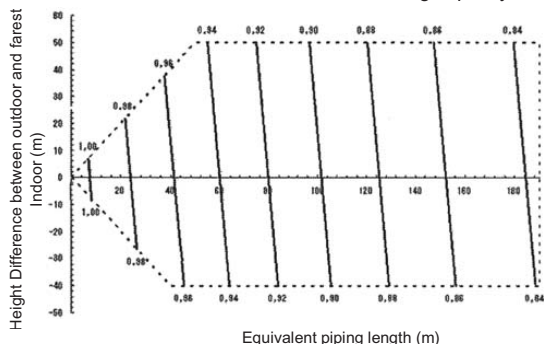
RXYQQ12,14,16,24,36U

RXYQ12,14,24,36U

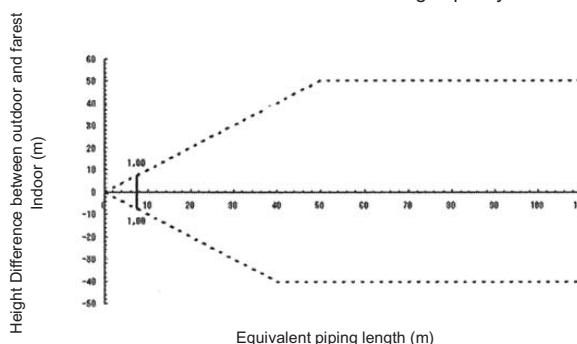
RYYQ12,14,24,36U

RYMQ12,14U

Correction ratio for cooling capacity



Correction ratio for heating capacity



NOTES

- These figures illustrate the correction ratio for piping length in capacity for a standard indoor unit system at maximum load (with the thermostat set to maximum) under standard conditions. Moreover, under partial load conditions, there is only a minor deviation for the capacity correction ratio, shown in the above figures.
- With this outdoor unit, constant evaporating pressure control when cooling and constant condensing pressure control when heating is carried out.
- Method of calculating the capacity of the outdoor units
The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity of the outdoor units as mentioned below, whichever is smaller.

Condition: Indoor connection ratio does not exceed 100%.

$$\text{Maximum capacity of outdoor units} = \text{Capacity of outdoor units from capacity table at the 100\% connection ratio} \times \text{Correction ratio of piping to furthest indoor}$$

Condition: Indoor connection ratio exceeds 100%.

$$\text{Maximum capacity of outdoor units} = \text{Capacity of outdoor units from capacity table at installed connection ratio} \times \text{Correction ratio of piping to furthest indoor}$$

- When level difference is 50 m or more (see installation manual and 3D079540 / 3D079543) and equivalent pipe length is 90 m or more, the diameter of the main gas and liquid pipes (outdoor unit - branch sections) must be increased. For new diameters, see below.

Model	Gas	Liquid
12 HP	28.6	15.9
14 HP	28.6	15.9
24 HP	34.9	19.1
36 HP	41.3	22.2

- When the pipe length after the first refrigerant branch kit is more than 40 m, pipe size between first and final branch kit must be increased (only for VRV DX indoor units; details see installation manual).
*Refer to the installation manual for allowed system setups and rules for dedicated indoor connection types.

Diameter of main pipes (standard size)

Model	Gas	Liquid
12 HP	28.6	12.7
14 HP	28.6	12.7
24 HP	34.9	15.9
36 HP	41.3	19.1

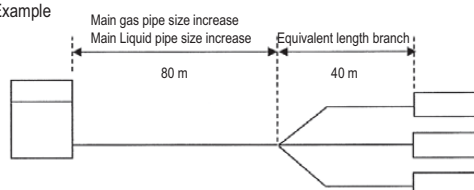
- Equivalent length used in the above figures is based upon the following equivalent length

$$\text{Equivalent piping length} = \text{Equivalent length of main pipe} \times \text{Correction factor} + \text{Equivalent length of branch pipes}$$

Choose a correction factor from the following table. When cooling capacity is calculated: gas pipe size When heating capacity is calculated: liquid pipe size

	Correction factor	
	Standard size	Size increase
Cooling (gas pipe)	1.0	1.0
Heating (liquid pipe)	1.0	0.5

Example



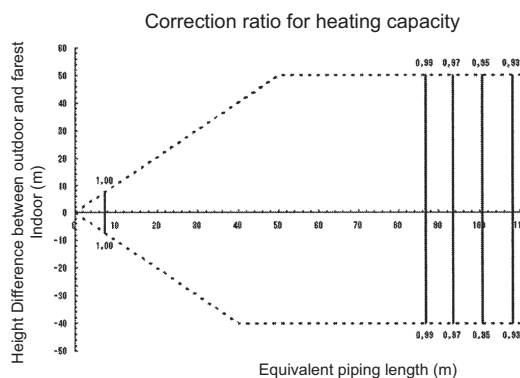
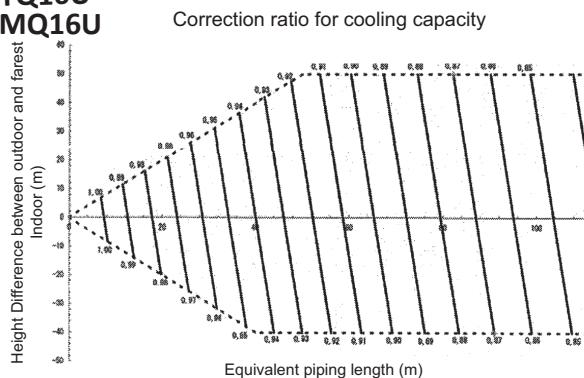
In the above case (Cooling) Overall equivalent length = 80 m x 1.0 + 40 m = 120 m
(Heating) Overall equivalent length = 80 m x 0.5 + 40 m = 80 m
The rate of change in cooling capacity when height difference = 0 is thus approximately 0.89
heating capacity when height difference = 0 is thus approximately 1.0

3D079897A

5 Capacity tables

5 - 2 Capacity Correction Factor

RXYQQ16U
RXYQ16U
RYYQ16U
RYMQ16U



NOTES

- These figures illustrate the correction ratio for piping length in capacity for a standard indoor unit system at maximum load (with the thermostat set to maximum) under standard conditions. Moreover, under partial load conditions, there is only a minor deviation for the capacity correction ratio, shown in the above figures.
- With this outdoor unit, constant evaporating pressure control when cooling and constant condensing pressure control when heating is carried out.
- Method of calculating the capacity of the outdoor units
The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity of the outdoor units as mentioned below, whichever is smaller.

Condition: Indoor connection ratio does not exceed 100%.

$$\text{Maximum capacity of outdoor units} = \text{Capacity of outdoor units from capacity table at the 100\% connection ratio} \times \text{Correction ratio of piping to furthest indoor}$$

Condition: Indoor connection ratio exceeds 100%.

$$\text{Maximum capacity of outdoor units} = \text{Capacity of outdoor units from capacity table at installed connection ratio} \times \text{Correction ratio of piping to furthest indoor}$$

- When level difference is 50 m or more (see installation manual and 3D079540 / 3D079543) and equivalent pipe length is 90 m or more, the diameter of the main gas and liquid pipes (outdoor unit - branch sections) must be increased. For new diameters, see below.

Model	Gas	Liquid
16 HP	31.8*	15.9

*If not available on site, do not increase. If not increased correction factor should be applied to the equivalent length (see note 6).

- When the pipe length after the first refrigerant branch kit is more than 40 m, pipe size between first and final branch kit must be increased (only for VRV DX indoor units; details see installation manual).

*Refer to the installation manual for allowed system setups and rules for dedicated indoor connection types.

Diameter of main pipes (standard size)

Model	Gas	Liquid
16 HP	28.6	12.7

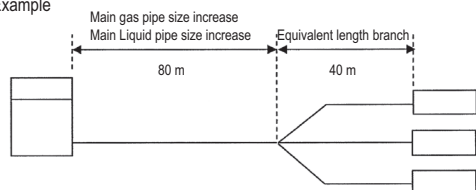
- Equivalent length used in the above figures is based upon the following equivalent length

$$\begin{aligned} \text{Equivalent piping length} &= \\ &= \text{Equivalent length of main pipe} \times \text{Correction factor} \\ &+ \\ &+ \text{Equivalent length of branch pipes} \end{aligned}$$

Choose a correction factor from the following table. When cooling capacity is calculated: gas pipe size When heating capacity is calculated: liquid pipe size

	Correction factor	
	Standard size	Size increase
Cooling (gas pipe)	1.0	0.5
Heating (liquid pipe)	1.0	0.5

Example



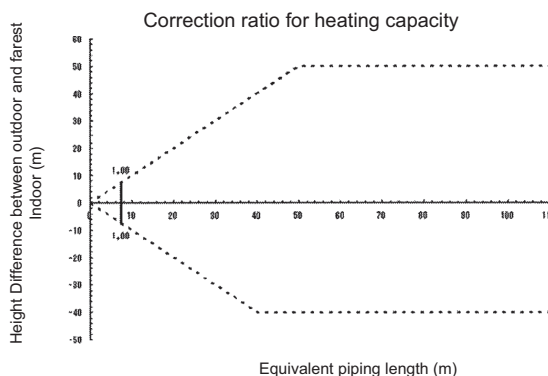
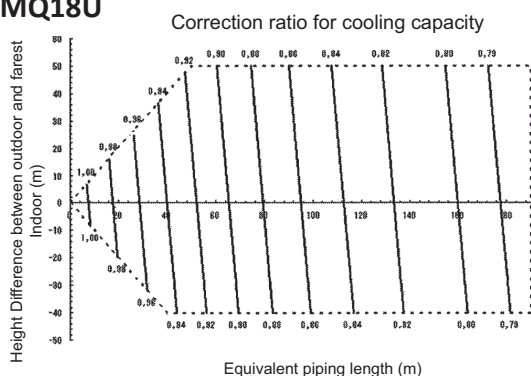
In the above case (Cooling) Overall equivalent length = $80 \text{ m} \times 1.0 + 40 \text{ m} = 80 \text{ m}$
(Heating) Overall equivalent length = $80 \text{ m} \times 0.5 + 40 \text{ m} = 80 \text{ m}$
The rate of change in cooling capacity when height difference = 0 is thus approximately 0.88
heating capacity when height difference = 0 is thus approximately 0.99

3D079897A

5 Capacity tables

5 - 2 Capacity Correction Factor

RXYQQ18,26,28,30,38,42,44U
 RXYQ18,26,28,30,38,42,44U
 RYYQ18,26,28,30,38,42,44U
 RYMQ18U



NOTES

- These figures illustrate the correction ratio for piping length in capacity for a standard indoor unit system at maximum load (with the thermostat set to maximum) under standard conditions. Moreover, under partial load conditions, there is only a minor deviation for the capacity correction ratio, shown in the above figures.

- With this outdoor unit, constant evaporating pressure control when cooling and constant condensing pressure control when heating is carried out.

- Method of calculating the capacity of the outdoor units

The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity of the outdoor units as mentioned below, whichever is smaller.

Condition: Indoor connection ratio does not exceed 100%.

$$\text{Maximum capacity of outdoor units} = \text{Capacity of outdoor units from capacity table at the 100\% connection ratio} \times \text{Correction ratio of piping to furthest indoor}$$

Condition: Indoor connection ratio exceeds 100%.

$$\text{Maximum capacity of outdoor units} = \text{Capacity of outdoor units from capacity table at installed connection ratio} \times \text{Correction ratio of piping to furthest indoor}$$

- When level difference is 50 m or more (see installation manual and 3D079540 / 3D079543) and equivalent pipe length is 90 m or more, the diameter of the main gas and liquid pipes (outdoor unit - branch sections) must be increased. For new diameters, see below.

Model	Gas	Liquid
18 HP	31.8*	19.1
26~30 HP	38.1*	22.2
38~44 HP	41.3	22.2

*If not available on site, do not increase. If not increased correction factor should be applied to the equivalent length (see note 6).

- When the pipe length after the first refrigerant branch kit is more than 40 m, pipe size between first and final branch kit must be increased (only for VRV DX indoor units; details see installation manual).

*Refer to the installation manual for allowed system setups and rules for dedicated indoor connection types.

Diameter of main pipes (standard size)

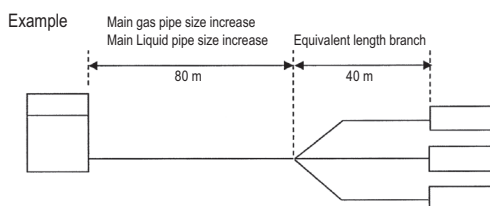
Model	Gas	Liquid
18 HP	28.6	15.9
26~30 HP	34.9	19.1
38~44 HP	41.3	19.1

- Equivalent length used in the above figures is based upon the following equivalent length

$$\text{Equivalent piping length} = \text{Equivalent length of main pipe} \times \text{Correction factor} + \text{Equivalent length of branch pipes}$$

Choose the correction factor from the following table. When cooling capacity is calculated: gas pipe size When heating capacity is calculated: liquid pipe size

	Correction factor	
	Standard size	Size increase
Cooling (gas pipe)	1.0	0.5
Heating (liquid pipe)	1.0	0.5



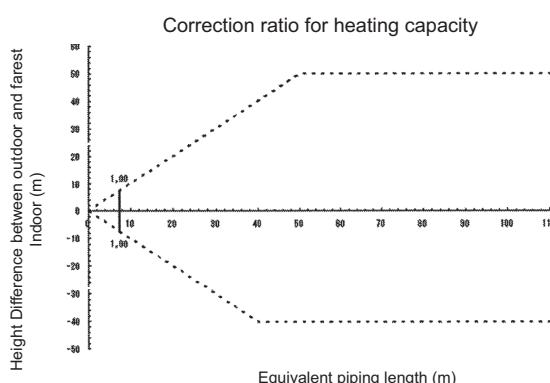
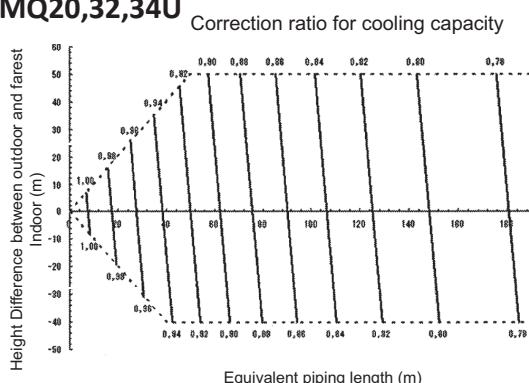
In the above case (for RXYQ38-44) (Cooling) Overall equivalent length = 80 m x 1.0 + 40 m = 120 m
 (Heating) Overall equivalent length = 80 m x 0.5 + 40 m = 80 m
 The rate of change in cooling capacity when height difference = 0 is thus approximately 0.83
 heating capacity when height difference = 0 is thus approximately 1.0

3D079897A

5 Capacity tables

5 - 2 Capacity Correction Factor

RXYQQ20,32,34U
RXYQ20,32,34U
RYYQ20,32,34U
RYMQ20,32,34U



NOTES

- These figures illustrate the correction ratio for piping length in capacity for a standard indoor unit system at maximum load (with the thermostat set to maximum) under standard conditions. Moreover, under partial load conditions, there is only a minor deviation for the capacity correction ratio, shown in the above figures.
- With this outdoor unit, constant evaporating pressure control when cooling and constant condensing pressure control when heating is carried out.
- Method of calculating the capacity of the outdoor units
The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity of the outdoor units as mentioned below, whichever is smaller.

Condition: Indoor connection ratio does not exceed 100%.

$$\text{Maximum capacity of outdoor units} = \text{Capacity of outdoor units from capacity table at the 100\% connection ratio} \times \text{Correction ratio of piping to furthest indoor}$$

Condition: Indoor connection ratio exceeds 100%.

$$\text{Maximum capacity of outdoor units} = \text{Capacity of outdoor units from capacity table at installed connection ratio} \times \text{Correction ratio of piping to furthest indoor}$$

- When level difference is 50 m or more (see installation manual and 3D079540 / 3D079543) and equivalent pipe length is 90 m or more, the diameter of the main gas and liquid pipes (outdoor unit - branch sections) must be increased. For new diameters, see below.

Model	Gas	Liquid
20 HP	31.8*	19.1
32/34 HP	38.1*	22.2

*If not available on site, do not increase. If not increased correction factor should be applied to the equivalent length (see note 6).

- When the pipe length after the first refrigerant branch kit is more than 40 m, pipe size between first and final branch kit must be increased (only for VRV DX indoor units; details see installation manual).

*Refer to the installation manual for allowed system setups and rules for dedicated indoor connection types.

Diameter of main pipes (standard size)

Model	Gas	Liquid
20 HP	28.6	15.9
32/34 HP	34.9	19.1

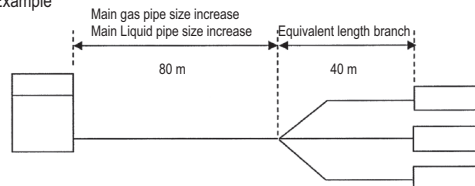
- Equivalent length used in the above figures is based upon the following equivalent length

$$\begin{aligned} \text{Equivalent piping length} &= \\ \text{Equivalent length of main pipe} &\times \text{Correction factor} \\ + \\ \text{Equivalent length of branch pipes} \end{aligned}$$

Choose a correction factor from the following table. When cooling capacity is calculated: gas pipe size When heating capacity is calculated: liquid pipe size

	Correction factor	
	Standard size	Size increase
Cooling (gas pipe)	1.0	0.5
Heating (liquid pipe)	1.0	0.5

Example



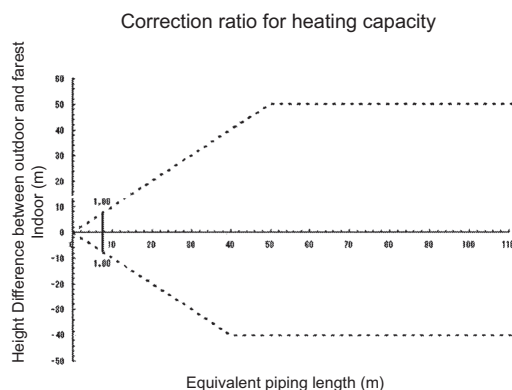
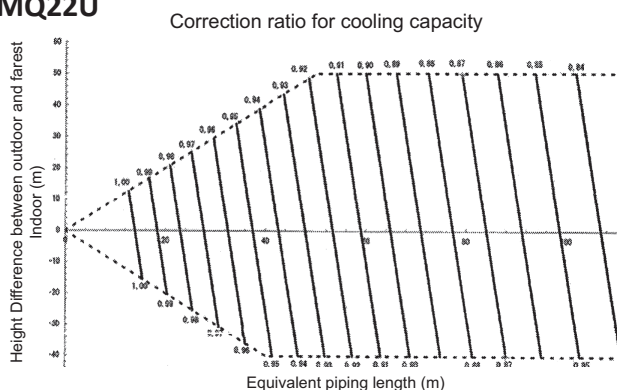
In the above case (Cooling) Overall equivalent length = 80 m x 0.5 + 40 m = 80 m
(Heating) Overall equivalent length = 80 m x 0.5 + 40 m = 80 m
The rate of change in cooling capacity when height difference = 0 is thus approximately 0.88
heating capacity when height difference = 0 is thus approximately 1.0

3D079897A

5 Capacity tables

5 - 2 Capacity Correction Factor

RXYQQ22U
RXYQ22U
RYYQ22U
RYMQ22U



NOTES

- These figures illustrate the correction ratio for piping length in capacity for a standard indoor unit system at maximum load (with the thermostat set to maximum) under standard conditions. Moreover, under partial load conditions, there is only a minor deviation for the capacity correction ratio, shown in the above figures.

- With this outdoor unit, constant evaporating pressure control when cooling and constant condensing pressure control when heating is carried out.

- Method of calculating the capacity of the outdoor units

The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity of the outdoor units as mentioned below, whichever is smaller.

Condition: Indoor connection ratio does not exceed 100%.

$$\text{Maximum capacity of outdoor units} = \text{Capacity of outdoor units from capacity table at the 100\% connection ratio} \times \text{Correction ratio of piping to furthest indoor}$$

Condition: Indoor connection ratio exceeds 100%.

$$\text{Maximum capacity of outdoor units} = \text{Capacity of outdoor units from capacity table at installed connection ratio} \times \text{Correction ratio of piping to furthest indoor}$$

- When level difference is 50 m or more (see installation manual and 3D079540 / 3D079543) and equivalent pipe length is 90 m or more, the diameter of the main gas and liquid pipes (outdoor unit - branch sections) must be increased. For new diameters, see below.

Model	Gas	Liquid
22 HP	31.8*	19.1

* If not available on site, do not increase, if not increased, no correction factor should be applied to the equivalent length (see note 6).

- When the pipe length after the first refrigerant branch kit is more than 40 m, pipe size between first and final branch kit must be increased (only for VRV DX indoor units; details see installation manual).

*Refer to the installation manual for allowed system setups and rules for dedicated indoor connection types.

Diameter of main pipes (standard size)

Model	Gas	Liquid
22 HP	28.6	15.9

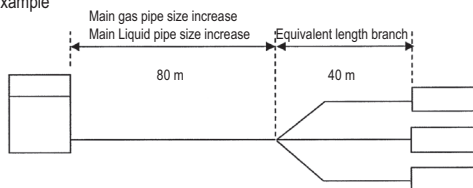
- Equivalent length used in the above figures is based upon the following equivalent length

$$\begin{aligned} \text{Overall equivalent length} &= \\ \text{Equivalent length of main pipe} &\times \text{Correction factor} \\ + \\ \text{Equivalent length of branch pipes} \end{aligned}$$

Choose a correction factor from the following table. When cooling capacity is calculated: gas pipe size When heating capacity is calculated: liquid pipe size

	Correction factor	
	Standard size	Size increase
Cooling (gas pipe)	1.0	0.5
Heating (liquid pipe)	1.0	0.5

Example



In the above case (Cooling) Overall equivalent length = 80 m x 0.5 + 40 m = 80 m

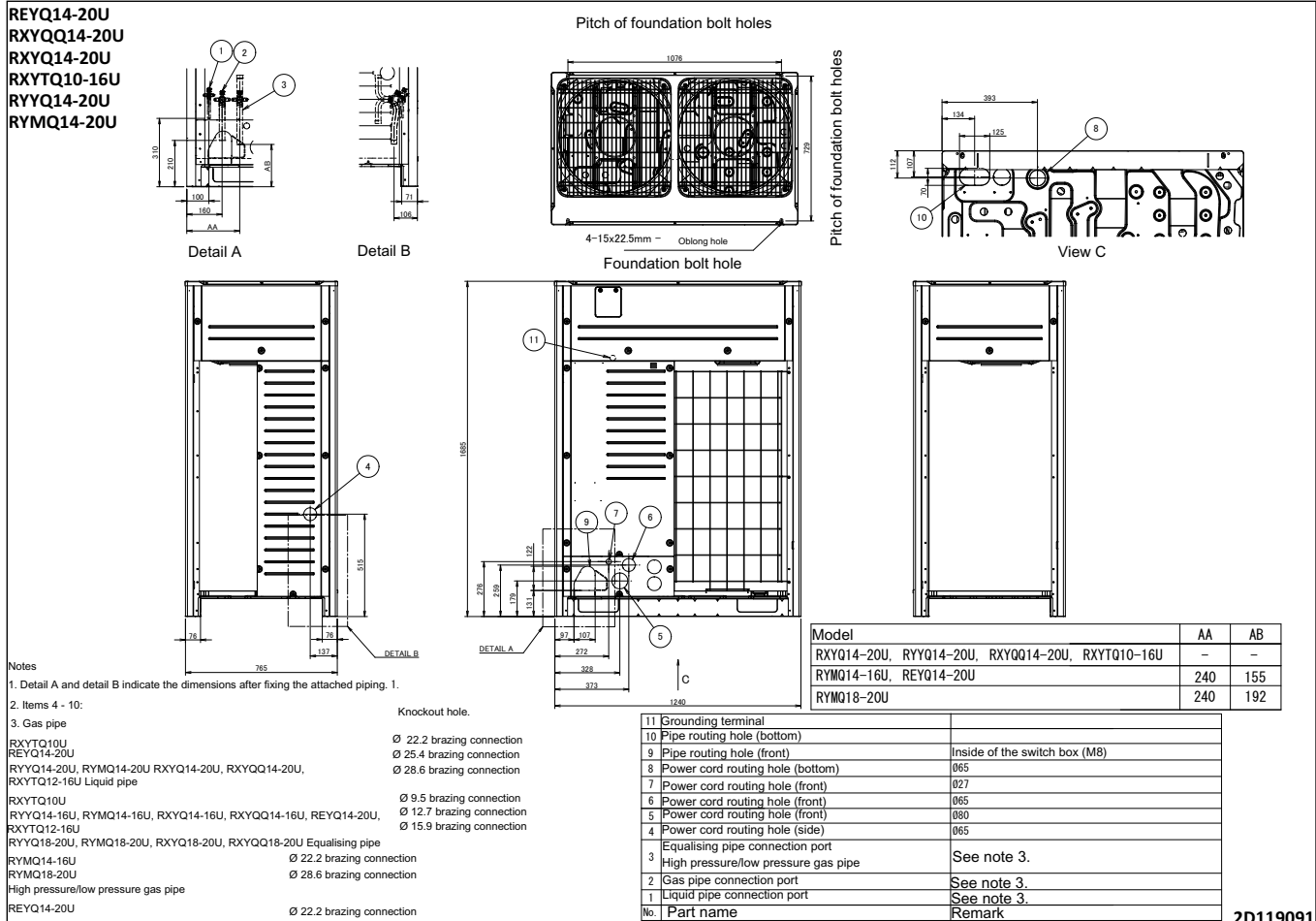
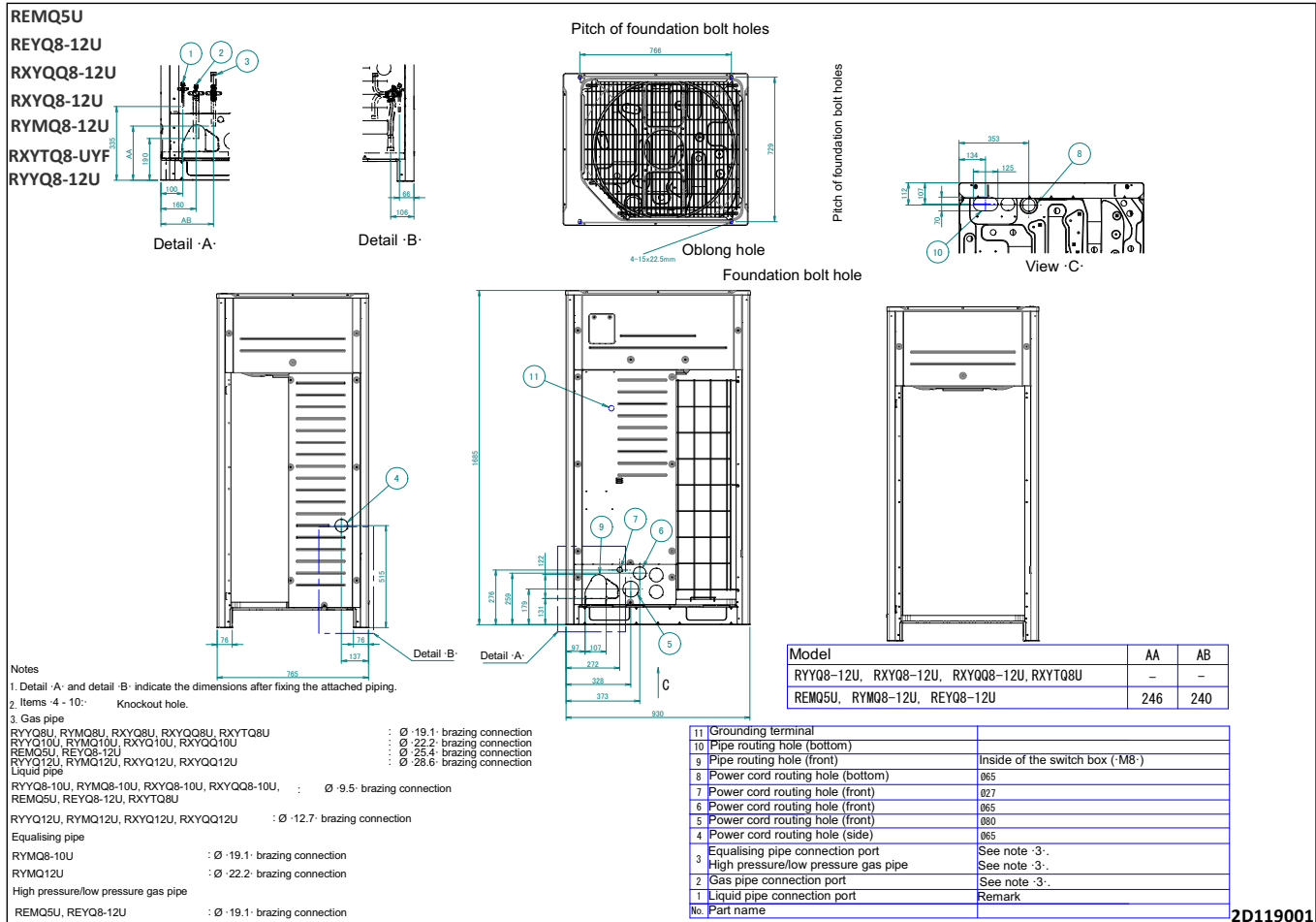
(Heating) Overall equivalent length = 80 m x 0.5 + 40 m = 80 m

The rate of change in cooling capacity when height difference = 0 is thus approximately 0.88
heating capacity when height difference = 0 is thus approximately 1.0

3D079897A

6 Dimensional drawings

6 - 1 Dimensional Drawings

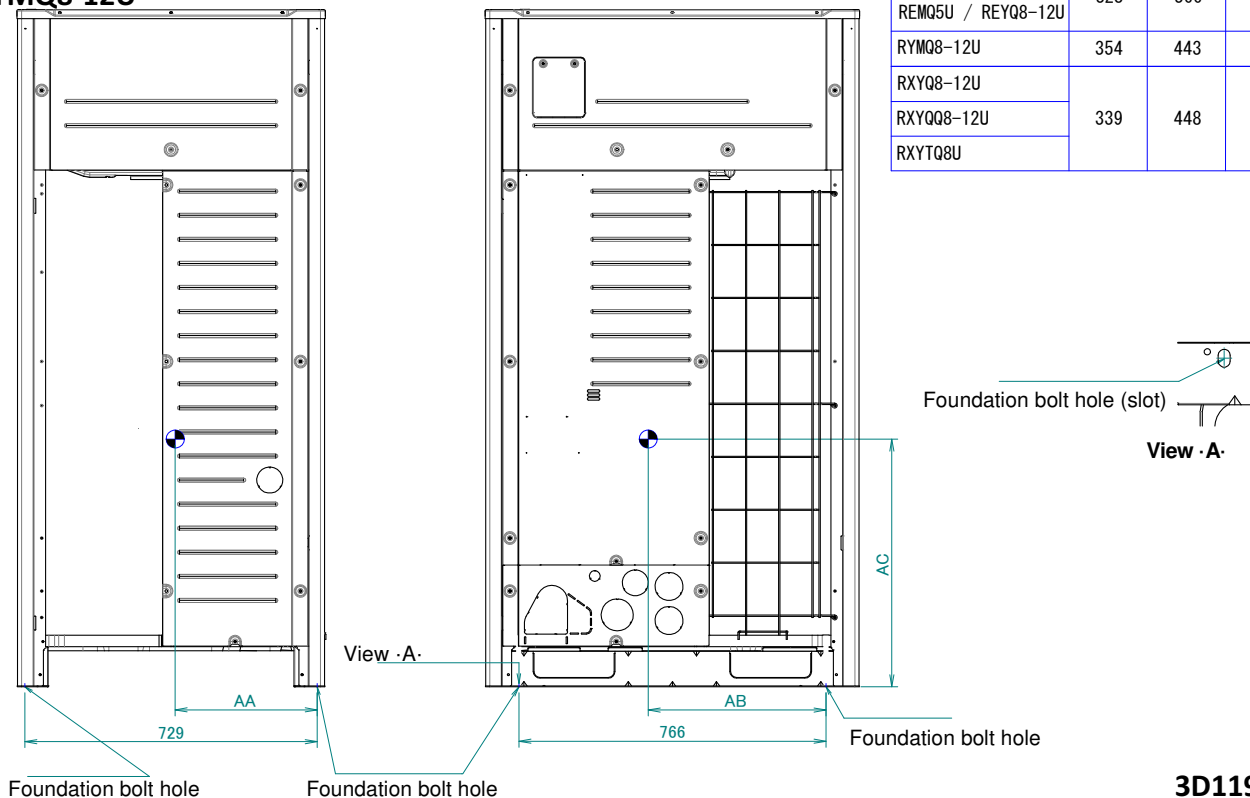


7 Centre of gravity

7 - 1 Centre of Gravity

RXYQQ8-12U
RXYQ8-12U
RXYTQ8U
RYYQ8-12U
RYYM8-12U

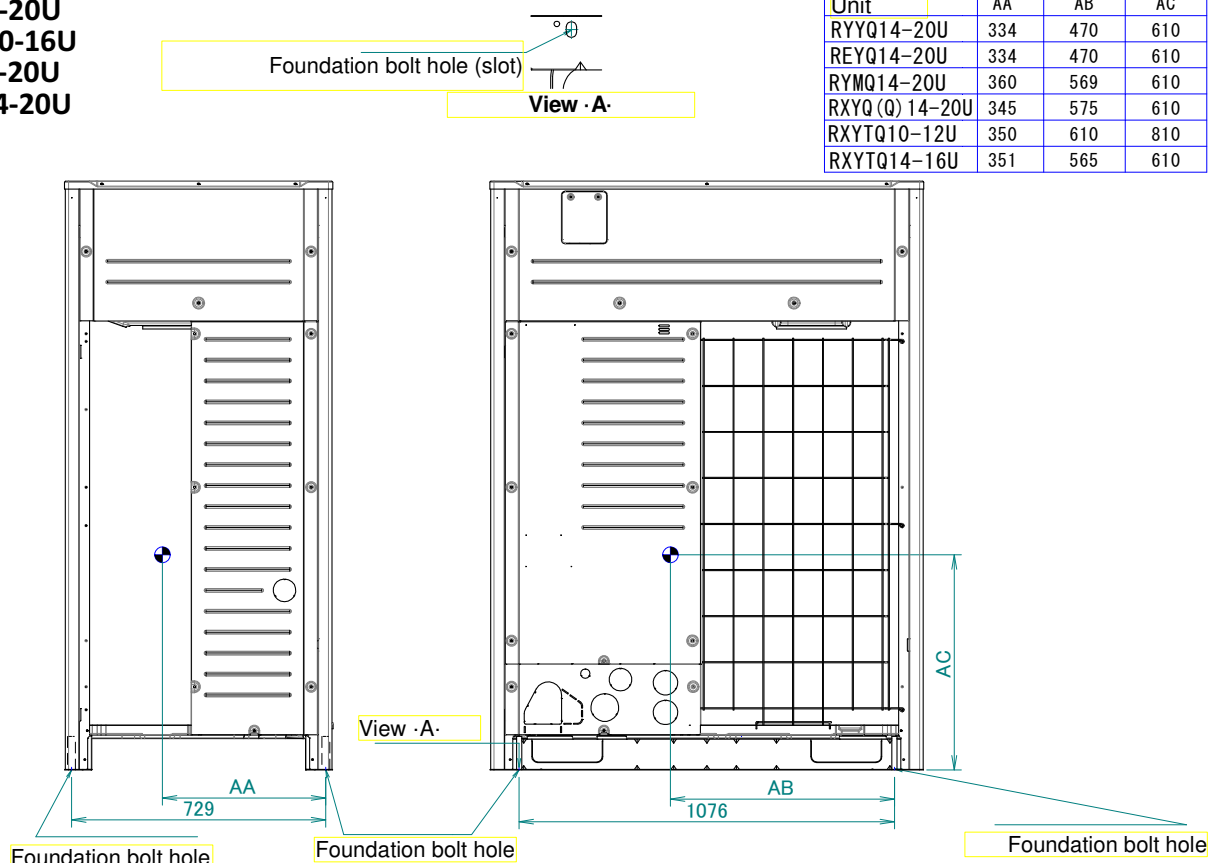
Unit	AA	AB	AC
RYYQ8-12U	328	366	565
REMQ5U / REYQ8-12U			
RYYM8-12U	354	443	565
RXYQ8-12U	339	448	565
RXYQQ8-12U			
RXYTQ8U			



3D119703

RXYQQ14-20U
RXYQ14-20U
RXYTQ10-16U
RYYQ14-20U
RYYM14-20U

Unit	AA	AB	AC
RYYQ14-20U	334	470	610
REYQ14-20U	334	470	610
RYYM14-20U	360	569	610
RXYQ (Q) 14-20U	345	575	610
RXYTQ10-12U	350	610	810
RXYTQ14-16U	351	565	610

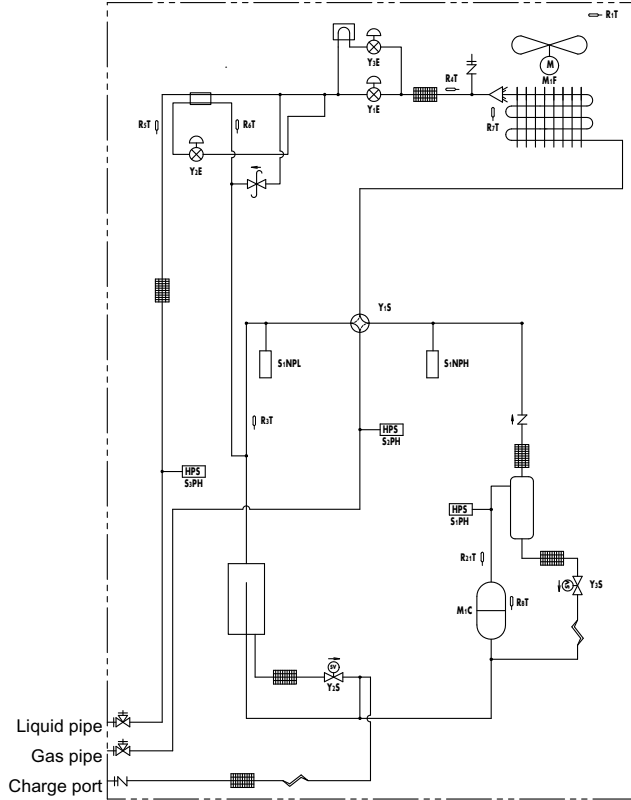


3D119704

8 Piping diagrams

8 - 1 Piping Diagrams

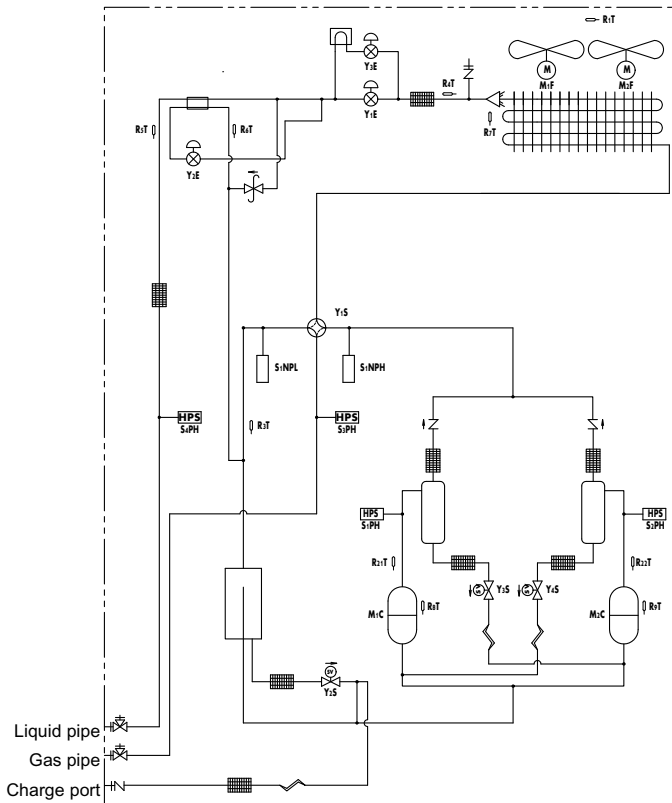
RXYQQ8-12U



- Charge port / Service port
- Stop valve
- Filter
- Check valve
- Pressure relief valve
- Thermistor
- Heat sink (PCB)
- Capillary tube
- Expansion valve
- 4-way valve
- Propeller fan
- High pressure switch
- Low pressure sensor
- High pressure sensor
- Accumulator
- Heat exchanger
- Compressor
- Oil separator
- Double tube heat exchanger
- Distributor
- Solenoid valve

3D118181

RXYQQ14-20U



- Charge port / Service port
- Stop valve
- Filter
- Check valve
- Pressure relief valve
- Heat sink
- Thermistor (PCB)
- Capillary tube
- Expansion valve
- 4-way valve
- Propeller fan
- High pressure switch
- Low pressure sensor
- High pressure sensor
- Accumulator
- Heat exchanger
- Compressor
- Oil separator
- Double tube heat exchanger
- Distributor
- Solenoid valve

3D118182

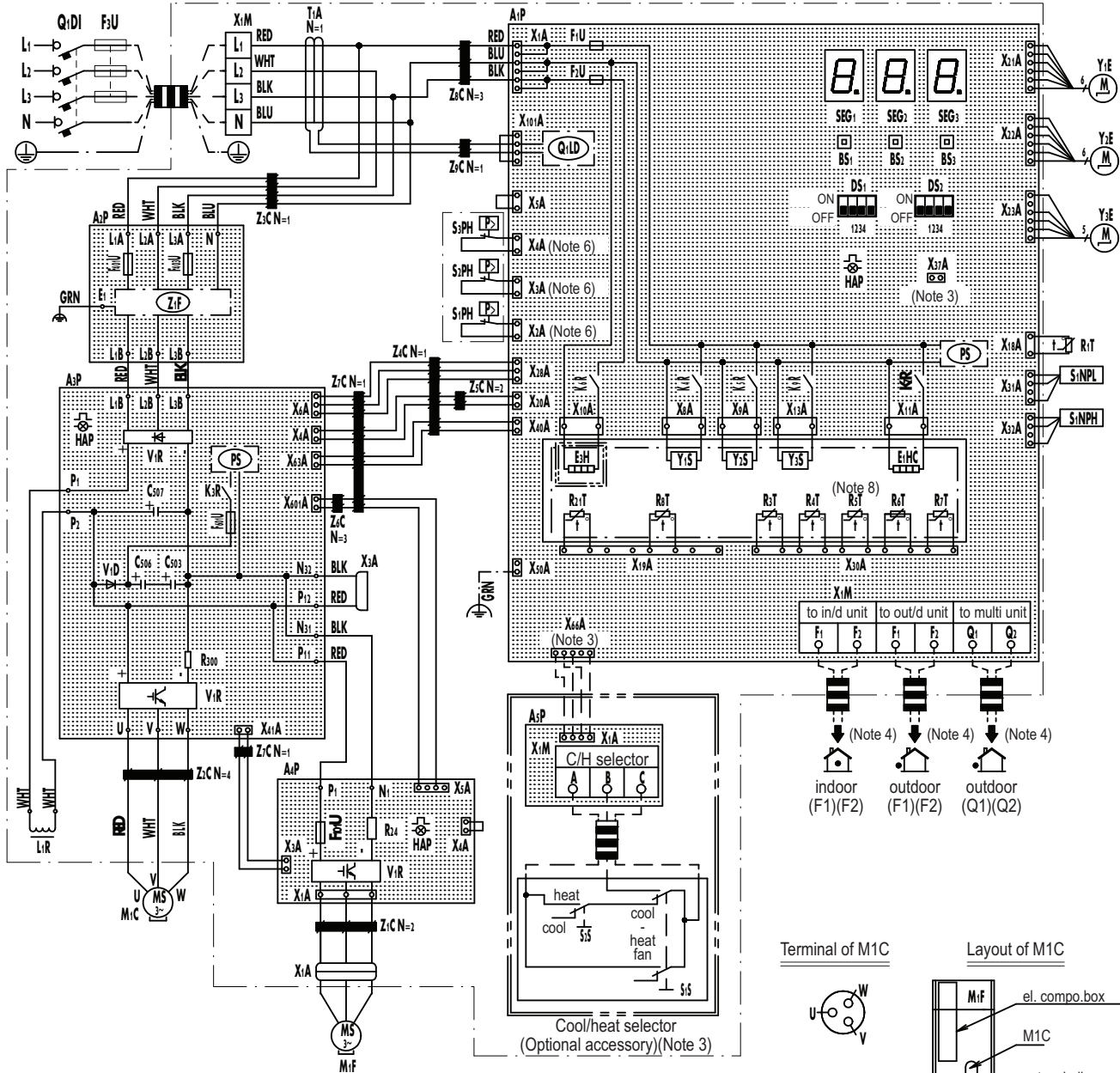
9 Wiring diagrams

9 - 1 Wiring Diagrams - Three Phase

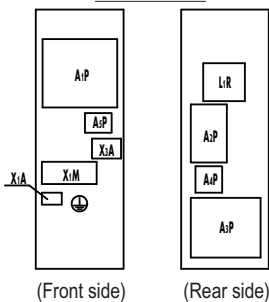
RXYQQ8-12U

Power supply 3N~ 380-415V 50Hz
3N~ 380V 60Hz

Wiring diagram



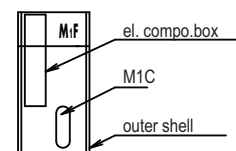
El. compo.box



Terminal of M1C



Layout of M1C



9 Wiring diagrams

9 - 1 Wiring Diagrams - Three Phase

RXYQQ8-12U

A1P	Printed Circuit Board (Main)	R4T	Thermistor (Heat Exc,Liq,Pipe)
A2P	Printed Circuit Board (Noise Filter)	R5T	Thermistor (Subcool,Liq,Pipe)
A3P	Printed Circuit Board (Inv)	R6T	Thermistor (Heat Exc,Gas Pipe)
A4P	Printed Circuit Board (Fan)	R7T	Thermistor (Heat Exc,Deicer)
A5P	Printed Circuit Board (ABC I/P)(Option)	R8T	Thermistor (M1C body)
BS1~3 (A1P)	Push Button Switch (Mode,Set,Return)	R21T	Thermistor (M1C discharge)
C503,C506,C507 (A3P)	Capacitor	S1NPH	Pressure Sensor (High)
DS1,DS2 (A1P)	DIP Switch	S1NPL	Pressure Sensor (Low)
E1HC	Crankcase Heater	S1PH	Pressure Switch (Disch)
E3H	Drainpan Heater (Option)	S2PH	Pressure Switch (Gas)
F1U,F2U (A1P)	Fuse (T,3,15A,250V)	S3PH	Pressure Switch (Liquid)
F3U	Field Fuse	SEG1~SEG3 (A1P)	7-Segment Display
F101U (A4P)	Fuse	T1A	Current Sensor
F401U,F403U (A2P)	Fuse	V1D (A3P)	Diode
F601U (A3P)	Fuse	V1R (A3P,A4P)	Power Module
HAP (A1P,A3P, A4P)	Pilotlamp (Service Monitor-Green)	X*A	Connector
K3R (A3P)	Magnetic Relay	X1M (A1P)	Terminal Block (Control)
K4R (A1P)	Magnetic Relay (Y1S)	X1M (A5P)	Terminal Block (Power Supply)(Option)
K5R (A1P)	Magnetic Relay (Y2S)	Y1E	Electronic Expansion Valve(Main)
K6R (A1P)	Magnetic Relay (E3H)	Y2E	Electronic Expansion Valve (Injection)
K7R (A1P)	Magnetic Relay (E1HC)	Y3E	Electronic Expansion Valve (Refrigerant Jacket)
K9R (A1P)	Magnetic Relay (Y3S)	Y1S	Solenoid Valve (Main)
L1R	Reactor	Y2S	Solenoid Valve (Accumulator Oil Return)
M1C	Motor (Compressor)	Y3S	Solenoid Valve (Oil1)
M1F	Motor (Fan)	Z*C	Noise Filter (Ferrite Core)
PS (A1P,A3P)	Switching Power Supply	Z*F (A2P)	Noise Filter (With Surge Absorber)
Q1DI	Field Earth Leakage Breaker	Connector For Optional Accessories	
Q1LD (A1P)	Field Earth Current Detector	X10A	Connector (Drainpan Heater)
R24 (A4P)	Resistor (Current Sensor)	X37A	Connector (Power Adapter)
R300 (A3P)	Resistor (Current Sensor)	X66A	Connector (Remote Switching Cool/Heat Selector)
R1T	Thermistor (Air)		
R3T	Thermistor (Accumulator)		

NOTES

1. This wiring diagram applies only to the outdoor unit.
2. :field wiring, :terminal block, :connector, :terminal, : protective earth (screw), : functional earth, : earth wiring, : field supply, : PCB, : switch box, : option
3. When using the optional adapter, refer to the installation manual of the optional adapter.
4. For connection wiring to indoor-outdoor transmission F1-F2, outdoor-outdoor transmission F1-F2, outdoor-multi transmission Q1-Q2, refer to the installation manual.
5. How to use BS1~3 switch. Refer to "service precaution" label on el. compo. box cover.
6. When operating, don't shortcircuit the protection devices (S1PH,S2PH,S3PH).
7. Colors: BLK: Black, RED: Red, BLU: Blue, WHT: White, GRN: Green.

2D117535

9 - 1 Wiring Diagrams - Three Phase

Wiring diagram



9 Wiring diagrams

9 - 1 Wiring Diagrams - Three Phase

RXYQQ14-20U

A1P	Printed Circuit Board (Main)	R300 (A3P,A6P)	Resistor (Current Sensor)
A2P,A5P	Printed Circuit Board (Noise Filter)	R1T	Thermistor (Air)
A3P,A6P	Printed Circuit Board (Inv)	R3T	Thermistor (Accumulator)
A4P,A7P	Printed Circuit Board (Fan)	R4T	Thermistor (Heat Exc,Liq,Pipe)
A8P	Printed Circuit Board (ABC I/P)	R5T	Thermistor (Subcool,Liq,Pipe)
BS1~3 (A1P)	Push button switch (mode,set,return)	R6T	Thermistor (Heat Exc,Gas Pipe)
C503,C506,C507 (A3P,A6P)	Capacitor	R7T	Thermistor (Heat Exc,Deicer)
DS1,DS2 (A1P)	DIP Switch	R8T,R9T	Thermistor (M1C ,M2C body)
E1HC,E2HC	Crankcase Heater	R21T,R22T	Thermistor (M1C ,M2C discharge)
E3H	Drainpan Heater (Option)	S1NPH	Pressure Sensor (High)
F1U,F2U (A1P)	Fuse (T,3,15A,250V)	S1NPL	Pressure Sensor (Low)
F3U	Field Fuse	S1PH,S2PH	Pressure Switch (Disch)
F101U (A4P,A7P)	Fuse	SEG1~SEG3 (A1P)	7-Segment Display
F401U,F403U (A2P,A5P)	Fuse	T1A	Current Sensor
F601U (A3P,A6P)	Fuse	V1D (A3P,A6P)	Diode
HAP (A1P,A3P,A4P,A6P,A7P)	Pilotlamp (Service Monitor-Green)	V1R (A3P,A4P,A6P,A7P)	Power Module
K3R (A3P,A6P)	Magnetic Relay	X*A	Connector
K3R (A1P)	Magnetic Relay (Y4S)	X1M (A1P)	Terminal Block (Control)
K4R (A1P)	Magnetic Relay (Y1S)	X1M (A8P)	Terminal Block (Power Supply)
K5R (A1P)	Magnetic Relay (Y2S)	Y1E	Electronic Expansion Valve(Main)
K6R (A1P)	Magnetic Relay (E3H)	Y2E	Electronic Expansion Valve (Injection)
K7R (A1P)	Magnetic Relay (E1HC)	Y3E	Electronic Expansion Valve (Refrigerant Jacket)
K8R (A1P)	Magnetic Relay (E2HC)	Y1S	Solenoid Valve (Main)
K9R (A1P)	Magnetic Relay (Y3S)	Y2S	Solenoid Valve (Accumulator Oil Return)
L1R,L2R	Reactor	Y3S	Solenoid Valve (Oil1)
M1C,M2C	Motor (Compressor)	Y4S	Solenoid Valve (Oil2)
M1F,M2F	Motor (Fan)	Z*C	Noise Filter (Ferrite Core)
PS (A1P,A3P,A6P)	Switching Power Supply	Z*F (A2P,A5P)	Noise Filter (With Surge Absorber)
Q1DI	Field Earth Leakage Breaker	Connector For Optional Accessories	
Q1LD (A1P)	Field Earth Current Detector	X10A	Connector (Drainpan Heater)
R24 (A4P,A7P)	Resistor (Current Sensor)	X37A	Connector (Power Adapter)
		X66A	Connector (Remote Switching Cool/Heat Selector)

NOTES

1. This wiring diagram applies only to the outdoor unit.
2. :field wiring, :terminal block, :connector, :terminal, : protective earth (screw), : functional earth, : earth wiring, : field supply, : PCB, : switch box, : option
3. When using the optional adapter, refer to the installation manual of the optional adapter.
4. For connection wiring to indoor-outdoor transmission F1-F2, outdoor-outdoor transmission F1-F2, outdoor-multi transmission Q1-Q2, refer to the installation manual.
5. How to use BS1~3 switch. Refer to "service precaution" label on el. compo. box cover.
6. When operating, don't shortcircuit the protection devices (S1PH,S2PH,S3PH,S4PH).
7. Connector X1A (M1F) is red, connector X2A (M2F) is white.
8. Colors: BLK: Black, RED: Red, BLU: Blue, WHT: White, GRN: Green.
9. Only for 14,16 class

2D117537B

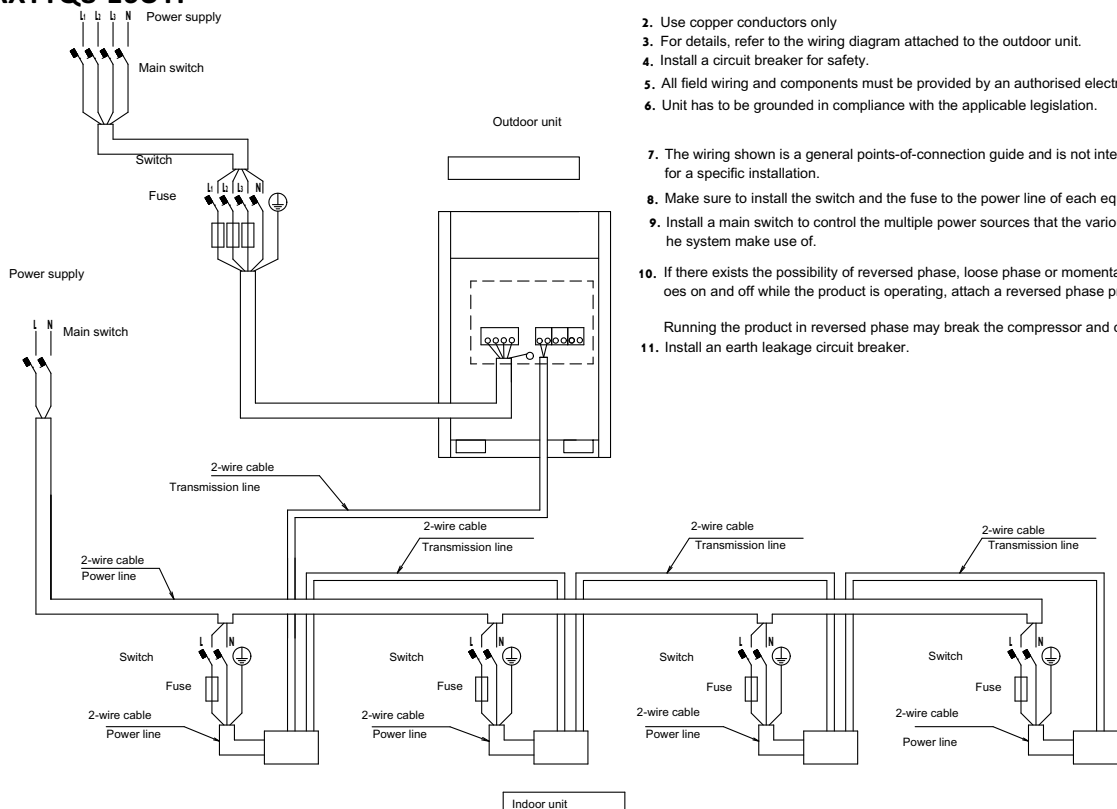
10 External connection diagrams

10 - 1 External Connection Diagrams

RXYQQ8-20U
RXYQ8-20U
RYYQ8-20U
RYMQ8-20U
RXYTQ8-16UYF

Notes

1. All wiring, components and materials to be procured on-site must comply with the applicable legislation.
 2. Use copper conductors only
 3. For details, refer to the wiring diagram attached to the outdoor unit.
 4. Install a circuit breaker for safety.
 5. All field wiring and components must be provided by an authorised electrician.
 6. Unit has to be grounded in compliance with the applicable legislation.
 7. The wiring shown is a general points-of-connection guide and is not intended to include all details for a specific installation.
 8. Make sure to install the switch and the fuse to the power line of each equipment.
 9. Install a main switch to control the multiple power sources that the various components of the system make use of.
 10. If there exists the possibility of reversed phase, loose phase or momentary blackout, or if the power goes on and off while the product is operating, attach a reversed phase protection circuit locally.
- Running the product in reversed phase may break the compressor and other parts.
11. Install an earth leakage circuit breaker.



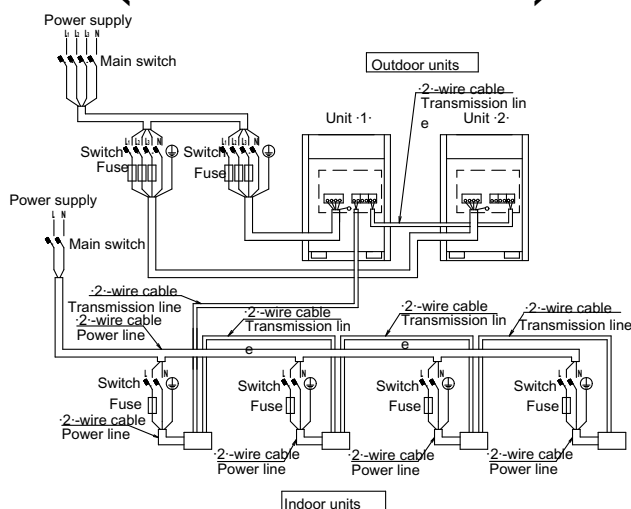
3D119317

RXYQQ8-20U
RXYQ8-20U
RXYTQ8-16U
RYYQ8-20U
RYMQ8-26U

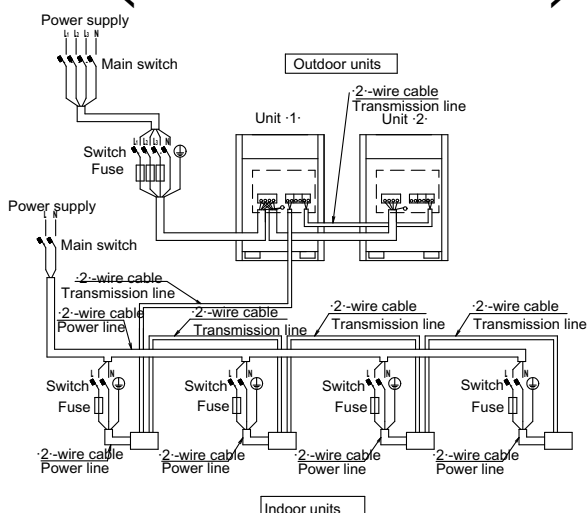
Notes

1. All wiring, components and materials to be procured on-site must comply with the applicable legislation.
 2. Use copper conductors only
 3. For details, refer to the wiring diagram attached to the outdoor unit.
 4. Install a circuit breaker for safety.
 5. All field wiring and components must be provided by an authorised electrician.
 6. Unit has to be grounded in compliance with the applicable legislation.
 7. The wiring shown is a general points-of-connection guide and is not intended to include all details for a specific installation.
 8. Make sure to install the switch and the fuse to the power line of each equipment.
 9. Install a main switch to control the multiple power sources that the various components of the system make use of.
 10. The capacity of UNIT1 must be larger than that of UNIT2 when the power source is connected in series between the units.
 11. If there exists the possibility of reversed phase, loose phase or momentary blackout, or if the power goes on and off while the product is operating, attach a reversed phase protection circuit locally.
- Running the product in reversed phase may break the compressor and other parts.
12. Install an earth leakage circuit breaker.

< Power source is supplied to each outdoor unit individually. >



< Power source is connected in series between the units. >



3D119316

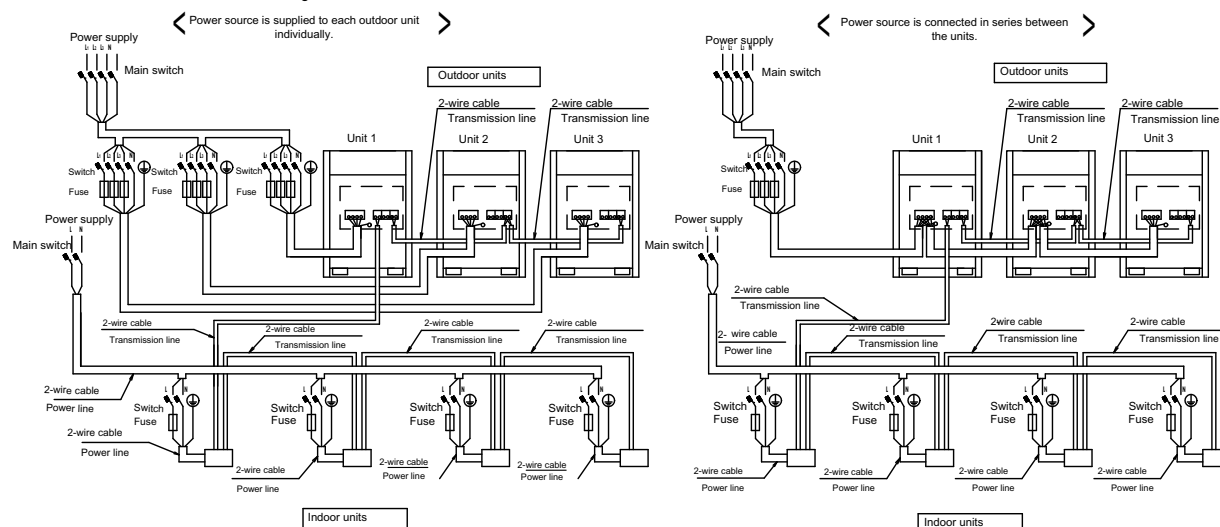
10 External connection diagrams

10 - 1 External Connection Diagrams

RXYQQ8-20U
RXYQ8-20U
RXYTQ8-16UYF
RYYQ8-20U
RYMQ8-20U

Notes

1. All wiring, components and materials to be procured on-site must comply with the applicable legislation.
2. Use copper conductors only
3. For details, refer to the wiring diagram attached to the outdoor unit.
4. Install a circuit breaker for safety.
5. All field wiring and components must be provided by an authorised electrician.
6. Unit has to be grounded in compliance with the applicable legislation.
7. The wiring shown is a general points-of-connection guide and is not intended to include all details for a specific installation.
8. Make sure to install the switch and the fuse to the power line of each equipment.
9. Install a main switch to control the multiple power sources that the various components of the system make use of.
10. The capacity of UNIT1 must be larger than that of UNIT2 when the power source is connected in series between the units.
The capacity of UNIT 2 must be larger than that of UNIT3 when the power source is connected in series between the units.
11. If there exists the possibility of reversed phase, loose phase or momentary blackout, or if the power goes on and off while the product is operating, attach a reversed phase protection circuit locally.
Running the product in reversed phase may break the compressor and other parts.
12. Install an earth leakage circuit breaker.

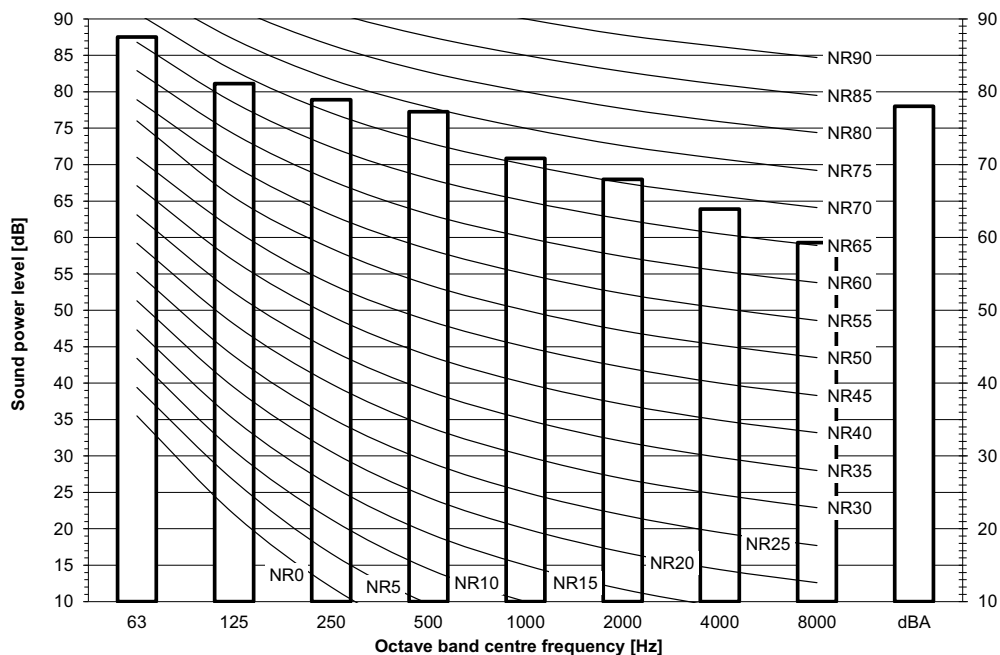


3D119200

11 Sound data

11 - 1 Sound Power Spectrum

REMQ5U
REYQ8U
RXYQQ8U
RXYQ8U
RXYTQ8UYF
RYYQ8U
RYMQ8U

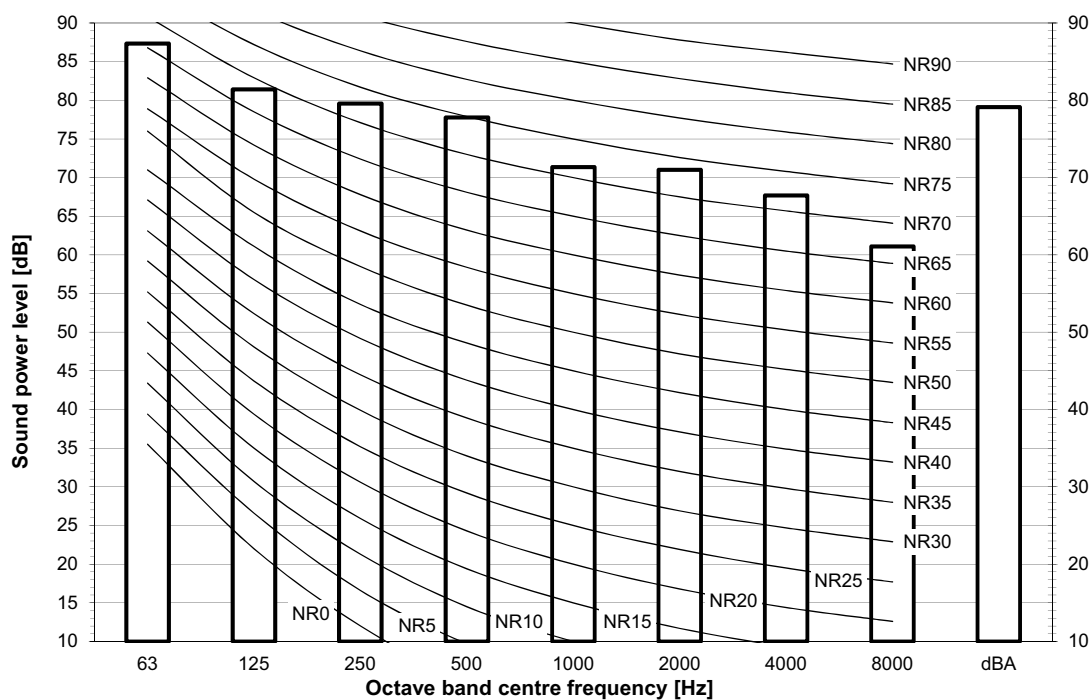


Notes

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

3D119528

REYQ10U
RXYQQ10U
RXYQ10U
RYYQ10U
RYMQ10U



Notes

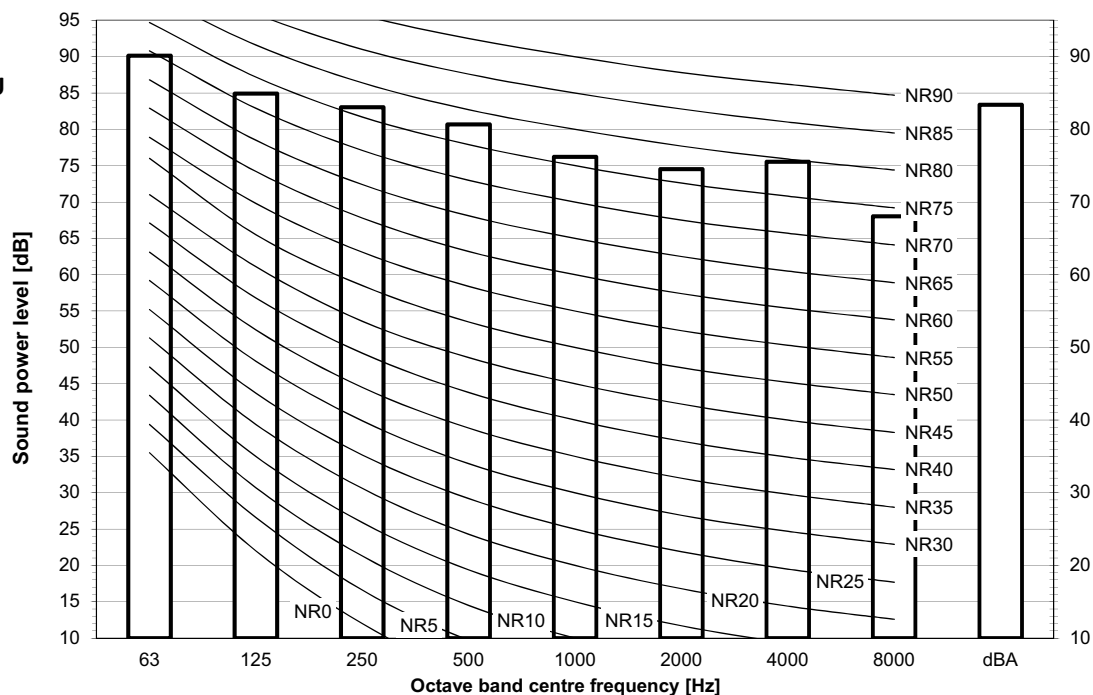
dBA = A-weighted sound power level (A scale according to IEC).
Reference acoustic intensity 0dB = 10E-6μW/m²
Measured according to ISO 3744

3D119529

11 Sound data

11 - 1 Sound Power Spectrum

REYQ12U
RXYQQ12U
RXYQ12U
RYYQ12U
RYMQ12U

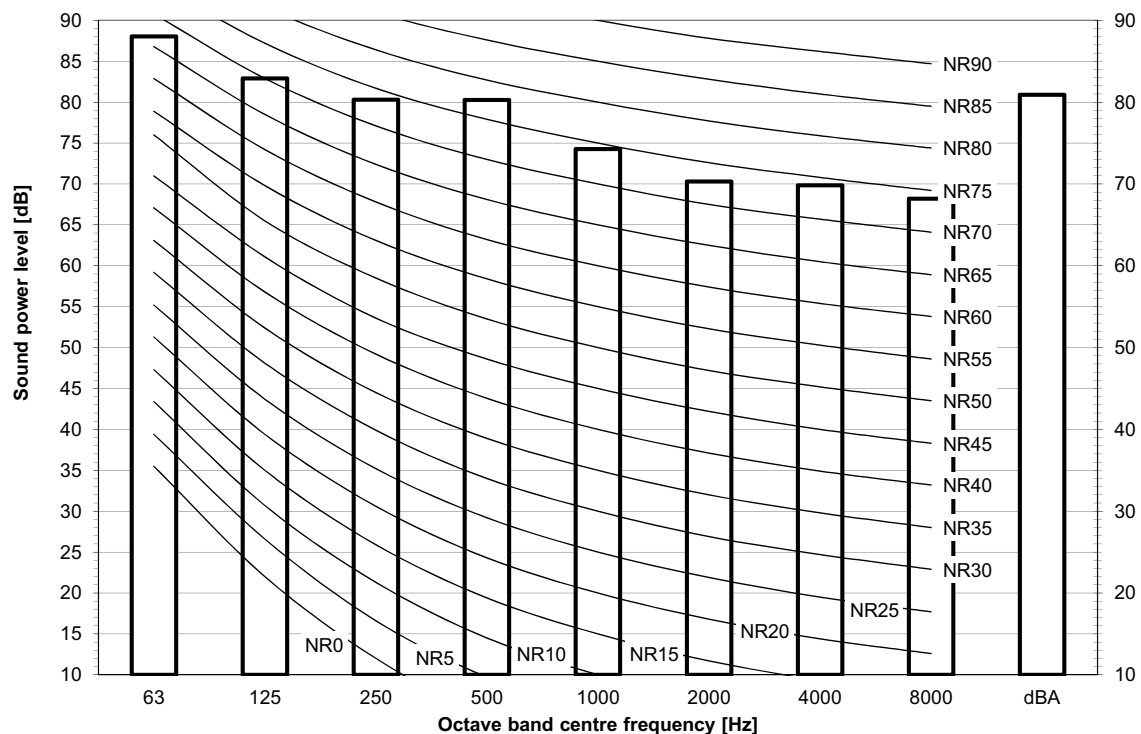


Notes

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

3D119530

REYQ14U
RXYQQ14U
RXYQ14U
RYYQ14U
RYMQ14U



Notes

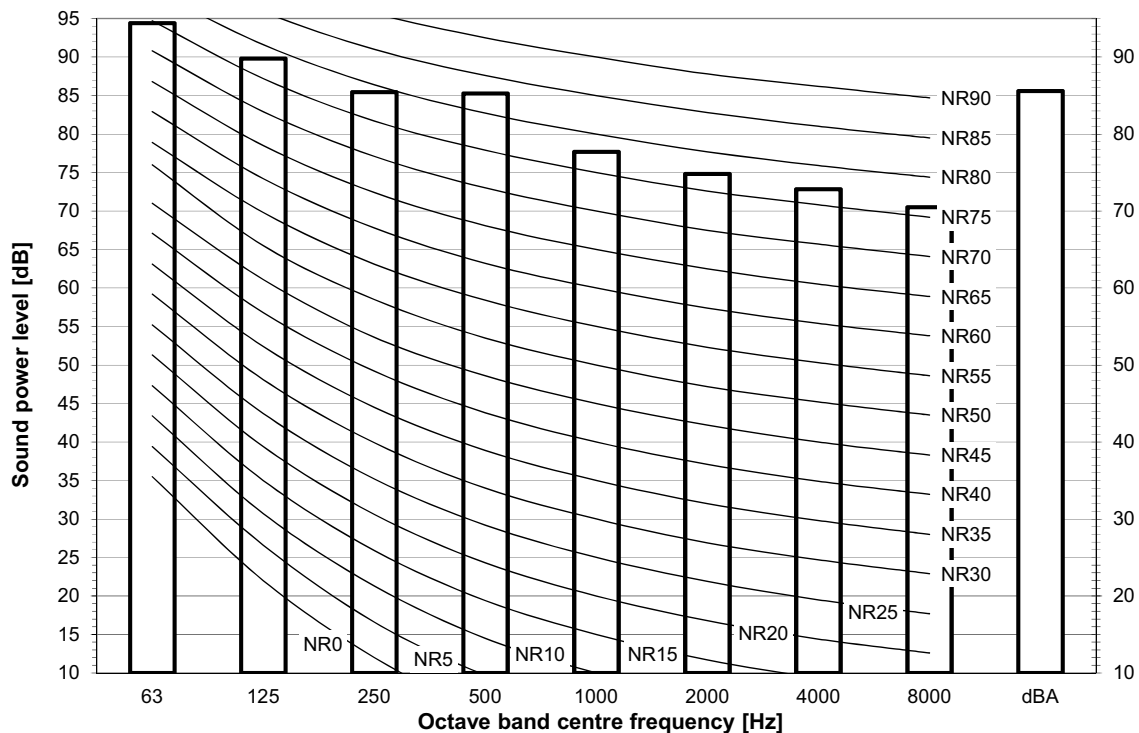
dBA = A-weighted sound power level (A scale according to IEC).
Reference acoustic intensity 0dB = $10E-6\mu W/m^2$
Measured according to ISO 3744

3D119531

11 Sound data

11 - 1 Sound Power Spectrum

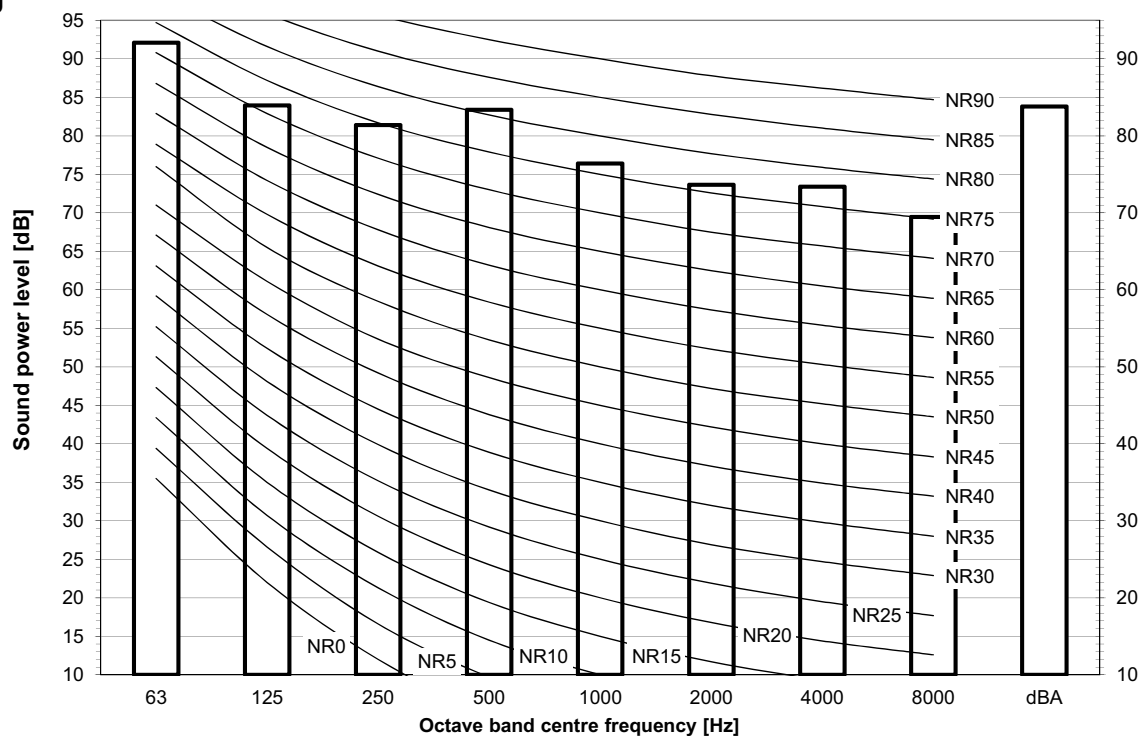
REYQ16U
RXYQ16U
RXYQ16U
RYYQ16U
RYMQ16U



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

3D119532

REYQ18U
RXYQ18U
RXYQ18U
RYYQ18U
RYMQ18U

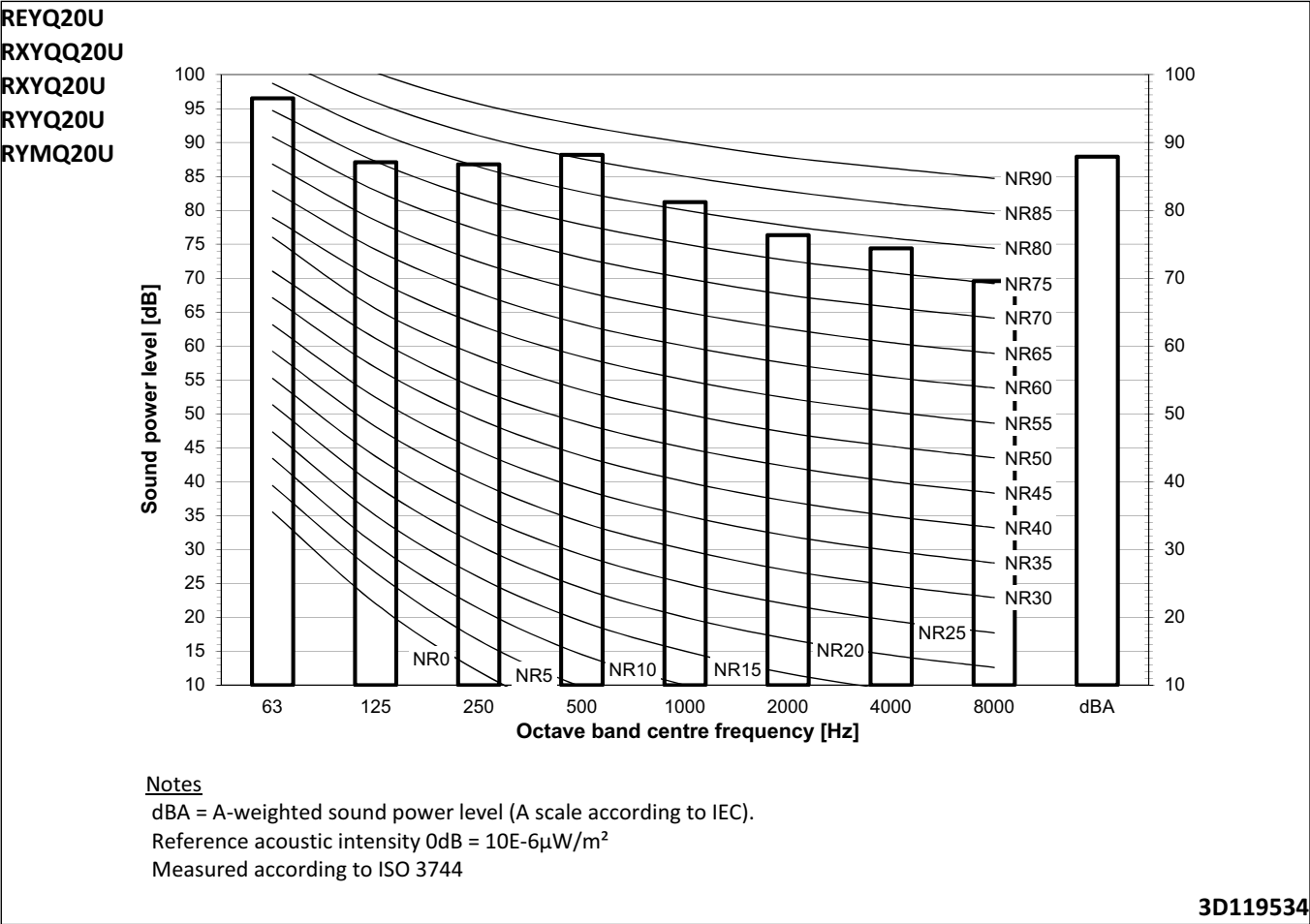


Notes
dBA = A-weighted sound power level (A scale according to IEC).
Reference acoustic intensity 0dB = 10E-6μW/m²
Measured according to ISO 3744

3D119533

11 Sound data

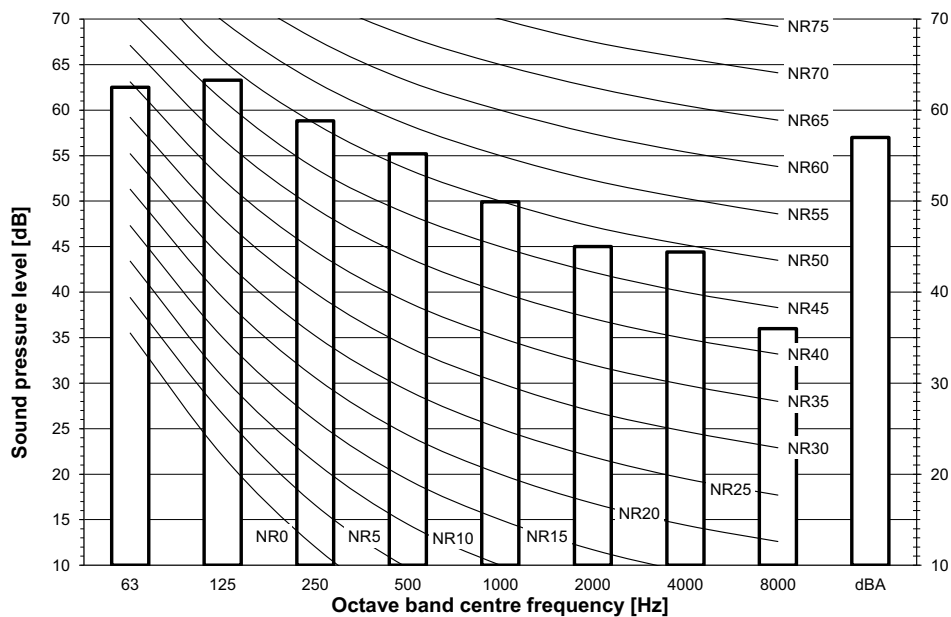
11 - 1 Sound Power Spectrum



11 Sound data

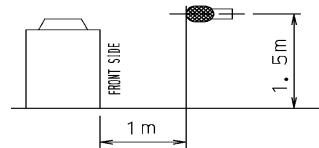
11 - 2 Sound Pressure Spectrum

REMQ5U
REYQ8U
RXYQQ8U
RXYQ8U
RXYTQ8UYF
RYYQ8U
RYMQ8U



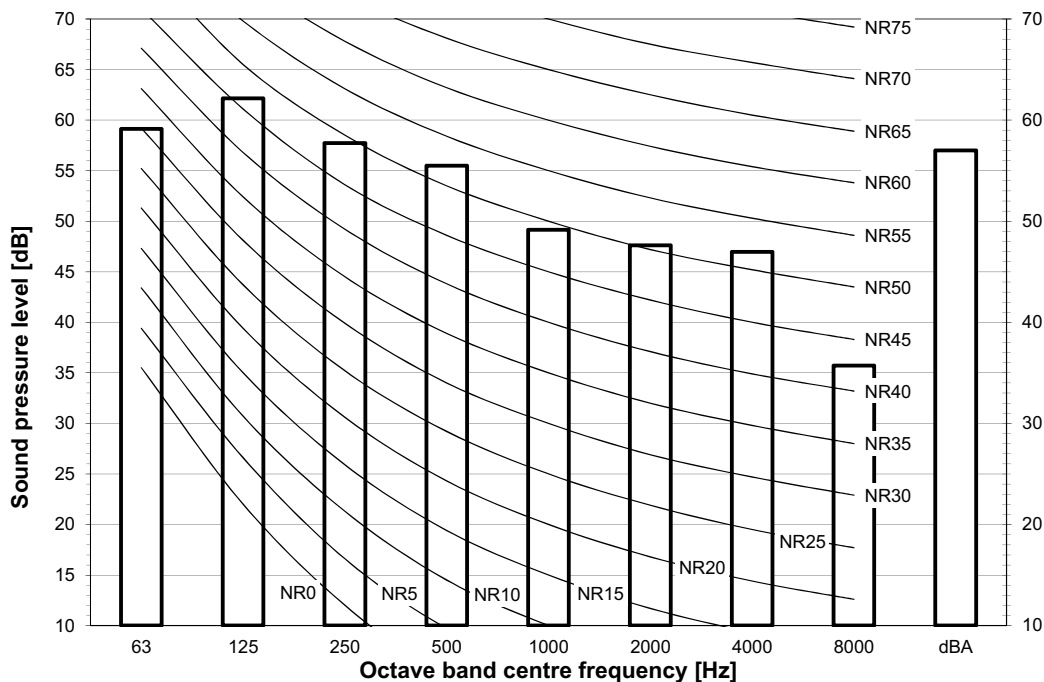
Notes

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 μ Pa



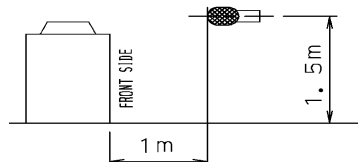
3D119521

REYQ10U
RXYQQ10U
RXYQ10U
RYYQ10U
RYMQ10U



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 μ Pa

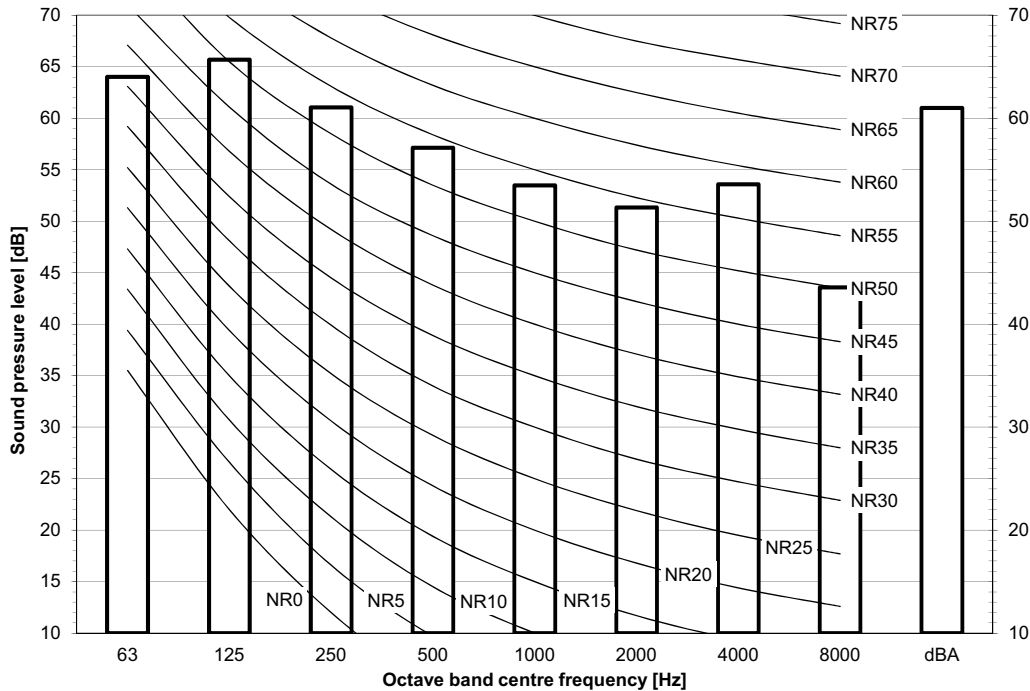


3D119522

11 Sound data

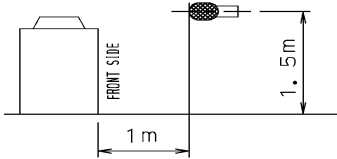
11 - 2 Sound Pressure Spectrum

REYQ12U
RXYQQ12U
RXYQ12U
RYYQ12U
RYMQ12U



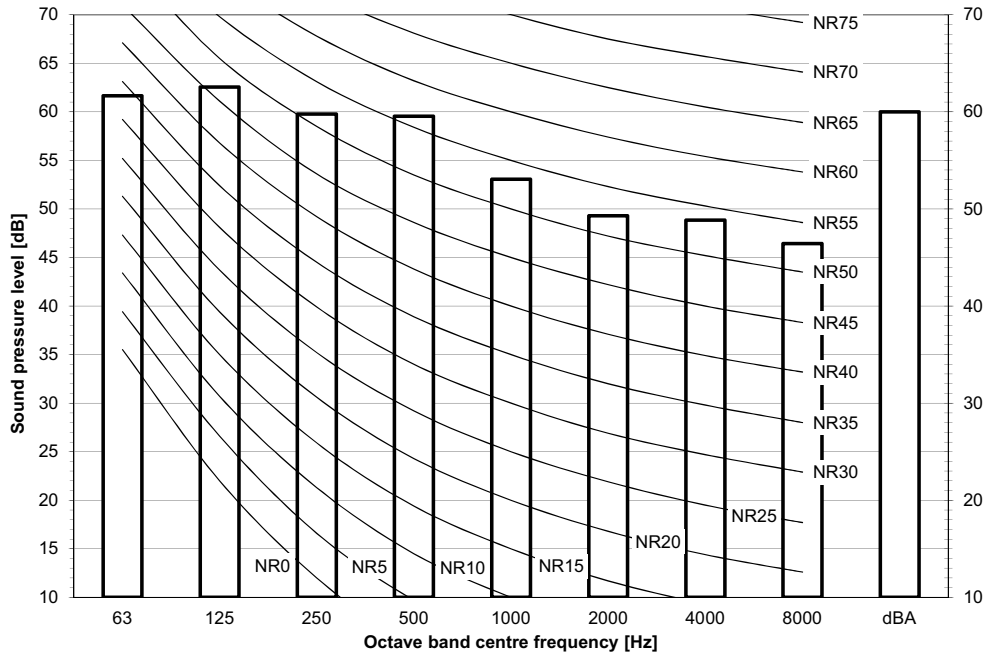
Notes

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 μ Pa



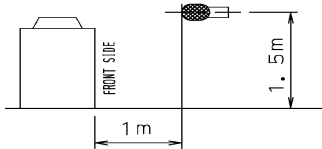
3D119523

REYQ14U
RXYQQ14U
RXYQ14U
RYYQ14U
RYMQ14U



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 μ Pa



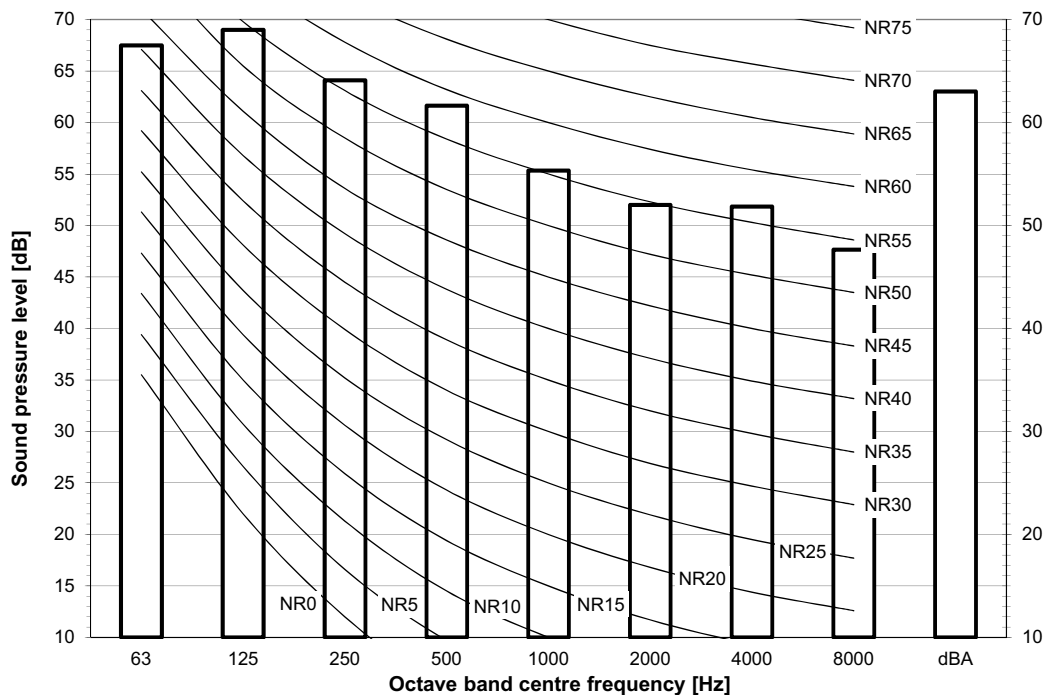
3D119524

11 Sound data

11 - 2 Sound Pressure Spectrum

11

REYQ16U
RXYQQ16U
RXYQ16U
RYYQ16U
RYMQ16U

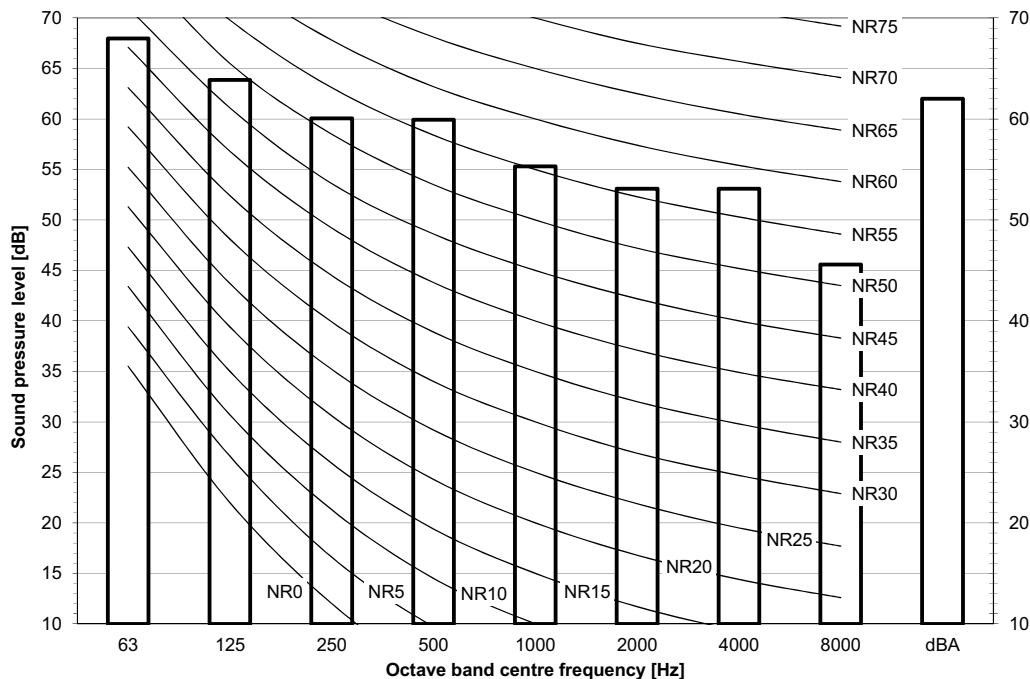


Notes

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 μ Pa

3D119525

REYQ18U
RXYQQ18U
RXYQ18U
RYYQ18U
RYMQ18U



Notes

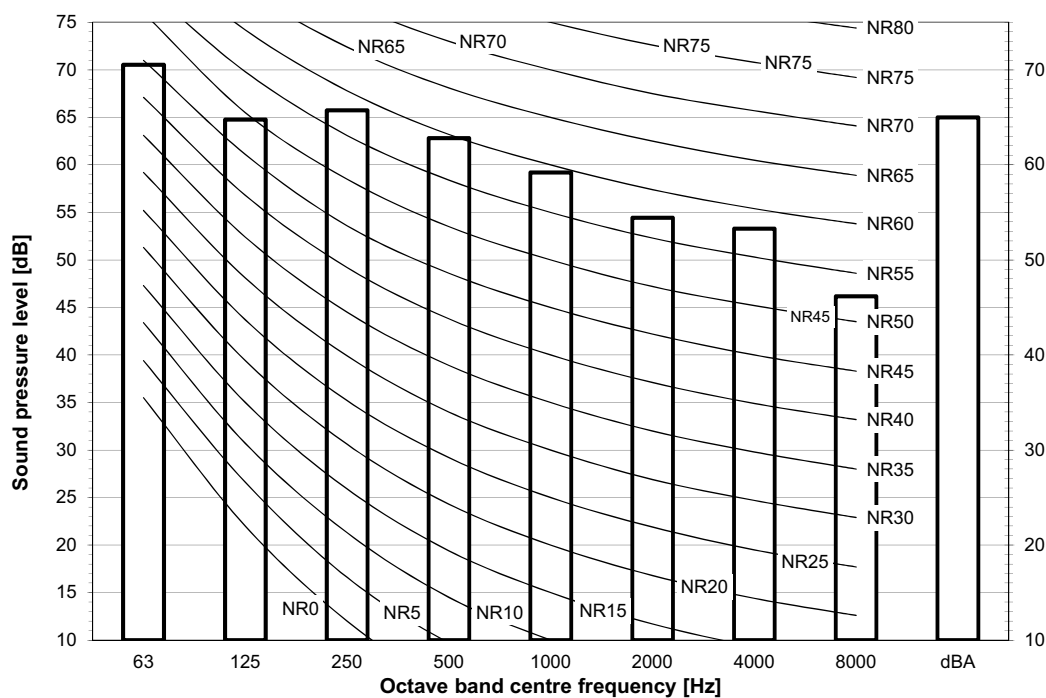
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Data is valid at nominal operation condition.
dBA = A-weighted sound pressure level (A scale according to IEC).
Reference acoustic pressure 0 dB = 20 μ Pa

3D119526

11 Sound data

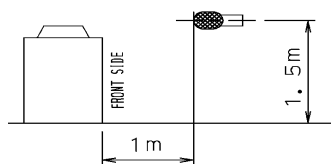
11 - 2 Sound Pressure Spectrum

REYQ20U
RXYQQ20U
RXYQ20U
RYYQ20U
RYMQ20U



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 μ Pa



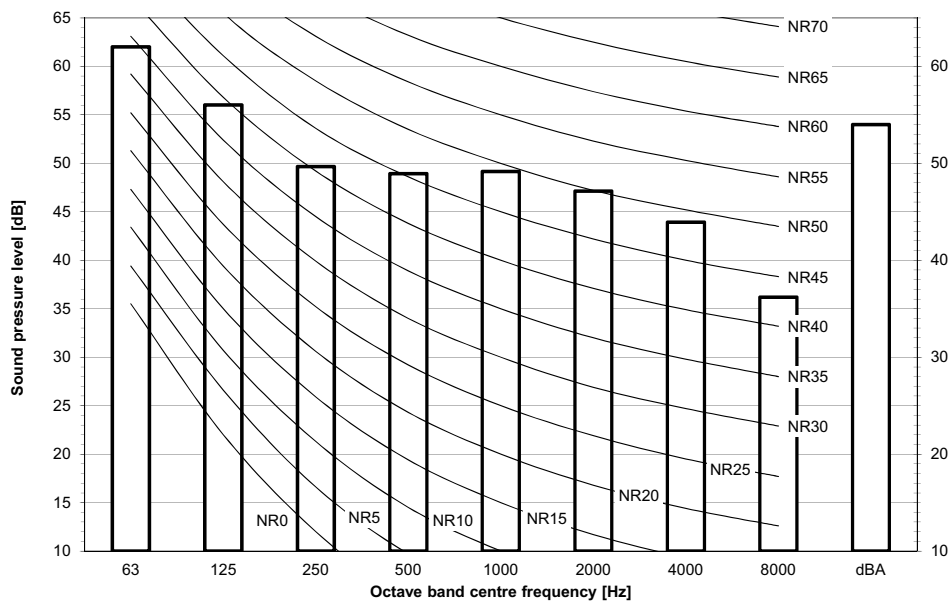
3D119527

11 Sound data

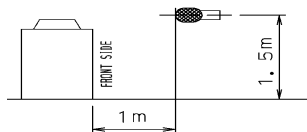
11 - 3 Sound Pressure Spectrum Quiet Mode

11

REMQ5U
REYQ8-12U
RXYQQ8-12U
RXYQ8-12U
RXYTQ8UYF
RYY8-12U
RYMQ8-12U

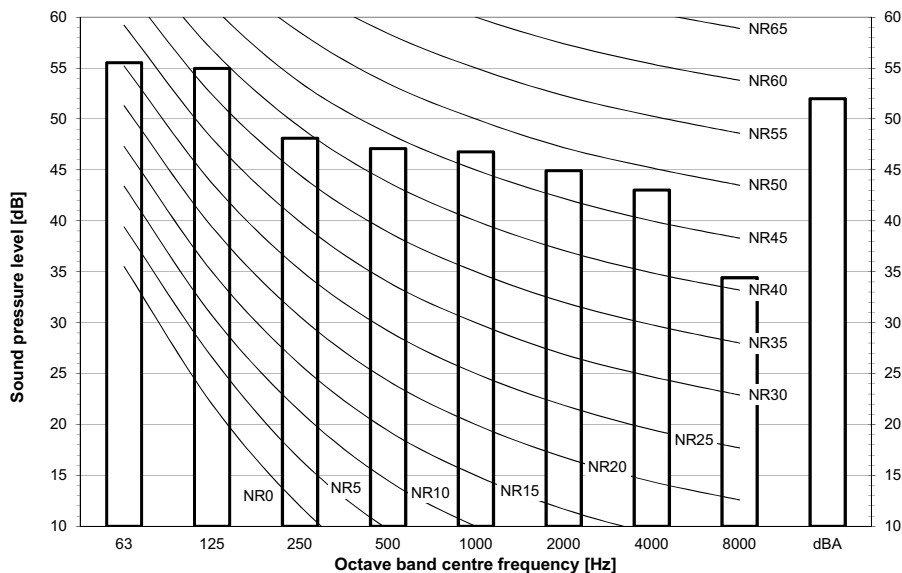


Notes
Data is valid at free field condition.
Data is valid at nominal operation condition.
dBA = A-weighted sound pressure level (A scale according to IEC).
Reference acoustic pressure 0 dB = 20 μ Pa
Data is valid under the following conditions
Cooling operation
Outdoor Ta: 35°C
Full load (maximum fan rps and maximum compressor rps for the dedicated low noise mode)

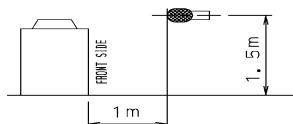


3D119535

REMQ5U
REYQ8-12U
RXYQQ8-12U
RXYQ8-12U
RXYTQ8UYF
RYYQ8-12U
RYMQ8-12U



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 μ Pa
Data is valid under the following conditions
Cooling operation
Outdoor Ta: 35°C
Full load (maximum fan rps and maximum compressor rps for the dedicated low noise mode)

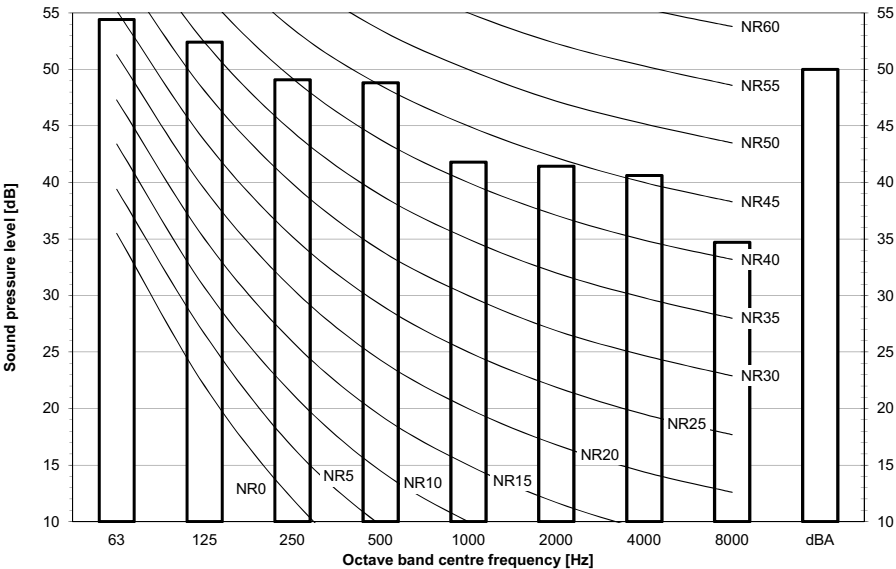


3D119536

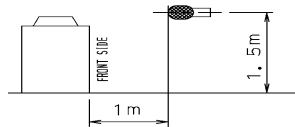
11 Sound data

11 - 3 Sound Pressure Spectrum Quiet Mode

REMQ5U
 REYQ8-12U
 RXYQQ8-12U
 RXYQ8-12U
 RXYTQ8UYF
 RYYQ8-12U
 RYMQ8-12U

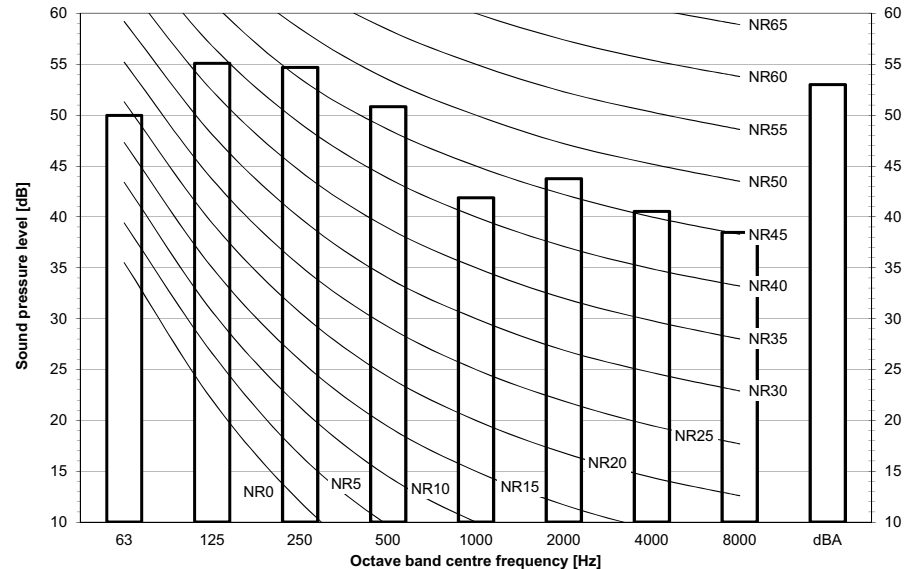


Notes
 Data is valid at free field condition.
 Data is valid at nominal operation condition.
 dBA = A-weighted sound pressure level (A scale according to IEC).
 Reference acoustic pressure 0 dB = 20 µPa
Data is valid under the following conditions
 Cooling operation
 Outdoor Ta: 35°C
 Full load (maximum fan rps and maximum compressor rps for the dedicated low noise mode)

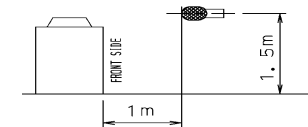


3D119537

REYQ14-16U
 RXYQQ14-16U
 RXYQ14-16U
 RXYTQ14-16UYF
 RYYQ14-16U
 RYMQ14-16U



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
Data is valid under the following conditions
 Cooling operation
 Outdoor Ta: 35°C
 Full load (maximum fan rps and maximum compressor rps for the dedicated low noise mode)

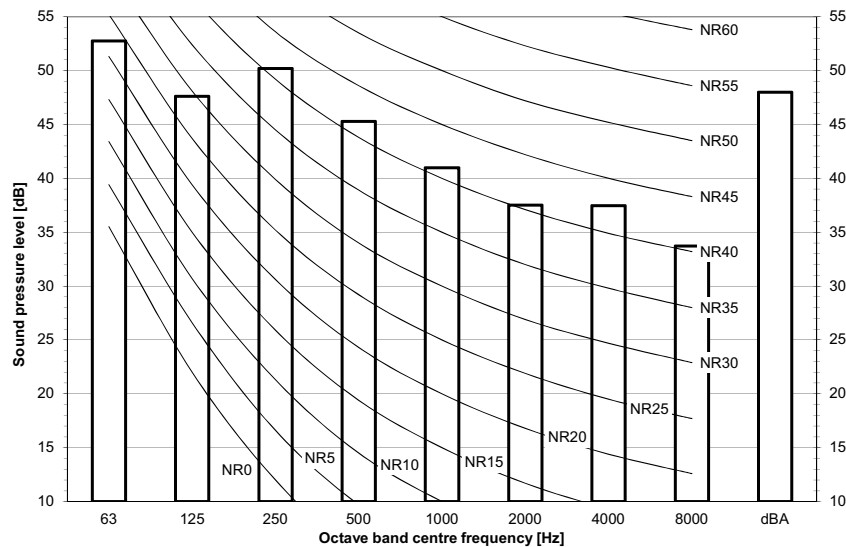


3D119538

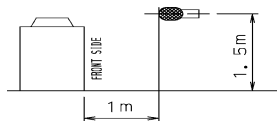
11 Sound data

11 - 3 Sound Pressure Spectrum Quiet Mode

REYQ14-16U
RXYQQ14-16U
RXYQ14-16U
RXYTQ14-16UYF
RYYQ14-16U
RYMQ14-16U

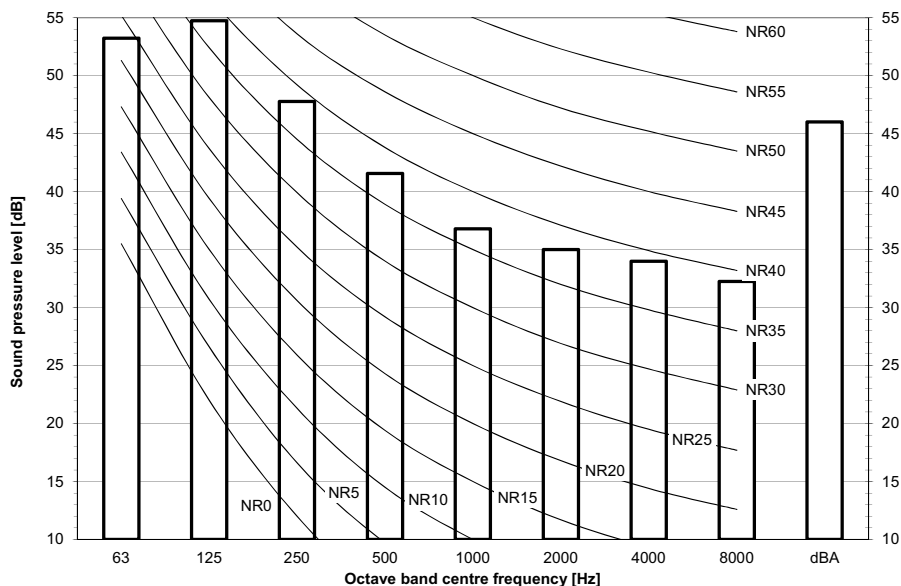


Notes
Data is valid at free field condition.
Data is valid at nominal operation condition.
dBA = A-weighted sound pressure level (A scale according to IEC).
Reference acoustic pressure 0 dB = 20 μ Pa
Data is valid under the following conditions
Cooling operation
Outdoor Ta: 35°C
Full load (maximum fan rps and maximum compressor rps for the dedicated low noise mode)

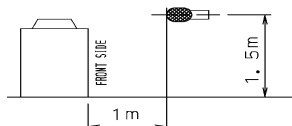


3D119539

REYQ14-16U
RXYQQ14-16U
RXYQ14U-16U
RXYTQ14-16UYF
RYYQ14-16U
RYMQ14-16U



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 μ Pa
Data is valid under the following conditions
Cooling operation
Outdoor Ta: 35°C
Full load (maximum fan rps and maximum compressor rps for the dedicated low noise mode)

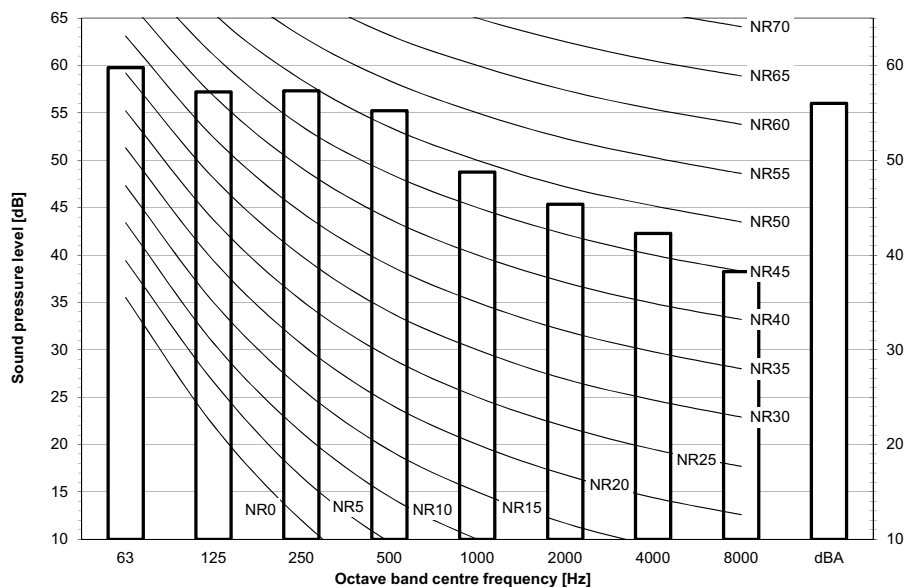


3D119540

11 Sound data

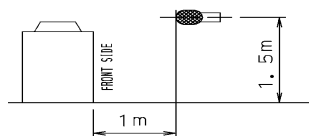
11 - 3 Sound Pressure Spectrum Quiet Mode

REYQ18-20U
RXYQQ18-20U
RXYQ18-20U
RYYQ18-20U
RYMQ18-20U



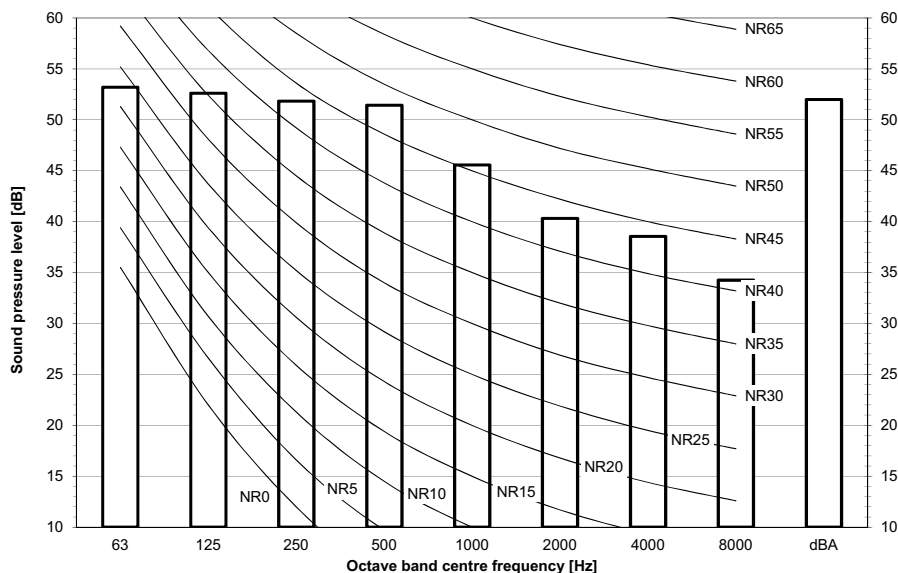
Notes

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 μ Pa
Data is valid under the following conditions
Cooling operation
Outdoor Ta: 35°C
Full load (maximum fan rps and maximum compressor rps for the dedicated low noise mode)



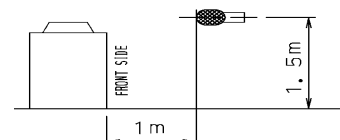
3D119541

REYQ18-20U
RXYQQ18-20U
RXYQ18-20U
RYYQ18-20U
RYMQ18-20U



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 μ Pa
Data is valid under the following conditions
Cooling operation
Outdoor Ta: 35°C
Full load (maximum fan rps and maximum compressor rps for the dedicated low noise mode)

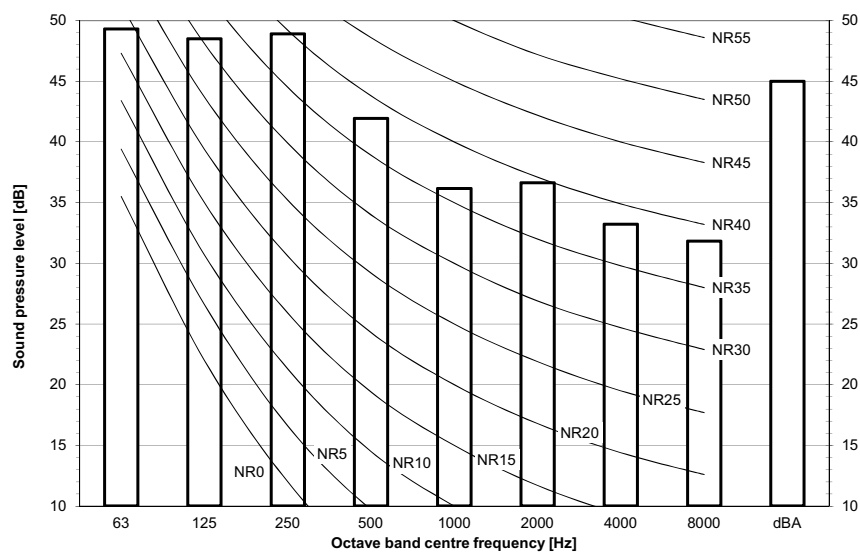


3D119542

11 Sound data

11 - 3 Sound Pressure Spectrum Quiet Mode

REYQ18-20U
RXYQQ18-20U
RXYQ18-20U
RYYQ18-20U
RYMQ18-20U



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).

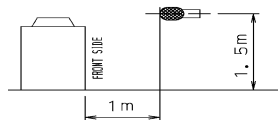
Reference acoustic pressure 0 dB = 20 μ Pa

Data is valid under the following conditions

Cooling operation

Outdoor Ta: 35°C

Full load (maximum fan rps and maximum compressor rps for the dedicated low noise mode)



3D119543

12 Installation

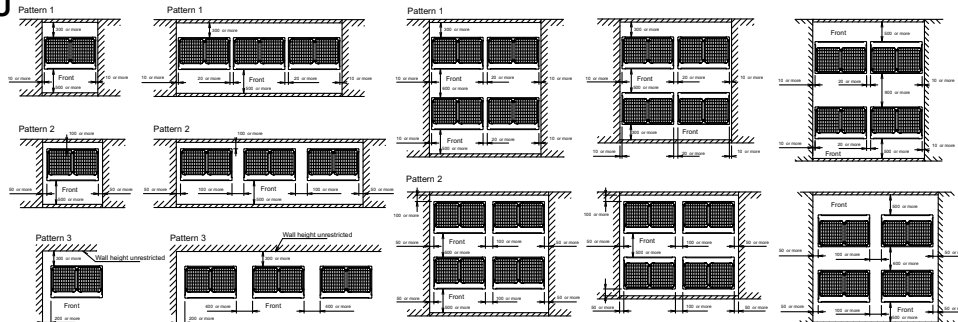
12 - 1 Installation Method

REMQ5U
REYQ8-20U
RXYQQ8-20U
RXYQ8-20U
RYYQ8-20U
RYMQ-20U

For single unit installation

For installation in rows

For centralised group layout



Notes

1. Height of the walls in case of patterns 1 and 2:

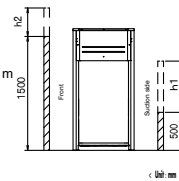
Front: 1500mm

Suction side: 500mm

Side: height unrestricted

The installation space shown on this drawing is based on cooling operation at 35°C (outdoor temperature).

When the design outdoor ambient temperature exceeds 35°C or the load exceeds maximum ability of much generation load of heat in all outdoor unit, make sure the suction-side space is broader than the space shown on this drawing.



2. If the walls are higher than mentioned above, then additional service space is needed:

- suction side: service space + $h1/2$

- front side: service space + $h2/2$

3. When installing the units, select the pattern that best fits the available space.

Always keep in mind to leave sufficient space for a person to pass between unit and wall and for the air to circulate freely.

If more units are to be installed than are catered for in the above patterns, your layout should take into account of the possibility of short circuits.

4. Provide sufficient space at the front to connect refrigerant piping (comfortably).

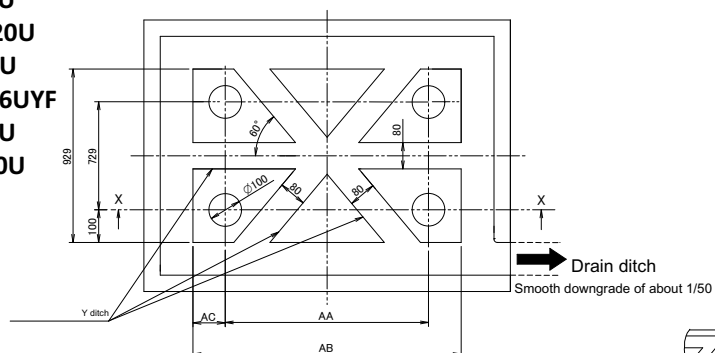
3D118467

12 Installation

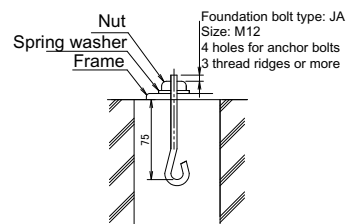
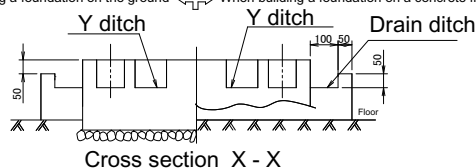
12 - 2 Fixation and Foundation of Units

12

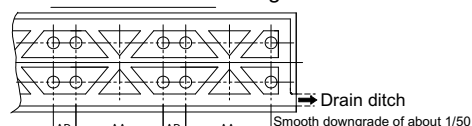
REMQ5U
REYQ8-20U
RXYQ8-20U
RXYQ8-20U
RXYTQ8-16UYF
RYYQ8-20U
RYMQ8-20U



When building a foundation on the ground ↔ When building a foundation on a concrete floor



Foundation bolt fixing method



For multi-unit installation

Model	AA	AB	AC	AD
RYYQ8-12U	766	992	113	185
RYMQ8-12U				
RXYQ8-12U				
RXYQ8-12U				
REMQ5T/REYQ8-12U				
RXYTQ8U				
RYYQ14-20U	1076	1076		
RYMQ14-20U				
RXYQ14-20U				
RXYQ14-20U				
REYQ14-20U				
RXYTQ10-16U				

Notes

1. Provide a drain ditch around the foundation to drain water from the installation area.
2. The surface has to be finished with mortar. The corner edges have to be chamfered.
3. Build the foundation on a concrete floor or, if not possible, make sure the foundation surface has a rough finish.
4. Use a cement/sand/gravel ratio of 1/2/4 for the concrete, and a diameter of 10 mm for the reinforcement bars (approximately, 300mm intervals).
5. When installing the equipment on a roof, make sure to check the strength of the floor and take adequate water proofing measures. **3D118459**

12 Installation

12 - 3 Refrigerant Pipe Selection

RXYQQ-U

VRV4-Q Heat Pump Field Piping Restrictions (1/3)

Reference drawing see
Page 2/3

		Maximum piping length			Maximum height difference			Total Piping Length
		Longest pipe (A+[B,J])	After first branch (B,J)	After first branch for outdoor multi (D)	Indoor to outdoor (H1)	Indoor to indoor (H2)	Outdoor to outdoor (H3)	
		Actual / (Equivalent)	Actual	Actual / (Equivalent)	outdoor above indoor / (indoor above outdoor)			
Standard								
Only VRV DX indoor connected		120/(150)m	40m (1)	10/(13)m	50/(40)m	15m	5m	300m
Standard multi combination								
AHU connection	Pair	50/(55)m ⁽²⁾	-	-	40/(40)m	-	-	-

NOTES

For standard multi combinations; see 3D079534

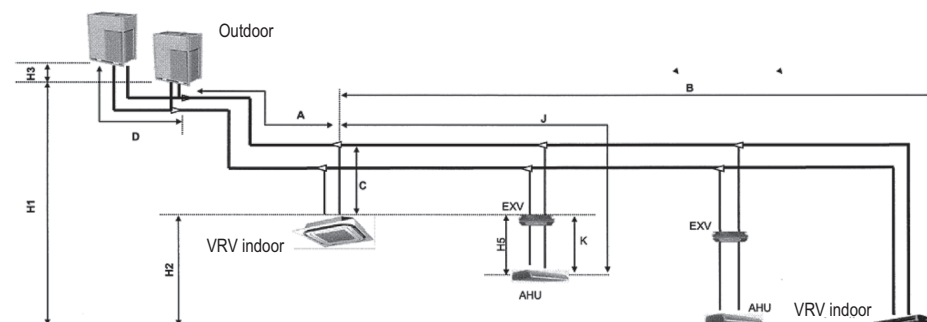
(1) Extension is possible if all below conditions are met (limitation can be extended up to 90m)

- The piping length between all indoor to the nearest branch kit is ≤ 40m.
 - It is necessary to increase the pipe size of the gas and liquid piping if the pipe length between the first and the final branch kit is over 40m
If the increased pipe size is larger than the pipe size of the main pipe, then the pipe size of the main pipe has to be increased as well
 - When the piping size is increased (b), the piping length has to be counted as double. The total piping length has to be within limitations (see table above).
 - The piping length difference between the nearest indoor from first branch to the outdoor unit and farthest indoor to the outdoor unit is ≤ 40m
- (2) The allowable minimum length is 5 m.

3D084965(1/3)

RXYQQ-U

VRV4-Q Heat Pump Field Piping Restrictions (2/3)



NOTES

- Schematic indication: illustrations may vary from real unit outlook.
- Displayed system is only to illustrate piping length limitations ! Combination of displayed indoor unit types is not allowed. See 3D084966 for allowed combinations.

		Allowable piping length	Max. height difference
		EXV to AHU (K)	EXV to AHU (H5)
AHU connection	Pair	≤5m	5m

3D084965(2/3)

12 Installation

12 - 3 Refrigerant Pipe Selection

12

RXYQQ-U

VRV4-Q Heat Pump Field Piping Restrictions (3/3)

System pattern Allowed connection ratio (CR) * Other combinations are N.A.	Total		Allowable capacity	
	capacity	Indoor unit quantity (VRV, RA, AHU, Hydrobox) (excl. BP box and EXV kits)	VRV DX indoor	AHU
Only VRV DX indoor	50~130%	Max. 64	50~130%	-
Only AHU (pair AHU) ³⁾	90~110%	1	-	90~110%

NOTES

1. When using AHU connection: see EKEXV kit as an indoor unit for counting the total number of indoor units
2. Restrictions by air handling unit capacity
3. Pair AHU = system with 1 AHU connected to one outdoor unit

3D084965(3/3)

13 Operation range

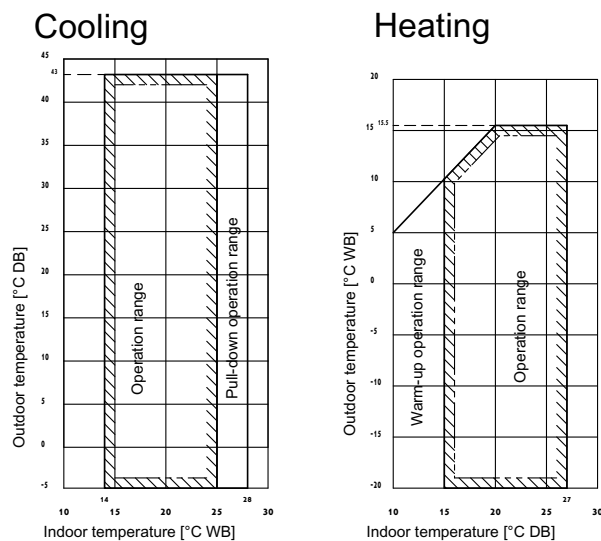
13 - 1 Operation Range

RXYQQ-U

RXYQ-U

RYYQ-U

RYMQ-U



Notes

1. These figures assume the following operation conditions

Indoor and outdoor units

Equivalent piping length: 5m

Level difference: 0m

2. Depending on operation and installation conditions, the indoor unit can change over to freeze-up operation (indoor de-icing).
3. 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.
4. Operation range is valid in case direct expansion indoor units are used.

3D118465

14 Appropriate Indoors

14 - 1 Appropriate Indoors

RXYQQ-U

Recommended indoor units for ·RXYQQ*U*· outdoor units

-- HP	8	10	12	14	16	18	20
	4xFXM050	4xFXM063	6xFXM050	1xFXM050 5xFXM063	4xFXM063 2xFXM080	3xFXM050 5xFXM063	2xFXM050 6xFXM063

For multi outdoor units >16HP, the recommended amount of indoor units is the sum of the indoor units defined for a single outdoor unit.
For details about the allowed combinations, see the engineering databook.

Appropriate indoor units for ·RXYQQ*U*· outdoor units

Covered by ·ENER LOT21·

FXFQ20-25-32-40-50-63-80-100-125
 FXZQ15-20-25-32-40-50
 FXCQ20-25-32-40-50-63-80-125
 FXKQ25-32-40-63
 FXDQ15-20-25-32-40-50-63
 FXSQ15-20-25-32-40-50-63-80-100-125-140
 FXMQ50-63-80-100-125-200-250
 FXAQ15-20-25-32-40-50-63
 FXHQ32-63-100
 FXUQ71-100
 FXNQ20-25-32-40-50-63
 FXLQ20-25-32-40-50-63

Outside the scope of ·ENER LOT21·

EKEXV50-63-80-100-125-140-200-250-400-500 + EKEQM / EKEQF
 VKM50-80-100
 FXYBP20-25K7V19
 FXYSP20-25-32-40-50-63-80-100-125KA7V19
 FXYMP40-50-63-80-100-125-200-250KV1
 FXYCP20-25-32-40-50-63-80-125K7V19
 FXYFP20-25-32-40-50-63-80-100-125KB7V19
 FXYKP25-32-40-63KV1
 FXYHP32-63-100KVE9
 FXYLP20-25-32-40-50-63KV19
 FXYLMP20-25-32-40-50-63KV1
 FXYAP20-25-32-40-50-63KV19

3D118461



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EEEN19 02/19



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