VRV IV+ heat pump, with continuous heating Air Conditioning Technical Data

RYMQ-U5, RYYQ22-54U5

RYYQ22U5Y1B
RYYQ24U5Y1B
RYYQ26U5Y1B
RYYQ28U5Y1B
RYYQ30U5Y1B
RYYQ32U5Y1B
RYYQ34U5Y1B
RYYQ36U5Y1B
RYYQ38U5Y1B
RYYQ40U5Y1B
RYYQ42U5Y1B
RYYQ44U5Y1B
RYYQ46U5Y1B
RYYQ48U5Y1B
RYYQ50U5Y1B
RYYQ52U5Y1B
RYYQ54U5Y1B
RYMQ10U5Y1B
RYMQ12U5Y1B
RYMQ16U5Y1B
RYMQ8U5Y1B
RYMQ14U5Y1B
RYMQ18U5Y1B
RYMQ20U5Y1B

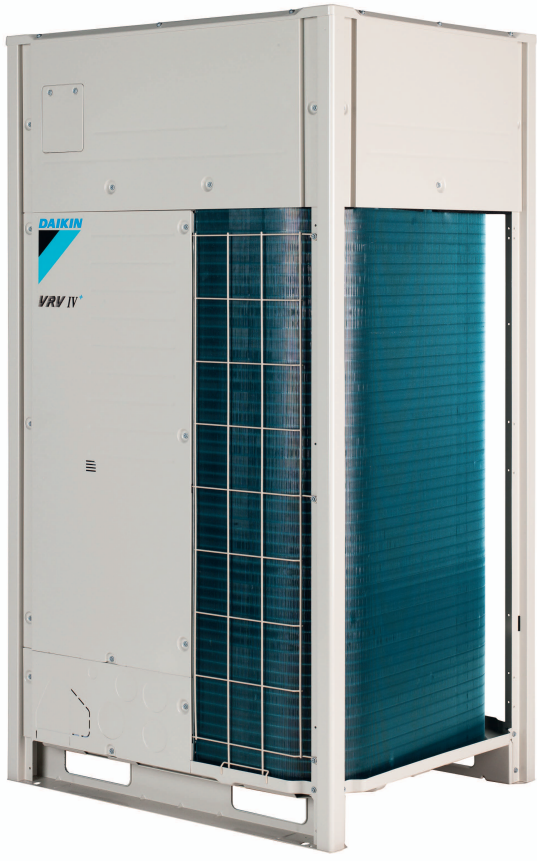

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TABLE OF CONTENTS

RYMQ-U5,RYYQ22-54U5

1 Features

1 - 1 RYMQ-U5,RYYQ22-54U5

- Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, hot water, air handling units and Biddle air curtains
- Wide range of indoor units: possibility to combine VRV with stylish indoor units (Daikin Emura, Perfera)
- Incorporates VRV IV standards & technologies: Variable Refrigerant Temperature, continuous heating, VRV configurator, 7 segment display and full inverter compressors, 4-side heat exchanger, refrigerant cooled PCB, new DC fan motor
- 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
- Continuous comfort: Unique continuous heating technology makes VRV IV the best alternative to traditional heating systems
- Free combination of outdoor units to meet installation space or efficiency requirements
- Fits any building as also indoor installation is possible as a result of high external static pressure of up to 78.4 Pa. Indoor installation leads to less piping length, lower installation costs, increased efficiency and better visual aesthetics
- Simplified installation & guaranteed optimal efficiency with automatic charging & testing
- Easy compliance with F-gas regulation thanks to automated refrigerant containment check
- Wide piping flexibility: 30m indoor height difference, maximum piping length: 190m, total piping length: 1,000m
- The ability to control each conditioned zone individually keeps VRV system running costs to an absolute minimum
- Spread your installation cost by phased installation
- Keep your system in top condition via the Daikin Cloud Service: 24/7 monitoring for maximum efficiency, extented lifetime and immediate service support thanks to failure prediction
- Available as heating only by irreversible field setting

Inverter

2 Specifications

2 - 1 Specifications

Technical specifications System					RYYQ22U5	RYYQ24U5	RYYQ26U5	RYYQ28U5	RYYQ30U5
System	Outdoor unit module 1				RYMQ10U	RYMQ8U	RYMQ12U		
	Outdoor unit module 2				RYMQ12U	RYMQ16U	RYMQ14U	RYMQ16U	RYMQ18U
Recommended combination					6 x FXFQ50AVEB + 4 x FXFQ63AVEB	4 x FXFQ50AVEB + 4 x FXFQ63AVEB + 2 x FXFQ80AVEB	7 x FXFQ50AVEB + 5 x FXFQ63AVEB	6 x FXFQ50AVEB + 4 x FXFQ63AVEB + 2 x FXFQ80AVEB	9 x FXFQ50AVEB + 5 x FXFQ63AVEB
Recommended combination 2					6 x FXSQ50A2VEB + 4 x FXSQ63A2VEB	4 x FXSQ50A2VEB + 4 x FXSQ63A2VEB + 2 x FXSQ80A2VEB	7 x FXSQ50A2VEB + 5 x FXSQ63A2VEB	6 x FXSQ50A2VEB + 4 x FXSQ63A2VEB + 2 x FXSQ80A2VEB	9 x FXSQ50A2VEB + 5 x FXSQ63A2VEB
Recommended combination 3					6 x FXMQ50P7VEB + 4 x FXMQ63P7VEB	4 x FXMQ50P7VEB + 4 x FXMQ63P7VEB + 2 x FXMQ80P7VEB	7 x FXMQ50P7VEB + 5 x FXMQ63P7VEB	6 x FXMQ50P7VEB + 4 x FXMQ63P7VEB + 2 x FXMQ80P7VEB	9 x FXMQ50P7VEB + 5 x FXMQ63P7VEB
Continuous heating					Yes				
Cooling capacity	Prated,c			kW	61.5 (1)	67.4 (1)	73.5 (1)	78.5 (1)	83.9 (1)
Heating capacity	Nom.	6°CWB		kW	61.5 (2)	67.4 (2)	73.5 (2)	78.5 (2)	83.9 (2)
	Prated,h			kW	61.5 (2)	67.4 (2)	73.5 (2)	78.5 (2)	83.9 (2)
	Max.	6°CWB		kW	69.0 (2)	75.0 (2)	82.5 (2)	87.5 (2)	94.0 (2)
Power input - 50Hz	Heating	Nom.	6°CWB	kW	17.23 (2)	17.94 (2)	20.33 (2)	22.19 (2)	23.87 (2)
COP at nom. capacity	6°CWB			kW/kW	3.57 (2)	3.76 (2)	3.61 (2)	3.54 (2)	3.51 (2)
ESEER - Automatic					7.07	6.81	6.89	6.69	6.60
ESEER - Standard					5.58	5.42	5.39	5.23	5.17
SCOP					4.4	4.3	4.2		4.3
SCOP recommended combination 2					4.4	4.3	4.2		4.3
SCOP recommended combination 3					4.3	4.2			4.3
SEER					6.9	6.8	6.7	6.5	
SEER recommended combination 2					6.7	6.6	6.5	6.3	
SEER recommended combination 3					6.9	6.7	6.6	6.4	6.5
ηs,c				%	274.5	269.9	264.2	257.8	256.8
ηs,h				%	171.2	167.0	164.6	166.0	169.8
Space cooling	A Condition (35°C - 27/19)	EERd			2.6	2.5	2.6	2.3	2.1
		Pdc		kW	61.5	67.4	73.5	78.5	83.9
	B Condition (30°C - 27/19)	EERd			4.8	4.6		4.4	4.3
		Pdc		kW	45.3	49.7	54.2	57.8	61.8
	C Condition (25°C - 27/19)	EERd			8.5	8.6	8.2	8.1	8.2
		Pdc		kW	29.1	31.9	34.8	37.2	39.7
	D Condition (20°C - 27/19)	EERd			16.0	15.2	14.2	14.3	16.8
		Pdc		kW	18.8	15.8	16.2	16.5	21.0
Space cooling recommended combination 2	A Condition (35°C - 27/19)	EERd			2.6	2.4	2.6	2.3	2.1
		Pdc		kW	61.5	67.4	73.5	78.5	83.9
	B Condition (30°C - 27/19)	EERd			4.6	4.5	4.4	4.3	4.2
		Pdc		kW	45.3	49.7	54.1	57.8	61.8
	C Condition (25°C - 27/19)	EERd			8.2	8.4	7.9	7.8	7.9
		Pdc		kW	29.1	31.9	34.8	37.2	39.7
Space cooling recommended combination 2	D Condition (20°C - 27/19)	EERd			15.6	14.7	13.6	13.8	16.1
		Pdc		kW	18.4	15.4	15.7	16.5	20.5
Space cooling recommended combination 3	A Condition (35°C - 27/19)	EERd				2.5		2.3	2.1
		Pdc		kW	61.5	67.4	73.5	78.5	83.9
	B Condition (30°C - 27/19)	EERd			4.8	4.5		4.3	
		Pdc		kW	45.3	49.7	54.2	57.8	61.8
	C Condition (25°C - 27/19)	EERd			8.5	8.4	8.1	8.0	8.2
		Pdc		kW	29.1	31.9	34.8	37.2	39.7
	D Condition (20°C - 27/19)	EERd			15.8	15.2	14.0	14.1	16.6
		Pdc		kW	18.8	15.7	16.0	16.6	21.0

2 Specifications

2 - 1 Specifications

Technical specifications System				RYYQ22U5	RYYQ24U5	RYYQ26U5	RYYQ28U5	RYYQ30U5
Space heating (Average climate)	TBivalent	COPd (declared COP)		2.3	2.5	2.3	2.2	2.1
		Pdh (declared heating cap)	kW	34.4	36.9	39.0	41.6	46.3
		Tbiv (bivalent temperature)	°C	-10				
	TOL	COPd (declared COP)		2.3	2.5	2.3	2.2	2.1
		Pdh (declared heating cap)	kW	34.4	36.9	39.0	41.6	46.3
		Tol (temperature operating limit)	°C	-10				
	A Condition (-7°C)	COPd (declared COP)		2.6	2.8	2.6		
		Pdh (declared heating cap)	kW	30.4	32.6	34.5	36.8	41.0
	B Condition (2°C)	COPd (declared COP)		4.0	3.7	3.8		3.9
		Pdh (declared heating cap)	kW	18.5	19.9	21.0	22.4	24.9
	C Condition (7°C)	COPd (declared COP)		6.3		6.1	6.2	6.5
		Pdh (declared heating cap)	kW	11.9	13.0	13.5	14.4	16.0
	D Condition (12°C)	COPd (declared COP)		8.2	8.9	8.8	9.0	
		Pdh (declared heating cap)	kW	6.0	5.7	6.0	6.4	7.1
Space heating (Average climate) recommended combination 2	A Condition (-7°C)	COPd (declared COP)		2.6	2.7	2.6		
		Pdh (declared heating cap)	kW	30.4	32.6	34.5	36.8	41.0
	B Condition (2°C)	COPd (declared COP)		4.1	3.7	3.8		3.9
		Pdh (declared heating cap)	kW	18.5	19.9	21.0	22.4	24.9
	C Condition (7°C)	COPd (declared COP)		6.3		6.1	6.3	6.6
		Pdh (declared heating cap)	kW	11.9	13.1		14.4	16.0
	D Condition (12°C)	COPd (declared COP)		8.4	9.0	8.9	9.1	
		Pdh (declared heating cap)	kW	6.0	5.7	6.0	6.4	7.2
	TBivalent	COPd (declared COP)		2.2	2.4	2.2		2.1
		Pdh (declared heating cap)	kW	34.4	36.9	39.0	41.6	46.3
		Tbiv (bivalent temperature)	°C	-10				
	TOL	COPd (declared COP)		2.2	2.4	2.2		2.1
		Pdh (declared heating cap)	kW	34.4	36.9	39.0	41.6	46.3
Space heating (Average climate) recommended combination 2	TOL	Tol (temperature operating limit)	°C	-10				
Space heating (Average climate) recommended combination 3	A Condition (-7°C)	COPd (declared COP)		2.6	2.7	2.6		2.5
		Pdh (declared heating cap)	kW	30.4	32.6	34.5	36.8	41.0
	B Condition (2°C)	COPd (declared COP)		4.0	3.7	3.8		3.9
		Pdh (declared heating cap)	kW	18.5	19.9	21.0	22.4	24.9
	C Condition (7°C)	COPd (declared COP)		6.2	6.3	6.1	6.2	6.3
		Pdh (declared heating cap)	kW	11.9	12.9	13.5	14.4	16.0
	D Condition (12°C)	COPd (declared COP)		8.2	8.9	8.8	9.0	8.6
		Pdh (declared heating cap)	kW	6.0	5.7	6.0	6.4	7.1
	TBivalent	COPd (declared COP)		2.3	2.4	2.2		2.1
		Pdh (declared heating cap)	kW	34.4	36.9	39.0	41.6	46.3
		Tbiv (bivalent temperature)	°C	-10				
	TOL	COPd (declared COP)		2.3	2.4	2.2		2.1
		Pdh (declared heating cap)	kW	34.4	36.9	39.0	41.6	46.3
		Tol (temperature operating limit)	°C	-10				
Capacity range			HP	22	24	26	28	30
PED	Category			Category II				
Maximum number of connectable indoor units				64 (3)				
Indoor index connection	Min.			275.0	300.0	325.0	350.0	375.0
	Max.			715.0	780.0	845.0	910.0	975.0
Heat exchanger	Indoor side			Air				
	Outdoor side			Air				
	Air flow rate	Cooling Rated	m^3/h	21,600	25,320	24,480	26,700	26,160
		Heating Rated	m^3/h	21,600	25,320	24,480	26,700	26,160
Sound power level	Cooling	Nom.	dBA	84.8 (4)	86.3 (4)	85.3 (4)	87.6 (4)	86.6 (4)
	Heating	Prated,h	dBA	85.4 (4)	87.3 (4)	86.3 (4)	88.3 (4)	87.5 (4)
Sound pressure level	Cooling	Nom.	dBA	62.5 (5)	64.0 (5)	63.5 (5)	65.1 (5)	64.5 (5)
Refrigerant	Type			R-410A				
	GWP			2,087.5				
Refrigerant oil	Type			Synthetic (ether) oil FVC68D				

2 Specifications

2 - 1 Specifications

Technical specifications System					RYYQ22U5	RYYQ24U5	RYYQ26U5	RYYQ28U5	RYYQ30U5
Piping connections	Liquid	Type			Braze connection				
		OD		mm	15.9		19.1		
	Gas	Type			Braze connection				
		OD		mm	28.6	34.9			
	Total piping length	System	Actual	m	1,000 (6)				
Indication if the heater is equipped with a supplementary heater					no				
Supplementary heater	Back-up capacity	Heating	elbu	kW	0.0				
Power consumption in other than active mode	Crankcase heater mode	Cooling	PCK	kW	0.000				
		Heating	PCK	kW	0.103	0.129			0.141
	Off mode	Cooling	POFF	kW	0.081	0.115			0.116
		Heating	POFF	kW	0.103	0.129			0.141
	Standby mode	Cooling	PSB	kW	0.081	0.115			0.116
		Heating	PSB	kW	0.103	0.129			0.141
	Thermostat-off mode	Cooling	PTO	kW	0.009	0.014			
		Heating	PTO	kW	0.113	0.154			0.155
Cooling	Cdc (Degradation cooling)				0.25				
Heating	Cdh (Degradation heating)				0.25				

Technical specifications System					RYYQ32U5	RYYQ34U5	RYYQ36U5	RYYQ38U5	RYYQ40U5
System	Outdoor unit module 1				RYMQ16U			RYMQ8U	RYMQ10U
	Outdoor unit module 2				RYMQ16U	RYMQ18U	RYMQ20U	RYMQ10U	RYMQ12U
	Outdoor unit module 3				-			RYMQ20U	RYMQ18U
Recommended combination					8 x FXFQ63AVEB + 4 x FXFQ80AVEB	3 x FXFQ50AVEB + 9 x FXFQ63AVEB + 2 x FXFQ80AVEB	2 x FXFQ50AVEB + 10 x FXFQ63AVEB + 2 x FXFQ80AVEB	6 x FXFQ50AVEB + 10 x FXFQ63AVEB	9 x FXFQ50AVEB + 9 x FXFQ63AVEB
Recommended combination 2					8 x FXSQ63A2VEB + 4 x FXSQ80A2VEB	3 x FXSQ50A2VEB + 9 x FXSQ63A2VEB + 2 x FXSQ80A2VEB	2 x FXSQ50A2VEB + 10 x FXSQ63A2VEB + 2 x FXSQ80A2VEB	6 x FXSQ50A2VEB + 10 x FXSQ63A2VEB	9 x FXSQ50A2VEB + 9 x FXSQ63A2VEB
Recommended combination 3					8 x FXMQ63P7VEB + 4 x FXMQ80P7VEB	3 x FXMQ50P7VEB + 9 x FXMQ63P7VEB + 2 x FXMQ80P7VEB	2 x FXMQ50P7VEB + 10 x FXMQ63P7VEB + 2 x FXMQ80P7VEB	6 x FXMQ50P7VEB + 10 x FXMQ63P7VEB	9 x FXMQ50P7VEB + 9 x FXMQ63P7VEB
Continuous heating					Yes				
Cooling capacity	Prated,c			kW	90.0 (1)	95.4 (1)	97.0 (1)	102.4 (1)	111.9 (1)
Heating capacity	Nom.	6°CWB		kW	90.0 (2)	95.4 (2)	101.0 (2)	106.4 (2)	111.9 (2)
	Prated,h			kW	90.0 (2)	95.4 (2)	101.0 (2)	106.4 (2)	111.9 (2)
	Max.	6°CWB		kW	100.0 (2)	106.5 (2)	113.0 (2)	119.5 (2)	125.5 (2)
Power input - 50Hz	Heating	Nom.	6°CWB	kW	25.08 (2)	26.76 (2)	30.02 (2)	30.45 (2)	31.45 (2)
COP at nom. capacity	6°CWB			kW/kW	3.59 (2)	3.56 (2)	3.36 (2)	3.49 (2)	3.56 (2)
ESEER - Automatic					6.50	6.44	6.02	6.36	6.74
ESEER - Standard					5.05	5.01	4.68	5.03	5.29
SCOP					4.2		4.1	4.3	
SCOP recommended combination 2					4.2	4.3	4.2	4.3	4.4
SCOP recommended combination 3					4.1	4.2	4.1	4.2	4.3
SEER					6.4		6.3	6.9	6.7
SEER recommended combination 2					6.3			6.8	6.6
SEER recommended combination 3					6.2	6.3		6.9	6.7
ηs,c				%	251.7	253.3	250.8	272.4	263.5
ηs,h				%	163.1	166.2	162.4	167.5	170.0
Space cooling	A Condition (35°C - 27/19)	EERd			2.3	2.1		2.4	2.2
		Pdc		kW	90.0	95.4	97.0	102.4	111.9
	B Condition (30°C - 27/19)	EERd			4.3	4.2	4.1	4.5	
		Pdc		kW	66.3	70.3	71.5	75.5	82.5
	C Condition (25°C - 27/19)	EERd			8.1		7.9	8.5	8.3
		Pdc		kW	42.6	45.2	45.9	48.5	53.0
	D Condition (20°C - 27/19)	EERd			14.3	16.8	16.7	17.9	16.0
		Pdc		kW	19.0	20.1	20.4	21.6	23.6

2 Specifications

2 - 1 Specifications

Technical specifications System				RYYQ32U5	RYYQ34U5	RYYQ36U5	RYYQ38U5	RYYQ40U5
Space cooling recommended combination 2	A Condition (35°C - 27/19)	EERd		2.2	2.1		2.3	2.2
		Pdc	kW	90.0	95.4	97.0	102.4	111.9
	B Condition (30°C - 27/19)	EERd		4.2		4.1	4.5	4.4
		Pdc	kW	66.3	70.3	71.5	75.4	82.4
	C Condition (25°C - 27/19)	EERd		8.0	8.1	7.9	8.4	8.1
Space cooling recommended combination 2	C Condition (25°C - 27/19)	Pdc	kW	42.6	45.2	45.9	48.5	53.0
	D Condition (20°C - 27/19)	EERd		14.0	16.5		17.8	15.9
		Pdc	kW	18.9	20.1	20.4	21.6	23.6
Space cooling recommended combination 3	A Condition (35°C - 27/19)	EERd		2.2	2.1		2.4	2.2
		Pdc	kW	90.0	95.4	97.0	102.4	111.9
	B Condition (30°C - 27/19)	EERd		4.1		4.0	4.5	4.4
		Pdc	kW	66.3	70.3	71.5	75.5	82.5
	C Condition (25°C - 27/19)	EERd		7.8	8.0	7.8	8.5	8.4
		Pdc	kW	42.6	45.2	45.9	48.5	53.0
	D Condition (20°C - 27/19)	EERd		13.8	16.6	16.5	17.9	16.1
		Pdc	kW	19.0	20.1	20.4	21.6	23.6
Space heating (Average climate)	TBivalent	COPd (declared COP)		2.4	2.2	2.1	2.2	
		Pdh (declared heating cap)	kW	46.4	51.1	54.2	60.7	62.3
		Tbiv (bivalent temperature)	°C	-10				
	TOL	COPd (declared COP)		2.4	2.2	2.1	2.2	
		Pdh (declared heating cap)	kW	46.4	51.1	54.2	60.7	62.3
		Tol (temperature operating limit)	°C	-10				
	A Condition (-7°C)	COPd (declared COP)		2.7	2.6	2.5		2.6
		Pdh (declared heating cap)	kW	41.0	45.2	47.9	53.7	55.1
	B Condition (2°C)	COPd (declared COP)		3.6	3.7		3.9	4.0
		Pdh (declared heating cap)	kW	25.0	27.5	29.2	32.7	33.5
	C Condition (7°C)	COPd (declared COP)		6.3	6.5	6.4	6.5	
		Pdh (declared heating cap)	kW	16.1	17.7	18.8	21.3	21.6
	D Condition (12°C)	COPd (declared COP)		9.0	8.8	8.6	8.7	
		Pdh (declared heating cap)	kW	7.1	7.9	8.3	13.1	
Space heating (Average climate) recommended combination 2	A Condition (-7°C)	COPd (declared COP)		2.7	2.6	2.5		2.6
		Pdh (declared heating cap)	kW	41.0	45.2	47.9	53.7	55.1
	B Condition (2°C)	COPd (declared COP)		3.6	3.8	3.7	3.9	4.0
		Pdh (declared heating cap)	kW	25.0	27.5	29.2	32.7	33.5
	C Condition (7°C)	COPd (declared COP)		6.3	6.6		6.5	
		Pdh (declared heating cap)	kW	16.1	17.7	18.8	21.3	21.6
	D Condition (12°C)	COPd (declared COP)		9.1	8.9		8.8	
		Pdh (declared heating cap)	kW	7.1	7.9	8.3	13.2	
	TBivalent	COPd (declared COP)		2.4	2.2		2.3	2.2
		Pdh (declared heating cap)	kW	46.4	51.1	54.2	60.7	62.3
		Tbiv (bivalent temperature)	°C	-10				
	TOL	COPd (declared COP)		2.4	2.2		2.3	2.2
Space heating (Average climate) recommended combination 2	TOL	Pdh (declared heating cap)	kW	46.4	51.1	54.2	60.7	62.3
		Tol (temperature operating limit)	°C	-10				

2 Specifications

2 - 1 Specifications

Technical specifications System					RYYQ32U5	RYYQ34U5	RYYQ36U5	RYYQ38U5	RYYQ40U5
Space heating (Average climate) recommended combination 3	A Condition (-7°C)	COPd (declared COP)			2.7	2.6	2.4	2.5	2.6
		Pdh (declared heating cap)		kW	41.0	45.2	47.9	53.7	55.1
	B Condition (2°C)	COPd (declared COP)			3.6	3.7	3.6	3.8	3.9
		Pdh (declared heating cap)		kW	25.0	27.5	29.2	32.7	33.5
	C Condition (7°C)	COPd (declared COP)			6.3	6.4	6.3		6.4
		Pdh (declared heating cap)		kW	16.1	17.7	18.8	21.2	21.6
	D Condition (12°C)	COPd (declared COP)			9.0	8.9	8.3	8.5	8.4
		Pdh (declared heating cap)		kW	7.1	7.9	8.3	12.9	12.8
	TBivalent	COPd (declared COP)			2.4	2.2	2.1	2.2	
		Pdh (declared heating cap)		kW	46.4	51.1	54.2	60.7	62.3
		Tbiv (bivalent temperature)		°C	-10				
	TOL	COPd (declared COP)			2.4	2.2	2.1	2.2	
		Pdh (declared heating cap)		kW	46.4	51.1	54.2	60.7	62.3
		Tol (temperature operating limit)		°C	-10				
Capacity range				HP	32	34	36	38	40
PED	Category				Category II				
Maximum number of connectable indoor units					64 (3)				
Indoor index connection	Min.				400.0	425.0	450.0	475.0	500.0
	Max.				1,040.0	1,105.0	1,170.0	1,235.0	1,300.0
Heat exchanger	Indoor side				Air				
	Outdoor side				Air				
	Air flow rate	Cooling	Rated	m^3/h	31,200	30,660	31,260	35,880	36,660
		Heating	Rated	m^3/h	31,200	30,660	31,260	35,880	36,660
Sound power level	Cooling	Nom.		dBA	88.6 (4)	87.8 (4)	89.9 (4)	88.8 (4)	87.3 (4)
	Heating	Prated,h		dBA	89.5 (4)	88.9 (4)	91.5 (4)	90.7 (4)	88.4 (4)
Sound pressure level	Cooling	Nom.		dBA	66.0 (5)	65.5 (5)	67.1 (5)	66.2 (5)	65.2 (5)
Refrigerant	Type				R-410A				
	GWP				2,087.5				
Refrigerant oil	Type				Synthetic (ether) oil FVC68D				
Piping connections	Liquid	Type			Braze connection				
		OD		mm	19.1				
	Gas	Type			Braze connection				
		OD		mm	34.9		41.3		
	Total piping length	System	Actual	m	1,000 (6)				
Indication if the heater is equipped with a supplementary heater					no				
Supplementary heater	Back-up capacity	Heating	elbu	kW	0.0				
Power consumption in other than active mode	Crankcase heater mode	Cooling	PCK	kW	0.000				
		Heating	PCK	kW	0.154	0.166		0.192	
	Off mode	Cooling	POFF	kW	0.149	0.150		0.157	
		Heating	POFF	kW	0.154	0.166		0.192	
	Standby mode	Cooling	PSB	kW	0.149	0.150		0.157	
		Heating	PSB	kW	0.154	0.166		0.192	
	Thermostat-off mode	Cooling	PTO	kW	0.019				
		Heating	PTO	kW	0.195	0.196		0.211	
Cooling	Cdc (Degradation cooling)				0.25				
Heating	Cdh (Degradation heating)				0.25				

Technical specifications System			RYYQ42U5	RYYQ44U5	RYYQ46U5	RYYQ48U5	RYYQ50U5
System	Outdoor unit module 1		RYMQ10U	RYMQ12U	RYMQ14U	RYMQ16U	
	Outdoor unit module 2		RYMQ16U				
	Outdoor unit module 3		RYMQ16U				RYMQ18U
Recommended combination			12 x FXFQ63AVEB + 4 x FXFQ80AVEB	6 x FXFQ50AVEB + 8 x FXFQ63AVEB + 4 x FXFQ80AVEB	1 x FXFQ50AVEB + 13 x FXFQ63AVEB + 4 x FXFQ80AVEB	12 x FXFQ63AVEB + 6 x FXFQ80AVEB	3 x FXFQ50AVEB + 13 x FXFQ63AVEB + 4 x FXFQ80AVEB
Recommended combination 2			12 x FXSQ63A2VEB + 4 x FXSQ80A2VEB	6 x FXSQ50A2VEB + 8 x FXSQ63A2VEB + 4 x FXSQ80A2VEB	1 x FXSQ50A2VEB + 13 x FXSQ63A2VEB + 4 x FXSQ80A2VEB	12 x FXSQ63A2VEB + 6 x FXSQ80A2VEB	3 x FXSQ50A2VEB + 13 x FXSQ63A2VEB + 4 x FXSQ80A2VEB
Recommended combination 3			12 x FXMQ63P7VEB + 4 x FXMQ80P7VEB	6 x FXMQ50P7VEB + 8 x FXMQ63P7VEB + 4 x FXMQ80P7VEB	1 x FXMQ50P7VEB + 13 x FXMQ63P7VEB + 4 x FXMQ80P7VEB	12 x FXMQ63P7VEB + 6 x FXMQ80P7VEB	3 x FXMQ50P7VEB + 13 x FXMQ63P7VEB + 4 x FXMQ80P7VEB
Continuous heating			Yes				
Cooling capacity	Prated,c	kW	118.0 (1)	123.5 (1)	130.0 (1)	135.0 (1)	140.4 (1)

2 Specifications

2 - 1 Specifications

Technical specifications System					RYYQ42U5	RYYQ44U5	RYYQ46U5	RYYQ48U5	RYYQ50U5
Heating capacity	Nom.	6°CWB		kW	118.0 (2)	123.5 (2)	130.0 (2)	135.0 (2)	140.4 (2)
	Prated,h			kW	118.0 (2)	123.5 (2)	130.0 (2)	135.0 (2)	140.4 (2)
	Max.	6°CWB		kW	131.5 (2)	137.5 (2)	145.0 (2)	150.0 (2)	156.5 (2)
Power input - 50Hz	Heating	Nom.	6°CWB	kW	32.66 (2)	34.73 (2)	35.77 (2)	37.62 (2)	39.30 (2)
COP at nom. capacity	6°CWB			kW/kW	3.61 (2)	3.56 (2)	3.63 (2)	3.59 (2)	3.57 (2)
ESEER - Automatic					6.65	6.62	6.60	6.50	6.46
ESEER - Standard					5.19	5.17	5.13	5.05	5.02
SCOP					4.2		4.1		4.2
SCOP recommended combination 2					4.3		4.2		
SCOP recommended combination 3					4.2		4.1		4.2
SEER					6.6	6.5	6.4		
SEER recommended combination 2					6.6	6.3	6.4	6.3	
SEER recommended combination 3					6.5	6.3		6.2	6.3
ηs,c				%	261.2	255.9	254.9	251.7	252.8
ηs,h				%	165.5	164.5	162.0	162.8	165.2
Space cooling	A Condition (35°C - 27/19)	EERd			2.3		2.4	2.3	2.1
		Pdc		kW	118.0	123.5	130.0	135.0	140.4
	B Condition (30°C - 27/19)	EERd			4.4			4.3	4.2
		Pdc		kW	86.9	91.0	95.8	99.5	103.4
	C Condition (25°C - 27/19)	EERd			8.2		8.1		
		Pdc		kW	55.9	58.5	61.6	64.0	66.5
	D Condition (20°C - 27/19)	EERd			15.4	14.4	14.3		15.9
		Pdc		kW	24.8	26.0	27.4	28.4	29.6
Space cooling recommended combination 2	A Condition (35°C - 27/19)	EERd				2.3		2.2	2.1
		Pdc		kW	118.0	123.5	130.0	135.0	140.4
	B Condition (30°C - 27/19)	EERd			4.4	4.3		4.2	
		Pdc		kW	86.9	91.0	95.8	99.5	103.5
	C Condition (25°C - 27/19)	EERd			8.2	7.9	8.1	8.0	
		Pdc		kW	55.9	58.5	61.6	63.9	66.5
	D Condition (20°C - 27/19)	EERd			15.3		14.0		15.6
		Pdc		kW	24.8	26.0	27.4	28.4	29.6
Space cooling recommended combination 3	A Condition (35°C - 27/19)	EERd				2.3		2.2	2.1
		Pdc		kW	118.0	123.5	130.0	135.0	140.4
	B Condition (30°C - 27/19)	EERd			4.3		4.2	4.1	
		Pdc		kW	87.0	91.0	95.8	99.5	103.5
	C Condition (25°C - 27/19)	EERd			8.0	7.9		7.8	7.9
		Pdc		kW	55.9	58.5	61.6	63.9	66.5
	D Condition (20°C - 27/19)	EERd			15.2	14.2	13.9	13.8	15.6
		Pdc		kW	24.8	26.0	27.4	28.4	29.6
Space heating (Average climate)	TBivalent	COPd (declared COP)			2.4	2.3	2.4		2.3
		Pdh (declared heating cap)		kW	62.4	64.8	67.0	69.6	74.3
		Tbiv (bivalent temperature)		°C			-10		
	TOL	COPd (declared COP)			2.4	2.3	2.4		2.3
		Pdh (declared heating cap)		kW	62.4	64.8	67.0	69.6	74.3
		Tol (temperature operating limit)		°C			-10		
	A Condition (-7°C)	COPd (declared COP)					2.7		
		Pdh (declared heating cap)		kW	55.2	57.3	59.3	61.6	65.7
	B Condition (2°C)	COPd (declared COP)			3.7		3.6		3.7
		Pdh (declared heating cap)		kW	33.6	34.9	36.1	37.5	40.0
	C Condition (7°C)	COPd (declared COP)			6.3		6.2	6.3	6.5
		Pdh (declared heating cap)		kW	21.6	22.4	23.2	24.1	25.7
	D Condition (12°C)	COPd (declared COP)			8.6		8.7	8.8	8.9
		Pdh (declared heating cap)		kW	9.9	10.0	10.3	10.7	12.0

2 Specifications

2 - 1 Specifications

Technical specifications System					RYYQ42U5	RYYQ44U5	RYYQ46U5	RYYQ48U5	RYYQ50U5
Space heating (Average climate) recommended combination 2	A Condition (-7°C)	COPd (declared COP)			2.7				
		Pdh (declared heating cap)		kW	55.2	57.3	59.3	61.6	65.7
	B Condition (2°C)	COPd (declared COP)			3.7		3.6		3.7
		Pdh (declared heating cap)		kW	33.6	34.9	36.1	37.5	40.0
	C Condition (7°C)	COPd (declared COP)			6.4		6.3		6.5
		Pdh (declared heating cap)		kW	21.6	22.4	22.8	24.1	25.7
	D Condition (12°C)	COPd (declared COP)			8.7		8.8	8.9	9.0
		Pdh (declared heating cap)		kW	10.0		10.3	10.7	12.2
	TBivalent	COPd (declared COP)			2.4	2.3	2.4		2.3
		Pdh (declared heating cap)		kW	62.4	64.8	67.0	69.6	74.3
		Tbiv (bivalent temperature)		°C	-10				
	TOL	COPd (declared COP)			2.4	2.3	2.4		2.3
Space heating (Average climate) recommended combination 2	TOL	Pdh (declared heating cap)		kW	62.4	64.8	67.0	69.6	74.3
		Tol (temperature operating limit)		°C	-10				
Space heating (Average climate) recommended combination 3	A Condition (-7°C)	COPd (declared COP)			2.7	2.6	2.7		2.6
		Pdh (declared heating cap)		kW	55.2	57.3	59.3	61.6	65.7
	B Condition (2°C)	COPd (declared COP)			3.7			3.6	
		Pdh (declared heating cap)		kW	33.6	34.9	36.1	37.5	40.0
	C Condition (7°C)	COPd (declared COP)			6.3	6.2		6.3	6.4
		Pdh (declared heating cap)		kW	21.6	22.4	23.2	24.1	25.7
	D Condition (12°C)	COPd (declared COP)			8.6		8.7	8.8	8.7
		Pdh (declared heating cap)		kW	9.9	10.0	10.3	10.7	11.8
	TBivalent	COPd (declared COP)			2.4	2.3	2.4		2.2
		Pdh (declared heating cap)		kW	62.4	64.8	67.0	69.6	74.3
		Tbiv (bivalent temperature)		°C	-10				
	TOL	COPd (declared COP)			2.4	2.3	2.4		2.2
		Pdh (declared heating cap)		kW	62.4	64.8	67.0	69.6	74.3
		Tol (temperature operating limit)		°C	-10				
Capacity range				HP	42	44	46	48	50
PED	Category				Category II				
Maximum number of connectable indoor units					64 (3)				
Indoor index connection	Min.				525.0	550.0	575.0	600.0	625.0
	Max.				1,365.0	1,430.0	1,495.0	1,560.0	1,625.0
Heat exchanger	Indoor side				Air				
	Outdoor side				Air				
	Air flow rate	Cooling	Rated	m^3/h	41,700	42,300	44,580	46,800	46,260
		Heating	Rated	m^3/h	41,700	42,300	44,580	46,800	46,260
Sound power level	Cooling	Nom.		dBA	89.1 (4)	89.8 (4)	89.3 (4)	90.4 (4)	89.8 (4)
	Heating	Prated,h		dBA	90.1 (4)	90.5 (4)	90.4 (4)	91.3 (4)	90.9 (4)
Sound pressure level	Cooling	Nom.		dBA	66.5 (5)	67.2 (5)	67.0 (5)	67.8 (5)	67.5 (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	1,000 (6)				
Indication if the heater is equipped with a supplementary heater					no				
Supplementary heater	Back-up capacity	Heating	elbu	kW	0.0				
Power consumption in other than active mode	Crankcase heater mode	Cooling	PCK	kW	0.000				
		Heating	PCK	kW	0.206		0.231		0.243
	Off mode	Cooling	POFF	kW	0.190		0.223		0.224
		Heating	POFF	kW	0.206		0.231		0.243
	Standby mode	Cooling	PSB	kW	0.190		0.223		0.224
		Heating	PSB	kW	0.206		0.231		0.243
	Thermostat-off mode	Cooling	PTO	kW	0.024		0.029		
		Heating	PTO	kW	0.251		0.292		0.293
Cooling	Cdc (Degradation cooling)				0.25				

2 Specifications

2 - 1 Specifications

Technical specifications System					RYYQ42U5	RYYQ44U5	RYYQ46U5	RYYQ48U5	RYYQ50U5
Heating	Cdh (Degradation heating)				0.25				

Technical specifications System					RYYQ52U5	RYYQ54U5
System	Outdoor unit module 1				RYMQ16U	RYMQ18U
	Outdoor unit module 2				RYMQ18U	
	Outdoor unit module 3				RYMQ18U	
Recommended combination					6 x FXFQ50AVEB + 14 x FXFQ63AVEB + 2 x FXFQ80AVEB	9 x FXFQ50AVEB + 15 x FXFQ63AVEB
Recommended combination 2					6 x FXSQ50A2VEB + 14 x FXSQ63A2VEB + 2 x FXSQ80A2VEB	9 x FXSQ50A2VEB + 15 x FXSQ63A2VEB
Recommended combination 3					6 x FXMQ50P7VEB + 14 x FXMQ63P7VEB + 2 x FXMQ80P7VEB	9 x FXMQ50P7VEB + 15 x FXMQ63P7VEB
Continuous heating					Yes	
Cooling capacity	Prated,c			kW	145.8 (1)	151.2 (1)
Heating capacity	Nom.	6°CWB		kW	145.8 (2)	151.2 (2)
	Prated,h			kW	145.8 (2)	151.2 (2)
	Max.	6°CWB		kW	163.0 (2)	169.5 (2)
Power input - 50Hz	Heating	Nom.	6°CWB	kW	40.98 (2)	42.66 (2)
COP at nom. capacity	6°CWB			kW/kW	3.56 (2)	3.54 (2)
ESEER - Automatic					6.42	6.38
ESEER - Standard					4.99	4.97
SCOP					4.3	
SCOP recommended combination 2					4.3	
SCOP recommended combination 3					4.2	
SEER					6.4	
SEER recommended combination 2					6.4	
SEER recommended combination 3					6.4	
ηs,c				%	253.7	254.1
ηs,h				%	167.2	169.4
Space cooling	A Condition (35°C - 27/19)	EERd			2.0	19
		Pdc		kW	145.8	151.2
	B Condition (30°C - 27/19)	EERd			4.2	4.1
		Pdc		kW	107.4	111.4
	C Condition (25°C - 27/19)	EERd			8.1	
		Pdc		kW	69.1	71.6
	D Condition (20°C - 27/19)	EERd			17.6	19.1
		Pdc		kW	30.7	34.4
Space cooling recommended combination 2	A Condition (35°C - 27/19)	EERd			2.0	19
		Pdc		kW	145.8	151.2
	B Condition (30°C - 27/19)	EERd			4.1	
		Pdc		kW	107.4	111.4
	C Condition (25°C - 27/19)	EERd			8.1	
Space cooling recommended combination 2	C Condition (25°C - 27/19)	Pdc		kW	69.0	71.6
	D Condition (20°C - 27/19)	EERd			17.4	18.9
		Pdc		kW	30.7	34.1
Space cooling recommended combination 3	A Condition (35°C - 27/19)	EERd			2.0	19
		Pdc		kW	145.8	151.2
	B Condition (30°C - 27/19)	EERd			4.1	
		Pdc		kW	107.4	111.4
	C Condition (25°C - 27/19)	EERd			8.0	8.2
		Pdc		kW	69.1	71.6
	D Condition (20°C - 27/19)	EERd			17.5	19.1
		Pdc		kW	30.7	34.7

2 Specifications

2 - 1 Specifications

Technical specifications System				RYYQ52U5	RYYQ54U5
Space heating (Average climate)	TBivalent	COPd (declared COP)		2.2	2.1
		Pdh (declared heating cap)	kW	79.0	83.7
		Tbiv (bivalent temperature)	°C	-10	
	TOL	COPd (declared COP)		2.2	2.1
		Pdh (declared heating cap)	kW	79.0	83.7
		Tol (temperature operating limit)	°C	-10	
	A Condition (-7°C)	COPd (declared COP)		2.6	
		Pdh (declared heating cap)	kW	69.9	74.0
	B Condition (2°C)	COPd (declared COP)		3.8	3.9
		Pdh (declared heating cap)	kW	42.5	45.1
	C Condition (7°C)	COPd (declared COP)		6.6	6.8
		Pdh (declared heating cap)	kW	27.4	29.0
	D Condition (12°C)	COPd (declared COP)		9.0	
		Pdh (declared heating cap)	kW	14.2	
Space heating (Average climate) recommended combination 2	A Condition (-7°C)	COPd (declared COP)		2.6	
		Pdh (declared heating cap)	kW	69.9	74.0
	B Condition (2°C)	COPd (declared COP)		3.8	3.9
		Pdh (declared heating cap)	kW	42.6	45.1
	C Condition (7°C)	COPd (declared COP)		6.7	6.8
		Pdh (declared heating cap)	kW	27.4	29.0
	D Condition (12°C)	COPd (declared COP)		9.1	
		Pdh (declared heating cap)	kW	14.4	
	TBivalent	COPd (declared COP)		2.2	2.1
		Pdh (declared heating cap)	kW	79.0	83.7
		Tbiv (bivalent temperature)	°C	-10	
	TOL	COPd (declared COP)		2.2	2.1
Space heating (Average climate) recommended combination 2	TOL	Pdh (declared heating cap)	kW	79.0	83.7
		Tol (temperature operating limit)	°C	-10	
Space heating (Average climate) recommended combination 3	A Condition (-7°C)	COPd (declared COP)		2.6	2.5
		Pdh (declared heating cap)	kW	69.9	74.0
	B Condition (2°C)	COPd (declared COP)		3.7	3.8
		Pdh (declared heating cap)	kW	42.5	45.1
	C Condition (7°C)	COPd (declared COP)		6.4	6.5
		Pdh (declared heating cap)	kW	27.3	29.0
	D Condition (12°C)	COPd (declared COP)		8.7	
		Pdh (declared heating cap)	kW	13.7	
	TBivalent	COPd (declared COP)		2.2	2.1
		Pdh (declared heating cap)	kW	79.0	83.7
		Tbiv (bivalent temperature)	°C	-10	
	TOL	COPd (declared COP)		2.2	2.1
		Pdh (declared heating cap)	kW	79.0	83.7
		Tol (temperature operating limit)	°C	-10	
Capacity range			HP	52	54
PED	Category			Category II	
Maximum number of connectable indoor units				64 (3)	
Indoor index connection	Min.			650.0	675.0
	Max.			1,690.0	1,755.0
Heat exchanger	Indoor side			Air	
	Outdoor side			Air	
	Air flow rate	Cooling Rated	m^3/h	45,720	45,180
		Heating Rated	m^3/h	45,720	45,180
Sound power level	Cooling	Nom.	dBA	89.3 (4)	88.6 (4)
	Heating	Prated,h	dBA	90.5 (4)	90.1 (4)
Sound pressure level	Cooling	Nom.	dBA	67.1 (5)	66.8 (5)
Refrigerant	Type			R-410A	
	GWP			2,087.5	
Refrigerant oil	Type			Synthetic (ether) oil FVC68D	

2 Specifications

2 - 1 Specifications

Technical specifications System					RYYQ52U5	RYYQ54U5
Piping connections	Liquid	Type			Braze connection	
		OD		mm	19.1	
	Gas	Type			Braze connection	
		OD		mm	41.3	
	Total piping length	System	Actual	m	1,000 (6)	
Indication if the heater is equipped with a supplementary heater					no	
Supplementary heater	Back-up capacity	Heating	elbu	kW	0.0	
Power consumption in other than active mode	Crankcase heater mode	Cooling	PCK	kW	0.000	
		Heating	PCK	kW	0.255	0.267
	Off mode	Cooling	POFF	kW	0.225	0.226
		Heating	POFF	kW	0.255	0.267
	Standby mode	Cooling	PSB	kW	0.225	0.226
		Heating	PSB	kW	0.255	0.267
	Thermostat-off mode	Cooling	PTO	kW	0.029	
		Heating	PTO	kW	0.294	
Cooling	Cdc (Degradation cooling)				0.25	
Heating	Cdh (Degradation heating)				0.25	

Electrical specifications System					RYYQ22U5	RYYQ24U5	RYYQ26U5	RYYQ28U5	RYYQ30U5
Power supply	Name				Y1				
	Phase				3N~				
	Frequency			Hz	50				
	Voltage			V	380-415				
Power supply intake					Both indoor and outdoor unit				
Voltage range	Min.			%	-10				
	Max.			%	10				
Current	Nominal running current (RLA)	Cooling		A	22.9 (7)	25.2 (7)	28.1 (7)	30.7 (7)	33.5 (7)
Current - 50Hz	Nominal running current (RLA)	Combination A	Cooling		-				
		Combination B	Cooling		-				
	Starting current (MSC) - remark				See note 8				
	Zmax	List			No requirements				
	Minimum Ssc value			kVa	11,573(9)	11,597(9)	12,831(9)	13,585(9)	14,843(9)
	Minimum circuit amps (MCA)			A	46.0 (10)		51.0(10)	55.0 (10)	59.0 (10)
	Maximum fuse amps (MFA)			A	63 (11)				80 (11)
Power Performance	Power factor	Combination B	35°C ISO - Full load		-				
			46°C ISO - Full load		-				
Wiring connections - 50Hz	For power supply	Quantity			5G				
	For connection with indoor	Quantity			2				
		Remark			F1,F2				

Electrical specifications System					RYYQ32U5	RYYQ34U5	RYYQ36U5	RYYQ38U5	RYYQ40U5
Power supply	Name				Y1				
	Phase				3N~				
	Frequency			Hz	50				
	Voltage			V	380-415				
Power supply intake					Both indoor and outdoor unit				
Voltage range	Min.			%	-10				
	Max.			%	10				
Current	Nominal running current (RLA)	Cooling		A	36.0 (7)	38.8 (7)	44.9 (7)	44.3 (7)	43.7 (7)

2 Specifications

2 - 1 Specifications

Electrical specifications System				RYYQ32U5	RYYQ34U5	RYYQ36U5	RYYQ38U5	RYYQ40U5
Current - 50Hz	Nominal running current (RLA)	Combination A	Cooling	-				
		Combination B	Cooling	-				
	Starting current (MSC) - remark			See note 8				
	Zmax	List		No requirements				
	Minimum Ssc value		kVa	15,094(9)	16,352(9)	17,359(9)	19,397(9)	20,378(9)
	Minimum circuit amps (MCA)		A	62.0 (10)	66.0 (10)	70.0 (10)	76.0 (10)	81.0(10)
	Maximum fuse amps (MFA)		A	80 (11)			100(11)	
Power Performance	Power factor	Combination B	35°C ISO - Full load	-				
			46°C ISO - Full load	-				
Wiring connections - 50Hz	For power supply	Quantity		5G				
	For connection with indoor	Quantity		2				
		Remark		F1,F2				

Electrical specifications System				RYYQ42U5	RYYQ44U5	RYYQ46U5	RYYQ48U5	RYYQ50U5
Power supply	Name			Y1				
	Phase			3N~				
	Frequency		Hz	50				
	Voltage		V	380-415				
Power supply intake				Both indoor and outdoor unit				
Voltage range	Min.		%	-10				
	Max.		%	10				
Current	Nominal running current (RLA)	Cooling	A	46.2 (7)	48.7 (7)	51.4 (7)	54.0 (7)	56.8 (7)
Current - 50Hz	Nominal running current (RLA)	Combination A	Cooling	-				
		Combination B	Cooling	-				
	Starting current (MSC) - remark			See note 8				
	Zmax	List		No requirements				
	Minimum Ssc value		kVa	20,629(9)	21,132(9)	21,887(9)	22,641(9)	23,899(9)
	Minimum circuit amps (MCA)		A	84.0 (10)	86.0 (10)	89.0 (10)	93.0 (10)	97.0 (10)
	Maximum fuse amps (MFA)		A	100 (11)			125 (1)	
Power Performance	Power factor	Combination B	35°C ISO - Full load	-				
			46°C ISO - Full load	-				
Wiring connections - 50Hz	For power supply	Quantity		5G				
	For connection with indoor	Quantity		2				
		Remark		F1,F2				

Electrical specifications System				RYYQ52U5	RYYQ54U5
Power supply	Name			Y1	
	Phase			3N~	
	Frequency		Hz	50	
	Voltage		V	380-415	
Power supply intake				Both indoor and outdoor unit	
Voltage range	Min.		%	-10	
	Max.		%	10	
Current	Nominal running current (RLA)	Cooling	A	59.6 (7)	62.4 (7)
Current - 50Hz	Nominal running current (RLA)	Combination A	Cooling	-	
		Combination B	Cooling	-	
	Starting current (MSC) - remark			See note 8	
	Zmax	List		No requirements	
	Minimum Ssc value		kVa	25,157(9)	26,41(9)
	Minimum circuit amps (MCA)		A	101.0(10)	105.0 (10)
	Maximum fuse amps (MFA)		A	125 (1)	
Power Performance	Power factor	Combination B	35°C ISO - Full load	-	
			46°C ISO - Full load	-	

2 Specifications

2 - 1 Specifications

Electrical specifications System			RYYQ52U5	RYYQ54U5
Wiring connections - 50Hz	For power supply	Quantity	5G	
	For connection with indoor	Quantity	2	
		Remark	F1F2	

Standard accessories: Installation manual;Quantity: 1;

Standard accessories: Operation manual;Quantity: 1;

Standard accessories: Connection pipes;Quantity: 1;

(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. This unit uses only inverter compressors. Starting current is always ≤ max. running current. |
(9)n 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 wih Ssc ≥ minimum Ssc value |
(10)MCA must be used to select the correct field wiring size. The MCA can be regarded as the maximum running current. |
(11)MFA is used to select the circuit breaker and the ground fault circuit interrupter (earth leakage circuit breaker). |
(12)FLA means the nominal running current of the fan |
(13)Maximum allowable voltage range variation between phases is 2%. |
(14)Voltage range: units are suitable for use on electrical systems where voltage supplied to unit terminal is not below or above listed range limits. |
(15)The AUTOMATIC ESEER value corresponds with normal VRV4 Heat Pump operation, taking into account advanced energy saving operation funcitonality (variable refrigerant temperature) |
(16)The STANDARD ESEER value corresponds with normal VRV4 Heat Pump operation, not taking into account advanced energy saving operation functionality |
(17)Sound values are measured in a semi-anechoic room. |
(18)Soundpressure system [dBA] = 10*log[10^(A/10)+10^(B/10)+10^(C/10)] , with Unit A = A dBA, Unit B = B dBA, Unit C = C dBA |
(19)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 |
(20)Ssc: Short-circuit power |
(21)For detailed contents of standard accessories, see installation/operation manual |
(22)Multi combination (22~54HP) data is corresponding with the standard multi combination

Technical specifications Module					RYMQ10U5	RYMQ12U5	RYMQ16U5	RYMQ8U5	RYMQ14U5
Recommended combination					4 x FXFQ63AVEB	6 x FXFQ50AVEB	4 x FXFQ63AVEB + 2 x FXFQ80AVEB	4 x FXFQ50AVEB	1 x FXFQ50AVEB + 5 x FXFQ63AVEB
Recommended combination 2					4 x FXSQ63A2VEB	6 x FXSQ50A2VEB	4 x FXSQ63A2VEB + 2 x FXSQ80A2VEB	4 x FXSQ50A2VEB	1 x FXSQ50A2VEB + 5 x FXSQ63A2VEB
Recommended combination 3					4 x FXMQ63P7VEB	6 x FXMQ50P7VEB	4 x FXMQ63P7VEB + 2 x FXMQ80P7VEB	4 x FXMQ50P7VEB	1 x FXMQ50P7VEB + 5 x FXMQ63P7VEB
Cooling capacity	Prated,c			kW	28.0 (1)	33.5 (1)	45.0 (1)	22.4 (1)	40.0 (1)
Heating capacity	Nom.	6°CWB		kW	28.0 (2)	33.5 (2)	45.0 (2)	22.4 (2)	40.0 (2)
	Prated,h			kW	28.0 (2)	33.5 (2)	45.0 (2)	22.4 (2)	40.0 (2)
	Max.	6°CWB		kW	31.5 (2)	37.5 (2)	50.0 (2)	25.0 (2)	45.0 (2)
Power input - 50Hz	Heating	Nom.	6°CWB	kW	7.58 (2)	9.65 (2)	12.54 (2)	5.40 (2)	10.69 (2)
COP at nom. capacity	6°CWB			kW/kW	3.69 (2)	3.47 (2)	3.59 (2)	4.15 (2)	3.74 (2)
ESEER - Automatic					7.20	6.96	6.50	7.53	6.83
ESEER - Standard					5.67	5.50	5.05	6.37	5.31
SCOP					4.3	4.1	4.0	4.3	4.0
SCOP recommended combination 2					4.3	4.1		4.2	4.0
SCOP recommended combination 3					4.1		4.0	4.2	4.0
SEER					6.8	6.3	6.0	7.6	6.3
SEER recommended combination 2					6.8	5.9		6.9	6.3
SEER recommended combination 3					6.8	6.2	5.8	7.5	6.2
ηs,c				%	267.6	247.8	236.5	302.4	250.7
ηs,h				%	168.2	161.4	157.8	167.9	155.4
Space cooling	A Condition (35°C - 27/19)	EERd			2.3	2.4	2.1	3.0	2.6
		Pdc		kW	28.0	33.5	45.0	22.4	40.0
	B Condition (30°C - 27/19)	EERd			4.7	4.3	3.9	5.2	4.1
		Pdc		kW	20.6	24.7	33.2	16.5	29.5
	C Condition (25°C - 27/19)	EERd			8.3	7.7		9.5	7.8
		Pdc		kW	13.3	15.9	21.3	10.6	18.9
	D Condition (20°C - 27/19)	EERd			17.0	13.9	14.2	18.8	14.3
		Pdc		kW	9.3	9.4	9.5	8.0	8.4

2 Specifications

2 - 1 Specifications

Technical specifications Module				RYMQ10U5	RYMQ12U5	RYMQ16U5	RYMQ8U5	RYMQ14U5
Space cooling recommended combination 2	A Condition (35°C - 27/19)	EERd		2.4		2.1	2.6	
		Pdc	kW	28.0	33.5	45.0	22.4	40.0
	B Condition (30°C - 27/19)	EERd		4.7	4.0	3.8	4.9	4.1
		Pdc	kW	20.6	24.7	33.2	16.5	29.5
	C Condition (25°C - 27/19)	EERd		8.5	7.1	7.6	8.8	7.9
		Pdc	kW	13.3	15.9	21.3	10.6	18.9
	D Condition (20°C - 27/19)	EERd		17.2	13.1	14.0	15.1	14.0
		Pdc	kW	9.3	9.1	9.5	8.8	8.4
Space cooling recommended combination 3	A Condition (35°C - 27/19)	EERd		2.3	2.4	2.1	3.0	2.6
Space cooling recommended combination 3	A Condition (35°C - 27/19)	Pdc	kW	28.0	33.5	45.0	22.4	40.0
	B Condition (30°C - 27/19)	EERd		4.7	4.2	3.7	5.1	4.0
		Pdc	kW	20.6	24.7	33.2	16.5	29.5
	C Condition (25°C - 27/19)	EERd		8.4	7.7	7.4	9.6	7.7
		Pdc	kW	13.3	15.9	21.3	10.6	19.0
	D Condition (20°C - 27/19)	EERd		16.9	13.7	14.1	16.0	14.0
		Pdc	kW	9.3	9.4	9.5	9.1	8.4
Space heating (Average climate)	TBivalent	COPd (declared COP)		2.4	2.0	2.2	2.5	2.3
		Pdh (declared heating cap)	kW	16.0	18.4	23.2	13.7	20.6
		Tbiv (bivalent temperature)	°C			-10		
	TOL	COPd (declared COP)		2.4	2.0	2.2	2.5	2.3
		Pdh (declared heating cap)	kW	16.0	18.4	23.2	13.7	20.6
		Tol (temperature operating limit)	°C			-10		
	A Condition (-7°C)	COPd (declared COP)		2.6	2.4	2.6	2.7	2.6
		Pdh (declared heating cap)	kW	14.2	16.3	20.5	12.1	18.2
	B Condition (2°C)	COPd (declared COP)		3.9		3.5	3.9	3.5
		Pdh (declared heating cap)	kW	8.6	9.9	12.5	7.4	11.1
	C Condition (7°C)	COPd (declared COP)		6.4	6.1	6.3		6.1
		Pdh (declared heating cap)	kW	5.5	6.4	8.0	5.0	7.1
	D Condition (12°C)	COPd (declared COP)		8.2	7.9	8.6	7.9	8.5
		Pdh (declared heating cap)	kW	5.9	6.3	4.9	5.9	4.9
Space heating (Average climate) recommended combination 2	A Condition (-7°C)	COPd (declared COP)		2.7	2.4	2.6	2.7	2.6
		Pdh (declared heating cap)	kW	14.2	16.3	20.5	12.1	18.2
	B Condition (2°C)	COPd (declared COP)		4.0	3.9	3.5	3.9	3.5
		Pdh (declared heating cap)	kW	8.6	9.9	12.2	7.4	11.1
	C Condition (7°C)	COPd (declared COP)		6.5	6.1	6.3		6.1
		Pdh (declared heating cap)	kW	5.5	6.4	8.0	5.0	7.1
	D Condition (12°C)	COPd (declared COP)		8.3	7.9	8.7	7.8	8.6
		Pdh (declared heating cap)	kW	6.0	6.4	5.0	5.9	4.9
	TBivalent	COPd (declared COP)		2.4	1.9	2.2	2.4	2.3
		Pdh (declared heating cap)	kW	16.0	18.4	23.2	13.7	20.6
		Tbiv (bivalent temperature)	°C			-10		
	TOL	COPd (declared COP)		2.4	1.9	2.2	2.4	2.3
		Pdh (declared heating cap)	kW	16.0	18.4	23.2	13.7	20.6
		Tol (temperature operating limit)	°C			-10		
Space heating (Average climate) recommended combination 3	A Condition (-7°C)	COPd (declared COP)		2.6	2.4	2.6	2.7	2.6
		Pdh (declared heating cap)	kW	14.2	16.3	20.5	12.1	18.2

2 Specifications

2 - 1 Specifications

Technical specifications Module					RYMQ10U5	RYMQ12U5	RYMQ16U5	RYMQ8U5	RYMQ14U5
Space heating (Average climate) recommended combination 3	B Condition (2°C)	COPd (declared COP)			3.7	3.9	3.5	3.9	3.5
		Pdh (declared heating cap)		kW	8.6	9.9	12.5	7.4	11.1
	C Condition (7°C)	COPd (declared COP)			6.4	6.0	6.2		6.1
		Pdh (declared heating cap)		kW	5.5	6.4	8.0	4.9	7.1
	D Condition (12°C)	COPd (declared COP)			8.1	7.8	8.6	7.8	8.5
		Pdh (declared heating cap)		kW	5.9	6.2	4.9	5.8	4.9
	TBivalent	COPd (declared COP)			2.4	2.0	2.2	2.5	2.3
		Pdh (declared heating cap)		kW	16.0	18.4	23.2	13.7	20.6
		Tbiv (bivalent temperature)		°C	-10				
	TOL	COPd (declared COP)			2.4	2.0	2.2	2.5	2.3
		Pdh (declared heating cap)		kW	16.0	18.4	23.2	13.7	20.6
		Tol (temperature operating limit)		°C	-10				
Capacity range				HP	10	12	16	8	14
PED	Category				Category II				
	Most critical part	Name			Accumulator				
		Ps*V		Bar*l	325		415	325	415
Maximum number of connectable indoor units					64 (3)				
Indoor index connection	Min.				125.0	150.0	200.0	100.0	175.0
	Max.				325.0	390.0	520.0	260.0	455.0
Dimensions	Unit	Height		mm	1,685				
		Width		mm	930		1,240	930	1,240
		Depth		mm	765				
	Packed unit	Height		mm	1,820				
		Width		mm	995		1,305	995	1,305
		Depth		mm	860				
Weight	Unit			kg	204		283	204	283
	Packed unit			kg	222		304	222	304
Packing	Material				Carton				
	Weight			kg	4.7		5.7	4.7	5.7
Packing 2	Material				Wood				
	Weight			kg	12.1		14.7	12.1	14.7
Packing 3	Material				Plastic				
	Weight			kg	0.5		0.7	0.5	0.7
Casing	Colour				Ivory white				
	Material				Painted galvanized steel plate				
Heat exchanger	Type				Cross fin coil				
	Indoor side				Air				
Heat exchanger	Outdoor side				Air				
	Air flow rate	Cooling	Rated	m^3/h	10,500	11,100	15,600	9,720	13,380
		Heating	Rated	m^3/h	10,500	11,100	15,600	9,720	13,380
Fan	Quantity				1		2	1	2
	External static pressure	Max.		Pa	78				
Fan motor	Quantity				1		2	1	2
	Type				DC motor				
	Output			W	550		750	550	750
Compressor	Quantity				1		2	1	2
	Type				Hermetically sealed scroll compressor				
	Crankcase heater			W	33				
Operation range	Cooling	Min.		°CDB	-5.0				
		Max.		°CDB	43.0				
	Heating	Min.		°CWB	-20.0				
		Max.		°CWB	15.5				
Sound power level	Cooling	Nom.		dBA	79.1 (4)	83.4 (4)	85.6 (4)	78.0 (4)	80.9 (4)
	Heating	Prated,h		dBA	80.9 (4)	83.5 (4)	86.5 (4)	79.6 (4)	83.1 (4)
Sound pressure level	Cooling	Nom.		dBA	57.0 (5)	61.0 (5)	63.0 (5)	57.0 (5)	60.0 (5)
Refrigerant	Type				R-410A				
	GWP				2,087.5				
	Charge			kg	6.0	6.3	11.3	5.9	10.3
Refrigerant oil	Type				Synthetic (ether) oil FVC68D				

2 Specifications

2 - 1 Specifications

Technical specifications Module					RYMQ10U5	RYMQ12U5	RYMQ16U5	RYMQ8U5	RYMQ14U5
Piping connections	Liquid	Type			Braze connection				
		OD		mm	9.52	12.7		9.52	12.7
	Gas	Type			Braze connection				
		OD		mm	22.2	28.6		19.1	28.6
	Equalizing	Type			Braze connection				
		OD		mm	22.2			19.1	22.2
	Total piping length	System	Actual	m	1,000 (6)				
Defrost method					Reversed cycle				
Capacity control	Method				Inverter controlled				
Indication if the heater is equipped with a supplementary heater					no				
Supplementary heater	Back-up capacity	Heating	elbu	kW	0.0				
Power consumption in other than active mode	Crankcase heater mode	Cooling	PCK	kW	0.000				
		Heating	PCK	kW	0.052		0.077	0.052	0.077
	Off mode	Cooling	POFF	kW	0.041		0.074	0.041	0.074
		Heating	POFF	kW	0.052		0.077	0.052	0.077
Power consumption in other than active mode	Standby mode	Cooling	PSB	kW	0.041		0.074	0.041	0.074
		Heating	PSB	kW	0.052		0.077	0.052	0.077
	Thermostat-off mode	Cooling	PTO	kW	0.005		0.010	0.005	0.010
		Heating	PTO	kW	0.056		0.097	0.056	0.097
Cooling	Cdc (Degradation cooling)				0.25				
Heating	Cdh (Degradation heating)				0.25				
Safety devices	Item	01			High pressure switch				
		02			Fan driver overload protector				
		03			Inverter overload protector				
		04			PC board fuse				
		05			Leakage current detector				

Technical specifications Module					RYMQ18U5	RYMQ20U5
Recommended combination					3 x FXFQ50AVEB + 5 x FXFQ63AVEB	2 x FXFQ50AVEB + 6 x FXFQ63AVEB
Recommended combination 2					3 x FXSQ50A2VEB + 5 x FXSQ63A2VEB	2 x FXSQ50A2VEB + 6 x FXSQ63A2VEB
Recommended combination 3					3 x FXMQ50P7VEB + 5 x FXMQ63P7VEB	2 x FXMQ50P7VEB + 6 x FXMQ63P7VEB
Cooling capacity	Prated,c			kW	50.4 (1)	52.0 (1)
Heating capacity	Nom.	6°CWB		kW	50.4 (2)	56.0 (2)
	Prated,h			kW	50.4 (2)	56.0 (2)
	Max.	6°CWB		kW	56.5 (2)	63.0 (2)
Power input - 50Hz	Heating	Nom.	6°CWB	kW	14.22 (2)	17.47 (2)
COP at nom. capacity	6°CWB			kW/kW	3.54 (2)	3.20 (2)
ESEER - Automatic					6.38	5.67
ESEER - Standard					4.97	4.42
SCOP					4.2	4.0
SCOP recommended combination 2					4.2	4.0
SCOP recommended combination 3					4.1	3.9
SEER					6.0	5.9
SEER recommended combination 2					6.0	5.9
SEER recommended combination 3					6.0	5.9
ηs,c				%	238.3	233.7
ηs,h				%	163.1	156.6
Space cooling	A Condition (35°C - 27/19)	EERd			19	
		Pdc		kW	50.4	52.0
	B Condition (30°C - 27/19)	EERd			3.8	3.7
		Pdc		kW	37.1	38.3
	C Condition (25°C - 27/19)	EERd			7.5	7.3
		Pdc		kW	23.9	24.6
	D Condition (20°C - 27/19)	EERd			18.3	
		Pdc		kW	11.5	

2 Specifications

2 - 1 Specifications

Technical specifications Module				RYMQ18U5	RYMQ20U5
Space cooling recommended combination 2	A Condition (35°C - 27/19)	EERd		19	
		Pdc	kW	50.4	52.0
	B Condition (30°C - 27/19)	EERd		3.7	3.6
		Pdc	kW	37.1	38.3
	C Condition (25°C - 27/19)	EERd		7.5	7.3
		Pdc	kW	23.9	24.6
	D Condition (20°C - 27/19)	EERd		18.1	18.9
		Pdc	kW	11.4	10.9
Space cooling recommended combination 3	A Condition (35°C - 27/19)	EERd		19	
Space cooling recommended combination 3	A Condition (35°C - 27/19)	Pdc	kW	50.4	52.0
	B Condition (30°C - 27/19)	EERd		3.7	3.6
		Pdc	kW	37.1	38.3
	C Condition (25°C - 27/19)	EERd		7.6	7.3
		Pdc	kW	23.9	24.6
	D Condition (20°C - 27/19)	EERd		18.3	
		Pdc	kW	11.6	
Space heating (Average climate)	TBivalent	COPd (declared COP)		1.9	1.8
		Pdh (declared heating cap)	kW	27.9	31.0
		Tbiv (bivalent temperature)	°C	-10	
	TOL	COPd (declared COP)		1.9	1.8
		Pdh (declared heating cap)	kW	27.9	31.0
		Tol (temperature operating limit)	°C	-10	
	A Condition (-7°C)	COPd (declared COP)		2.4	2.1
		Pdh (declared heating cap)	kW	24.7	27.4
	B Condition (2°C)	COPd (declared COP)		3.7	3.6
		Pdh (declared heating cap)	kW	15.0	16.7
	C Condition (7°C)	COPd (declared COP)		6.7	6.5
		Pdh (declared heating cap)	kW	9.7	10.7
	D Condition (12°C)	COPd (declared COP)		9.0	9.1
		Pdh (declared heating cap)	kW	7.1	
Space heating (Average climate) recommended combination 2	A Condition (-7°C)	COPd (declared COP)		2.4	2.2
		Pdh (declared heating cap)	kW	24.7	27.4
	B Condition (2°C)	COPd (declared COP)		3.8	3.7
		Pdh (declared heating cap)	kW	15.0	16.7
	C Condition (7°C)	COPd (declared COP)		6.8	6.5
		Pdh (declared heating cap)	kW	9.7	10.7
	D Condition (12°C)	COPd (declared COP)		9.1	9.2
		Pdh (declared heating cap)	kW	7.2	
	TBivalent	COPd (declared COP)		1.9	1.8
		Pdh (declared heating cap)	kW	27.9	31.0
		Tbiv (bivalent temperature)	°C	-10	
	TOL	COPd (declared COP)		1.9	1.8
		Pdh (declared heating cap)	kW	27.9	31.0
		Tol (temperature operating limit)	°C	-10	
Space heating (Average climate) recommended combination 3	A Condition (-7°C)	COPd (declared COP)		2.4	2.1
		Pdh (declared heating cap)	kW	24.7	27.4

2 Specifications

2 - 1 Specifications

Technical specifications Module					RYMQ18U5	RYMQ20U5
Space heating (Average climate) recommended combination 3	B Condition (2°C)	COPd (declared COP)			3.7	3.6
		Pdh (declared heating cap)		kW	15.0	16.7
	C Condition (7°C)	COPd (declared COP)			6.5	6.3
		Pdh (declared heating cap)		kW	9.7	10.7
	D Condition (12°C)	COPd (declared COP)			8.7	
		Pdh (declared heating cap)		kW	6.9	
	TBivalent	COPd (declared COP)			1.9	1.8
		Pdh (declared heating cap)		kW	27.9	31.0
		Tbiv (bivalent temperature)		°C	-10	
	TOL	COPd (declared COP)			1.9	1.8
		Pdh (declared heating cap)		kW	27.9	31.0
		Tol (temperature operating limit)		°C	-10	
Capacity range				HP	18	20
PED	Category				Category II	
	Most critical part	Name			Accumulator	
		Ps*V		Bar*l	493	
Maximum number of connectable indoor units					64 (3)	
Indoor index connection	Min.				225.0	250.0
	Max.				585.0	650.0
Dimensions	Unit	Height		mm	1,685	
		Width		mm	1,240	
		Depth		mm	765	
	Packed unit	Height		mm	1,820	
		Width		mm	1,305	
		Depth		mm	860	
Weight	Unit			kg	320	
	Packed unit			kg	341	
Packing	Material				Carton	
	Weight			kg	5.7	
Packing 2	Material				Wood	
	Weight			kg	14.7	
Packing 3	Material				Plastic	
	Weight			kg	0.7	
Casing	Colour				Ivory white	
	Material				Painted galvanized steel plate	
Heat exchanger	Type				Cross fin coil	
	Indoor side				Air	
Heat exchanger	Outdoor side				Air	
	Air flow rate	Cooling	Rated	m^3/h	15,060	15,660
		Heating	Rated	m^3/h	15,060	15,660
Fan	Quantity				2	
	External static pressure	Max.		Pa	78	
Fan motor	Quantity				2	
	Type				DC motor	
	Output			W	750	
Compressor	Quantity				2	
	Type				Hermetically sealed scroll compressor	
	Crankcase heater			W	33	
Operation range	Cooling	Min.		°CDB	-5.0	
		Max.		°CDB	43.0	
	Heating	Min.		°CWB	-20.0	
		Max.		°CWB	15.5	
Sound power level	Cooling	Nom.		dBA	83.8 (4)	87.9 (4)
	Heating	Prated,h		dBA	85.3 (4)	89.8 (4)
Sound pressure level	Cooling	Nom.		dBA	62.0 (5)	65.0 (5)
Refrigerant	Type				R-410A	
	GWP				2,087.5	
	Charge			kg	11.7	11.8
Refrigerant oil	Type				Synthetic (ether) oil FVC68D	

2 Specifications

2 - 1 Specifications

Technical specifications Module					RYMQ18U5	RYMQ20U5
Piping connections	Liquid	Type			Braze connection	
		OD		mm	15.9	
	Gas	Type			Braze connection	
		OD		mm	28.6	
	Equalizing	Type			Braze connection	
		OD		mm	28.6	
	Total piping length	System	Actual	m	1,000 (6)	
Defrost method					Reversed cycle	
Capacity control	Method				Inverter controlled	
Indication if the heater is equipped with a supplementary heater					no	
Supplementary heater	Back-up capacity	Heating	elbu	kW	0.0	
Power consumption in other than active mode	Crankcase heater mode	Cooling	PCK	kW	0.000	
		Heating	PCK	kW	0.089	
	Off mode	Cooling	POFF	kW	0.075	
		Heating	POFF	kW	0.089	
Power consumption in other than active mode	Standby mode	Cooling	PSB	kW	0.075	
		Heating	PSB	kW	0.089	
	Thermostat-off mode	Cooling	PTO	kW	0.010	
		Heating	PTO	kW	0.098	
Cooling	Cdc (Degradation cooling)				0.25	
Heating	Cdh (Degradation heating)				0.25	
Safety devices	Item	01			High pressure switch	
		02			Fan driver overload protector	
		03			Inverter overload protector	
		04			PC board fuse	
		05			Leakage current detector	

Electrical specifications Module				RYMQ10U5	RYMQ12U5	RYMQ16U5	RYMQ8U5	RYMQ14U5
Power supply	Name			Y1				
	Phase			3N~				
	Frequency		Hz	50				
	Voltage		V	380-415				
Power supply intake				Both indoor and outdoor unit				
Voltage range	Min.		%	-10				
	Max.		%	10				
Current	Nominal running current (RLA)	Cooling	A	10.2 (7)	12.7 (7)	18.0 (7)	7.2 (7)	15.4 (7)
Current - 50Hz	Nominal running current (RLA)	Combination A	Cooling	-				
		Combination B	Cooling	-				
	Starting current (MSC) - remark			See note 8				
	Zmax	List		No requirements				
	Minimum Ssc value		kVa	5,535 (9)	6,038 (9)	7,547 (9)	4,050 (9)	6,793 (9)
	Minimum circuit amps (MCA)		A	22.0 (10)	24.0 (10)	31.0 (10)	16.1 (10)	27.0 (10)
	Maximum fuse amps (MFA)		A	25 (11)	32 (11)	40 (11)	20 (11)	32 (11)
	Full load amps (FLA)	Total	A	1.3 (12)	1.5 (12)	2.6 (12)	1.2 (12)	1.8 (12)
Power Performance	Power factor	Combination B	35°C ISO - Full load	-				
			46°C ISO - Full load	-				
Wiring connections - 50Hz	For power supply	Quantity		5G				
	For connection with indoor	Quantity		2				
		Remark		F1,F2				

Electrical specifications Module				RYMQ18U5	RYMQ20U5
Power supply	Name			Y1	
	Phase			3N~	
	Frequency		Hz	50	
	Voltage		V	380-415	
Power supply intake				Both indoor and outdoor unit	

2 Specifications

2 - 1 Specifications

Electrical specifications Module				RYMQ18U5	RYMQ20U5
Voltage range	Min.		%	-10	
	Max.		%	10	
Current	Nominal running current (RLA)	Cooling	A	20.8 (7)	26.9 (7)
Current - 50Hz	Nominal running current (RLA)	Combination A - Cooling		-	
		Combination B - Cooling		-	
	Starting current (MSC) - remark			See note 8	
	Zmax	List		No requirements	
	Minimum Ssc value		kVa	8,805 (9)	9,812(9)
	Minimum circuit amps (MCA)		A	35.0 (10)	39.0 (10)
	Maximum fuse amps (MFA)		A	40 (11)	50 (11)
	Full load amps (FLA)	Total	A	2.6 (12)	
Power Performance	Power factor	Combination B - 35°C ISO - Full load		-	
		46°C ISO - Full load		-	
Wiring connections - 50Hz	For power supply	Quantity		5G	
	For connection with indoor	Quantity		2	
		Remark		F1,F2	

(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. This unit uses only inverter compressors. Starting current is always ≤ max. running current. |
(9)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 wih Ssc ≥ minimum Ssc value |
(10)MCA must be used to select the correct field wiring size. The MCA can be regarded as the maximum running current. |
(11)MFA is used to select the circuit breaker and the ground fault circuit interrupter (earth leakage circuit breaker). |
(12)FLA means the nominal running current of the fan |
(13)Maximum allowable voltage range variation between phases is 2%. |
(14)Voltage range: units are suitable for use on electrical systems where voltage supplied to unit terminal is not below or above listed range limits. |
(15)The AUTOMATIC ESEER value corresponds with normal VRV4 Heat Pump operation, taking into account advanced energy saving operation funcitonality (variable refrigerant temperature) |
(16)The STANDARD ESEER value corresponds with normal VRV4 Heat Pump operation, not taking into account advanced energy saving operation functionality |
(17)Sound values are measured in a semi-anechoic room. |
(18)Soundpressure system [dBA] = 10*log[10^(A/10)+10^(B/10)+10^(C/10)] , with Unit A = A dBA, Unit B = B dBA, Unit C = C dBA |
(19)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 |
(20)Ssc: Short-circuit power |
(21)For detailed contents of standard accessories, see installation/operation manual |
(22)Multi combination (22~54HP) data is corresponding with the standard multi combination

3 Options

3 - 1 Options

RXYQ-U5
RYYQ-U5
RYMQ-U5

No	Item		RXYQ8U5	RXYQ10-12U5	RXYQ14-18U5	RXYQ20U5	RYYQ22~54U5
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 ·3·.	KRC19-26A						
1b	Cool/heat selector (PCB)		BRP2A81						
1c	Cool/heat selector (fixing box)		KJB111A						
2	VRV configurator		EKPCCAB*						
3	Heater tape kit PCB		EKBPH012T7A			EKBPH020T7A			
4	Demand PCB	See	DTA104A61/62*						
5	Demand PCB mounting plate	See note ·4·.	---			KKSB26B1*			

Notes

1 All options are kits
2 Only for multi units
3 To mount option ·1a·, option ·1c· is required.
4 To install the demand PCB on the large casing type, the demand PCB mounting plate is required.

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

3D120006B

4 Combination table

4 - 1 Combination Table

RXYTQ8-16U5YF
RYMQ8-20U5

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

Units in scope: FXZQ15A and FXAQ15A.

1. 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.
2. In case the system contains these indoor units and the total connection ratio (CR) > 100%: special restrictions apply.
   A. 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.
   B. 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 andFXAQ15A 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

RXYQ-U5
RYYQ-U5
RYMQ-U5

Heat pump VRV4
Multi-unit standard combinations table

		8HP	10HP	12HP	14HP	16HP	18HP	20HP
Heat pump	RXYQ8* / RYYQ8* / RXYQQ8*	1						
	RXYQ10* / RYYQ10* / RXYQQ10*		1					
	RXYQ12* / RYYQ12* / RXYQQ12*			1				
	RXYQ14* / RYYQ14* / RXYQQ14*				1			
	RXYQ16* / RYYQ16* / RXYQQ16*					1		
	RXYQ18* / RYYQ18* / RXYQQ18*						1	
	RXYQ20* / RYYQ20* / RXYQQ20*							1
Multi-combination with 2 outdoor units	RXYQ22* / RYYQ22* / RXYQQ22*		1	1				
	RXYQ24* / RYYQ24* / RXYQQ24*	1				1		
	RXYQ26* / RYYQ26* / RXYQQ26*			1	1			
	RXYQ28* / RYYQ28* / RXYQQ28*			1		1		
	RXYQ30* / RYYQ30* / RXYQQ30*			1			1	
	RXYQ32* / RYYQ32* / RXYQQ32*					2		
	RXYQ34* / RYYQ34* / RXYQQ34*					1	1	
	RXYQ36* / RYYQ36* / RXYQQ36*					1		1
Multi-combination with 3 outdoor units	RXYQ38* / RYYQ38* / RXYQQ38*	1	1					1
	RXYQ40* / RYYQ40* / RXYQQ40*		1	1			1	
	RXYQ42* / RYYQ42* / RXYQQ42*		1			2		
	RXYQ44* / RYYQ44*			1		2		
	RXYQ46* / RYYQ46*				1	2		
	RXYQ48* / RYYQ48*					3		
	RXYQ50* / RYYQ50*					2	1	
	RXYQ52* / RYYQ52*					1	2	
	RXYQ54* / RYYQ54*						3	

Remark
RYYQ8~20 = Single continuous heating
RYYQ22~54 Multi continuous heating
RXYQ8~20 = Single non-continuous heating
RXYQ22~54 Multi non-continuous heating
RXYQQ8~20 Single non-continuous heating replacement (VRV4-Q)
RXYQQ22~4 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 RXYQQ8-20 modules (e.g. RXYQQ36*=RXYQQ16*+RXYQQ20*).
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

4 Combination table

4 - 1 Combination Table

RXYQ-U5
RYYQ-U5
RYMQ-U5

VRV4
Heat pump
Indoor unit combination restrictions
(1/2)

Indoor unit combination pattern	VRV* DX indoor unit	RA DX indoor unit	Hydrobox unit	Air handling unit (AHU) (3)
VRV* DX indoor unit	O	O	O	O
RA DX indoor unit	O	O	X	X
Hydrobox unit	O	X	O_1	X
Air handling unit (3)	O	X	X	O_2

O: Allowed
X: Not allowed

Notes

1. VRV* DX indoor unit
   - When combining VRV DX indoor units with other types of indoor units, respect the following combination patterns:
   Example
   Allowed : *(VRV DX indoor unit + Hydrobox unit) or (VRV DX indoor unit + RA DX indoor unit) or (VRV DX indoor unit + AHU)*
   Not allowed : *[VRV DX indoor unit + (RA DX indoor unit & (Hydrobox unit or AHU))] or [VRV DX indoor unit + (Hydrobox unit & (RA DX indoor unit or AHU))]*

2. O_1
   - Only connect Hydrobox units to a VRV IV Heat Pump in combination with a VRV DX indoor unit.
     → Refer to the connection ratio restrictions (3D079540 & 3D117169).
     → Connection with only Hydrobox units: refer to the Daikin Altherma solutions.
   - Only connect Hydrobox units of the HXY* series.
     → HXHD* series Hydrobox units are not allowed.

3. O_2
   - *Combination of AHU only + control box EKEQFA (the combination with VRV DX indoor units is not allowed; maximum 54HP for 400 + 2x500 class EKEXV kit)*
     → X-control is possible (up to 3x [EKEXV+EKEQFA* boxes] can be connected to one outdoor unit (system)). No Variable Refrigerant Temperature control possible.
     → Y-control is possible (up to 3x [EKEXV+EKEQFA* boxes] can be connected to one outdoor unit (system)). No Variable Refrigerant Temperature control possible.
     → W-control is possible (up to 3x [EKEXV+EKEQFA* boxes] can be connected to one outdoor unit (system)). No Variable Refrigerant Temperature control possible.
   - *Combination of AHU only + control box EKEQMA (not combined with VRV DX indoor units)*
     → Z-control is possible (the allowed number of [EKEXV + EKEQMA boxes] is determined by the connection ratio (90-110%) and the capacity of the outdoor unit.

4. Combination of AHU and VRV DX indoor units
   → Z-control is possible (EKEQMA* boxes are allowed, but with a limited connection ratio).

5. The combination of AHU with Hydrobox units or RA DX indoor units is not allowed.

6. (3) The following units are considered AHUs:
   → EKEXV + EKEQ(MA/FA) + AHU coil
   → Biddle air curtain
   → FXMQ_MF units

Information
- VKM units are considered to be regular VRV DX indoor units.

3D079543F

RXYQ-U5
RYYQ-U5
RYMQ-U5

VRV4
Heat pump
Indoor unit combination restrictions
(2/2)

Combination table	RYYQ* Single continuous heating	RYYQ* Multi continuous heating	RXYQ* Single non-continuous heating	RXYQ* Multi non-continuous heating
VRV* DX indoor unit	O	O	O	O
RA DX indoor unit	O	X	O	X
Hydrobox unit	O	O_1	O	O_1
Air handling unit (AHU) (2)	O	O	O	O

O: Allowed
X: Not allowed

Notes

1. O_1
   - Available upon request through the SPN procedure.

2. (2) The following units are considered AHUs:
   → EKEXV + EKEQ(MA/FA) + AHU coil
   → Biddle air curtain
   → FXMQ_MF units

3D079543F

4 Combination table

4 - 1 Combination Table

RXYQ-U5
RYYQ-U5
RYMQ-U5

Compatibility list: ·VRV4· heat pump - ·RA DX· indoor unit

Wall mounted type	*Emura*	FTXJ20A FTXJ25A FTXJ35A FTXJ42A FTXJ50A
	Stylish	FTXA20 FTXA25 FTXA35 FTXA42 FTXA50
	FTXM	FTXM20R FTXM25R FTXM35R FTXM42R FTXM50R FTXM60R FTXM71R
Ceiling/wall mounted	*Flex*	FLXS25B FLXS35B FLXS50B FLXS60B
Floor standing type	*FVXM*	FVXM25F FVXM35F FVXM50F FVXM25A FVXM35A FVXM50A CVXM20A
	Nexura	FVXG25K FVXG35K FVXG50K

Remark

The limitations on the use of ·RA DX· indoor units with the ·VRV4· Heat Pump are subject to the rules set out in drawings ·3D079543· and ·3D079540·.

If you want to connect ·RA·/·SA· ·DX· cassette, ceiling-mounted, or duct indoor units, use their ·VRV DX· indoor unit equivalents instead.

3D082373H

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.
- You can access the capacity table viewer here:
  https://my.daikin.eu/content/denv/en_US/home/applications/software-finder/capacity-table-viewer.html

- An overview of **all software tools** that we offer can be found here:
  https://my.daikin.eu/denv/en_US/home/applications/software-finder.html

5 Capacity tables

5 - 2 Capacity Correction Factor

RXYQ-U5
RYYQ-U5
RYMQ-U5

VRV4
Heat pump
Integrated heating capacity coefficient

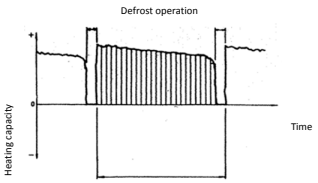
The heating capacity tables do not take into account the capacity reduction in case of frost accumulation or defrost operation.
The capacity values that take these factors into account, or in other words, the integrated heating capacity values, can be calculated as follows:

Formula

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



1 cycle

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.

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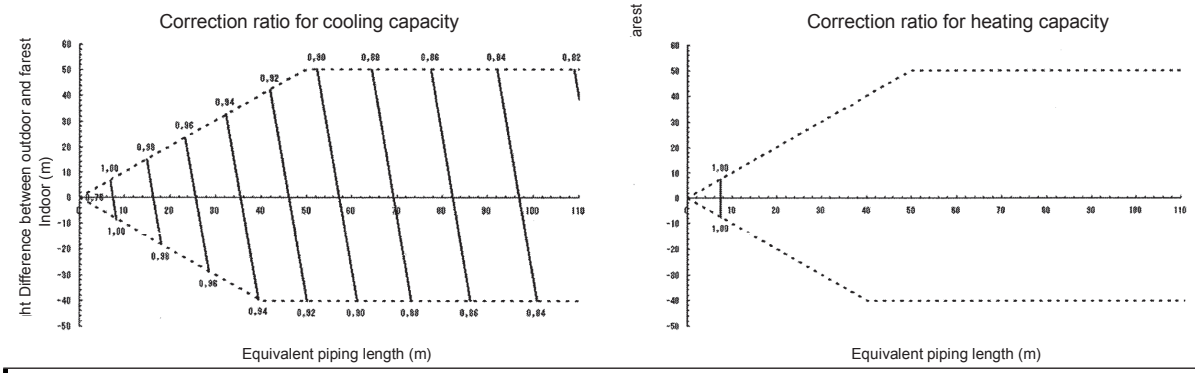
5 Capacity tables

5 - 2 Capacity Correction Factor

RXYQ8U5

RYMQ8U5



NOTES

1. 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 it the above figures.

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

3. 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%.

Maximum capacity of outdoor units	=	Capacity of outdoor units from capacity table at the 100% connection ratio
	x	Correction ratio of piping to furthest indoor

   Condition: Indoor connection ratio exceeds 100%.

Maximum capacity of outdoor units	=	Capacity of outdoor units from capacity table at installed connection ratio
	x	Correction ratio of piping to furthest indoor

4. 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

5. 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 deicated indoor connection types.

   Diameter of main pipes (standard size)

Model	Gas	Liquid
8HP	19.1	9.5

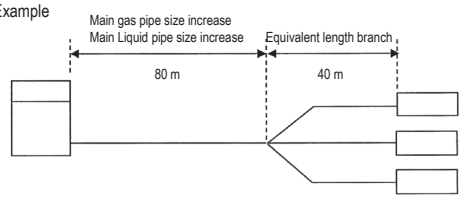
6. Equivalent length used in the above figures is based upon the following equivalent length

Equivalent piping length	=	
Equivalent length of main pipe	x	Correction factor
+		
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

   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 rete 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

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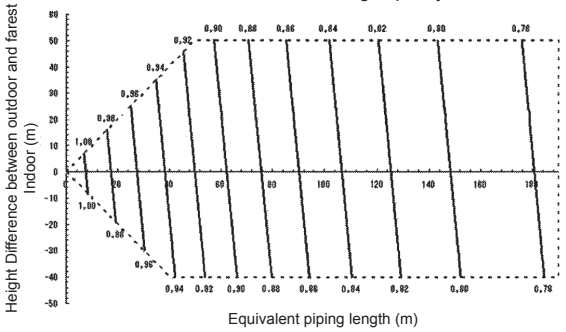
5 Capacity tables

5 - 2 Capacity Correction Factor

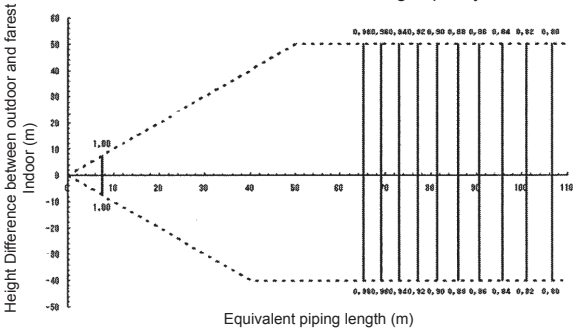
RXYQ10U5

RYMQ10U5

Correction ratio for cooling capacity



Correction ratio for heating capacity



NOTES

1. 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 it the above figures.

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

3. 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%.

Maximum capacity of outdoor units	=	Capacity of outdoor units from capacity table at the 100% connection ratio
	x	Correction ratio of piping to furthest indoor

   Condition: Indoor connection ratio exceeds 100%.

Maximum capacity of outdoor units	=	Capacity of outdoor units from capacity table at installed connection ratio
	x	Correction ratio of piping to furthest indoor

4. 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).

5. 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

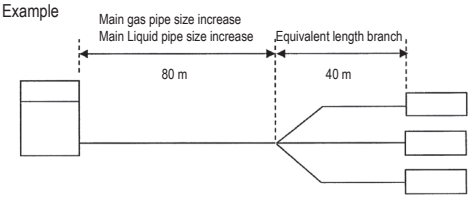
6. Equivalent length used in the above figures is based upon the following equivalent length

Equivalent piping length	=	
Equivalent length of main pipe	x	Correction factor
+		
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

   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 rete 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

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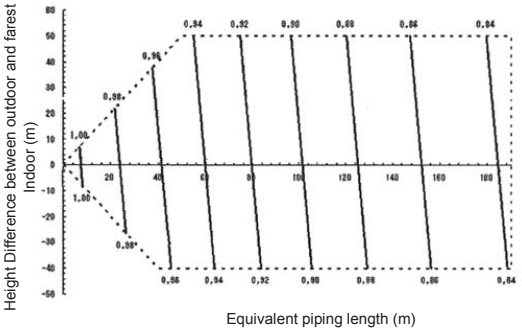
5 Capacity tables

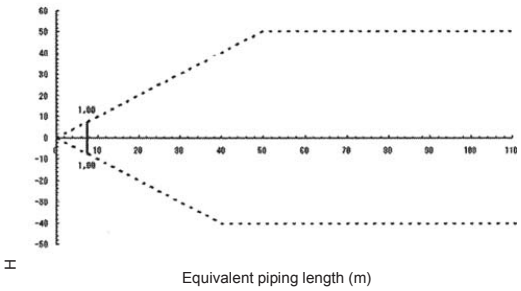
5 - 2 Capacity Correction Factor

RXYQ12,14U5
RYYQ24,36U5
RYMQ12,14U5

Correction ratio for cooling capacity



Correction ratio for heating capacity



NOTES

1. 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 it the above figures.
2. With this outdoor unit, constant evaporating pressure control when cooling and constant condensing pressure control when heating is carried out.
3. 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%.

   Maximum capacity of outdoor units = Capacity of outdoor units from capacity table at the 100% connection ratio
   x Correction ratio of piping to furthest indoor

   Condition: Indoor connection ratio exceeds 100%.

   Maximum capacity of outdoor units = Capacity of outdoor units from capacity table at installed connection ratio
   x Correction ratio of piping to furthest indoor
4. 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

5. 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

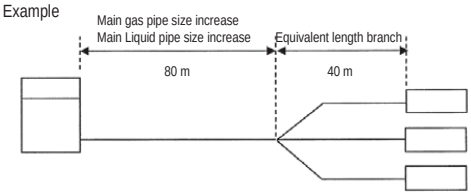
6. Equivalent length used in the above figures is based upon the following equivalent length

   Equivalent piping length =
   Equivalent length of main pipe x Correction factor
   +
   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	
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

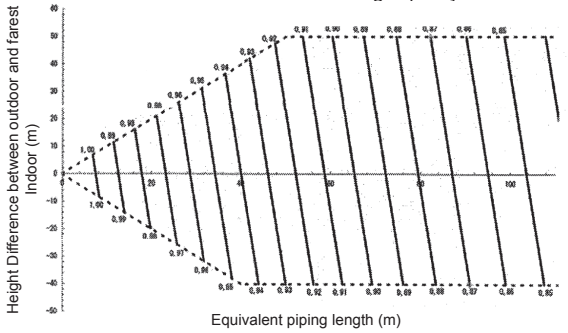
3D079897A

5 Capacity tables

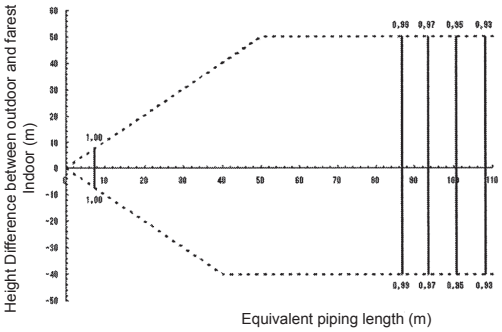
5 - 2 Capacity Correction Factor

RXYQ16U5
RYMQ16U5

Correction ratio for cooling capacity



Correction ratio for heating capacity



NOTES

1. 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 it the above figures.
2. With this outdoor unit, constant evaporating pressure control when cooling and constant condensing pressure control when heating is carried out.
3. 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%.

Maximum capacity of outdoor units	=	Capacity of outdoor units from capacity table at the 100% connection ratio
	x	Correction ratio of piping to furthest indoor

   Condition: Indoor connection ratio exceeds 100%.

Maximum capacity of outdoor units	=	Capacity of outdoor units from capacity table at installed connection ratio
	x	Correction ratio of piping to furthest indoor

4. 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).
5. 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

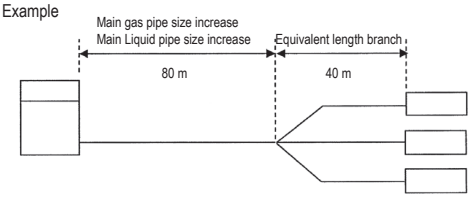
6. Equivalent length used in the above figures is based upon the following equivalent length

Equivalent piping length	=		
Equivalent length of main pipe	x	Correction factor	
+			
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	0.5
Heating (liquid pipe)	1.0	0.5

   Example

   In the above case (Cooling) Overall equivalent length = 80 m x 1.0 + 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 0.99

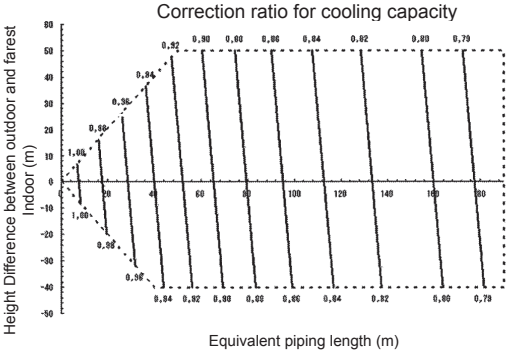
3D079897A

5 Capacity tables

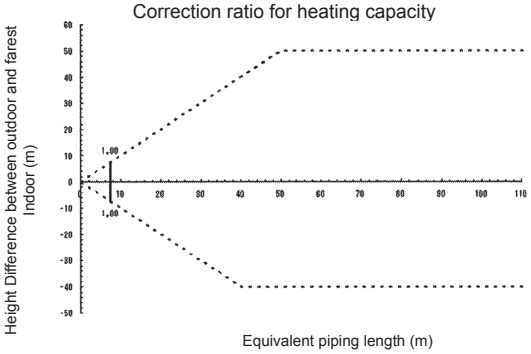
5 - 2 Capacity Correction Factor

RXYQ18U5
RYYQ26,28,30,38,40,42,44U5
RYMQ18U5

Correction ratio for cooling capacity



Correction ratio for heating capacity



NOTES

1. 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 it the above figures.
2. With this outdoor unit, constant evaporating pressure control when cooling and constant condensing pressure control when heating is carried out.
3. 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%.

   Maximum capacity of outdoor units = Capacity of outdoor units from capacity table at the 100% connection ratio
   x Correction ratio of piping to furthest indoor

   Condition: Indoor connection ratio exceeds 100%.

   Maximum capacity of outdoor units = Capacity of outdoor units from capacity table at installed connection ratio
   x Correction ratio of piping to furthest indoor
4. 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).
5. 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

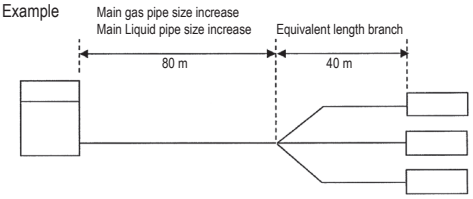
6. Equivalent length used in the above figures is based upon the following equivalent length

   Equivalent piping length =
   Equivalent length of main pipe x Correction factor
   +
   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

Example



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

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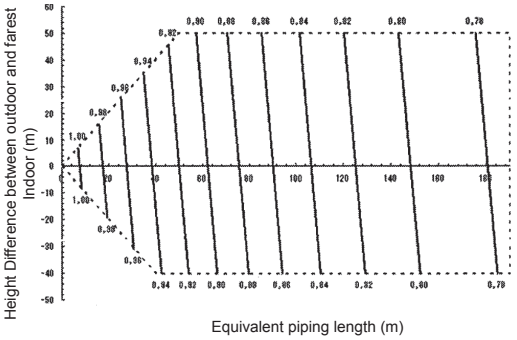
5 Capacity tables

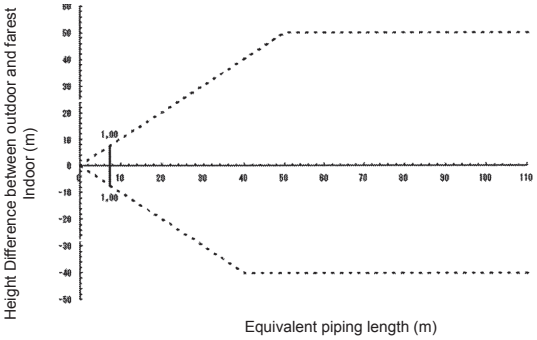
5 - 2 Capacity Correction Factor

RXYQ20U5
RYYQ32,34U5
RYMQ20U5

Correction ratio for cooling capacity



Correction ratio for heating capacity



NOTES

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   x Correction ratio of piping to furthest indoor
4. 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).
5. 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

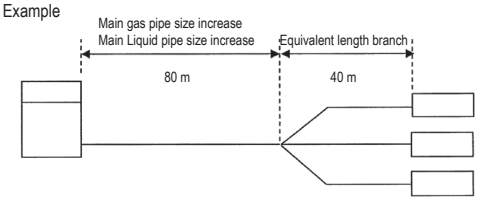
6. Equivalent length used in the above figures is based upon the following equivalent length

   Equivalent piping length =
   Equivalent length of main pipe x Correction factor
   +
   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	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

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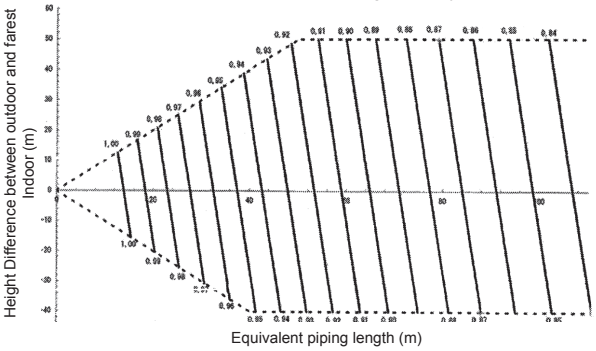
5 Capacity tables

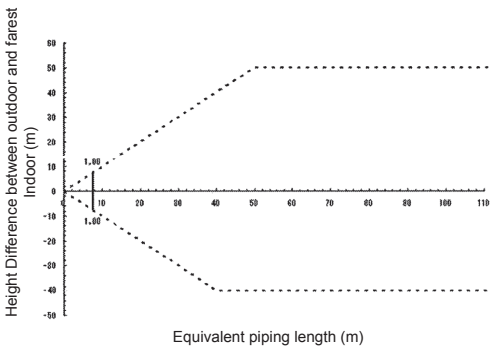
5 - 2 Capacity Correction Factor

RYYQ22U5

Correction ratio for cooling capacity



Correction ratio for heating capacity



NOTES

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   Condition: Indoor connection ratio does not exceed 100%.

Maximum capacity of outdoor units	=	Capacity of outdoor units from capacity table at the 100% connection ratio
	x	Correction ratio of piping to furthest indoor

   Condition: Indoor connection ratio exceeds 100%.

Maximum capacity of outdoor units	=	Capacity of outdoor units from capacity table at installed connection ratio
	x	Correction ratio of piping to furthest indoor

4. 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).

5. 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

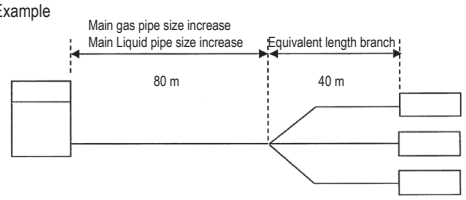
6. Equivalent length used in the above figures is based upon the following equivalent length

Overal equivalent length	=	
Equivalent length of main pipe	x	Correction factor
+		
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	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

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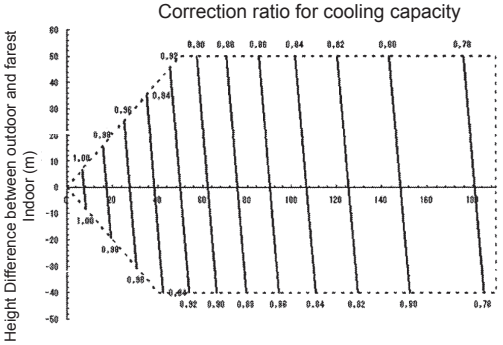
5 Capacity tables

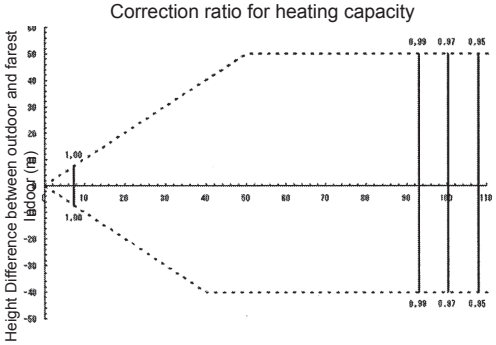
5 - 2 Capacity Correction Factor

RYYQ46U5

Correction ratio for cooling capacity



Correction ratio for heating capacity



NOTES

1. 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 it the above figures.
2. With this outdoor unit, constant evaporating pressure control when cooling and constant condensing pressure control when heating is carried out.
3. 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%.

Maximum capacity of outdoor units	=	Capacity of outdoor units from capacity table at the 100% connection ratio
	x	Correction ratio of piping to furthest indoor

   Condition: Indoor connection ratio exceeds 100%.

Maximum capacity of outdoor units	=	Capacity of outdoor units from capacity table at installed connection ratio
	x	Correction ratio of piping to furthest indoor

4. 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
46 HP	41.3	22.2

5. 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
46 HP	41.3	19.1

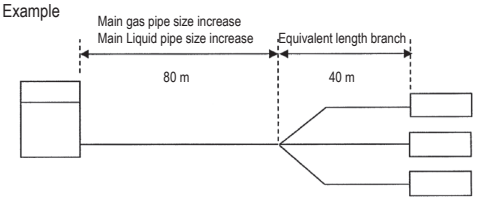
6. Equivalent length used in the above figures is based upon the following equivalent length

Equivalent piping length	=	
Equivalent length of main pipe	x	Correction factor
+		
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	
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 0.83
   heating capacity when height difference = 0 is thus approximately 1.0

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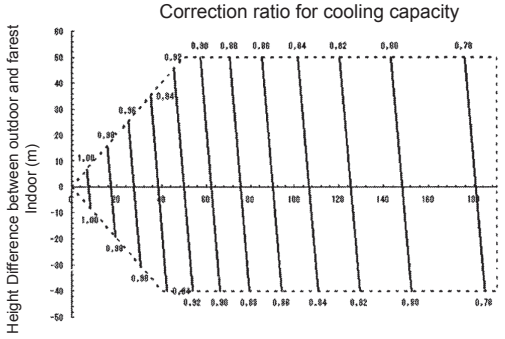
5 Capacity tables

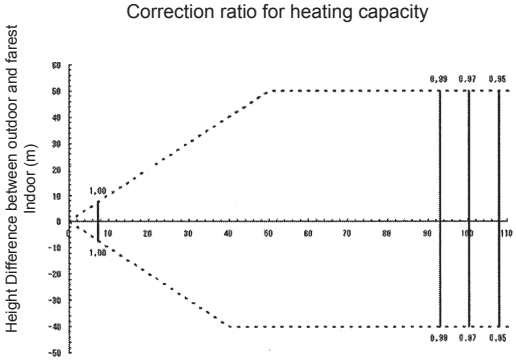
5 - 2 Capacity Correction Factor

RYYQ48U5

Correction ratio for cooling capacity



Correction ratio for heating capacity



NOTES

1. 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 it the above figures.
2. With this outdoor unit, constant evaporating pressure control when cooling and constant condensing pressure control when heating is carried out.
3. 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%.

Maximum capacity of outdoor units	=	Capacity of outdoor units from capacity table at the 100% connection ratio
	x	Correction ratio of piping to furthest indoor

   Condition: Indoor connection ratio exceeds 100%.

Maximum capacity of outdoor units	=	Capacity of outdoor units from capacity table at installed connection ratio
	x	Correction ratio of piping to furthest indoor

4. 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
48 HP	41.3	22.2

5. 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
48 HP	41.3	19.1

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

   Equivalent piping length =

   Equivalent length of main pipe x Correction factor

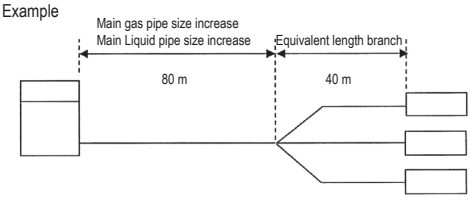
   \+

   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	
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 0.83
heating capacity when height difference = 0 is thus approximately 0.97

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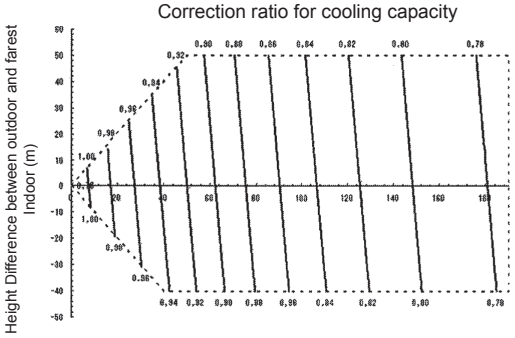
5 Capacity tables

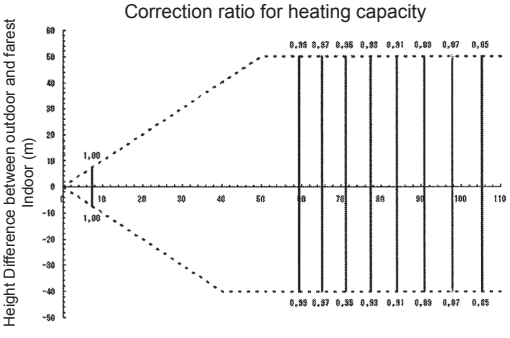
5 - 2 Capacity Correction Factor

RYYQ50U5

Correction ratio for cooling capacity



Correction ratio for heating capacity



NOTES

1. 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 it the above figures.
2. With this outdoor unit, constant evaporating pressure control when cooling and constant condensing pressure control when heating is carried out.
3. 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%.

   Maximum capacity of outdoor units = Capacity of outdoor units from capacity table at the 100% connection ratio
   x Correction ratio of piping to furthest indoor

   Condition: Indoor connection ratio exceeds 100%.

   Maximum capacity of outdoor units = Capacity of outdoor units from capacity table at installed connection ratio
   x Correction ratio of piping to furthest indoor
4. 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
50 HP	41.3	22.2

5. 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
50 HP	41.3	19.1

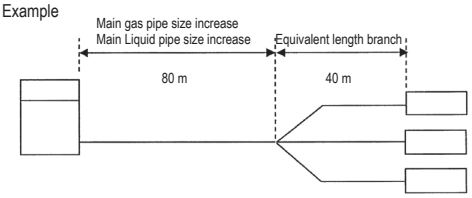
6. Equivalent length used in the above figures is based upon the following equivalent length

   Equivalent piping length =
   Equivalent length of main pipe x Correction factor
   +
   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	
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 0.83
heating capacity when height difference = 0 is thus approximately 0.92

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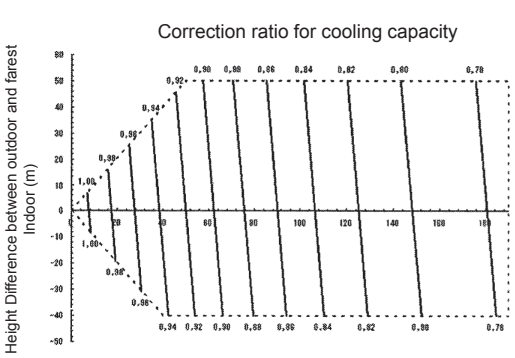
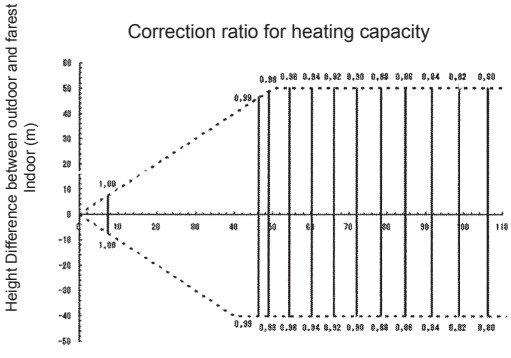
5 Capacity tables

5 - 2 Capacity Correction Factor

RYYQ52U5





NOTES

1. 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 it the above figures.
2. With this outdoor unit, constant evaporating pressure control when cooling and constant condensing pressure control when heating is carried out.
3. 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%.

Maximum capacity of outdoor units	=	Capacity of outdoor units from capacity table at the 100% connection ratio
	x	Correction ratio of piping to furthest indoor

   Condition: Indoor connection ratio exceeds 100%.

Maximum capacity of outdoor units	=	Capacity of outdoor units from capacity table at installed connection ratio
	x	Correction ratio of piping to furthest indoor

4. 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
52 HP	41.3	22.2

5. 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
52 HP	41.3	19.1

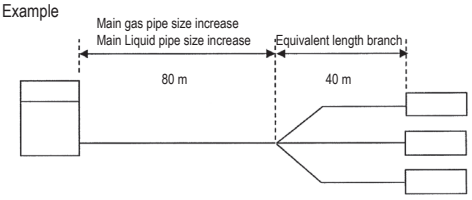
6. Equivalent length used in the above figures is based upon the following equivalent length

Equivalent piping length	=		
Equivalent length of main pipe	x	Correction factor	
+			
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	
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 0.83
   heating capacity when height difference = 0 is thus approximately 0.88

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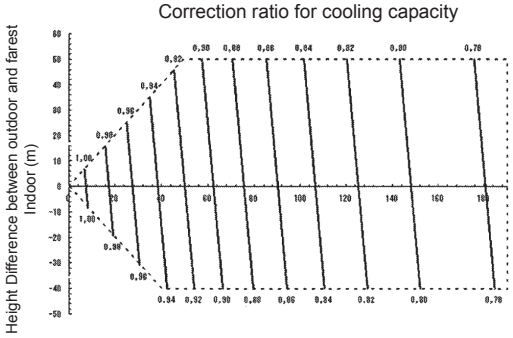
5 Capacity tables

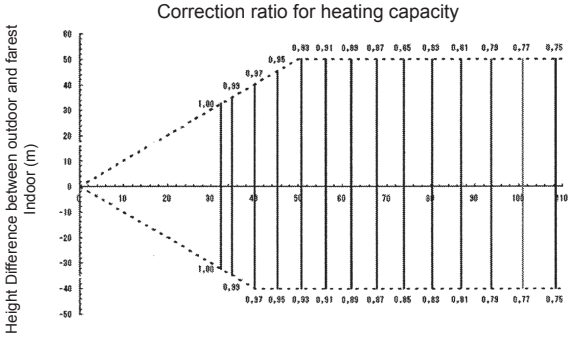
5 - 2 Capacity Correction Factor

RYYQ54U5

Correction ratio for cooling capacity



Correction ratio for heating capacity



NOTES

1. 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 it the above figures.
2. With this outdoor unit, constant evaporating pressure control when cooling and constant condensing pressure control when heating is carried out.
3. 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%.

   Maximum capacity of outdoor units = Capacity of outdoor units from capacity table at the 100% connection ratio
   x Correction ratio of piping to furthest indoor

   Condition: Indoor connection ratio exceeds 100%.

   Maximum capacity of outdoor units = Capacity of outdoor units from capacity table at installed connection ratio
   x Correction ratio of piping to furthest indoor
4. 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
54 HP	41.3	22.2

5. 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
54 HP	41.3	19.1

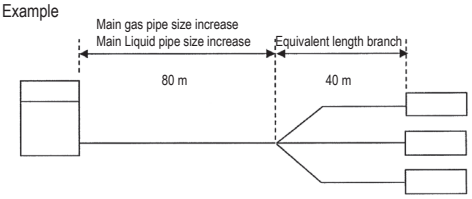
6. Equivalent length used in the above figures is based upon the following equivalent length

   Equivalent piping length =
   Equivalent length of main pipe x Correction factor
   +
   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	
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 0.83
   heating capacity when height difference = 0 is thus approximately 0.83

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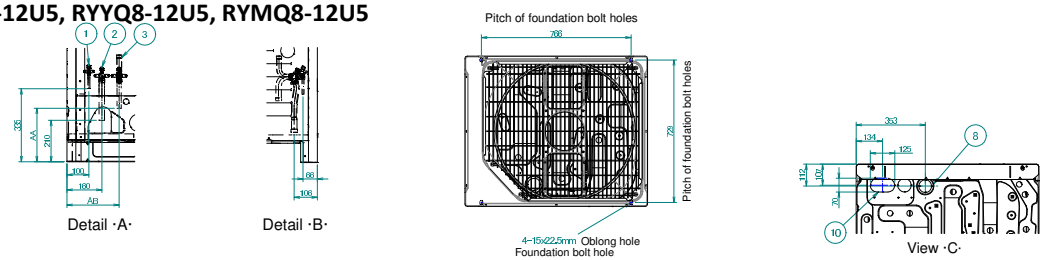
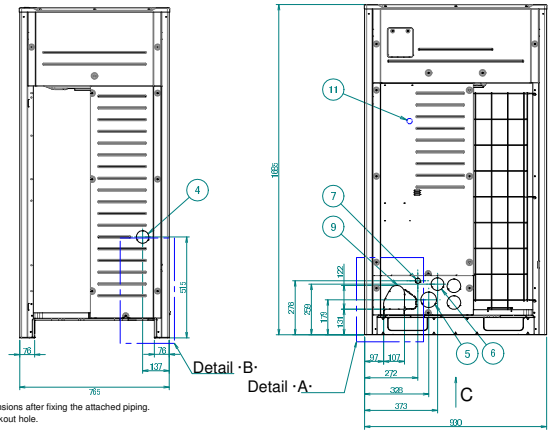
6 Dimensional drawings

6 - 1 Dimensional Drawings

RXYQ8-12U5, RYYQ8-12U5, RYMQ8-12U5





Model	AA	AB
RXYQ8-12U5, RXYTQ8U5	–	–
RYMQ8-12U5	246	240

Notes
1. Detail ·A· and detail ·B· indicate the dimensions after fixing the attached piping.
2. Items ·4 - 10·: Knockout hole.
3. **Gas pipe**
RYYQ8U5, RYMQ8U5, RXYQ8U5, RXYQQ8U, RXYTQ8U : Ø ·19.1· brazing connection
RYYQ10U5, RYMQ10U5, RXYQ10U5, RXYQQ10U : Ø ·22.2· brazing connection
REMQ5U, REMA5A, REYQ8-12U, REYA8-12A : Ø ·25.4· brazing connection
RYYQ12U5, RYMQ12U5, RXYQ12U5, RXYQQ12U : Ø ·28.6· brazing connection
Liquid pipe
RYYQ8-10U5, RYMQ8-10U,5 RXYQ8-10U5, RXYQQ8-10U, REMQ5U, REMA5A, : Ø ·9.5· brazing connection
REYQ8-12U, REYA8-12A, RXYTQ8U RYYQ12U5, RYMQ12U5, RXYQT2U5, RXYQQ12U : Ø ·12.7· brazing connection
Equalising pipe
RYMQ8-10U5 : Ø ·19.1· brazing connection
RYMQ12U5 : Ø ·22.2· brazing connection
High pressure/low pressure gas pipe
REMQ5U, REMA5A, REYQ8-12U, REYA8-12A : Ø ·19.1· brazing connection

No.	Part name	Remark
1	Liquid pipe connection port	See note ·3·.
2	Gas pipe connection port	See note ·3·.
3	Equalising pipe connection port High pressure/low pressure gas pipe	See note ·3·.
4	Power cord routing hole (side)	Ø65
5	Power cord routing hole (front)	Ø80
6	Power cord routing hole (front)	Ø65
7	Power cord routing hole (front)	Ø27
8	Power cord routing hole (bottom)	Ø65
9	Pipe routing hole (front)	
10	Pipe routing hole (bottom)	
11	Grounding terminal	Inside of the switch box (·M8·)

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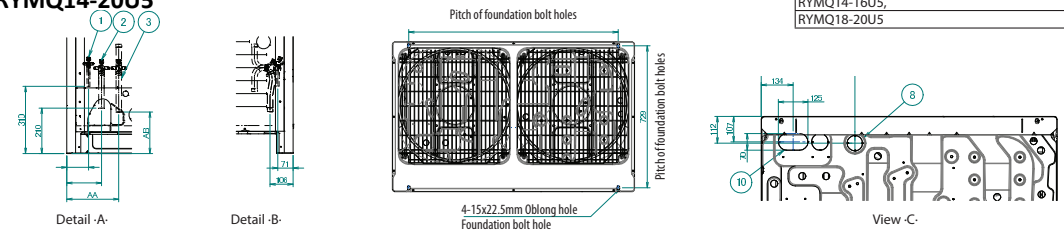
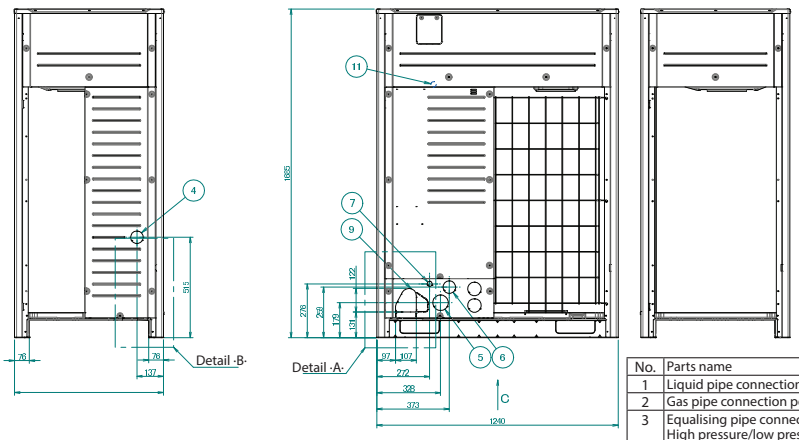
RXYQ14-20U5
RYMQ14-20U5





Model	AA	AB
RXYQ14-20U5, RYYQ14-20U5,	-	-
RYMQ14-16U5,	240	240
RYMQ18-20U5	240	192

NOTES
1. Detail ·A· and detail ·B· indicate the dimensions after fixing the attached piping.
2. Items ·4 - 10: Knockout hole.
3. **Gas pipe**
RXYTQ10U5 : Ø ·22.2· brazing connection
RYMQ14-20U5 RXYQ14-20U5, RXYTQ12-16U5 : Ø ·28.6· brazing connection
Liquid pipe
RXYTQ10U : Ø ·9.5· brazing connection
RYMQ14-16U5, RXYQ14-16U5, RXYTQ12-16U5 :Ø ·12.7· brazing connection
RYMQ18-20U5, RXYQ18-20U5 : Ø ·15.9· brazing connection
Equalising pipe
RYMQ14-16U5 :Ø ·22.2· brazing connection
RYMQ12U5 :Ø ·28.6· brazing connection

No.	Parts name	Remarks
1	Liquid pipe connection port	See note ·3·.
2	Gas pipe connection port	See note ·3·.
3	Equalising pipe connection port High pressure/low pressure gas pipe	See note ·3·.
4	Power cord routing hole (side)	Ø65
5	Power cord routing hole (front)	Ø80
6	Power cord routing hole (front)	Ø65
7	Power cord routing hole (front)	Ø27
8	Power cord routing hole (bottom)	Ø65
9	Pipe routing hole (front)	
10	Pipe routing hole (bottom)	
11	Grounding terminal	Inside of the switch box (·M8·)

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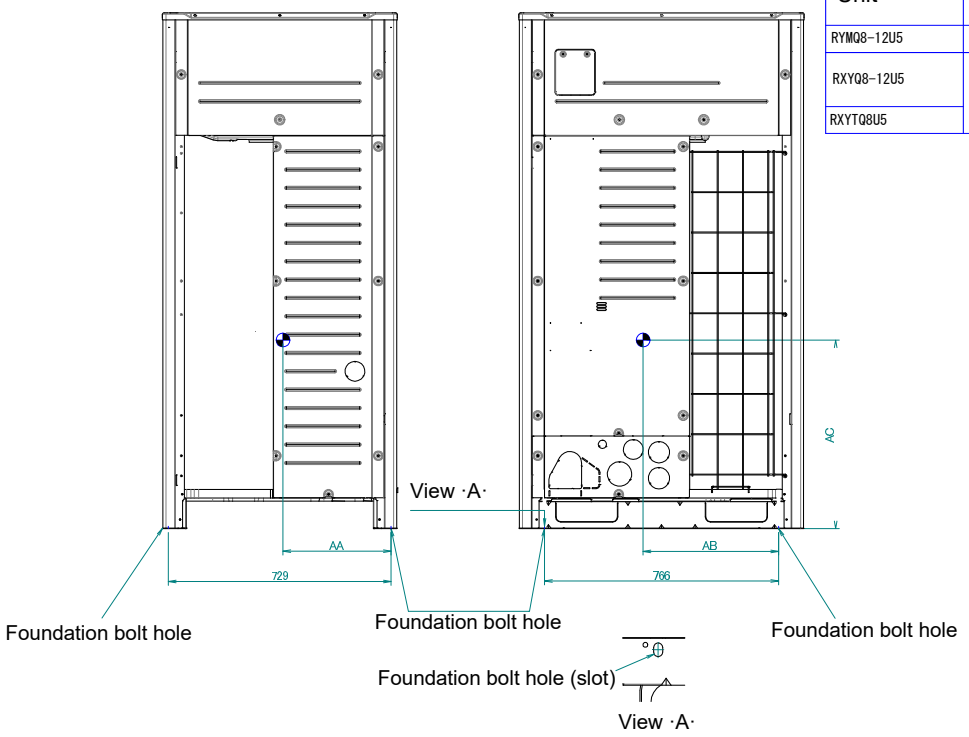
7 Centre of gravity

7 - 1 Centre of Gravity

RXYQ8-12U5
RYMQ8-12U5

Unit	AA	AB	AC
RYMQ8-12U5	354	443	565
RXYQ8-12U5	339	448	565
RXYTQ8U5			



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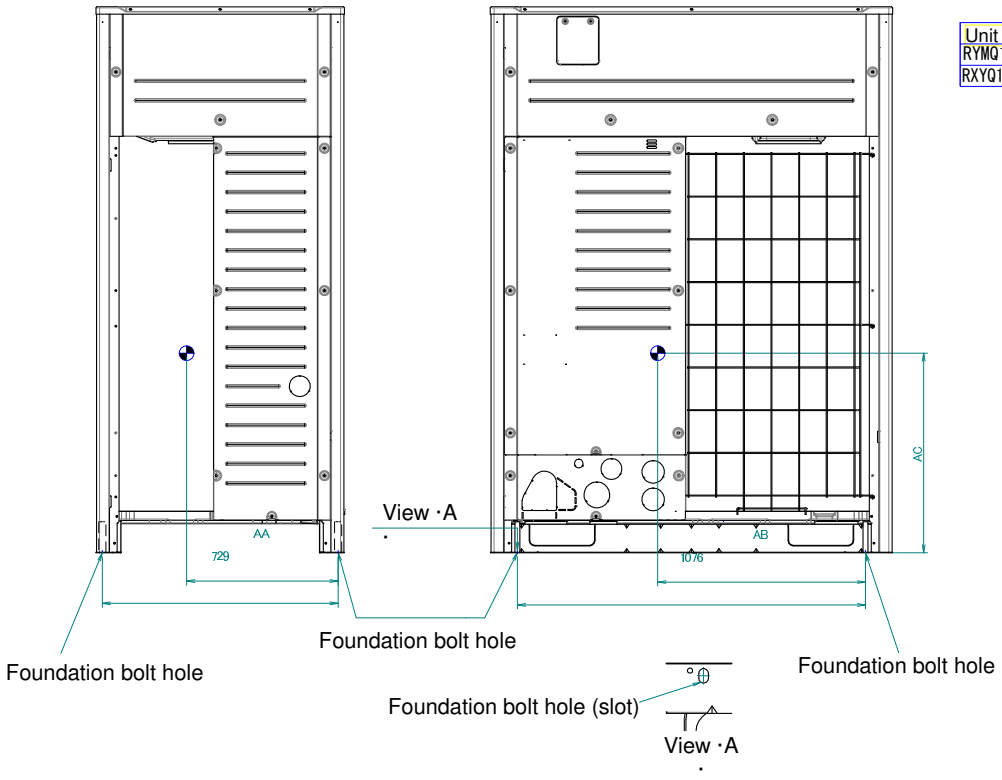
7 Centre of gravity

7 - 1 Centre of Gravity

RXYQ14-20U5
RYMQ14-20U5



Unit	AA	AB	AC
RYMQ14-20U5	360	569	610
RXYQ14-20U5	345	575	610

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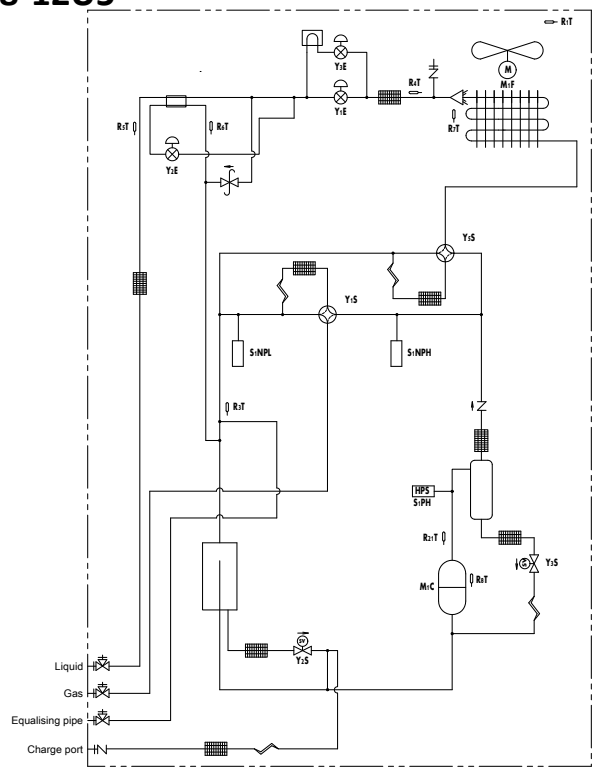
8 Piping diagrams

8 - 1 Piping Diagrams

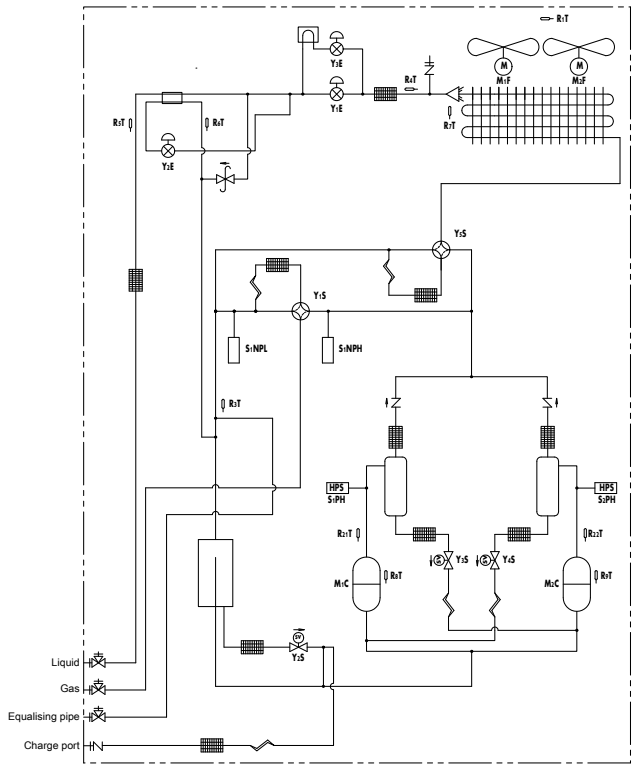
RYMQ8-12U5



- 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

3D118185

RYMQ14-20U5



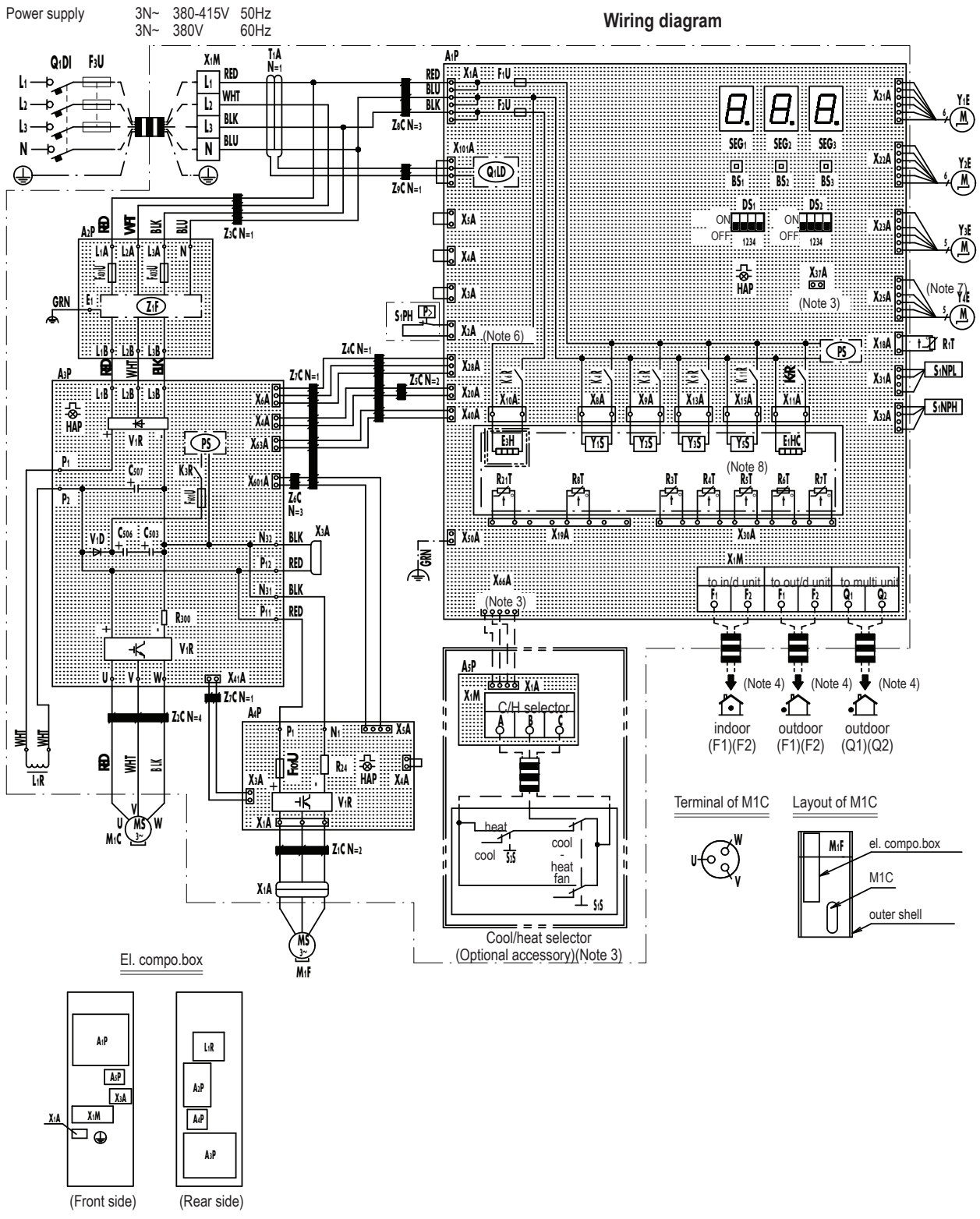
- Charge port / Service port
- Stop valve
- Filter
- Check valve
- Pressure relief valve
- Thermistor
- Heat sink (PCB)
- Capillary tube
- Expansion valve
- 4-way valve
- Propeller fan
- High pressure switch
- Low pressure sensor
- High pressure sensor
- Accumulator
- Heat exchanger
- Compressor
- Oil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

3D118186

9 Wiring diagrams

9 - 1 Wiring Diagrams - Three Phase

RXYQ8-12U5
RXYTQ8U5YF
RYMQ8-12U5



9 Wiring diagrams

9 - 1 Wiring Diagrams - Three Phase

RXYQ8-12U5
RXYTQ8U5YF
RYMQ8-12U5

A1P	Printed Circuit Board (Main)	R3T	Thermistor (Accumulator)
A2P	Printed Circuit Board (Noise Filter)	R4T	Thermistor (Heat Exc,Liq,Pipe)
A3P	Printed Circuit Board (Inv)	R5T	Thermistor (Subcool,Liq,Pipe)
A4P	Printed Circuit Board (Fan)	R6T	Thermistor (Heat Exc,Gas Pipe)
A5P	Printed Circuit Board (ABC I/P)(Option)	R7T	Thermistor (Heat Exc,Deicer)
BS1~3 (A1P)	Push Button Switch (Mode,Set,Return)	R8T	Thermistor (M1C body)
C503,C506,C507 (A3P)	Capacitor	R21T	Thermistor (M1C discharge)
DS1,DS2 (A1P)	DIP Switch	S1NPH	Pressure Sensor (High)
E1HC	Crankcase Heater	S1NPL	Pressure Sensor (Low)
E3H	Drainpan Heater (Option)	S1PH	Pressure Switch (Disch)
F1U,F2U (A1P)	Fuse (T,3,15A,250V)	SEG1~SEG3 (A1P)	7-Segment Display
F3U	Field Fuse	T1A	Current Sensor
F101U (A4P)	Fuse	V1D (A3P)	Diode
F401U,F403U (A2P)	Fuse	V1R (A3P,A4P)	Power Module
F601U (A3P)	Fuse	X*A	Connector
HAP (A1P,A3P, A4P)	Pilotlamp (Service Monitor-Green)	X1M (A1P)	Terminal Block (Control)
K3R (A3P)	Magnetic Relay	X1M (A5P)	Terminal Block (Power Supply)(Option)
K4R (A1P)	Magnetic Relay (Y1S)	Y1E	Electronic Expansion Valve(Main)
K5R (A1P)	Magnetic Relay (Y2S)	Y2E	Electronic Expansion Valve (Injection)
K6R (A1P)	Magnetic Relay (E3H)	Y3E	Electronic Expansion Valve (Refrigerant Jacket)
K7R (A1P)	Magnetic Relay (E1HC)	Y4E	Electronic Expansion Valve (Storage Vessel)
K9R (A1P)	Magnetic Relay (Y3S)	Y1S	Solenoid Valve (Main)
K11R (A1P)	Magnetic Relay (Y5S)	Y2S	Solenoid Valve (Accumulator Oil Return)
L1R	Reactor	Y3S	Solenoid Valve (Oil1)
M1C	Motor (Compressor)	Y5S	Solenoid Valve (Sub)
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)		

NOTES

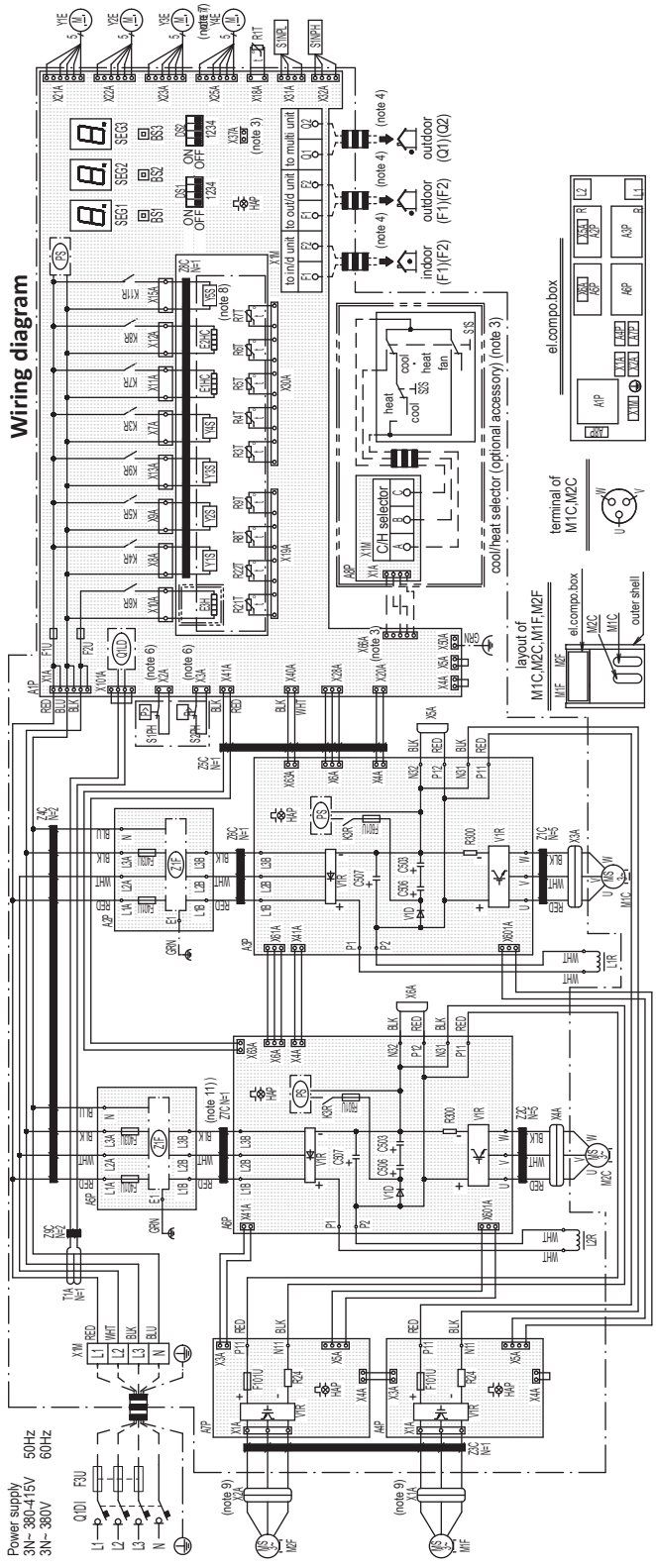
1. This wiring diagram applies only to the outdoor unit.
2. ▬▮▬: :field wiring, ▭▭▭: terminal block, ▭: connector, -○-: terminal, ⏚: protective earth (screw), ⏚: functional earth, ——: earth wiring, — — —: field supply, ▭: PCB, ▭: switch box, ▭: option
3. When using the optional adapter, refer to the 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).
7. Only for RYYQ model.
8. Only for RYYQ/RYMQ model.
9. Colors: BLK: Black, RED: Red, BLU: Blue, WHT: White, GRN: Green.

2D117534

9 Wiring diagrams

9 - 1 Wiring Diagrams - Three Phase

RXYQ14-20U5
RYMQ14-20U5



A1P	Printed circuit board (main)
A2P, A5P	Printed circuit board (noise filter)
A3P, A6P	Printed circuit board (inv)
A4P, A7P	Printed circuit board (fan)
A8P	Printed circuit board (ABC I/P)
BS1~3 (A1P)	Push button switch (mode, set, return)
C503, C506, C507 (A3P, A6P)	Capacitor
DS1, DS2 (A1P)	Dip switch S1PH,
E1HC, E2HC	Crankcase heater
E3H	Drainpan heater (option)
F1U, F2U (A1P)	Fuse (T, 3, 15A, 250V)
F3U	Field fuse
F101U (A4P, A7P)	Fuse
F401U, F403U (A2P, A5P)	Fuse
F601U (A3P, A6P)	Fuse
HAP (A1P, A3P, A4P, A6P, A7P)	Pilotlamp (service monitor-green)
K3R (A3P, A6P)	Magnetic relay
K3R (A1P)	Magnetic relay (Y4S)
K4R (A1P)	Magnetic relay (Y1S)
K5R (A1P)	Magnetic relay (Y2S)
K6R (A1P)	Magnetic relay (E3H)
K7R (A1P)	Magnetic relay (E1HC)
K8R (A1P)	Magnetic relay (E2HC)
K9R (A1P)	Magnetic relay (Y3S)
K11R (A1P)	Magnetic relay (Y5S)
L1R, L2R	Reactor
M1C, M2C	Motor (compressor)
M1F, M2F	Motor (fan)
PS (A1P, A3P, A6P)	Switching power supply
Q1DI	Field earth leakage breaker
Q1LD (A1P)	Field earth current detector
R24 (A4P, A7P)	Resistor (current sensor)
R300 (A3P, A6P)	Resistor (current sensor)
R1T	Thermistor (air)
R3T	Thermistor (accumulator)
R4T	Thermistor (heat exc, liq, pipe)
R5T	Thermistor (subcool, liq, pipe)
R6T	Thermistor (heat exc, gas pipe)
R7T	Thermistor (heat exc, deicer)
R8T, R9T	Thermistor (M1C, M2C body)
R21T, R22T	Thermistor (M1C, M2C discharge)
S1NPH	Pressure sensor (high)
S1NPL	Pressure sensor (low)
S1PH, S2PH	Pressure switch (disch)
SEG1~SEG3 (A1P)	7-segment display
T1A	Current sensor
V1D (A3P, A6P)	Diode
V1R (A3P, A4P, A6P, A7P)	Power module
X*A	Connector
X1M (A1P)	Terminal block (control)
X1M (A8P)	Terminal block (power supply)
Y1E	Electronic expansion valve (main)
Y2E	Electronic expansion valve (injection)
Y3E	Electronic expansion valve (refrigerant jacket)
Y4E	Electronic expansion valve (storage vessel (note 7)
Y1S	Solenoid valve (main)
Y2S	Solenoid valve (accumulator oil return)
Y3S	Solenoid valve (oil1)
Y4S	Solenoid valve (oil2)
Y5S	Solenoid valve (sub) (note 8)
Z*C	Noise filter (ferrite core)
Z*F (A2P, A5P)	Noise filter (with surge absorber)
Connector for optional accessories	
X10A	Connector (drainpan heater)
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)
7. Only for RYYQ model.
8. Only for RYYQ/RYMQ model.
9. Connector X1A (M1F) is red, connector X2A (M2F) is white.
10. Colors: BLK:black, RED:red, BLU:blue, WHT:white, GRN:green.
11. Only for 14,16 class

2D117536C

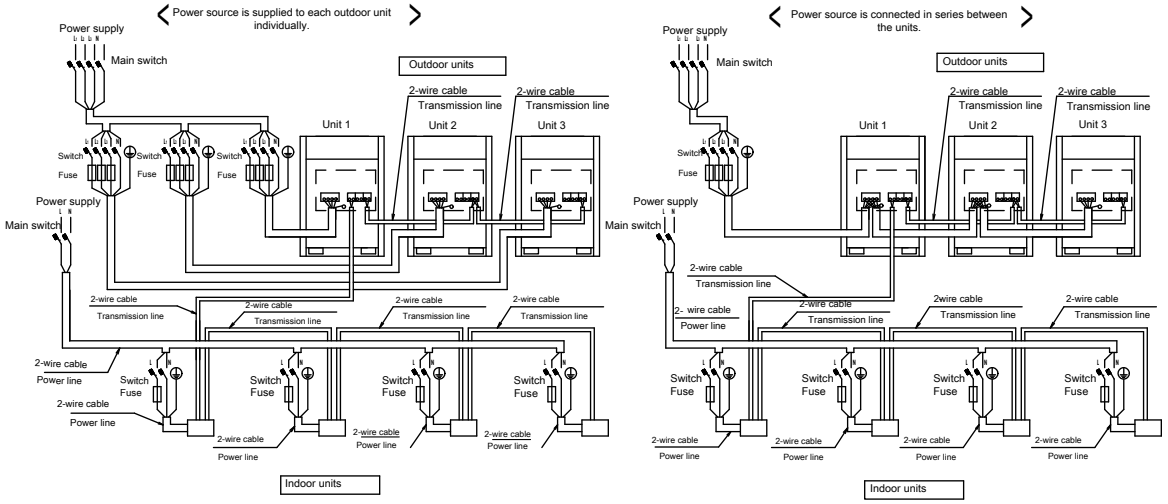
10 External connection diagrams

10 - 1 External Connection Diagrams

RXYQ8-20U5
RXYTQ8-16U5YF
RYMQ8-20U5

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 equipement.
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.

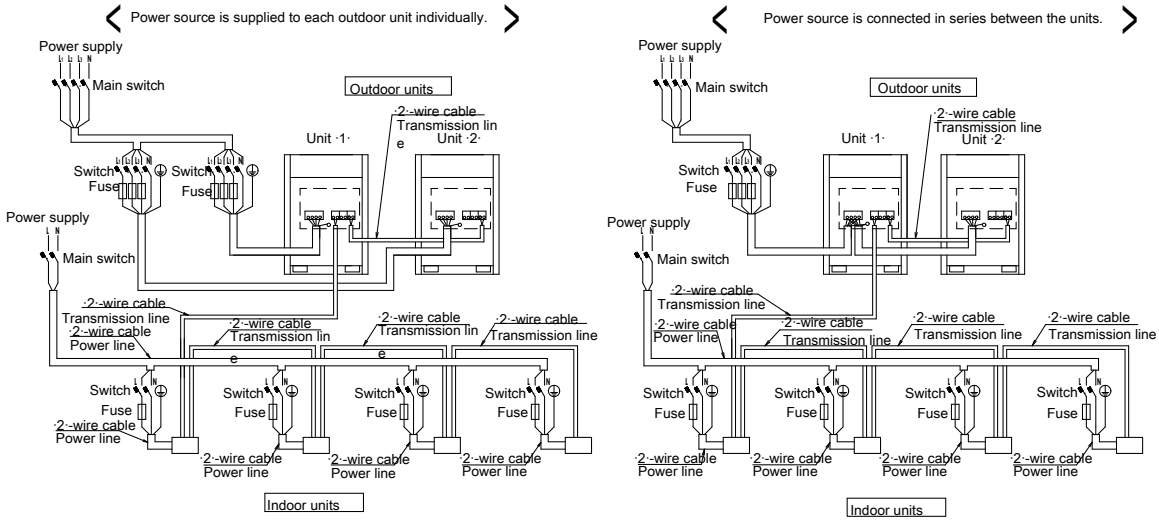


3D119200

RXYQ8-20U5
RXYTQ8-16U5YF
RYMQ8-20U5

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 equipement.
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.

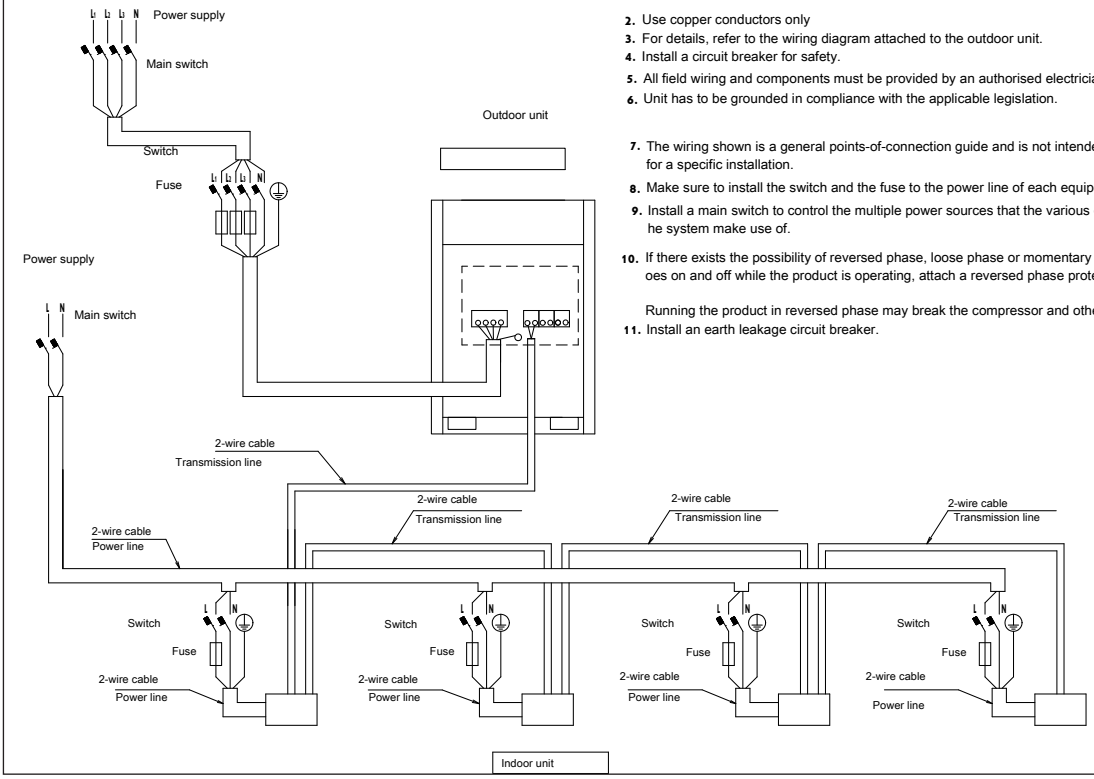


3D119316

10 External connection diagrams

10 - 1 External Connection Diagrams

RXYQ8-20U5
RYMQ8-20U5
RXYTQ8-16U5YF



Notes

1. All wiring, components and materials to be procured on-site must comply with the applicable le gislation.
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 equipement.
9. Install a main switch to control the multiple power sources that the various components of t he system make use of.
10. If there exists the possibility of reversed phase, loose phase or momentary blackout, or if the power g oes on and off while the product is operating, attach a reversed phase protection circuit locally.

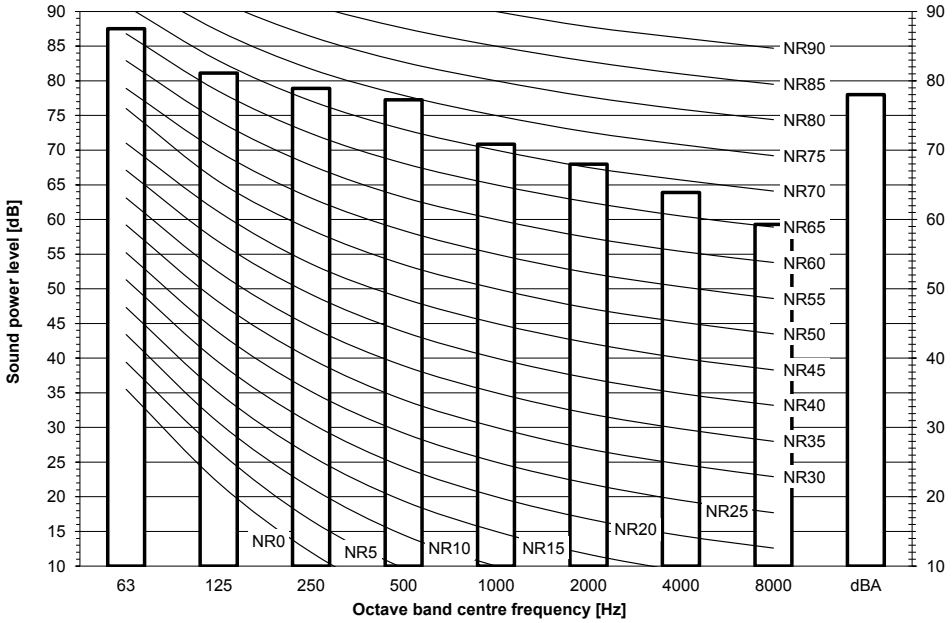
    Running the product in reversed phase may break the compressor and other parts.
11. Install an earth leakage circuit breaker.

3D119317

11 Sound data

11 - 1 Sound Power Spectrum

RXYQ8U5
RXYTQ8U5YF
RYMQ8U5

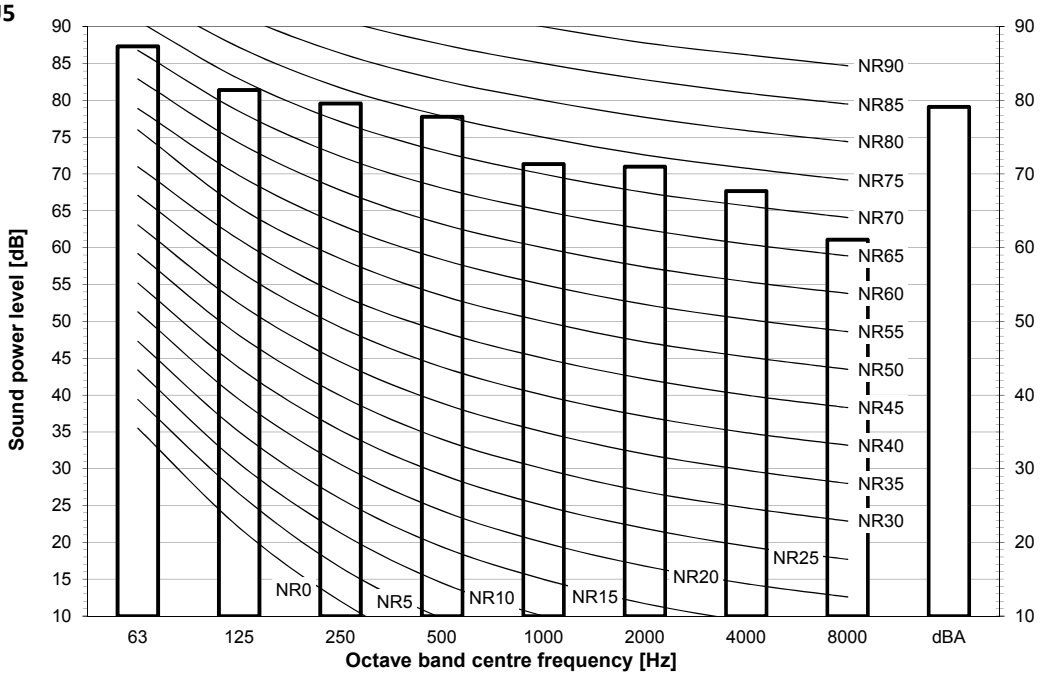


Notes
dBA = A-weighted sound power level (A scale according to IEC).
Reference acoustic intensity 0dB = 10E-6µW/m²
Measured according to ISO 3744

3D119528

RXYQ10U5

RYMQ10U5



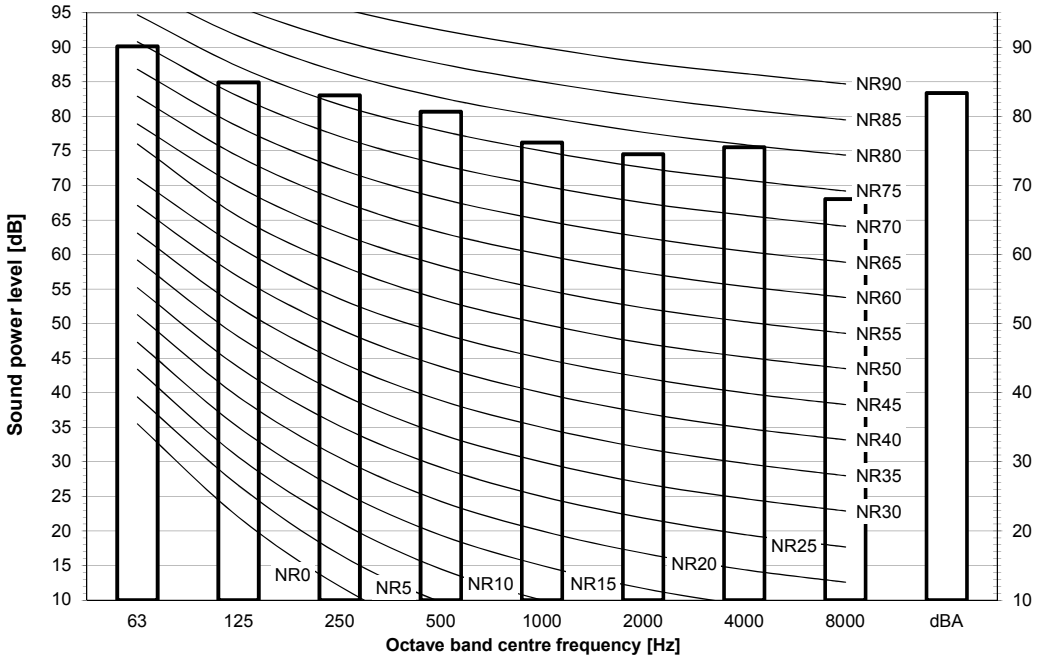
Notes
dBA = A-weighted sound power level (A scale according to IEC).
Reference acoustic intensity 0dB = 10E-6µW/m²
Measured according to ISO 3744

3D119529

11 Sound data

11 - 1 Sound Power Spectrum

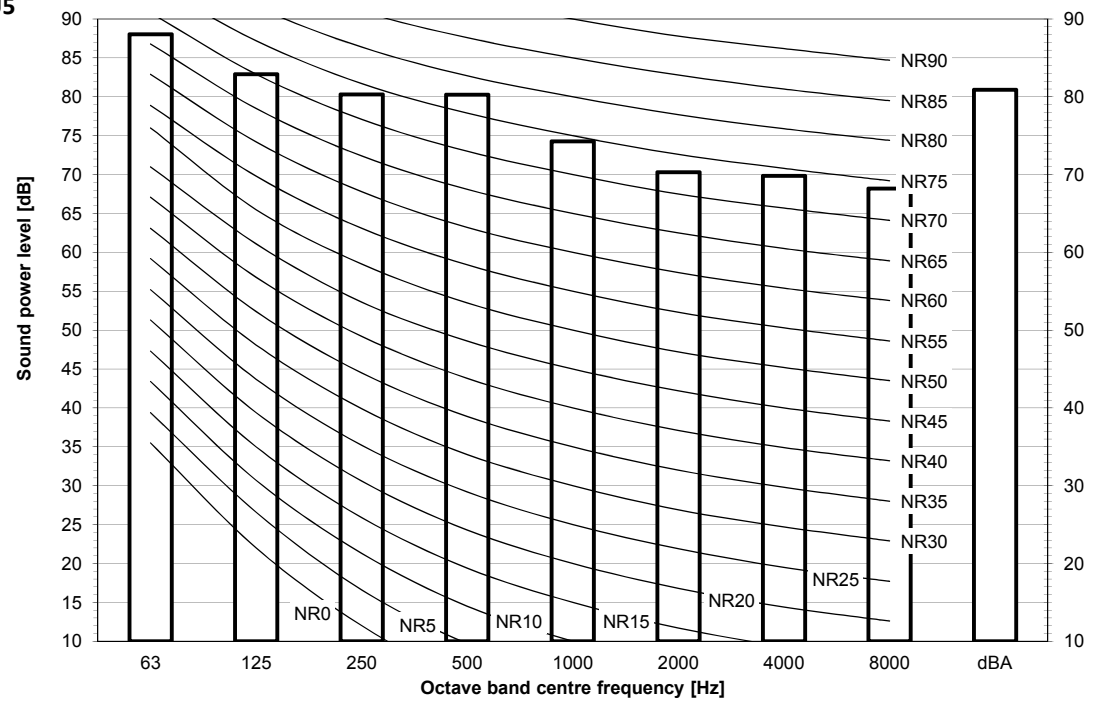
RXYQ12U5
RYMQ12U5



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

3D119530

RXYQ14U5
RYMQ14U5



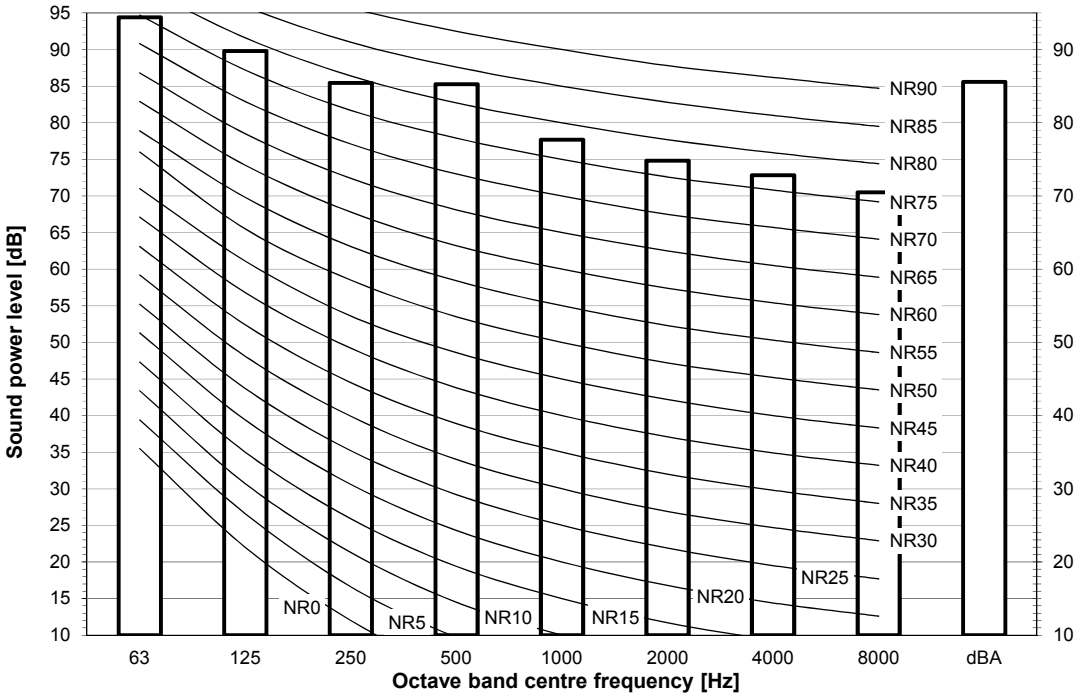
Notes
dBA = A-weighted sound power level (A scale according to IEC).
Reference acoustic intensity 0dB = 10E-6µW/m²
Measured according to ISO 3744

3D119531

11 Sound data

11 - 1 Sound Power Spectrum

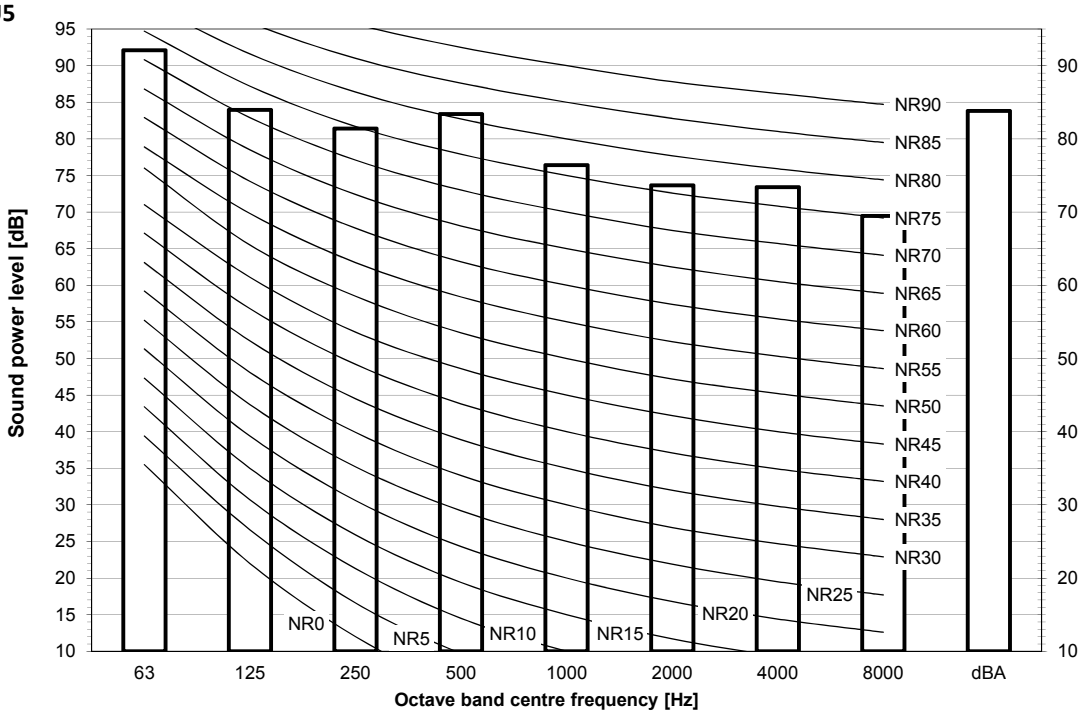
RXYQ16U5
RYMQ16U5



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

RXYQ18U5
RYMQ18U5



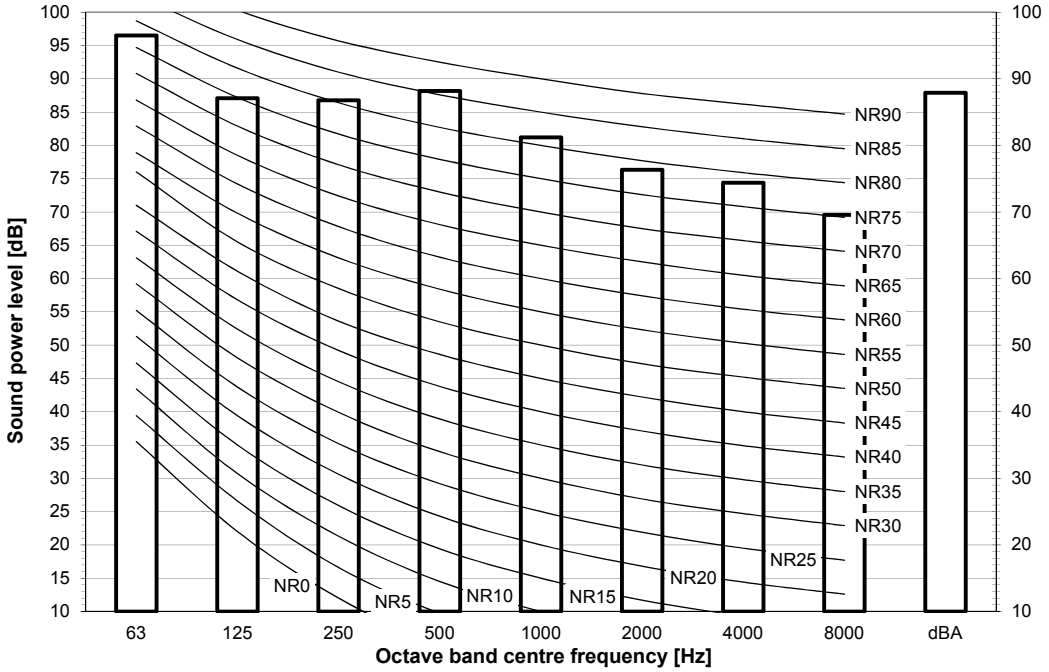
Notes
dBA = A-weighted sound power level (A scale according to IEC).
Reference acoustic intensity 0dB = 10E-6µW/m²
Measured according to ISO 3744

3D119533

11 Sound data

11 - 1 Sound Power Spectrum

RXYQ20U5
RYMQ20U5



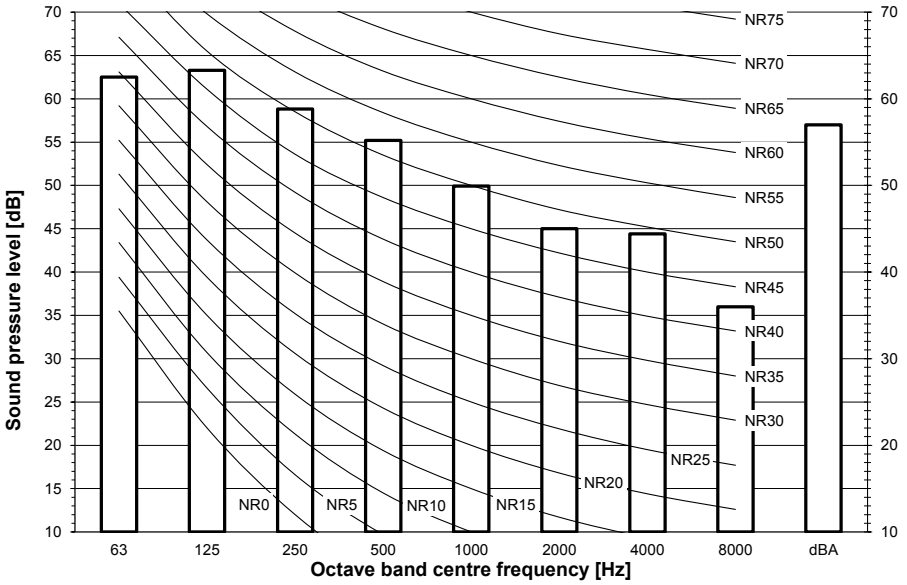
Notes
dBA = A-weighted sound power level (A scale according to IEC).
Reference acoustic intensity 0dB = 10E-6µW/m²
Measured according to ISO 3744

3D119534

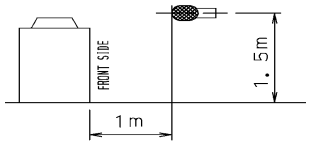
11 Sound data

11 - 2 Sound Pressure Spectrum

RXYQ8U5
RXYTQ8U5YF
RYMQ8U5

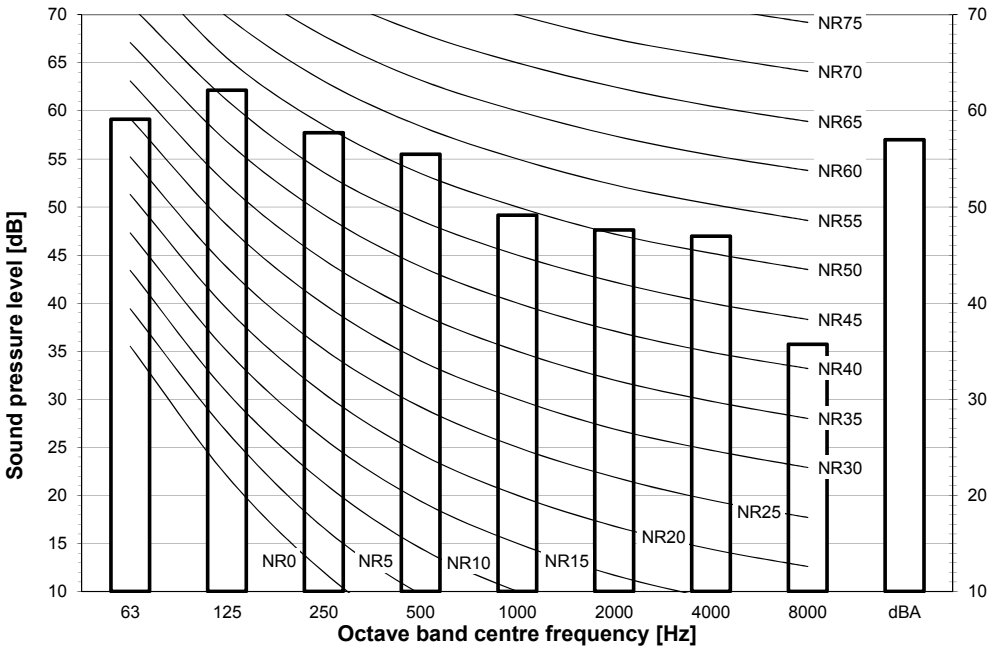


Notes
Data is valid at free field condition.
Data is valid at nominal operation condition.
dBA = A-weighted sound pressure level (A scale according to IEC).
Reference acoustic pressure 0 dB = 20 µPa

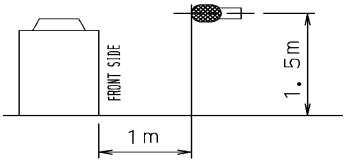


3D119521

RXYQ10U5
RYMQ10U5



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

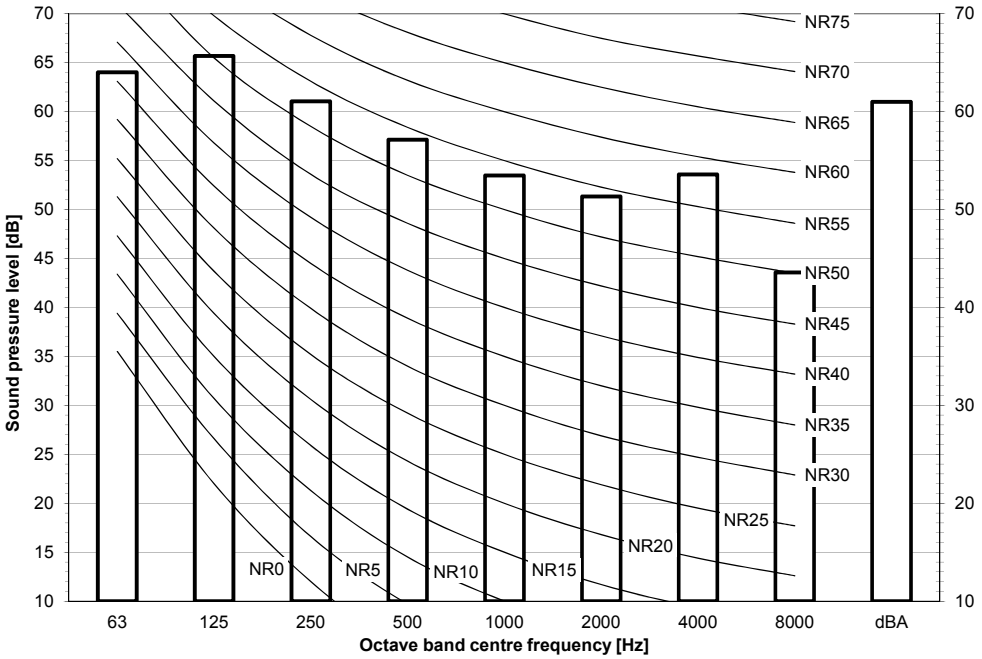


3D119522

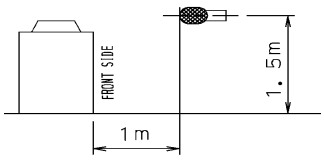
11 Sound data

11 - 2 Sound Pressure Spectrum

RXYQ12U5
RYMQ12U5

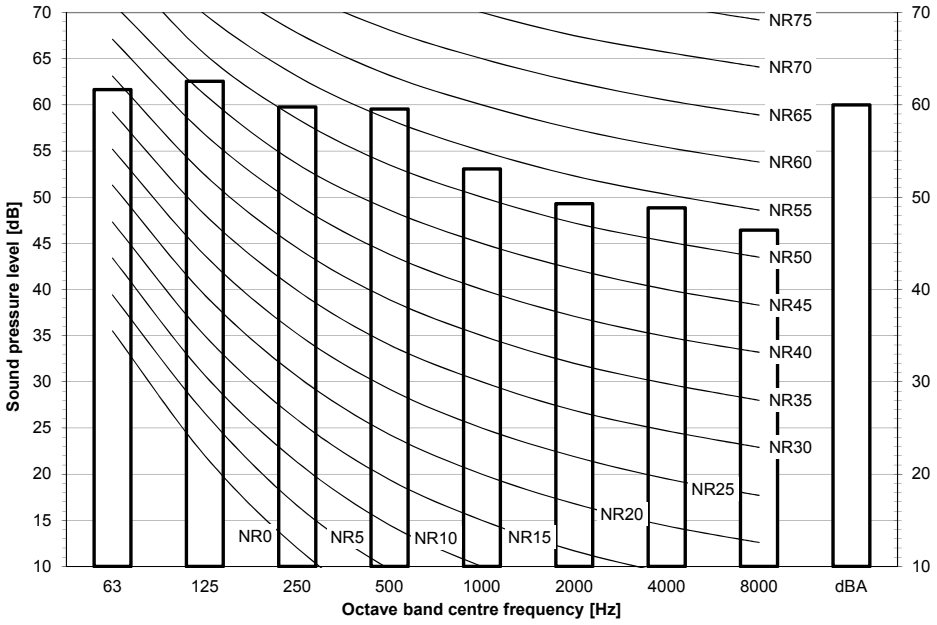


Notes
Data is valid at free field condition.
Data is valid at nominal operation condition.
dBA = A-weighted sound pressure level (A scale according to IEC).
Reference acoustic pressure 0 dB = 20 µPa

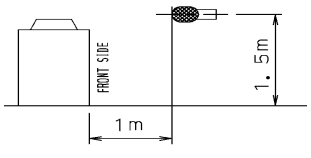


3D119523

RXYQ14U5
RYMQ14U5



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

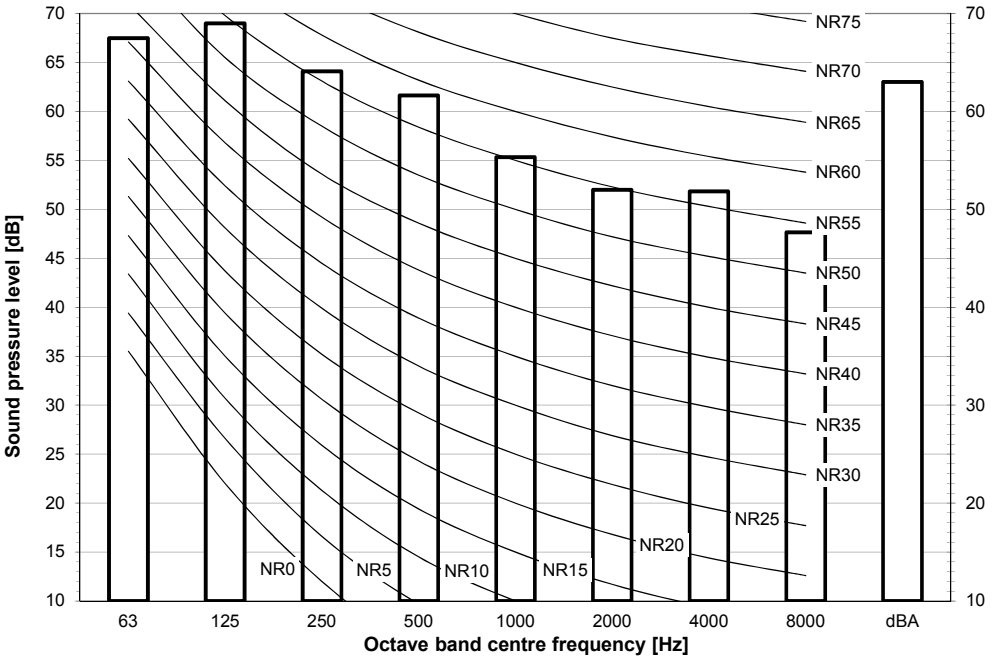


3D119524

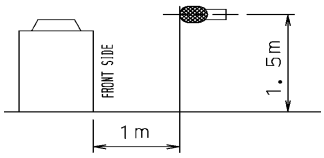
11 Sound data

11 - 2 Sound Pressure Spectrum

RXYQ16U5
RYMQ16U5

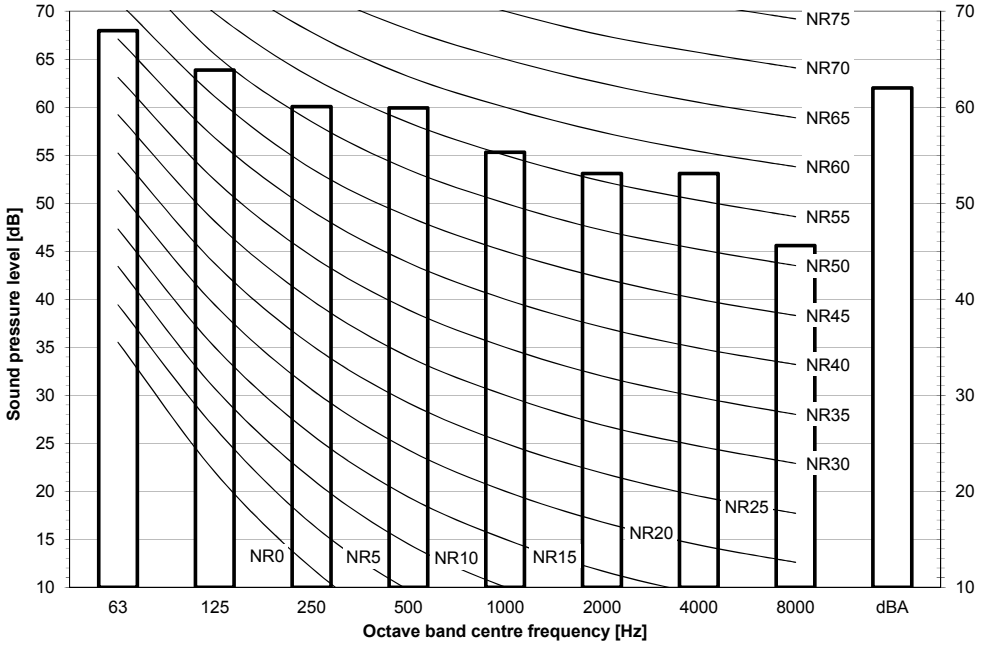


Notes
Data is valid at free field condition.
Data is valid at nominal operation condition.
dBA = A-weighted sound pressure level (A scale according to IEC).
Reference acoustic pressure 0 dB = 20 µPa

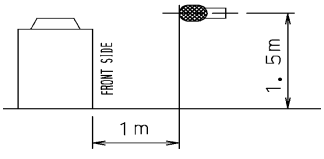


3D119525

RXYQ18U5
RYMQ18U5



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

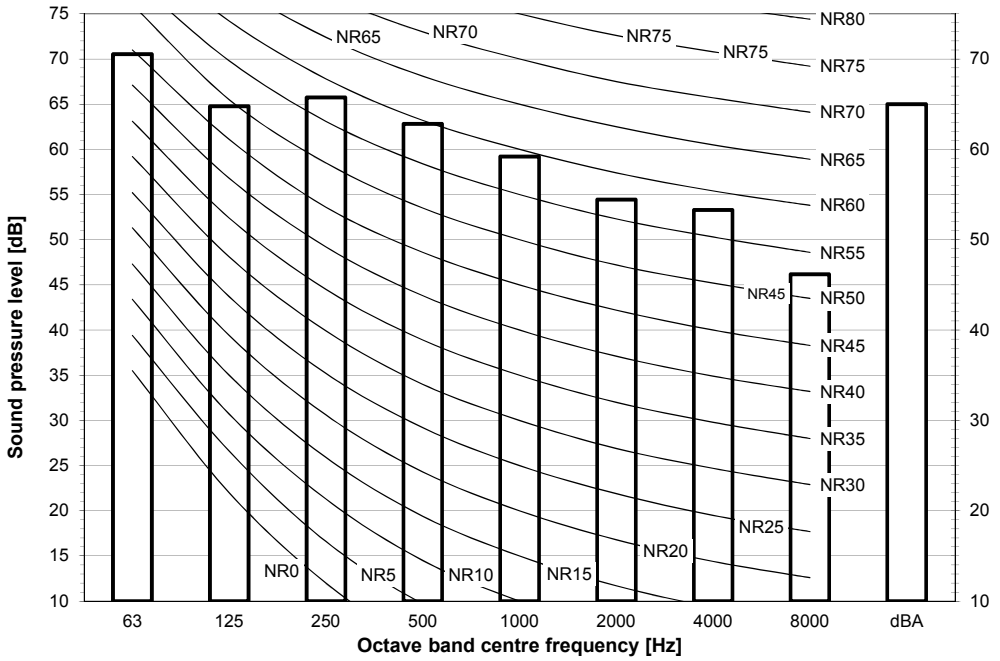


3D119526

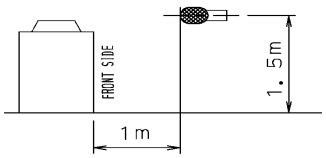
11 Sound data

11 - 2 Sound Pressure Spectrum

RXYQ20U5
RYMQ20U5



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

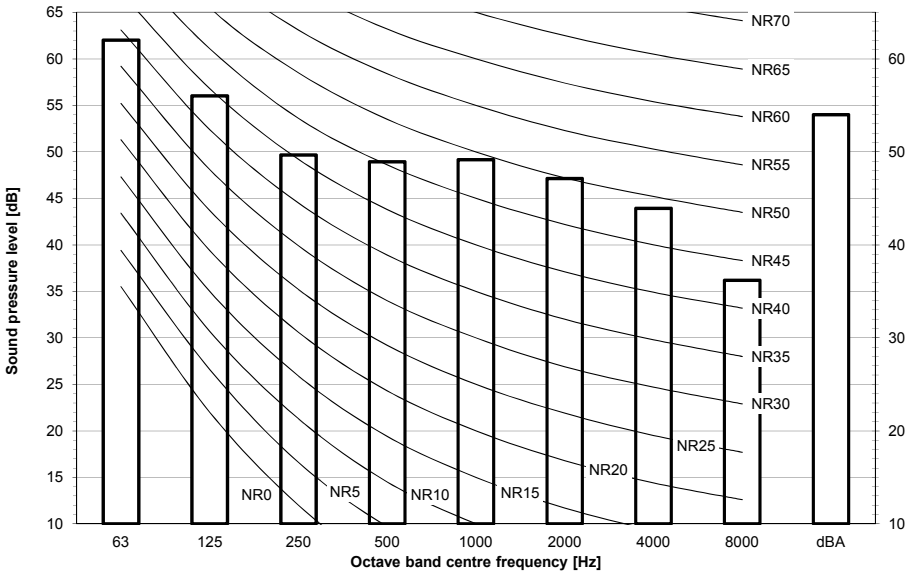


3D119527

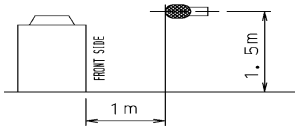
11 Sound data

11 - 3 Sound Pressure Spectrum Quiet Mode Level 1

RXYQ8-12U5
RXYTQ8U5YF
RYMQ8-12U5

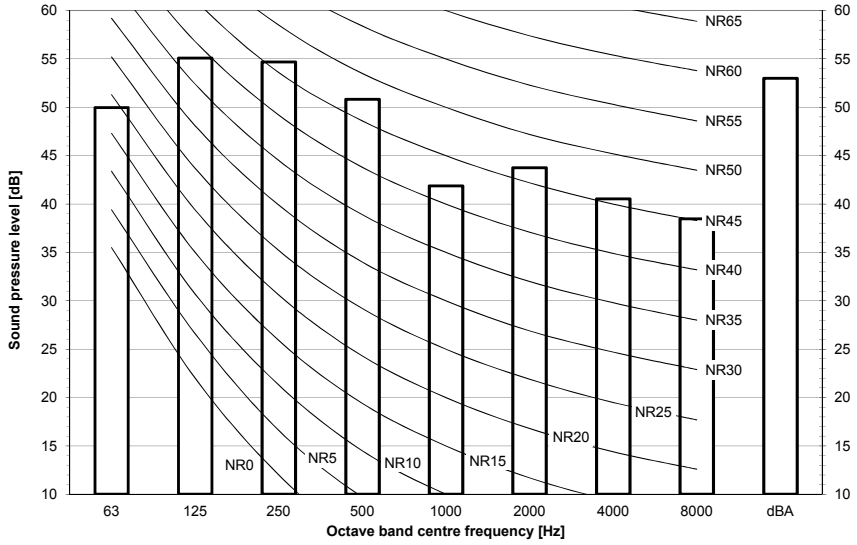


Notes
Data is valid at free field condition.
Data is valid at nominal operation condition.
dBA = A-weighted sound pressure level (A scale according to IEC).
Reference acoustic pressure 0 dB = 20 µPa
Data is valid under the following conditions
Cooling operation
Outdoor Ta: 35°C
Full load (maximum fan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

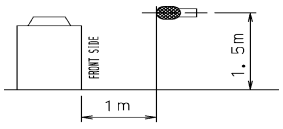


3D119535

RXYQ14-16U5
RXYTQ14-16U5YF
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)

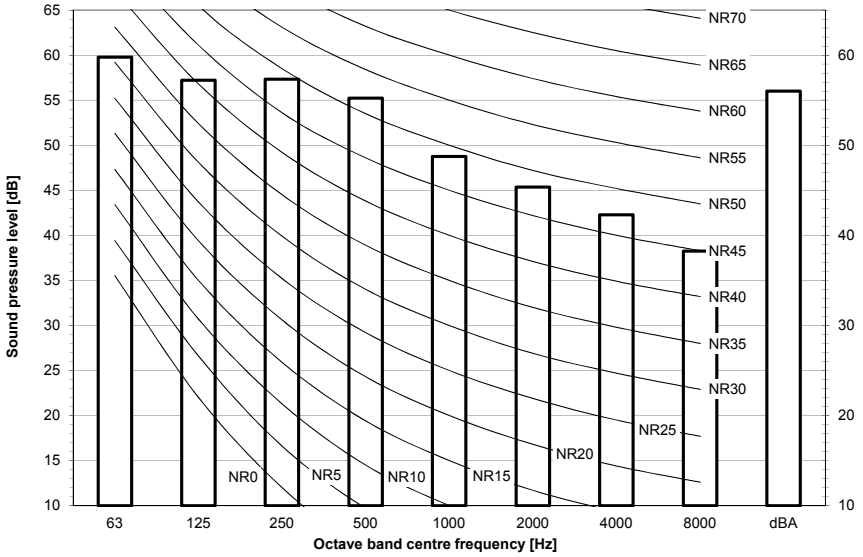


3D119538

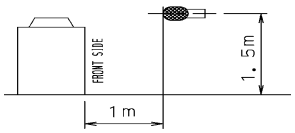
11 Sound data

11 - 3 Sound Pressure Spectrum Quiet Mode Level 1

RXYQ18-20U5
RYMQ18-20U5



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)

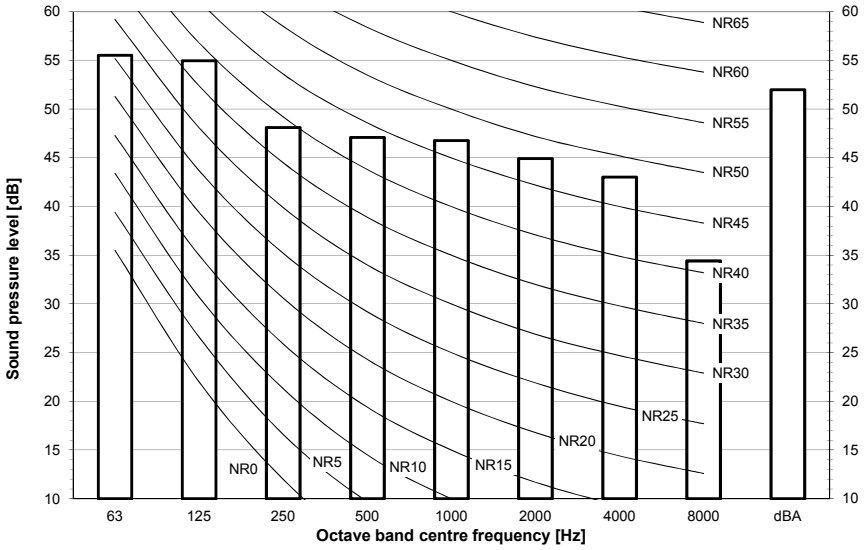


3D119541

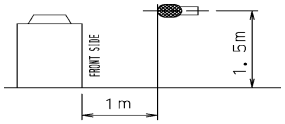
11 Sound data

11 - 4 Sound Pressure Spectrum Quiet Mode Level 2

RXYQ8-12U5
RXYTQ8U5YF
RYMQ8-12U5

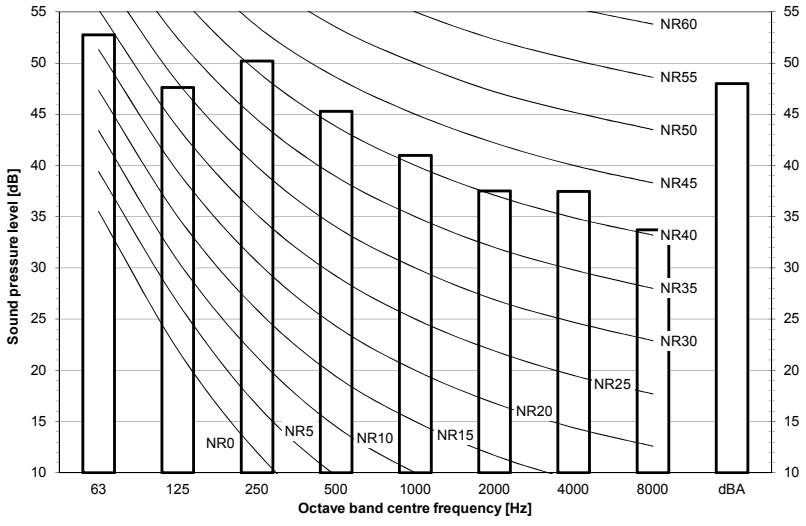


Notes
Data is valid at free field condition.
Data is valid at nominal operation condition.
dBA = A-weighted sound pressure level (A scale according to IEC).
Reference acoustic pressure 0 dB = 20 µPa
Data is valid under the following conditions
Cooling operation
Outdoor Ta: 35°C
Full load (maximum fan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

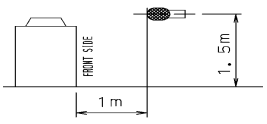


3D119536

RXYQ14-16U5
RXYTQ14-16U5YF
RYMQ14-16U5



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)

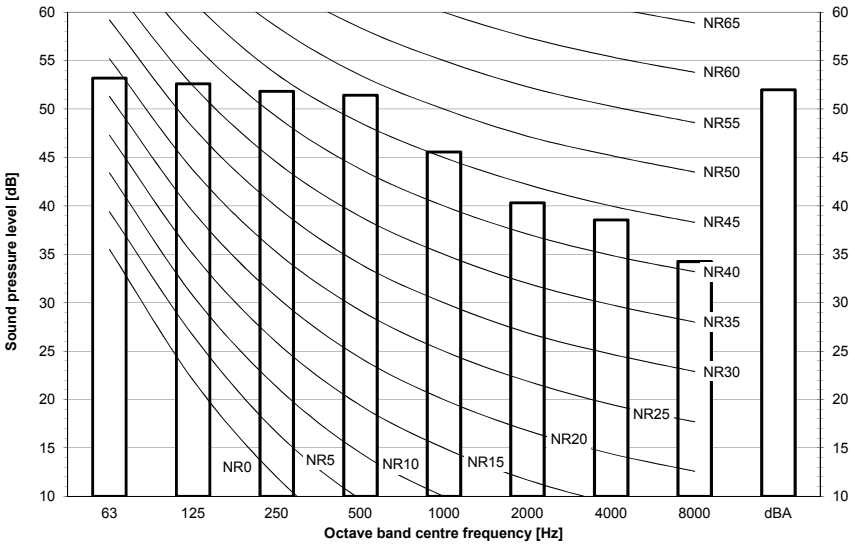


3D119539

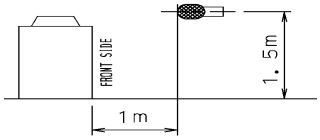
11 Sound data

11 - 4 Sound Pressure Spectrum Quiet Mode Level 2

RXYQ18-20U5
RYMQ18-20U5



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)

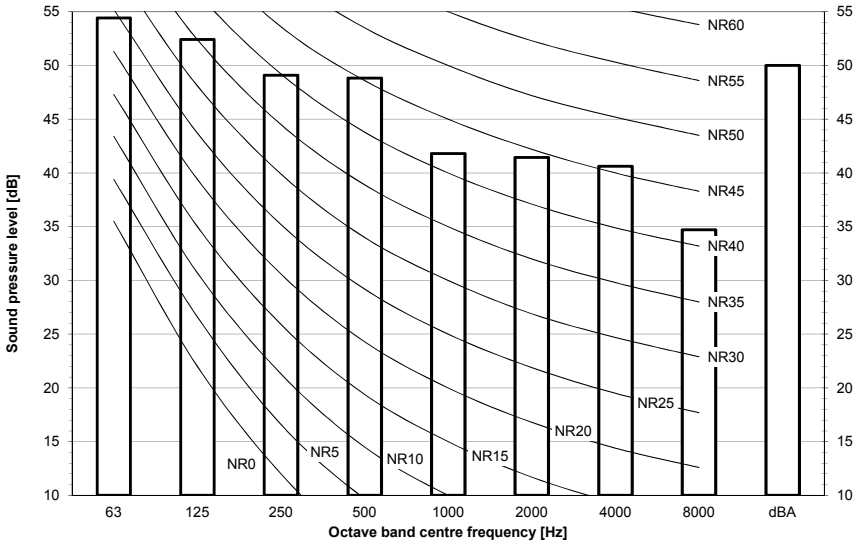


3D119542

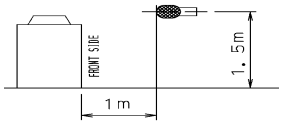
11 Sound data

11 - 5 Sound Pressure Spectrum Quiet Mode Level 3

RXYQ8-12U5
RXYTQ8U5YF
RYMQ8-12U5

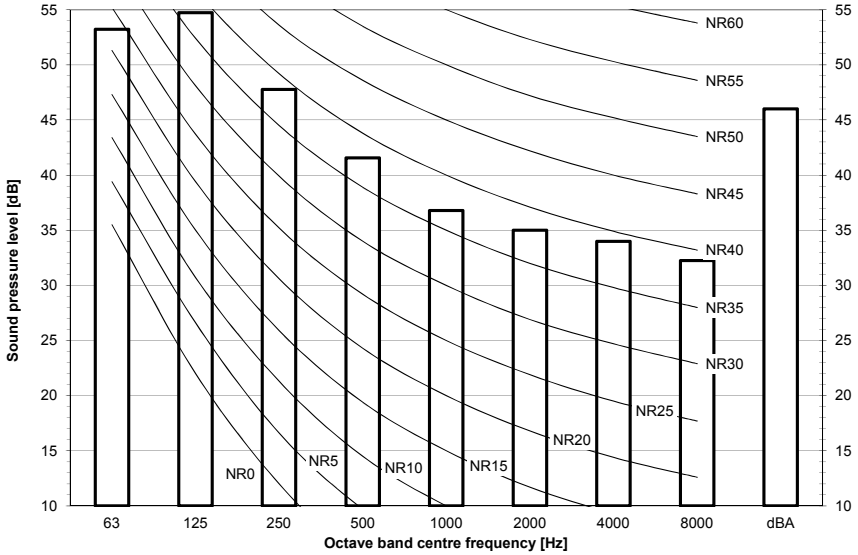


Notes
Data is valid at free field condition.
Data is valid at nominal operation condition.
dBA = A-weighted sound pressure level (A scale according to IEC).
Reference acoustic pressure 0 dB = 20 µPa
Data is valid under the following conditions
Cooling operation
Outdoor Ta: 35°C
Full load (maximum fan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

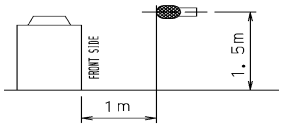


3D119537

RXYQ14-16U5
RXYTQ14-16U5YF
RYMQ14-16U5



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)

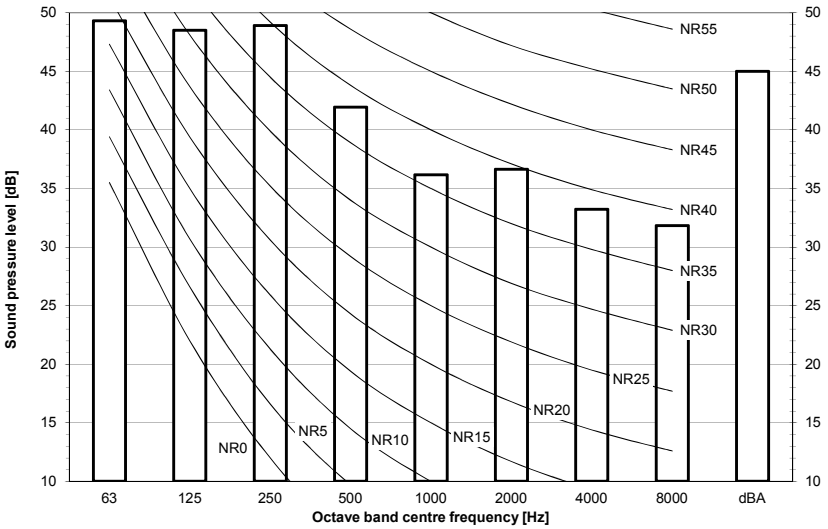


3D119540

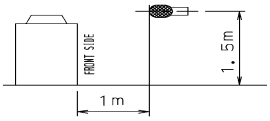
11 Sound data

11 - 5 Sound Pressure Spectrum Quiet Mode Level 3

RXYQ18-20U5
RYMQ18-20U5



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)

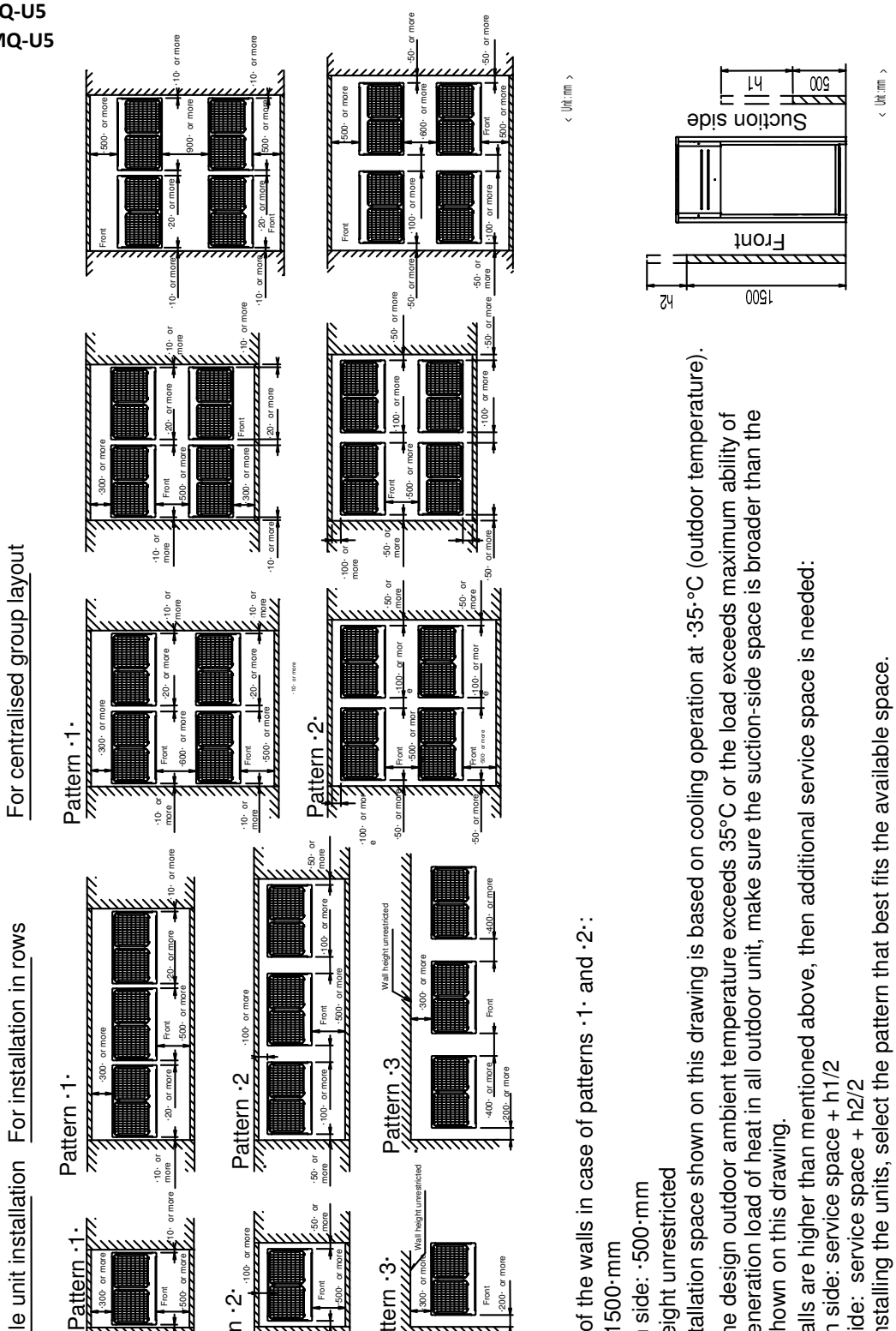


3D119543

12 Installation

12 - 1 Installation Method

RXYQ-U5
RYYQ-U5
RYMQ-U5

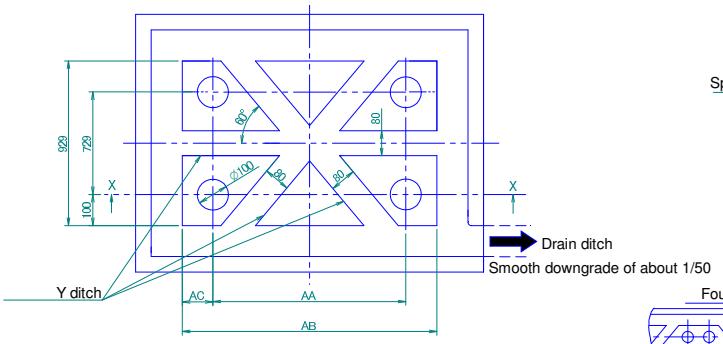


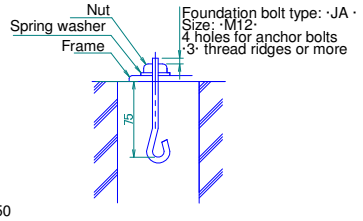
3D118467A

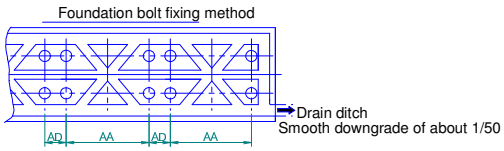
12 Installation

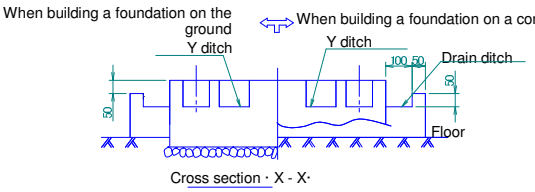
12 - 2 Fixation and Foundation of Units

RXYQ-U5
RYYQ-U5
RYMQ-U5









For multi-unit installation

	AA	AB	AC	AD
RYMQ8-12U5 RXYQ8-12U5	766	992		
RXYTQ8U5			113	185
RYMQ14-20U5 RXYQ14-20U5 RXYTQ10-16U5	1076	1076		

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.

3D118459A

12 Installation

12 - 3 Refrigerant Pipe Selection

RXYQ-U5
RYYQ-U5
RYMQ-U5

VRV4
Heat pump
Piping restrictions 1/3

For the reference drawing, see page 2/3.

		Maximum piping length			Maximum height difference			Total piping length
		Longest pipe (A+[B,G,E,J]) Actual / (Equivalent)	After first branch (B,G,E,J) Actual	After first branch (for multi-outdoor) (D) Actual / (Equivalent)	Indoor-to-outdoor [3] (H1) Outdoor above indoor / (indoor above outdoor)	Indoor-to-indoor (H2)	Outdoor-to-outdoor (H3)	
Standard		165/(190)m	40m[1]	10/(13)m	50/(40)m[3]	30m	5m	1000m
VRV DX indoor units only								
Standard multi-combination								
All multi-outdoor-unit combinations except standard multi-outdoor-unit combinations		135/(160)m	40m[1]	10/(13)m	50/(40)m[3]	30m	5m	500m
Hydrobox connection		135/(160)m	40m	10/(13)m	50/(40)m	15m	5m	300-500m[5]
RA connection		100/(120)m	50m[2]	-	50/(40)m	15m	-	250m
AHU connection	Pair	50/(55)m[4]	-	-	40/(40)m	-	-	-
	Multi [6]	165/(190)m	40m	10/13m	40/(40)m	15m	5m	1000m
	Mix [7]	165/(190)m	40m	10/13m	40/(40)m	15m	5m	1000m

Remark

For standard multi-outdoor-unit combinations, see 3D079534.

(1) If all conditions below are met, the limitation can be extended up to 90 m

a. The piping length between all indoor units and the nearest branch kit is ≤ 40m.

b. It is necessary to increase the size of the gas and liquid piping if the pipe length between the first and the farthest indoor unit is >40m.

If the increased pipe size is larger than the pipe size of the main pipe, also increase the size of the main pipe.

c. When the piping size is increased, the piping length has to be counted as double.

The total piping length has to be within limitations.

d. The piping length difference between the nearest indoor unit from the first branch to the outdoor unit and the farthest indoor unit to the outdoor unit is ≤ 40m.

(2) If the piping length between the first branch and the BP box or VRV indoor unit is more than 20m, increase the length of the gas and liquid piping between the first branch and the BP box or VRV indoor unit.

(3) An extension to up to 90 m is possible without an additional option kit. Respect the following conditions:

-> If the outdoor units are positioned higher than the indoor units:

a. Size up the liquid piping

b. A dedicated setting on the outdoor unit is required.

-> If the outdoor units are positioned lower than the indoor units:

a. 40~60m Minimum connection ratio: 80%

60~65m Minimum connection ratio: 90%

65~80m Minimum connection ratio: 100%

80~90m Minimum connection ratio: 110%

b. Size up the liquid piping

A dedicated setting on the outdoor unit is required.

(4) The allowable minimum length is 5 m.

(5) In case of multi-outdoor-unit combinations.

(6) Multiple air handling units (AHU)(EKEXV + EKEQ kits).

(7) Mix of AHU units and VRV DX indoor

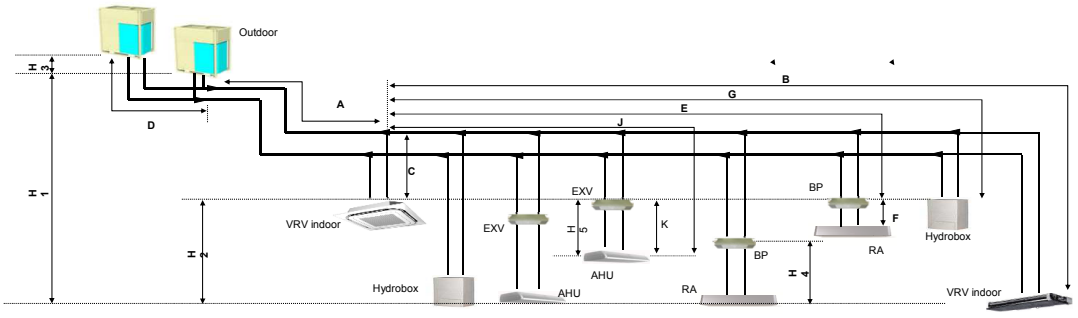
(8) If the equivalent piping length between is > 90m, size up the main liquid and gas piping.

3D079540E

12 Installation

12 - 3 Refrigerant Pipe Selection

RXYQ-U5
RYYQ-U5
RYMQ-U5 VRV4
Heat pump
Piping restrictions 2/3



Remark

(1) Schematic indication
Illustrations may differ from the actual appearance of the unit.

(2) This is only to illustrate piping length limitations.
Combination of indoor unit types is not allowed.
Refer to combination table 3D079543 for details about the allowed combinations.

		Allowed piping length		Maximum height difference	
		BP to RA (F)	EXV to AHU (K)	BP to RA (H4)	EXV to AHU (H5)
RA connection		2~15m	-	5m	-
AHU connection	**Pair**	-	≦5m	-	5m
	Multi (1)	-	≦5m	-	5m
	Mix (2)	-	≦5m	-	5m

Remark

(1) Multiple air handling units (AHU)(EKEXV + EKEQ kits).

(2) Mix of AHU units and VRV DX indoor

3D079540E

12 Installation

12 - 3 Refrigerant Pipe Selection

RXYQ-U5
RYYQ-U5
RYMQ-U5

VRV4
Heat pump
Piping restrictions 3/3

System pattern Allowed connection ratio (CR) Other combinations are not allowed.	Total		Allowed capacity			
	Capacity	Indoor unit quantity (VRV, RA, AHU, Hydrobox)	VRV DX indoor unit	RA DX indoor unit	Hydrobox unit	Air handling unit (AHU)
VRV DX indoor units only	50~130%	Max.64	50~130%	-	-	-
VRV DX indoor unit + RA DX	80~130%	Max.32(1)	0~130%	0~130%	-	-
RA DX indoor unit	80~130%	Max.32(1)	-	80~130%	-	-
VRV DX indoor unit + LT hydrobox	50~130%	Max.32	50~130%	-	0~80%	-
VRV DX indoor unit + AHU	50~110%(3)	Max.64(2)	50~110%	-	-	0~110%
AHU only Pair + multi (4)	90~110%(3)	Max.64(2)	-	-	-	90~110%

Remark

(1) There is no restriction on the number of connectable BP boxes.
(2) For connection with AHU
EKEXV kits are also considered indoor units.
(3) Restrictions regarding the air handling unit capacity
(4) Pair AHU = system with 1 air handling unit connected to one outdoor unit
Multi AHU = system with multiple air handling units connected to one outdoor unit

About ventilation applications

I. FXMQ_MF units are considered air handling units, following air handling unit limitations.
Maximum connection ratio when combined with VRV DX indoor units: <30%.
Maximum connection ratio when only air handling units are connected: <100%.
For information on the operation range, refer to the documentation of the FXMQ_MF unit.

II. Biddle air curtains are considered air handling units, following air handling unit limitations:
For information on the operation range, refer to the documentation of the Biddle unit.

III. [EKEXV + EKEQ] units combined with an air handling unit are considered air handling units, following air handling unit limitations.
For information on the operation range, refer to the documentation of the EKEXV-EKEQ unit.

IV. VKM units are considered to be regular VRV DX indoor units.
For information on the operation range, refer to the documentation of the VKM unit.

V. Because there is no refrigerant connection with the outdoor unit (only communication F1/F2), VAM units do not have connection limitations.
However, since there is communication via F1/F2, count them as regular indoor unit when calculating the maximum allowed number of connectable indoor units.

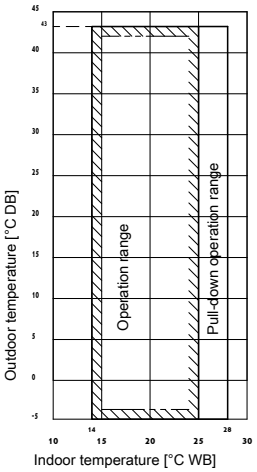
3D079540E

13 Operation range

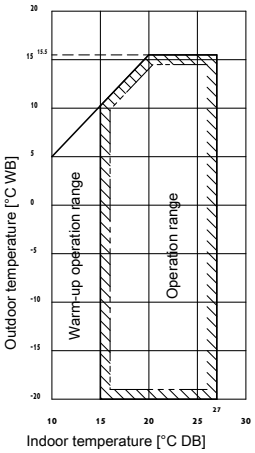
13 - 1 Operation Range

RXYQ-U5
RYYQ-U5
RYMQ-U5

Cooling



Heating



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

RXYQ-U5
RYYQ-U5
RYMQ-U5

Recommended indoor units for ·RXYQ*U* / RYYQ*U* / RYMQ*U*· outdoor units

·· HP	8	10	12	14	16	18	20
	4xFXMQ50	4xFXMQ63	6xFXMQ50	1xFXMQ50 5XFXMQ63	4XFXMQ63 2xFXMQ80	3xFXMQ50 5XFXMQ63	2xFXMQ50 6xFXMQ63

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 ·RXYQ*U* / RYYQ*U* / RYMQ*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

Covered by ·ENER LOT10·

FTXJ25-35-50
FTXA20-25-35-42-50
FLXS25-35-50-60
FVXM25F-35F-50F
FVXG25-35-50
FTXM20R-25R-35R-42R-50R-60R-71R
CVXM20A
FVXM25A-35A-50A

Outside the scope of ·ENER LOT21·

EKEXV50-63-80-100-125-140-200-250-400-500 + EKEQM / EKEQF
HXY080-125
VKM50-80-100
CYVS100-150-200-250
CYVM100-150-200-250
CYVL100-150-200-250
EKVDX32-50-80-100 + VAMJ8

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