

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

RYYQ8U7Y1B
RYYQ10U7Y1B
RYYQ12U7Y1B
RYYQ14U7Y1B
RYYQ16U7Y1B
RYYQ18U7Y1B
RYYQ20U7Y1B
RYYQ22U7Y1B
RYYQ24U7Y1B
RYYQ26U7Y1B
RYYQ28U7Y1B
RYYQ30U7Y1B
RYYQ32U7Y1B
RYYQ34U7Y1B
RYYQ36U7Y1B
RYYQ38U7Y1B
RYYQ40U7Y1B
RYYQ42U7Y1B
RYYQ44U7Y1B
RYYQ46U7Y1B
RYYQ48U7Y1B
RYYQ50U7Y1B
RYYQ52U7Y1B
RYYQ54U7Y1B
RYMQ10U7Y1B
RYMQ12U7Y1B
RYMQ16U7Y1B
RYMQ8U7Y1B
RYMQ14U7Y1B
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RYMQ20U7Y1B



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1 Features

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- › By choosing this product with Certified Reclaimed Refrigerant Allocation you support the reuse of refrigerant
- › 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, extended lifetime and immediate service support thanks to failure prediction
- › Available as heating only by irreversible field setting



Inverter

2 Specifications

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Technical Specifications				RYYQ8U	RYYQ10U	RYYQ12U	RYYQ14U	RYYQ16U
Recommended combination				4 x FXFQ50AVEB	4 x FXFQ63AVEB	6 x FXFQ50AVEB	1 x FXFQ50AVEB + 5 x FXFQ63AVEB	4 x FXFQ63AVEB + 2 x FXFQ80AVEB
Recommended combination 2				4 x FXSQ50A2VEB	4 x FXSQ63A2VEB	6 x FXSQ50A2VEB	1 x FXSQ50A2VEB + 5 x FXSQ63A2VEB	4 x FXSQ63A2VEB + 2 x FXSQ80A2VEB
Recommended combination 3				4 x FXMQ50P7VEB	4 x FXMQ63P7VEB	6 x FXMQ50P7VEB	1 x FXMQ50P7VEB + 5 x FXMQ63P7VEB	4 x FXMQ63P7VEB + 2 x FXMQ80P7VEB
Continuous heating				Yes				
Cooling capacity Prated,c				kW	22.4 (1)	28.0 (1)	33.5 (1)	40.0 (1)
Heating capacity	Nom.	6°CWB	kW	22.4 (2)	28.0 (2)	33.5 (2)	40.0 (2)	45.0 (2)
	Prated,h		kW	22.4 (2)	28.0 (2)	33.5 (2)	40.0 (2)	45.0 (2)
	Max.	6°CWB	kW	25.0 (2)	31.5 (2)	37.5 (2)	45.0 (2)	50.0 (2)
Power input - 50Hz Heating Nom. 6°CWB				kW	5.40 (2)	7.58 (2)	9.65 (2)	10.69 (2)
COP at nom. capacity				kW/kW	4.15 (2)	3.69 (2)	3.47 (2)	3.74 (2)
ESEER - Automatic					7.53	7.20	6.96	6.83
ESEER - Standard					6.37	5.67	5.50	5.31
SCOP					4.3		4.1	4.0
SCOP recommended combination 2					4.2	4.3	4.1	4.0
SCOP recommended combination 3					4.2	4.1		4.0
SEER					7.6	6.8	6.3	6.0
SEER recommended combination 2					6.9	6.8	5.9	6.3
SEER recommended combination 3					7.5	6.8	6.2	5.8
ηs,c				%	302.4	267.6	247.8	250.7
ηs,c recommended combination 2					273.6	270.5	233.5	250.0
ηs,c recommended combination 3					295.2	267.1	246.3	246.7
ηs,h				%	167.9	168.2	161.4	155.4
ηs,h recommended combination 2					165.4	170.6	161.3	157.2
ηs,h recommended combination 3					165.6	162.0	160.6	155.7
Space cooling	A Condi- EERd				3.0	2.3	2.4	2.6
	tion (35°C Pdc - 27/19)	kW			22.4	28.0	33.5	40.0
	B Condi- EERd				5.2	4.7	4.3	4.1
	tion (30°C Pdc - 27/19)	kW			16.5	20.6	24.7	29.5
	C Condi- EERd				9.5	8.3	7.7	7.8
Space cooling recommended combination 2	tion (25°C Pdc - 27/19)	kW			10.6	13.3	15.9	18.9
	D Condi- EERd				18.8	17.0	13.9	14.3
	tion (20°C Pdc - 27/19)	kW			8.0	9.3	9.4	8.4
	A Condi- EERd				2.6	2.4	2.6	2.6
	tion (35°C Pdc - 27/19)	kW			22.4	28.0	33.5	40.0
Space cooling recommended combination 2	B Condi- EERd				4.9	4.7	4.0	4.1
	tion (30°C Pdc - 27/19)	kW			16.5	20.6	24.7	29.5
	C Condi- EERd				8.8	8.5	7.1	7.9
	tion (25°C Pdc - 27/19)	kW			10.6	13.3	15.9	18.9
	D Condi- EERd				15.1	17.2	13.1	14.0
Space cooling recommended combination 2	tion (20°C Pdc - 27/19)	kW			8.8	9.3	9.1	8.4
	A Condi- EERd				3.0	2.3	2.4	2.6
	tion (35°C Pdc - 27/19)	kW			22.4	28.0	33.5	40.0
	B Condi- EERd				5.1	4.7	4.2	4.0
	tion (30°C Pdc - 27/19)	kW			16.5	20.6	24.7	29.5
Space cooling recommended combination 3	C Condi- EERd				9.6	8.4	7.7	7.4
	tion (25°C Pdc - 27/19)	kW			10.6	13.3	15.9	19.0
	D Condi- EERd				16.0	16.9	13.7	14.0
	tion (20°C Pdc - 27/19)	kW			9.1	9.3	9.4	8.4
	A Condi- EERd				3.0	2.3	2.4	2.6

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Technical Specifications				RYYQ8U	RYYQ10U	RYYQ12U	RYYQ14U	RYYQ16U	
Space heating (Average climate)	TBivalent	COPd (declared COP)		2.5	2.4	2.0	2.3	2.2	
		Pdh (declared heating cap) kW		13.7	16.0	18.4	20.6	23.2	
		Tbiv (bivalent temperature) °C		-10					
	TOL	COPd (declared COP)		2.5	2.4	2.0	2.3	2.2	
		Pdh (declared heating cap) kW		13.7	16.0	18.4	20.6	23.2	
		Tol (temperature operating limit) °C		-10					
	A Con- dition (-7°C)	COPd (declared COP)		2.7	2.6	2.4	2.6		
		Pdh (declared heating cap) kW		12.1	14.2	16.3	18.2	20.5	
	B Condi- tion (2°C)		COPd (declared COP)		3.9			3.5	
			Pdh (declared heating cap) kW		7.4	8.6	9.9	11.1	12.5
Space heating (Average climate) recommended combination 2	C Condi- tion (7°C)	COPd (declared COP)		6.3	6.4	6.1		6.3	
		Pdh (declared heating cap) kW		5.0	5.5	6.4	7.1	8.0	
	D Con- dition (12°C)	COPd (declared COP)		7.9	8.2	7.9	8.5	8.6	
		Pdh (declared heating cap) kW		5.9		6.3	4.9		
	A Con- dition (-7°C)	COPd (declared COP)		2.7		2.4	2.6		
		Pdh (declared heating cap) kW		12.1	14.2	16.3	18.2	20.5	
	B Condi- tion (2°C)	COPd (declared COP)		3.9	4.0	3.9	3.5		
		Pdh (declared heating cap) kW		7.4	8.6	9.9	11.1	12.2	
	C Condi- tion (7°C)	COPd (declared COP)		6.3	6.5	6.1		6.3	
		Pdh (declared heating cap) kW		5.0	5.5	6.4	7.1	8.0	
Space heating (Average climate) recommended combination 3	D Con- dition (12°C)	COPd (declared COP)		7.8	8.3	7.9	8.6	8.7	
		Pdh (declared heating cap) kW		5.9	6.0	6.4	4.9	5.0	
	TBivalent	COPd (declared COP)		2.4		1.9	2.3	2.2	
		Pdh (declared heating cap) kW		13.7	16.0	18.4	20.6	23.2	
		Tbiv (bivalent temperature) °C		-10					
	TOL	COPd (declared COP)		2.4		1.9	2.3	2.2	
		Pdh (declared heating cap) kW		13.7	16.0	18.4	20.6	23.2	
		Tol (temperature operating limit) °C		-10					
	A Con- dition (-7°C)		COPd (declared COP)		2.7	2.6	2.4	2.6	
			Pdh (declared heating cap) kW		12.1	14.2	16.3	18.2	20.5
Capacity range PED	Category	Most critical part		Accumulator					
		Name Ps*V Bar*I		325			415		
	Maximum number of connectable indoor units				64 (3)				
	Indoor index connection	Min.		100.0	125.0	150.0	175.0	200.0	
		Max.		260.0	325.0	390.0	455.0	520.0	
	Dimensions	Unit	Height	mm	1,685				
			Width	mm	930			1,240	
			Depth	mm	765				
		Packed unit	Height	mm	1,820				
			Width	mm	995			1,305	
			Depth	mm	860				
Weight	Unit	kg	252			319			
	Packed unit	kg	265			335			
Packing	Material		Carton						
	Weight		kg	1.8			2.2		
Packing 2	Material		Wood						
	Weight		kg	11.0			14.0		
Packing 3	Material		Plastic						
Packing 3	Weight		kg	0.5			0.6		

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Technical Specifications					RYYQ8U	RYYQ10U	RYYQ12U	RYYQ14U	RYYQ16U
Casing	Colour Material				Daikin White Painted galvanized steel plate				
Heat exchanger	Type				Cross fin coil				
	Indoor side				Air				
	Outdoor side				Air				
	Air flow rate	Cooling Heating	Rated Rated	m³/h m³/h	9,720 9,720	10,500 10,500	11,100 11,100	13,380 13,380	15,600 15,600
Fan	Quantity				1			2	
	External static pressure	Max.	Pa		78				
Fan motor	Quantity				1			2	
	Type				DC motor				
Compressor	Output				W			550 750	
	Quantity				1			2	
Operation range	Type				Hermetically sealed scroll compressor				
	Crankcase heater				W 33				
	Cooling	Min.	°CDB		-5.0				
		Max.	°CDB		43.0				
	Heating	Min.	°CWB		-20.0				
		Max.	°CWB		15.5				
Sound power level	Cooling	Nom.	dBA		78.0 (4)	79.1 (4)	83.4 (4)	80.9 (4)	85.6 (4)
Sound pressure level	Cooling	Nom.	dBA		57.0 (5)		61.0 (5)	60.0 (5)	63.0 (5)
Refrigerant	Type				R-410A				
	GWP				2,087.5				
	Charge				12.3	12.5	13.2	21.5	21.7
	Charge				5.9	6.0	6.3	10.3	10.4
Refrigerant oil	Type				Synthetic (ether) oil FVC68D				
Piping connections	Liquid	Type			Braze connection				
		OD	mm		10		13		
	Gas	Type			Braze connection				
		OD	mm		19.1	22.2	28.6		
	Total piping length	System	Actual	m	1,000 (6)				
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	Crank-case heater mode	Cooling	PCK	kW	0.000				
		Heating	PCK	kW	0.052			0.077	
Power consumption in other than active mode	Off mode	Cooling	POFF	kW	0.041			0.074	
		Heating	POFF	kW	0.052			0.077	
	Standby mode	Cooling	PSB	kW	0.041			0.074	
		Heating	PSB	kW	0.052			0.077	
	Thermo-stat-off mode	Cooling	PTO	kW	0.005			0.010	
		Heating	PTO	kW	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					RYYQ18U		RYYQ20U	
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	
Continuous heating							Yes	
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	

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Technical Specifications				RYYQ18U	RYYQ20U
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
η _{s,c}	%			238.3	233.7
η _{s,c} recommended combination 2				236.8	233.9
η _{s,c} recommended combination 3				238.2	233.1
η _{s,h}	%			163.1	156.6
η _{s,h} recommended combination 2				164.8	158.2
η _{s,h} recommended combination 3				159.6	153.4
Space cooling	A Condi- tion (35°C Pdc - 27/19)	EERd	kW	50.4	52.0
	B Condi- tion (30°C Pdc - 27/19)	EERd	kW	37.1	38.3
	C Condi- tion (25°C Pdc - 27/19)	EERd	kW	23.9	24.6
	D Condi- tion (20°C Pdc - 27/19)	EERd	kW	11.5	10.9
				1.9	
Space cooling recommended combination 2	A Condi- tion (35°C Pdc - 27/19)	EERd	kW	50.4	52.0
	B Condi- tion (30°C Pdc - 27/19)	EERd	kW	37.1	38.3
	C Condi- tion (25°C Pdc - 27/19)	EERd	kW	23.9	24.6
Space cooling recommended combination 2	D Condi- tion (20°C Pdc - 27/19)	EERd	kW	11.4	10.9
				1.9	
	A Condi- tion (35°C Pdc - 27/19)	EERd	kW	50.4	52.0
Space cooling recommended combination 3	B Condi- tion (30°C Pdc - 27/19)	EERd	kW	37.1	38.3
	C Condi- tion (25°C Pdc - 27/19)	EERd	kW	23.9	24.6
	D Condi- tion (20°C Pdc - 27/19)	EERd	kW	11.6	11.0
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	-10
	TOL	COPd (declared COP)		1.9	1.8
		Pdh (declared heating cap)	kW	27.9	31.0
		Tol (temperature operating limit)	°C	-10	-10
	A Con- dition (-7°C)	COPd (declared COP)		2.4	2.1
		Pdh (declared heating cap)	kW	24.7	27.4
	B Condi- tion (2°C)	COPd (declared COP)		3.7	3.6
		Pdh (declared heating cap)	kW	15.0	16.7
Space heating (Average climate)	C Condi- tion (7°C)	COPd (declared COP)		6.7	6.5
		Pdh (declared heating cap)	kW	9.7	10.7
	D Con- dition (12°C)	COPd (declared COP)		9.0	9.1
		Pdh (declared heating cap)	kW	7.1	7.1

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Technical Specifications					RYYQ18U		RYYQ20U		
Space heating (Average climate) recommended combination 2	A Con- dition (-7°C)	COPd (declared COP)			2.4		2.2		
		Pd _h (declared heating cap) kW			24.7		27.4		
	B Condi- tion (2°C)	COPd (declared COP)			3.8		3.7		
		Pd _h (declared heating cap) kW			15.0		16.7		
	C Condi- tion (7°C)	COPd (declared COP)			6.8		6.5		
		Pd _h (declared heating cap) kW			9.7		10.7		
	D Con- dition (12°C)	COPd (declared COP)			9.1		9.2		
		Pd _h (declared heating cap) kW			7.2				
	TBivalent	COPd (declared COP)			1.9		1.8		
Pd _h (declared heating cap) kW			27.9		31.0				
Tbiv (bivalent temperature) °C			-10						
Space heating (Average climate) recommended combination 2	TOL	COPd (declared COP)			1.9		1.8		
		Pd _h (declared heating cap) kW			27.9		31.0		
		Tol (temperature operating limit)			-10				
Space heating (Average climate) recommended combination 3	A Con- dition (-7°C)	COPd (declared COP)			2.4		2.1		
		Pd _h (declared heating cap) kW			24.7		27.4		
	B Condi- tion (2°C)	COPd (declared COP)			3.7		3.6		
		Pd _h (declared heating cap) kW			15.0		16.7		
	C Condi- tion (7°C)	COPd (declared COP)			6.5		6.3		
		Pd _h (declared heating cap) kW			9.7		10.7		
	D Con- dition (12°C)	COPd (declared COP)			8.7				
		Pd _h (declared heating cap) kW			6.9				
	TBivalent	COPd (declared COP)			1.9		1.8		
		Pd _h (declared heating cap) kW			27.9		31.0		
		Tbiv (bivalent temperature) °C			-10				
	TOL	COPd (declared COP)			1.9		1.8		
		Pd _h (declared heating cap) kW			27.9		31.0		
		Tol (temperature operating limit)			-10				
Capacity range				HP		18		20	
PED	Category				Category II				
	Most critical part	Name			Accumulator				
Ps*V		Bar*I			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		378			
	Packed unit			kg		395			
Packing	Material					Carton			
	Weight			kg		2.2			
Packing 2	Material					Wood			
	Weight			kg		14.0			
Packing 3	Material					Plastic			
Packing 3	Weight			kg		0.6			
Casing	Colour					Daikin White			
	Material					Painted galvanized steel plate			
Heat exchanger	Type					Cross fin coil			
	Indoor side					Air			
	Outdoor side					Air			
	Air flow rate	Cooling	Rated	m³/h	15,060	15,660			
Heating		Rated	m³/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			

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Technical Specifications					RYYQ18U	RYYQ20U
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)
Sound pressure level	Cooling	Nom.	dBA		62.0 (5)	65.0 (5)
Refrigerant	Type				R-410A	
	GWP				2,087.5	
	Charge		TCO2Eq		24.4	24.6
	Charge		kg		11.7	11.8
Refrigerant oil	Type				Synthetic (ether) oil FVC68D	
Piping connections	Liquid	Type			Braze connection	
		OD	mm		16	
	Gas	Type			Braze connection	
		OD	mm		28.6	
	Total piping length	System	Actual	m	1,000 (6)	
	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	Crank-case heater mode	Cooling	PCK	kW	0.000	
		Heating	PCK	kW	0.089	
Power consumption in other than active mode	Off mode	Cooling	POFF	kW	0.075	
		Heating	POFF	kW	0.089	
	Standby mode	Cooling	PSB	kW	0.075	
		Heating	PSB	kW	0.089	
	Thermo-stat-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	

Standard accessories: Installation manual; Quantity: 1;

Standard accessories: Operation manual; Quantity: 1;

Standard accessories: Connection pipes; Quantity: 1;

Electrical Specifications				RYYQ8U	RYYQ10U	RYYQ12U	RYYQ14U	RYYQ16U
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 - 50Hz	Nominal running current (RLA)	Combina-tion A	Cooling	-				
		Combina-tion B	Cooling	-				
	Starting current (MSC) - remark			See note 8				
	Zmax	List		No requirements				
	Minimum Ssc value		kVa	4,050 (9)	5,535 (9)	6,038 (9)	6,793 (9)	7,547 (9)
	Minimum circuit amps (MCA)		A	16.1 (10)	22.0 (10)	24.0 (10)	27.0 (10)	31.0 (10)
	Maximum fuse amps (MFA)		A	20 (11)	25 (11)	32 (11)		40 (11)
	Full load amps (FLA)	Total	A	1.2 (12)	1.3 (12)	1.5 (12)	1.8 (12)	2.6 (12)
Power Performance	Power factor	Combina-tion B	35°C ISO - Full load	-				
			46°C ISO - Full load	-				

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Electrical Specifications			RYYQ8U	RYYQ10U	RYYQ12U	RYYQ14U	RYYQ16U
Wiring connections - 50Hz	For power supply	Quantity	5G				
	For connection with indoor	Quantity	2				
	Remark		F1,F2				

Electrical Specifications				RYYQ18U		RYYQ20U	
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 - 50Hz	Nominal running current (RLA)	Combina- tion A Combina- tion B	-				
	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 Perfor- mance	Power factor	Combina- tion B	35°C ISO - Full load 46°C ISO - Full load		- -	
Wiring connec- tions - 50Hz	For power supply	Quantity	5G				
	For connec- tion 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 with 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 functionality (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 System			RYYQ22U	RYYQ24U	RYYQ26U	RYYQ28U	RYYQ30U
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)

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Technical specifications System					RYYQ22U	RYYQ24U	RYYQ26U	RYYQ28U	RYYQ30U
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
η _{s,c}			%		274.5	269.9	264.2	257.8	256.8
η _{s,c} recommended combination 2					266.5	262.6	256.1	249.3	249.8
η _{s,c} recommended combination 3					273.3	265.3	261.1	253.1	256.1
η _{s,h}			%		171.2	167.0	164.6	166.0	169.8
η _{s,h} recommended combination 2					172.3	167.1	165.4	166.8	170.6
η _{s,h} recommended combination 3					170.2	165.5	164.5	165.0	167.0
Space cooling	A Condi- tion (35°C Pdc - 27/19)	EERd		kW	2.6	2.5	2.6	2.3	2.1
					61.5	67.4	73.5	78.5	83.9
	B Condi- tion (30°C Pdc - 27/19)	EERd		kW	4.8		4.6	4.4	4.3
					45.3	49.7	54.2	57.8	61.8
	C Condi- tion (25°C Pdc - 27/19)	EERd		kW	8.5	8.6	8.2	8.1	8.2
					29.1	31.9	34.8	37.2	39.7
Space cooling recommended combination 2	D Condi- tion (20°C Pdc - 27/19)	EERd		kW	16.0	15.2	14.2	14.3	16.8
					18.8	15.8	16.2	16.5	21.0
	A Condi- tion (35°C Pdc - 27/19)	EERd		kW	2.6	2.4	2.6	2.3	2.1
					61.5	67.4	73.5	78.5	83.9
	B Condi- tion (30°C Pdc - 27/19)	EERd		kW	4.6	4.5	4.4	4.3	4.2
Space cooling recommended combination 2					45.3	49.7	54.1	57.8	61.8
	C Condi- tion (25°C Pdc - 27/19)	EERd		kW	8.2	8.4	7.9	7.8	7.9
					29.1	31.9	34.8	37.2	39.7
	D Condi- tion (20°C Pdc - 27/19)	EERd		kW	15.6	14.7	13.6	13.8	16.1
					18.4	15.4	15.7	16.5	20.5
Space cooling recommended combination 3	A Condi- tion (35°C Pdc - 27/19)	EERd		kW		2.5		2.3	2.1
					61.5	67.4	73.5	78.5	83.9
	B Condi- tion (30°C Pdc - 27/19)	EERd		kW	4.8		4.5		4.3
					45.3	49.7	54.2	57.8	61.8
	C Condi- tion (25°C Pdc - 27/19)	EERd		kW	8.5	8.4	8.1	8.0	8.2
					29.1	31.9	34.8	37.2	39.7
Space heating (Average climate)	D Condi- tion (20°C Pdc - 27/19)	EERd		kW	15.8	15.2	14.0	14.1	16.6
					18.8	15.7	16.0	16.6	21.0
	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		
Space heating (Average climate)	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 Con- dition (-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
Space heating (Average climate)	B Condi- tion (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 Condi- tion (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 Con- dition (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

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Technical specifications System					RYYQ22U		RYYQ24U		RYYQ26U		RYYQ28U		RYYQ30U			
Space heating (Average climate) recommended combination 2	A Con- dition (-7°C)	COPd (declared COP)			2.6		2.7		2.6		2.6		41.0			
		Pd _h (declared heating cap) kW			30.4		32.6		34.5		36.8					
	B Condi- tion (2°C)	COPd (declared COP)			4.1		3.7		3.8				3.9			
		Pd _h (declared heating cap) kW			18.5		19.9		21.0		22.4		24.9			
	C Condi- tion (7°C)	COPd (declared COP)			6.3				6.1		6.3		6.6			
		Pd _h (declared heating cap) kW			11.9		13.1				14.4		16.0			
	D Con- dition (12°C)	COPd (declared COP)			8.4		9.0		8.9		9.1					
		Pd _h (declared heating cap) kW			6.0		5.7		6.0		6.4		7.2			
Space heating (Average climate) recommended combination 2	TBivalent	COPd (declared COP)			2.2		2.4		2.2				2.1			
	TBivalent	Pd _h (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			
		Pd _h (declared heating cap) kW			34.4		36.9		39.0		41.6		46.3			
		Tol (temperature operating limit)							-10							
Space heating (Average climate) recommended combination 3	A Con- dition (-7°C)	COPd (declared COP)			2.6		2.7		2.6		2.6		2.5			
		Pd _h (declared heating cap) kW			30.4		32.6		34.5		36.8		41.0			
	B Condi- tion (2°C)	COPd (declared COP)			4.0		3.7		3.8				3.9			
		Pd _h (declared heating cap) kW			18.5		19.9		21.0		22.4		24.9			
	C Condi- tion (7°C)	COPd (declared COP)			6.2		6.3		6.1		6.2		6.3			
		Pd _h (declared heating cap) kW			11.9		12.9		13.5		14.4		16.0			
	D Con- dition (12°C)	COPd (declared COP)			8.2		8.9		8.8		9.0		8.6			
		Pd _h (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			
		Pd _h (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			
		Pd _h (declared heating cap) kW			34.4		36.9		39.0		41.6		46.3			
		Tol (temperature operating limit)							-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	m³/h	21,600		25,320		24,480		26,700		26,160			
		Heating	Rated	m³/h	21,600		25,320		24,480		26,700		26,160			
Sound power level	Cooling	Nom.	dB(A)	84.8 (4)		86.3 (4)		85.3 (4)		87.6 (4)		86.6 (4)				
Sound pressure level	Cooling	Nom.	dB(A)	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											
Piping connections	Liquid	Type			Brazed connection											
		OD	mm		16		19									
	Gas	Type			Brazed connection											
OD		mm		28.6		34.9										
Piping connections	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 consump- tion in other than active mode	Crank- case 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		
	Thermo- stat-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											

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Technical specifications System				RYYQ32U	RYYQ34U	RYYQ36U	RYYQ38U	RYYQ40U
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)	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,c recommended combination 2				248.3	250.9	248.7	269.2	259.2
ηs,c recommended combination 3				244.2	249.8	247.2	272.2	263.2
ηs,h			%	163.1	166.2	162.4	167.5	170.0
ηs,h recommended combination 2				164.6	167.7	164.1	168.4	171.3
ηs,h recommended combination 3				161.9	164.2	159.9	164.8	167.8
Space cooling	A Condi- tion (35°C - 27/19)	EERd Pdc	kW	2.3	2.1		2.4	2.2
				90.0	95.4	97.0	102.4	111.9
	B Condi- tion (30°C - 27/19)	EERd Pdc	kW	4.3	4.2	4.1	4.5	
				66.3	70.3	71.5	75.5	82.5
	C Condi- tion (25°C - 27/19)	EERd Pdc	kW	8.1		7.9	8.5	8.3
				42.6	45.2	45.9	48.5	53.0
Space cooling recommended combination 2	D Condi- tion (20°C - 27/19)	EERd Pdc	kW	14.3	16.8	16.7	17.9	16.0
				19.0	20.1	20.4	21.6	23.6
	A Condi- tion (35°C - 27/19)	EERd Pdc	kW	2.2	2.1		2.3	2.2
				90.0	95.4	97.0	102.4	111.9
	B Condi- tion (30°C - 27/19)	EERd Pdc	kW	4.2		4.1	4.5	4.4
				66.3	70.3	71.5	75.4	82.4
Space cooling recommended combination 2	C Condi- tion (25°C - 27/19)	EERd Pdc	kW	8.0	8.1	7.9	8.4	8.1
				42.6	45.2	45.9	48.5	53.0
	D Condi- tion (20°C - 27/19)	EERd Pdc	kW	14.0	16.5		17.8	15.9
				18.9	20.1	20.4	21.6	23.6
	A Condi- tion (35°C - 27/19)	EERd Pdc	kW	2.2	2.1		2.4	2.2
				90.0	95.4	97.0	102.4	111.9
Space cooling recommended combination 3	B Condi- tion (30°C - 27/19)	EERd Pdc	kW	4.1		4.0	4.5	4.4
				66.3	70.3	71.5	75.5	82.5
	C Condi- tion (25°C - 27/19)	EERd Pdc	kW	7.8	8.0	7.8	8.5	8.4
				42.6	45.2	45.9	48.5	53.0
	D Condi- tion (20°C - 27/19)	EERd Pdc	kW	13.8	16.6	16.5	17.9	16.1
				19.0	20.1	20.4	21.6	23.6

2 Specifications

1 - 1 RYYQ-U

Technical specifications System					RYYQ32U	RYYQ34U	RYYQ36U	RYYQ38U	RYYQ40U	
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 Con- dition (-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 Condi- tion (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	
Space heating (Average climate) recommended combination 2	C Condi- tion (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 Con- dition (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		
	A Con- dition (-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 Condi- tion (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 Condi- tion (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	
Space heating (Average climate) recommended combination 2	D Con- dition (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	
		Pdh (declared heating cap) kW			46.4	51.1	54.2	60.7	62.3	
		Tol (temperature operating limit) °C			-10					
	Space heating (Average climate) recommended combination 3	A Con- dition (-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 Condi- tion (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 Condi- tion (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 Con- dition (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	m³/h	31,200	30,660	31,260	35,880	36,660	
		Heating	Rated	m³/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)	
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			19					
	Gas	Type			Braze connection					
Piping connections		Gas	OD		mm	34.9		41.3		
	Total piping length	System	Actual	m	1,000 (6)					

2 Specifications

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Technical specifications System					RYYQ32U	RYYQ34U	RYYQ36U	RYYQ38U	RYYQ40U
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	Crank-case 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	
	Thermo-stat-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					RYYQ42U	RYYQ44U	RYYQ46U	RYYQ48U	RYYQ50U
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)
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,c recommended combination 2					259.3	249.2	252.2	248.3	250.0
ηs,c recommended combination 3					255.4	250.1	248.3	244.2	248.0
ηs,h				%	165.5	164.5	162.0	162.8	165.2
ηs,h recommended combination 2					167.3	165.6	163.5	164.3	166.7
ηs,h recommended combination 3					164.4	163.5	161.3	161.7	163.2
Space cooling	A Condi- tion (35°C - 27/19)	EERd Pdc	kW		2.3		2.4	2.3	2.1
				118.0	123.5	130.0	135.0	140.4	
	B Condi- tion (30°C - 27/19)	EERd Pdc	kW		4.4			4.3	4.2
				86.9	91.0	95.8	99.5	103.4	
	C Condi- tion (25°C - 27/19)	EERd Pdc	kW		8.2	58.5	61.6	8.1	64.0
	D Condi- tion (20°C - 27/19)	EERd Pdc	kW		15.4	14.4	14.3		15.9
				24.8	26.0	27.4	28.4	29.6	
Space cooling recommended combination 2	A Condi- tion (35°C - 27/19)	EERd			2.3			2.2	2.1

2 Specifications

1 - 1 RYYQ-U

Technical specifications System				RYYQ42U	RYYQ44U	RYYQ46U	RYYQ48U	RYYQ50U
Space cooling recommended combination 2	A Condi- tion (35°C - 27/19)	Pdc	kW	118.0	123.5	130.0	135.0	140.4
	B Condi- tion (30°C - 27/19)	EERd	kW	4.4	4.3		4.2	
	C Condi- tion (25°C - 27/19)	Pdc	kW	86.9	91.0	95.8	99.5	103.5
	D Condi- tion (20°C - 27/19)	EERd	kW	8.2	7.9	8.1	8.0	
				55.9	58.5	61.6	63.9	66.5
				15.3	14.0			15.6
Space cooling recommended combination 3	A Condi- tion (35°C - 27/19)	EERd	kW	118.0	123.5	130.0	135.0	140.4
	B Condi- tion (30°C - 27/19)	EERd	kW	87.0	91.0	95.8	99.5	103.5
	C Condi- tion (25°C - 27/19)	EERd	kW	8.0	7.9		7.8	7.9
				55.9	58.5	61.6	63.9	66.5
	D Condi- tion (20°C - 27/19)	EERd	kW	15.2	14.2	13.9	13.8	15.6
				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 Condi- tion (-7°C)	COPd (declared COP)				2.7		
		Pdh (declared heating cap)	kW	55.2	57.3	59.3	61.6	65.7
	B Condi- tion (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 Condi- tion (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
Space heating (Average climate) recommended combination 2	D Condi- tion (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
	A Condi- tion (-7°C)	COPd (declared COP)				2.7		
		Pdh (declared heating cap)	kW	55.2	57.3	59.3	61.6	65.7
	B Condi- tion (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 Condi- tion (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 Condi- tion (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
Space heating (Average climate) recommended combination 2		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		

2 Specifications

1 - 1 RYYQ-U

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Technical specifications System					RYYQ42U	RYYQ44U	RYYQ46U	RYYQ48U	RYYQ50U
Space heating (Average climate) recommended combination 3	A Con- dition (-7°C)	COPd (declared COP)			2.7	2.6	2.7		2.6
		Pd _h (declared heating cap) kW			55.2	57.3	59.3		61.6
	B Condi- tion (2°C)	COPd (declared COP)			3.7		3.6		
		Pd _h (declared heating cap) kW			33.6	34.9	36.1		37.5
	C Condi- tion (7°C)	COPd (declared COP)			6.3	6.2		6.3	
		Pd _h (declared heating cap) kW			21.6	22.4	23.2		24.1
	D Con- dition (12°C)	COPd (declared COP)			8.6		8.7		8.8
		Pd _h (declared heating cap) kW			9.9	10.0	10.3		10.7
	TBivalent	COPd (declared COP)			2.4	2.3	2.4		
		Pd _h (declared heating cap) kW			62.4	64.8	67.0		69.6
		Tbiv (bivalent temperature) °C			-10				
	TOL	COPd (declared COP)			2.4	2.3	2.4		
		Pd _h (declared heating cap) kW			62.4	64.8	67.0		69.6
		Tol (temperature operating limit)			-10				
Capacity range									

Technical specifications System					RYYQ52U		RYYQ54U	
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)	

2 Specifications

1 - 1 RYYQ-U

Technical specifications System			RYYQ52U	RYYQ54U
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	
η _{s,c}	%		253.7	254.1
η _{s,c} recommended combination 2			251.6	252.5
η _{s,c} recommended combination 3			251.5	253.9
η _{s,h}	%		167.2	169.4
η _{s,h} recommended combination 2			168.7	170.8
η _{s,h} recommended combination 3			164.4	166.0
Space cooling	A Condi- tion (35°C Pdc - 27/19)	EERd kW	2.0	1.9
	B Condi- tion (30°C Pdc - 27/19)	EERd kW	145.8	151.2
	C Condi- tion (25°C Pdc - 27/19)	EERd kW	4.2	4.1
	D Condi- tion (20°C Pdc - 27/19)	EERd kW	107.4	111.4
			8.1	
			69.1	71.6
			17.6	19.1
			30.7	34.4
Space cooling recommended combination 2	A Condi- tion (35°C Pdc - 27/19)	EERd kW	2.0	1.9
Space cooling recommended combination 2	A Condi- tion (35°C Pdc - 27/19)	EERd kW	145.8	151.2
	B Condi- tion (30°C Pdc - 27/19)	EERd kW	4.1	4.1
	C Condi- tion (25°C Pdc - 27/19)	EERd kW	107.4	111.4
	D Condi- tion (20°C Pdc - 27/19)	EERd kW	8.1	8.1
			69.0	71.6
			17.4	18.9
			30.7	34.1
Space cooling recommended combination 3	A Condi- tion (35°C Pdc - 27/19)	EERd kW	2.0	1.9
	B Condi- tion (30°C Pdc - 27/19)	EERd kW	145.8	151.2
	C Condi- tion (25°C Pdc - 27/19)	EERd kW	4.1	4.1
	D Condi- tion (20°C Pdc - 27/19)	EERd kW	107.4	111.4
			8.0	8.2
			69.1	71.6
			17.5	19.1
			30.7	34.7
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	-10
	TOL	COPd (declared COP)	2.2	2.1
		Pdh (declared heating cap) kW	79.0	83.7
		Tol (temperature operating limit) °C	-10	-10
	A Con- dition (-7°C)	COPd (declared COP)	2.6	2.6
		Pdh (declared heating cap) kW	69.9	74.0
	B Condi- tion (2°C)	COPd (declared COP)	3.8	3.9
		Pdh (declared heating cap) kW	42.5	45.1
	C Condi- tion (7°C)	COPd (declared COP)	6.6	6.8
		Pdh (declared heating cap) kW	27.4	29.0
	D Con- dition (12°C)	COPd (declared COP)	9.0	9.0
		Pdh (declared heating cap) kW	14.2	14.2

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1 - 1 RYYQ-U

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Technical specifications System					RYYQ52U		RYYQ54U	
Space heating (Average climate) recommended combination 2	A Con- dition (-7°C)	COPd (declared COP)			2.6			
		Pd _h (declared heating cap) kW			69.9		74.0	
	B Condi- tion (2°C)	COPd (declared COP)			3.8		3.9	
		Pd _h (declared heating cap) kW			42.6		45.1	
	C Condi- tion (7°C)	COPd (declared COP)			6.7		6.8	
		Pd _h (declared heating cap) kW			27.4		29.0	
	D Con- dition (12°C)	COPd (declared COP)			9.1			
Pd _h (declared heating cap) kW			14.4					
Space heating (Average climate) recommended combination 2	TBivalent	COPd (declared COP)			2.2		2.1	
		Pd _h (declared heating cap) kW			79.0		83.7	
		Tbiv (bivalent temperature) °C			-10			
	TOL	COPd (declared COP)			2.2		2.1	
		Pd _h (declared heating cap) kW			79.0		83.7	
		Tol (temperature operating limit)			-10			
Space heating (Average climate) recommended combination 3	A Con- dition (-7°C)	COPd (declared COP)			2.6		2.5	
		Pd _h (declared heating cap) kW			69.9		74.0	
	B Condi- tion (2°C)	COPd (declared COP)			3.7		3.8	
		Pd _h (declared heating cap) kW			42.5		45.1	
	C Condi- tion (7°C)	COPd (declared COP)			6.4		6.5	
		Pd _h (declared heating cap) kW			27.3		29.0	
	D Con- dition (12°C)	COPd (declared COP)			8.7			
		Pd _h (declared heating cap) kW			13.7			
	TBivalent	COPd (declared COP)			2.2		2.1	
		Pd _h (declared heating cap) kW			79.0		83.7	
		Tbiv (bivalent temperature) °C			-10			
	TOL	COPd (declared COP)			2.2		2.1	
		Pd _h (declared heating cap) kW			79.0		83.7	
		Tol (temperature operating limit)			-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	m³/h	45,720		45,180	
		Heating	Rated	m³/h	45,720		45,180	
Sound power level	Cooling	Nom.	dBA		89.3 (4)		88.6 (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			
Piping connections	Liquid	Type			Braze connection			
		OD			19			
Piping connections	Gas	Type			Braze connection			
		OD			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 consump- tion in other than active mode	Crank- case 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	
	Thermo- stat-off mode	Cooling	PTO	kW	0.029			
		Heating	PTO	kW	0.294			
Cooling	Cdc (Degradation cooling)				0.25			
Heating	Cdh (Degradation heating)				0.25			

2 Specifications

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Electrical specifications System			RYYQ22U	RYYQ24U	RYYQ26U	RYYQ28U	RYYQ30U
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 - 50Hz	Nominal running current (RLA)	Combina- Cooling tion A Combina- Cooling tion B	-				
	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 factor	Combina- 35°C ISO - Full load tion B 46°C ISO - Full load	-				
Wiring connections - 50Hz	For power supply	Quantity	5G				
	For connection with indoor	Quantity Remark	2 F1,F2				

Electrical specifications System			RYYQ32U	RYYQ34U	RYYQ36U	RYYQ38U	RYYQ40U
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 - 50Hz	Nominal running current (RLA)	Combina- Cooling tion A Combina- Cooling tion B	-				
	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 factor	Combina- 35°C ISO - Full load tion B 46°C ISO - Full load	-				
Wiring connections - 50Hz	For power supply	Quantity	5G				
	For connection with indoor	Quantity Remark	2 F1,F2				

Electrical specifications System			RYYQ42U	RYYQ44U	RYYQ46U	RYYQ48U	RYYQ50U
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 - 50Hz	Nominal running current (RLA)	Combina- Cooling tion A Combina- Cooling tion B	-				
	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 (11)
	Power factor	Combina- 35°C ISO - Full load tion B 46°C ISO - Full load	-				

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Electrical specifications System			RYYQ42U	RYYQ44U	RYYQ46U	RYYQ48U	RYYQ50U
Wiring connections - 50Hz	For power supply	Quantity	5G				
	For connection with indoor	Quantity	2				
		Remark	F1,F2				

Electrical specifications System				RYYQ52U		RYYQ54U	
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 - 50Hz	Nominal running current (RLA)	Combina- tion A Combina- Cooling tion B		-			
	Starting current (MSC) - remark			See note 8			
	Zmax List			No requirements			
	Minimum Ssc value		kVa	25,157 (9)		26,415 (9)	
	Minimum circuit amps (MCA)		A	101.0 (10)		105.0 (10)	
	Maximum fuse amps (MFA)		A	125 (11)			
	Power Performance	Power factor	Combina- tion 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				

Technical specifications Module				RYMQ10U	RYMQ12U	RYMQ16U	RYMQ8U	RYMQ14U
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)
COP at nom. capacity				kW/kW	3.69 (2)	3.47 (2)	3.59 (2)	4.15 (2)
ESEER - Automatic					7.20	6.96	6.50	7.53
ESEER - Standard					5.67	5.50	5.05	6.37
SCOP					4.3	4.1	4.0	4.3
SCOP recommended combination 2					4.3	4.1	4.2	4.0
SCOP recommended combination 3						4.1	4.0	4.0
SEER					6.8	6.3	6.0	7.6
SEER recommended combination 2					6.8	5.9	6.9	6.3
SEER recommended combination 3					6.8	6.2	5.8	7.5
ηs,c				%	267.6	247.8	236.5	302.4
ηs,c recommended combination 2					270.5	233.5	234.2	273.6
ηs,c recommended combination 3					267.1	246.3	230.4	295.2
ηs,h				%	168.2	161.4	157.8	167.9
ηs,h recommended combination 2					170.6	161.3	159.5	165.4
ηs,h recommended combination 3					162.0	160.6	156.8	165.6

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Technical specifications Module			RYMQ10U	RYMQ12U	RYMQ16U	RYMQ8U	RYMQ14U
Space cooling	A Condi- EERd tion (35°C Pdc - 27/19)	kW	2.3 28.0	2.4 33.5	2.1 45.0	3.0 22.4	2.6 40.0
	B Condi- EERd tion (30°C Pdc - 27/19)	kW	4.7 20.6	4.3 24.7	3.9 33.2	5.2 16.5	4.1 29.5
	C Condi- EERd tion (25°C Pdc - 27/19)	kW	8.3 13.3	7.7 15.9		21.3 10.6	9.5 18.9
	D Condi- EERd tion (20°C Pdc - 27/19)	kW	17.0 9.3	13.9 9.4	14.2 9.5	18.8 8.0	14.3 8.4
Space cooling recommended combination 2	A Condi- EERd tion (35°C Pdc - 27/19)	kW	2.4 28.0	2.1 33.5	2.6 45.0	2.6 22.4	40.0
	B Condi- EERd tion (30°C Pdc - 27/19)	kW	4.7 20.6	4.0 24.7	3.8 33.2	4.9 16.5	4.1 29.5
	C Condi- EERd tion (25°C - 27/19)		8.5	7.1	7.6	8.8	7.9
Space cooling recommended combination 2	C Condi- Pdc tion (25°C - 27/19)	kW	13.3	15.9	21.3	10.6	18.9
	D Condi- EERd tion (20°C Pdc - 27/19)	kW	17.2 9.3	13.1 9.1	14.0 9.5	15.1 8.8	14.0 8.4
Space cooling recommended combination 3	A Condi- EERd tion (35°C Pdc - 27/19)	kW	2.3 28.0	2.4 33.5	2.1 45.0	3.0 22.4	2.6 40.0
	B Condi- EERd tion (30°C Pdc - 27/19)	kW	4.7 20.6	4.2 24.7	3.7 33.2	5.1 16.5	4.0 29.5
	C Condi- EERd tion (25°C Pdc - 27/19)	kW	8.4 13.3	7.7 15.9	7.4 21.3	9.6 10.6	7.7 19.0
	D Condi- EERd tion (20°C Pdc - 27/19)	kW	16.9 9.3	13.7 9.4	14.1 9.5	16.0 9.1	14.0 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 Con- COPd (declared COP) dition (-7°C)	kW	2.6 14.2	2.4 16.3	2.6 20.5	2.7 12.1	2.6 18.2
	B Condi- COPd (declared COP) tion (2°C)	kW	3.9 8.6		3.5 12.5	3.9 7.4	3.5 11.1
	C Condi- COPd (declared COP) tion (7°C)	kW	6.4 5.5	6.1 6.4	6.3 8.0		6.1 7.1
	D Con- COPd (declared COP) dition (12°C)	kW	8.2 5.9	7.9 6.3	8.6 4.9	7.9 5.9	8.5 4.9
	A Con- COPd (declared COP) dition (-7°C)	kW	2.7 14.2	2.4 16.3	2.6 20.5	2.7 12.1	2.6 18.2
	B Condi- COPd (declared COP) tion (2°C)	kW	4.0 8.6	3.9 9.9	3.5 12.2	3.9 7.4	3.5 11.1
	C Condi- COPd (declared COP) tion (7°C)	kW	6.5 5.5	6.1 6.4	6.3 8.0		6.1 7.1
	D Con- COPd (declared COP) dition (12°C)	kW	8.3 6.0	7.9 6.4	8.7 5.0	7.8 5.9	8.6 4.9
	TBivalent COPd (declared COP)		2.4	1.9	2.2	2.4	2.3
Space heating (Average climate) recommended combination 2	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
Space heating (Average climate) recommended combination 2	TOL Pdh (declared heating cap) kW		16.0	18.4	23.2	13.7	20.6
	Tol (temperature operating limit) °C				-10		

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Technical specifications Module					RYMQ10U	RYMQ12U	RYMQ16U	RYMQ8U	RYMQ14U			
Space heating (Average climate) recommended combination 3	A Con- dition (-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 Condi- tion (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 Condi- tion (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 Con- dition (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			
	TOL	Tbiv (bivalent temperature)			°C							
		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							
Capacity range					HP	10	12	16	8	14		
PED	Category				Category II							
	Most critical part	Name	Ps*V	Bar*I	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		198		275	198	275				
	Packed unit	kg		211		291	211	291				
Packing	Material				Carton							
	Weight				1.8		2.2	1.8	2.2			
Packing 2	Material				Wood							
	Weight				11.0		14.0	11.0	14.0			
Packing 3	Material				Plastic							
	Weight				0.5		0.6	0.5	0.6			
Casing	Colour				Daikin White							
	Material				Painted galvanized steel plate							
Heat exchanger	Type				Cross fin coil							
	Indoor side				Air							
	Outdoor side				Air							
	Air flow rate	Cooling	Rated	m³/h	10,500	11,100	15,600	9,720	13,380			
Fan	Air flow rate				Heating	Rated	m³/h	10,500	11,100	15,600	9,720	13,380
	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							
Operation range	Crankcase heater				W		33					
	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)			
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				TCO2Eq		12.5	13.2	23.6	12.3	21.5	
	Charge				kg		6.0	6.3	11.3	5.9	10.3	
Refrigerant oil	Type				Synthetic (ether) oil FVC68D							

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Technical specifications Module					RYMQ10U	RYMQ12U	RYMQ16U	RYMQ8U	RYMQ14U
Piping connections	Liquid	Type	Braze connection						
		OD	mm	10	13		10	13	
	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)					
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	Crank-case heater mode	Cooling	PCK	kW	0.000				
Power consumption in other than active mode	Crank-case heater mode	Heating	PCK	kW	0.052		0.077	0.052	0.077
		Off mode	Cooling	POFF	kW	0.041		0.074	0.041
	Standby mode	Heating	POFF	kW	0.052		0.077	0.052	0.077
		Cooling	PSB	kW	0.041		0.074	0.041	0.074
	Thermo-stat-off mode	Heating	PSB	kW	0.052		0.077	0.052	0.077
		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					RYMQ18U	RYMQ20U
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,c recommended combination 2					236.8	233.9
ηs,c recommended combination 3					238.2	233.1
ηs,h				%	163.1	156.6
ηs,h recommended combination 2					164.8	158.2
ηs,h recommended combination 3					159.6	153.4
Space cooling	A Condi- tion (35°C - 27/19)	EERd Pdc	kW	1.9		
				50.4	52.0	
	B Condi- tion (30°C - 27/19)	EERd Pdc	kW	3.8	3.7	
				37.1	38.3	
	C Condi- tion (25°C - 27/19)	EERd Pdc	kW	7.5	7.3	
				23.9	24.6	
	D Condi- tion (20°C - 27/19)	EERd Pdc	kW	18.3	11.5	

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Technical specifications Module			RYMQ18U	RYMQ20U
Space cooling recommended combination 2	A Condi- tion (35°C - 27/19)	EERd Pdc kW	50.4	52.0
	B Condi- tion (30°C - 27/19)	EERd Pdc kW	3.7 37.1	3.6 38.3
	C Condi- tion (25°C - 27/19)	EERd Pdc kW	7.5	7.3
Space cooling recommended combination 2	C Condi- tion (25°C - 27/19)	Pdc kW	23.9	24.6
	D Condi- tion (20°C - 27/19)	EERd Pdc kW	18.1 11.4	18.9 10.9
	A Condi- tion (35°C - 27/19)	EERd Pdc kW	50.4	52.0
Space cooling recommended combination 3	B Condi- tion (30°C - 27/19)	EERd Pdc kW	3.7 37.1	3.6 38.3
	C Condi- tion (25°C - 27/19)	EERd Pdc kW	7.6 23.9	7.3 24.6
	D Condi- tion (20°C - 27/19)	EERd Pdc kW	18.3 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 Con- dition (-7°C)	COPd (declared COP)	2.4	2.1
		Pdh (declared heating cap) kW	24.7	27.4
	B Condi- tion (2°C)	COPd (declared COP)	3.7	3.6
		Pdh (declared heating cap) kW	15.0	16.7
	C Condi- tion (7°C)	COPd (declared COP)	6.7	6.5
		Pdh (declared heating cap) kW	9.7	10.7
Space heating (Average climate) recommended combination 2	D Con- dition (12°C)	COPd (declared COP)	9.0	9.1
		Pdh (declared heating cap) kW	7.1	
	A Con- dition (-7°C)	COPd (declared COP)	2.4	2.2
		Pdh (declared heating cap) kW	24.7	27.4
	B Condi- tion (2°C)	COPd (declared COP)	3.8	3.7
		Pdh (declared heating cap) kW	15.0	16.7
	C Condi- tion (7°C)	COPd (declared COP)	6.8	6.5
		Pdh (declared heating cap) kW	9.7	10.7
	D Con- dition (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
Space heating (Average climate) recommended combination 2		Tbiv (bivalent temperature) °C	-10	
	TOL	COPd (declared COP)	1.9	1.8
		Pdh (declared heating cap) kW	27.9	31.0
Space heating (Average climate) recommended combination 2		Tol (temperature operating limit) °C	-10	

2 Specifications

1 - 1 RYYQ-U

Technical specifications Module					RYMQ18U		RYMQ20U	
Space heating (Average climate) recommended combination 3	A Con- dition	COPd (declared COP)			2.4		2.1	
		Pdh (declared heating cap)	kW	24.7		27.4		
	B Condi- tion (2°C)	COPd (declared COP)			3.7		3.6	
		Pdh (declared heating cap)	kW	15.0		16.7		
	C Condi- tion (7°C)	COPd (declared COP)			6.5		6.3	
		Pdh (declared heating cap)	kW	9.7		10.7		
	D Con- dition (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 Ps*V	Bar*I		Accumulator 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		308				
	Packed unit	kg		324				
Packing	Material				Carton			
	Weight				2.2			
Packing 2	Material				Wood			
	Weight				14.0			
Packing 3	Material				Plastic			
	Weight				0.6			
Casing	Colour				Daikin White			
	Material				Painted galvanized steel plate			
Heat exchanger	Type				Cross fin coil			
	Indoor side				Air			
	Outdoor side				Air			
	Air flow rate	Cooling	Rated	m³/h	15,060	15,660		
Fan	Quantity					2		
	External static pressure	Max.	Pa	78				
Fan motor	Quantity				2			
	Type				DC motor			
	Output				750			
Compressor	Quantity				2			
	Type				Hermetically sealed scroll compressor			
	Crankcase heater				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)	
Sound pressure level	Cooling	Nom.	dBA		62.0 (5)		65.0 (5)	
Refrigerant	Type				R-410A			
	GWP				2,087.5			
	Charge				TCO2Eq		24.4	
	Charge				kg		11.7	
Refrigerant oil	Type				Synthetic (ether) oil FVC68D			

2 Specifications

1 - 1 RYYQ-U

2

Technical specifications Module					RYMQ18U	RYMQ20U
Piping connections	Liquid	Type				Braze connection
		OD	mm			16
	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)	
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	Crank-case heater mode	Cooling	PCK	kW	0.000	
Power consumption in other than active mode	Crank-case heater mode	Heating	PCK	kW	0.089	
		Off mode	Cooling	POFF	kW	0.075
		Heating	POFF	kW	0.089	
	Standby mode	Cooling	PSB	kW	0.075	
		Heating	PSB	kW	0.089	
	Thermo-stat-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				RYMQ10U	RYMQ12U	RYMQ16U	RYMQ8U	RYMQ14U
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 - 50Hz	Nominal running current (RLA)	Combina- tion A Cooling		-				
		Combina- tion 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 (10)	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	Combina- tion B	35°C ISO - Full load	-				
			46°C ISO - Full load	-				
Wiring connections - 50Hz	For power supply	Quantity		5G				
	For connec- tion with indoor	Quantity		2				
		Remark		F1,F2				

Electrical specifications Module			RYMQ18U	RYMQ20U
Power supply	Name		Y1	
	Phase		3N~	
	Frequency	Hz	50	
	Voltage		380-415	
Power supply intake			Both indoor and outdoor unit	

2 Specifications

1 - 1 RYYQ-U

Electrical specifications Module			RYMQ18U	RYMQ20U
Voltage range	Min.	%	-10	
	Max.	%	10	
Current - 50Hz	Nominal running current (RLA)	Combina- tion A Cooling Combina- tion 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 factor	Combina- tion 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 with 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 functionality (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-U
RYYQ-U
RYMQ-U
RXYQQ-U

3

No	Item	RXYQ8U RYYQ8U RXYQQ8U	RXYQ10-12U RYYQ10-12U RXYQQ10-12U	RXYQ14-18U RYYQ14-18U RXYQQ14-18U	RXYQ20U RYYQ20U RXYQQ20U	RYYQ22~54U RXYQ22~54U RXYQQ22~42U		
I.	Refnet header	KHRQ22M29H						
		KHRQ22M64H						
		---	---	---	KHRQ22M75H			
II.	Refnet joint	KHRQ22M20T						
		KHRQ22M29T9						
		KHRQ22M64T						
		---	---	---	KHRQ22M75T			
III.	Outdoor multi-connection kit	See note -2-.	---	---	---	---	BHFQ22P1007	
IV.	Outdoor multi-connection kit	See note -2-.	---	---	---	---	BHFQ22P1517	
No	Item	8HP	10HP	12HP	14HP	16HP	18HP	20HP
1a	Cool/heat selector (switch)	See note -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-.	---			KKS826B1*		

Notes

- All options are kits
- Only for multi units
- To mount option ·1a·, option ·1c· is required.
- 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

REMQ5U

REYQ8-20U

RXYQQ8-20U

RXYTQ8-16UYF

RYYQ8-20U

RYMQ8-20U

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

Units in scope: FXZQ15A and FXAQ15A.

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

REMARK

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

3D104665

RXYQQ-U

RXYQ-U

RYYQ-U

RYMQ-U

Heat pump VRV4
Multi-unit standard combinations table

		1HP	1.5HP	2HP	2.5HP	3HP	3.5HP	4HP
Heat pump	RXYQ8* / RYYQ8* / RXYQ8*	1						
	RXYQ10* / RYYQ10* / RXYQ10*		1					
	RXYQ12* / RYYQ12* / RXYQ12*			1				
	RXYQ14* / RYYQ14* / RXYQ14*				1			
	RXYQ16* / RYYQ16* / RXYQ16*					1		
	RXYQ18* / RYYQ18* / RXYQ18*						1	
	RXYQ20* / RYYQ20* / RXYQ20*							1
	RXYQ22* / RYYQ22* / RXYQ22*		1	1				
	RXYQ24* / RYYQ24* / RXYQ24*				1			
	RXYQ26* / RYYQ26* / RXYQ26*			1	1			
Multi-combination with 2 outdoor units	RXYQ28* / RYYQ28* / RXYQ28*				1	1		
	RXYQ30* / RYYQ30* / RXYQ30*						1	
	RXYQ32* / RYYQ32* / RXYQ32*							1
	RXYQ34* / RYYQ34* / RXYQ34*						1	1
	RXYQ36* / RYYQ36* / RXYQ36*							1
	RXYQ38* / RYYQ38* / RXYQ38*							
	RXYQ40* / RYYQ40* / RXYQ40*							
	RXYQ42* / RYYQ42* / RXYQ42*							
	RXYQ44* / RYYQ44* / RXYQ44*							
	RXYQ46* / RYYQ46* / RXYQ46*							
Multi-combination with 3 outdoor units	RXYQ48* / RYYQ48* / RXYQ48*							
	RXYQ50* / RYYQ50* / RXYQ50*							
	RXYQ52* / RYYQ52* / RXYQ52*							
	RXYQ54* / RYYQ54* / RXYQ54*							
	RXYQ56* / RYYQ56* / RXYQ56*							
	RXYQ58* / RYYQ58* / RXYQ58*							
	RXYQ60* / RYYQ60* / RXYQ60*							
	RXYQ62* / RYYQ62* / RXYQ62*							
	RXYQ64* / RYYQ64* / RXYQ64*							
	RXYQ66* / RYYQ66* / RXYQ66*							

Remark

RYYQ8-20 = Single continuous heating

RXYQ22-54 Multi continuous heating

RXYQ8-20 = Single non-continuous heating

RXYQ22-54 Multi non-continuous heating

RXYQ8-20 Single non-continuous heating replacement (VRV4-Q)

RXYQ22-54 Multi non-continuous heating replacement (VRV4-Q)

1) For single unit installation RYYQ* units (continuous heating) and RXYQ* units (non-continuous heating)

2) "Non-continuous heating" multi-outdoor-unit combinations consist of RXYQ8-20 units (e.g. RXYQ36*=RXYQ16*+RXYQ20*).

3) "Continuous heating" multi-outdoor-unit combinations consist of RYM8-20 units (e.g. RYYQ36*=RYMQ16*+RYMQ20*).

→ RYM8-20 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 RYM8-20 units.

7) Multi "Non-continuous heating" replacement models only consist of RXYQ8-20 modules (e.g. RXYQ36*=RXYQ16*+RXYQ20*).

8) Replacement units cannot be combined with other units.

9) T-series outdoor units and U-series outdoor units cannot share the same refrigerant circuit. When combining these units, make sure they are part of separate refrigerant circuits.

3D120060

4 Combination table

4 - 1 Combination Table

RXYQ-U
RYYQ-U
RYMQ-U

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

- 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))]
- O₁
 - 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.
- O₂
 - Combination of AHU only + control box EKEQFA (the combination with VRV DX indoor units is not allowed; maximum 54HP for 400 + 2x500 class EKEQV kit)
 - X-control is possible (up to 3x [EKEQV+EKEQFA* boxes] can be connected to one outdoor unit (system)). No Variable Refrigerant Temperature control possible.
 - Y-control is possible (up to 3x [EKEQV+EKEQFA* boxes] can be connected to one outdoor unit (system)). No Variable Refrigerant Temperature control possible.
 - W-control is possible (up to 3x [EKEQV+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 [EKEQV + EKEQMA boxes] is determined by the connection ratio (90-110%) and the capacity of the outdoor unit.
- Combination of AHU and VRV DX indoor units
 - Z-control is possible (EKEQMA* boxes are allowed, but with a limited connection ratio).
- The combination of AHU with Hydrobox units or RA DX indoor units is not allowed.
- (3) The following units are considered AHUs:
 - EKEQV + 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-U
RYYQ-U
RYMQ-U

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

Combination table	RYYQ*	RYYQ*	RXYQ* RXMLQ* RXYLQ*	RXYQ* RXMLQ* RXYLQ*
	Single continuous heating	Multi continuous heating	Single non-continuous heating	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

- O₁
 - Available upon request through the SPN procedure.
- (2) The following units are considered AHUs:
 - EKEQV + EKEQ(MA/FA) + AHU coil
 - Biddle air curtain
 - FXMQ_MF units

3D079543F

4 Combination table

4 - 1 Combination Table

RYYQ-U

RYYQ-U

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

Wall mounted type	Emura	FTXJ20M FTXJ25M FTXJ35M FTXJ50M
	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.

3D082373G

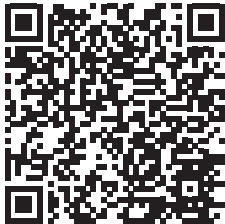
5 Capacity tables

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

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

VRV4 Heat pump Integrated heating capacity coefficient

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

Formula

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

Inlet air temperature of heat exchanger

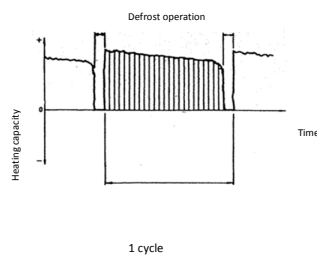
[°C DB/°C WB]	1/-7/-7,6 or less	-5/-5,6	-3/-3,7	0/-0,7	3/2,2	5/4,1	7/6
Integrated correction factor for frost accumulation C							
8HP	0,95	0,93	0,88	0,84	0,85	0,90	1,00
10HP	0,95	0,93	0,87	0,79	0,80	0,88	1,00
12HP	0,95	0,92	0,87	0,75	0,76	0,85	1,00
14HP	0,95	0,92	0,86	0,72	0,73	0,84	1,00
16HP	0,95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

Notes

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

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

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



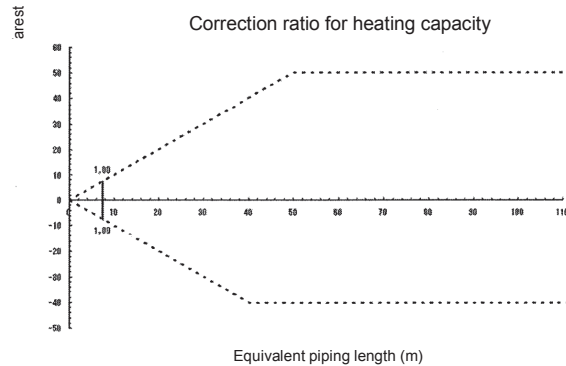
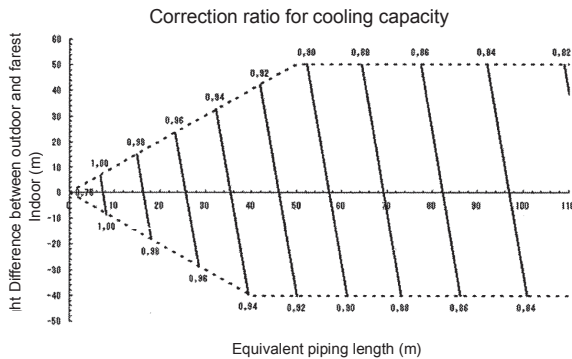
3D079898A

5 Capacity tables

5 - 2 Capacity Correction Factor

RXYQQ8U
RXYQ8U
RYYQ8U
RYMQ8U

5



NOTES

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

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

- Method of calculating the capacity of the outdoor units

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

Condition: Indoor connection ratio does not exceed 100%.

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

Condition: Indoor connection ratio exceeds 100%.

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

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

Model	Gas	Liquid
8HP	22.2	12.7

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

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

Diameter of main pipes (standard size)

Model	Gas	Liquid
8HP	19.1	9.5

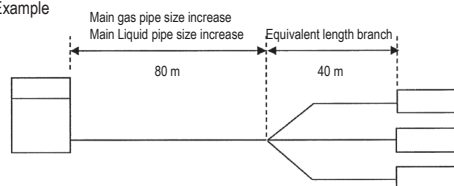
- Equivalent length used in the above figures is based upon the following equivalent length

$$\begin{array}{|c|} \hline \text{Equivalent piping length} \\ \hline \end{array} = \begin{array}{|c|} \hline \text{Equivalent length of main pipe} \\ \hline \end{array} \times \begin{array}{|c|} \hline \text{Correction factor} \\ \hline \end{array} + \begin{array}{|c|} \hline \text{Equivalent length of branch pipes} \\ \hline \end{array}$$

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

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

Example



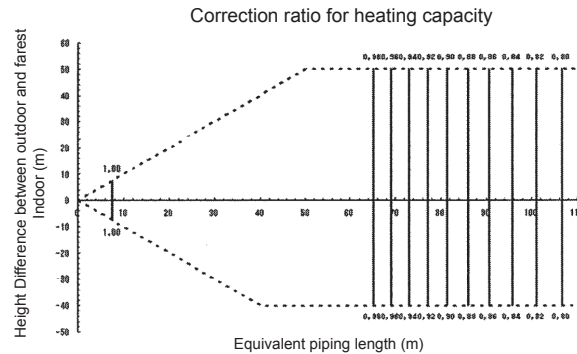
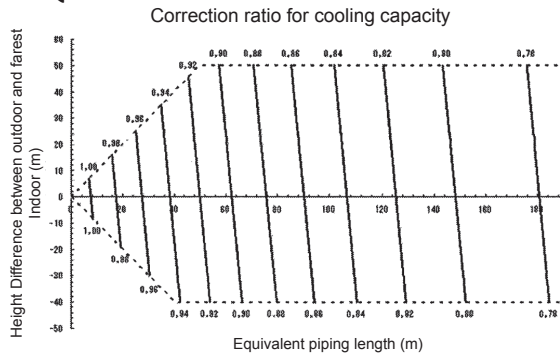
In the above case (Cooling) Overall equivalent length = 80 m x 0.5 + 40 m = 80 m
(Heating) Overall equivalent length = 80 m x 0.5 + 40 m = 80 m
The rate of change in cooling capacity when height difference = 0 is thus approximately 0.86
heating capacity when height difference = 0 is thus approximately 1.0

3D079897A

5 Capacity tables

5 - 2 Capacity Correction Factor

RXYQQ10U
RXYQ10U
RYYQ10U
RYMQ10U



NOTES

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

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

- Method of calculating the capacity of the outdoor units

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

Condition: Indoor connection ratio does not exceed 100%.

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

Condition: Indoor connection ratio exceeds 100%.

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

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

Model	Gas	Liquid
RXYQ10P	25.4*	12.7

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

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

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

Diameter of main pipes (standard size)

Model	Gas	Liquid
10 HP	22.2	9.5

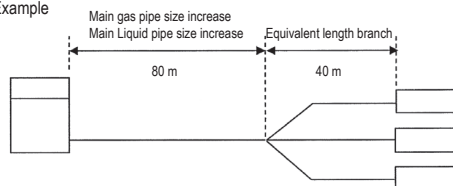
- Equivalent length used in the above figures is based upon the following equivalent length

$$\begin{array}{|c|} \hline \text{Equivalent piping length} \\ \hline \end{array} = \begin{array}{|c|} \hline \text{Equivalent length of main pipe} \\ \hline \end{array} \times \begin{array}{|c|} \hline \text{Correction factor} \\ \hline \end{array} + \begin{array}{|c|} \hline \text{Equivalent length of branch pipes} \\ \hline \end{array}$$

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

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

Example



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

The rate of change in cooling capacity when height difference = 0 is thus approximately 0.87
heating capacity when height difference = 0 is thus approximately 0.90

3D079897A

5 Capacity tables

5 - 2 Capacity Correction Factor

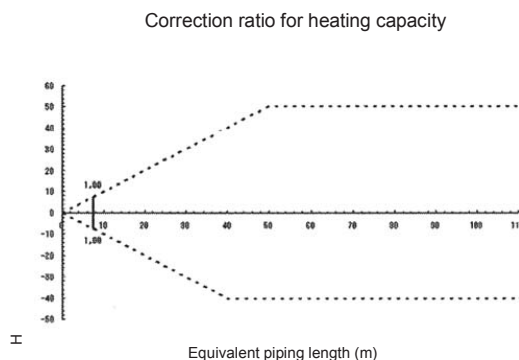
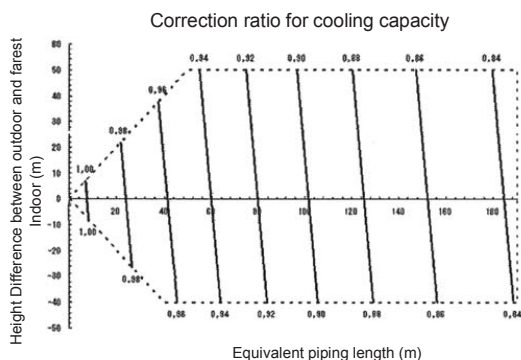
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RXYQQ12,14,16,24,36U

RXYQ12,14,24,36U

RYYQ12,14,24,36U

RYMQ12,14U



NOTES

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

Condition: Indoor connection ratio does not exceed 100%.

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

Condition: Indoor connection ratio exceeds 100%.

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

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

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

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

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

Diameter of main pipes (standard size)

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

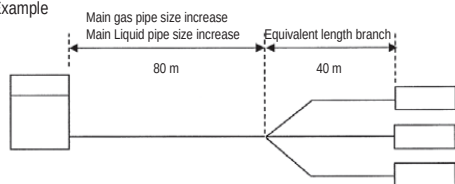
- Equivalent length used in the above figures is based upon the following equivalent length

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

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

	Correction factor	
	Standard size	Size increase
Cooling (gas pipe)	1.0	0.89
Heating (liquid pipe)	1.0	0.5

Example



In the above case (Cooling) Overall equivalent length = 80 m x 1.0 + 40 m = 120 m

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

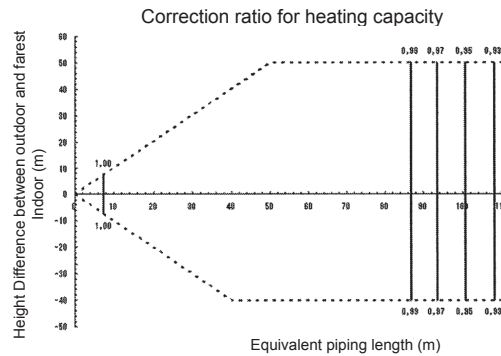
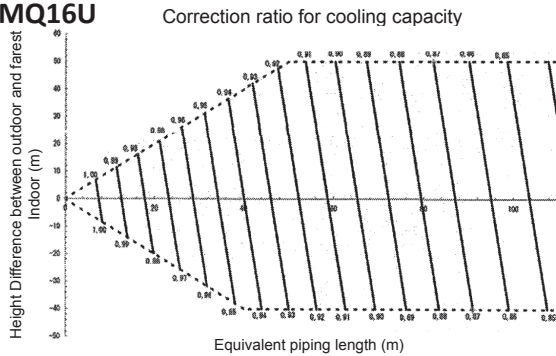
The rate of change in cooling capacity when height difference = 0 is thus approximately 0.89
heating capacity when height difference = 0 is thus approximately 1.0

3D079897A

5 Capacity tables

5 - 2 Capacity Correction Factor

RXYQQ16U
RXYQ16U
RYYQ16U
RYMQ16U



NOTES

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

Condition: Indoor connection ratio does not exceed 100%.

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

Condition: Indoor connection ratio exceeds 100%.

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

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

Model	Gas	Liquid
16 HP	31.8"	15.9

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

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

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

Diameter of main pipes (standard size)

Model	Gas	Liquid
16 HP	28.6	12.7

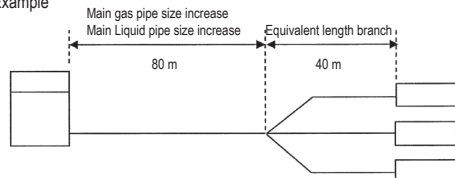
- Equivalent length used in the above figures is based upon the following equivalent length

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

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

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

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5 Capacity tables

5 - 2 Capacity Correction Factor

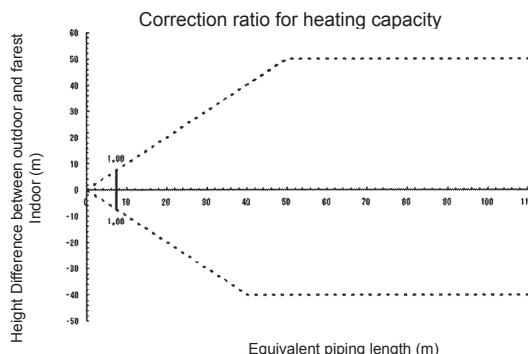
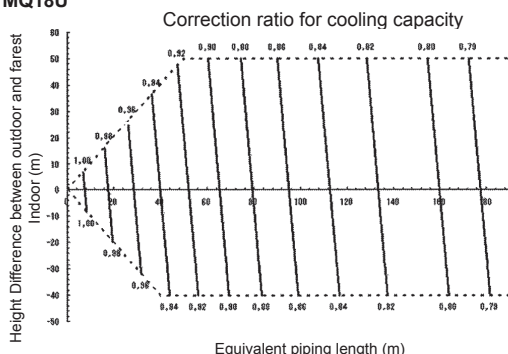
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RXYQQ18,26,28,30,38,40,42,44U

RXYQ18,26,28,30,38,40,42,44U

RYYQ18,26,28,30,38,40,42,44U

RYMQ18U



NOTES

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

Condition: Indoor connection ratio does not exceed 100%.

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

Condition: Indoor connection ratio exceeds 100%.

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

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

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

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

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

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

Diameter of main pipes (standard size)

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

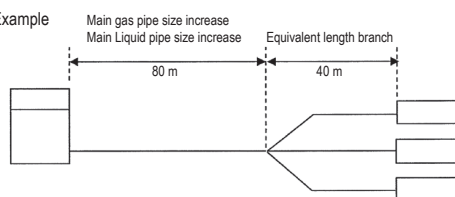
- Equivalent length used in the above figures is based upon the following equivalent length

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

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

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

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

3D079897A

5 Capacity tables

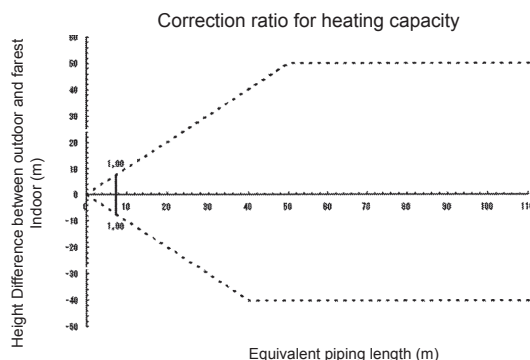
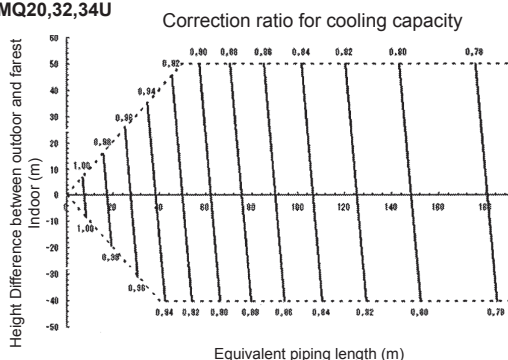
5 - 2 Capacity Correction Factor

RXYQQ20,32,34U

RXYQ20,32,34U

RYYQ20,32,34U

RYSMQ20,32,34U



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 in 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%.

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

Condition: Indoor connection ratio exceeds 100%.

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

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

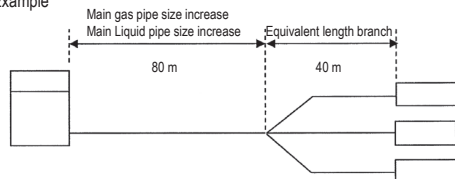
6. Equivalent length used in the above figures is based upon the following equivalent length

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

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

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

Example



In the above case (Cooling) Overall equivalent length = $80 \text{ m} \times 0.5 + 40 \text{ m} = 80 \text{ m}$

(Heating) Overall equivalent length = $80 \text{ m} \times 0.5 + 40 \text{ m} = 80 \text{ m}$

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

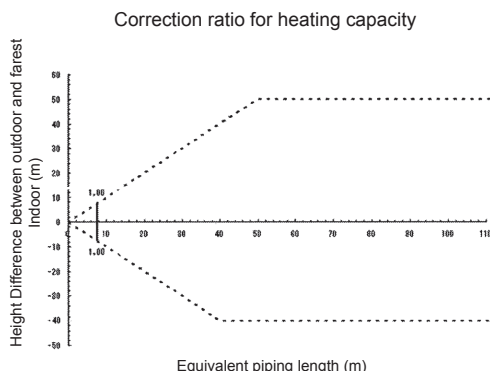
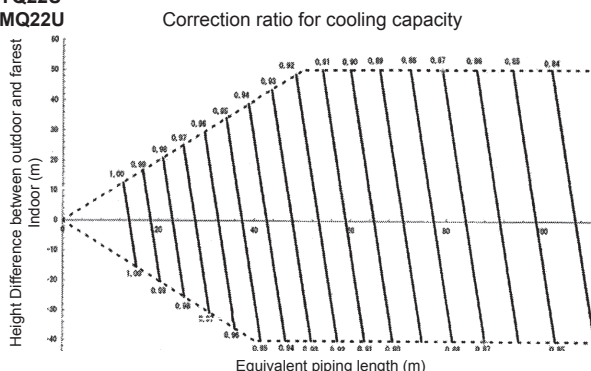
3D079897A

5 Capacity tables

5 - 2 Capacity Correction Factor

5

RXYQQ22U
RXYQ22U
RYYQ22U
RYMQ22U



NOTES

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

Condition: Indoor connection ratio does not exceed 100%.

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

Condition: Indoor connection ratio exceeds 100%.

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

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

For new diameters, see below.

Model	Gas	Liquid
22 HP	31.8*	19.1

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

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

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

Diameter of main pipes (standard size)

Model	Gas	Liquid
22 HP	28.6	15.9

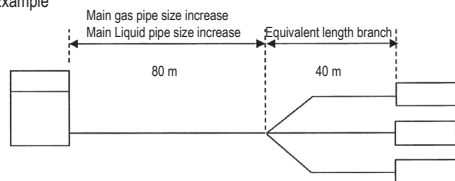
- Equivalent length used in the above figures is based upon the following equivalent length

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

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

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

Example



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

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

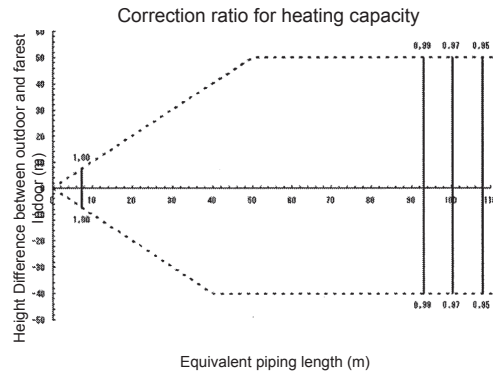
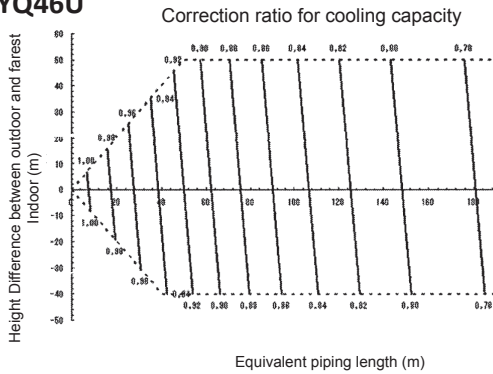
3D079897A

5 Capacity tables

5 - 2 Capacity Correction Factor

RYYQ46U

RXYQ46U



NOTES

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

Condition: Indoor connection ratio does not exceed 100%.

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

Condition: Indoor connection ratio exceeds 100%.

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

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

Model	Gas	Liquid
46 HP	41.3	22.2

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

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

Diameter of main pipes (standard size)

Model	Gas	Liquid
46 HP	41.3	19.1

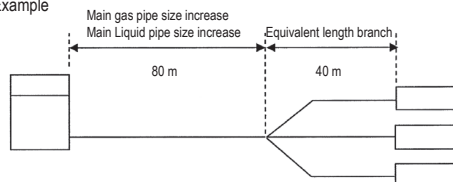
- Equivalent length used in the above figures is based upon the following equivalent length

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

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

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

Example



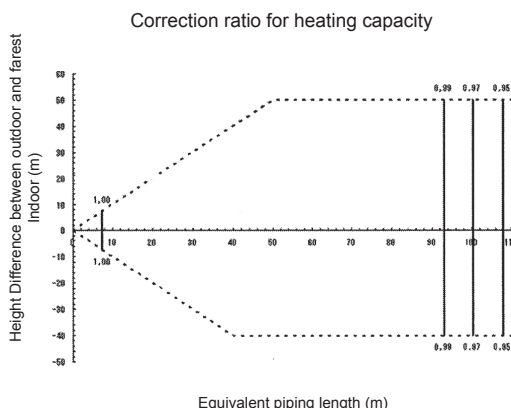
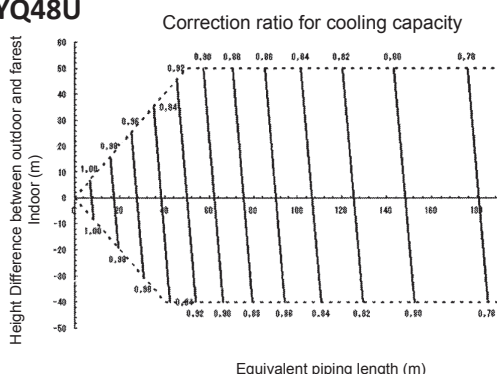
In the above case (Cooling) Overall equivalent length = $80 \text{ m} \times 1.0 + 40 \text{ m} = 120 \text{ m}$
(Heating) Overall equivalent length = $80 \text{ m} \times 0.5 + 40 \text{ m} = 80 \text{ m}$
The rate of change in cooling capacity when height difference = 0 is thus approximately 0.83
heating capacity when height difference = 0 is thus approximately 1.0

3D079897A

5 Capacity tables

5 - 2 Capacity Correction Factor

RYYQ48U
RXYQQ48U
RXYQ48U



NOTES

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

Condition: Indoor connection ratio does not exceed 100%.

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

Condition: Indoor connection ratio exceeds 100%.

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

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

Model	Gas	Liquid
48 HP	41.3	22.2

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

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

Diameter of main pipes (standard size)

Model	Gas	Liquid
48 HP	41.3	19.1

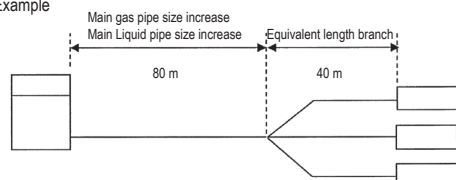
- Equivalent length used in the above figures is based upon the following equivalent length

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

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

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

Example



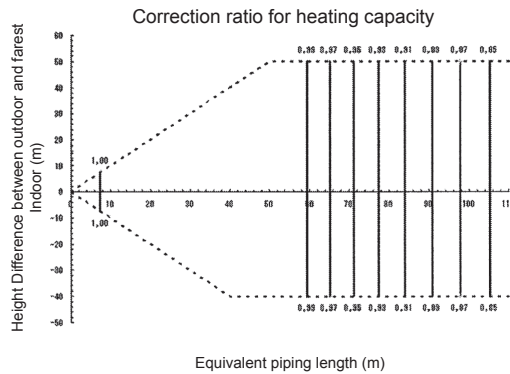
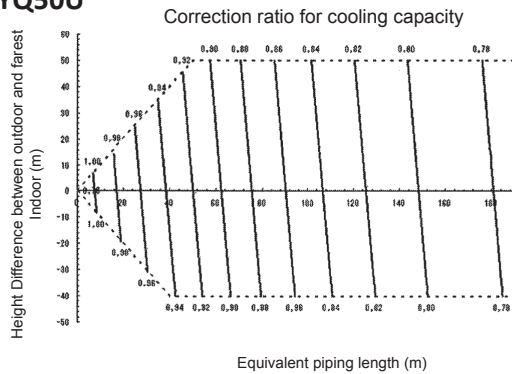
In the above case (Cooling) Overall equivalent length = $80 \text{ m} \times 1.0 + 40 \text{ m} = 120 \text{ m}$
(Heating) Overall equivalent length = $80 \text{ m} \times 0.5 + 40 \text{ m} = 80 \text{ m}$
The rate of change in cooling capacity when height difference = 0 is thus approximately 0.83
heating capacity when height difference = 0 is thus approximately 0.97

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5 Capacity tables

5 - 2 Capacity Correction Factor

RYYQ50U
RXYQ50U
RXYQ50U



NOTES

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

Condition: Indoor connection ratio does not exceed 100%.

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

Condition: Indoor connection ratio exceeds 100%.

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

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

Model	Gas	Liquid
50 HP	41.3	22.2

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

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

Diameter of main pipes (standard size)

Model	Gas	Liquid
50 HP	41.3	19.1

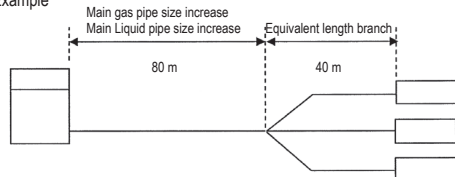
- Equivalent length used in the above figures is based upon the following equivalent length

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

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

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

Example



In the above case (Cooling) Overall equivalent length = $80 \text{ m} \times 1.0 + 40 \text{ m} = 120 \text{ m}$
(Heating) Overall equivalent length = $80 \text{ m} \times 0.5 + 40 \text{ m} = 80 \text{ m}$
The rate of change in cooling capacity when height difference = 0 is thus approximately 0.83
heating capacity when height difference = 0 is thus approximately 0.92

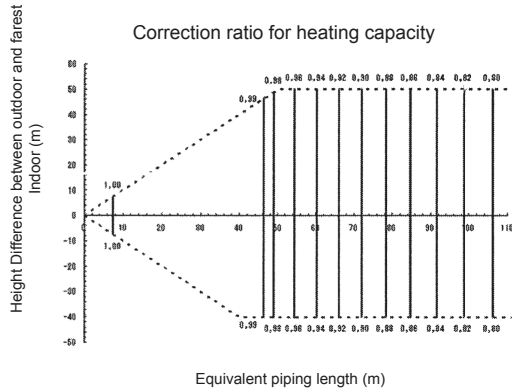
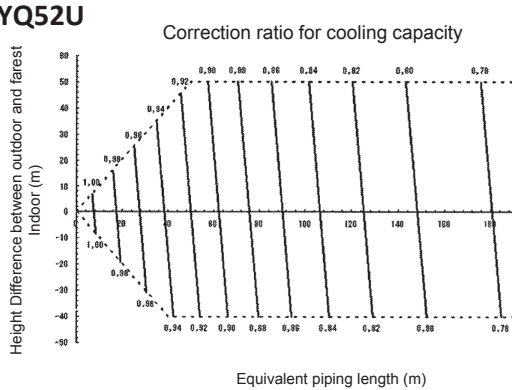
3D079897A

5 Capacity tables

5 - 2 Capacity Correction Factor

RYYQ52U
RXYQ52U
RXYQ52U

5



NOTES

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

Condition: Indoor connection ratio does not exceed 100%.

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

Condition: Indoor connection ratio exceeds 100%.

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

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

Model	Gas	Liquid
52 HP	41.3	22.2

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

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

Diameter of main pipes (standard size)

Model	Gas	Liquid
52 HP	41.3	19.1

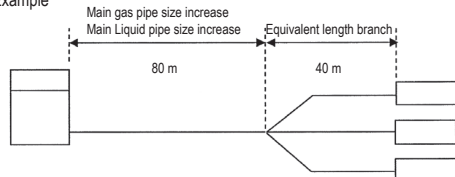
- Equivalent length used in the above figures is based upon the following equivalent length

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

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

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

Example



In the above case (Cooling) Overall equivalent length = $80 \text{ m} \times 1.0 + 40 \text{ m} = 120 \text{ m}$
(Heating) Overall equivalent length = $80 \text{ m} \times 0.5 + 40 \text{ m} = 80 \text{ m}$
The rate of change in cooling capacity when height difference = 0 is thus approximately 0.83
heating capacity when height difference = 0 is thus approximately 0.88

3D079897A

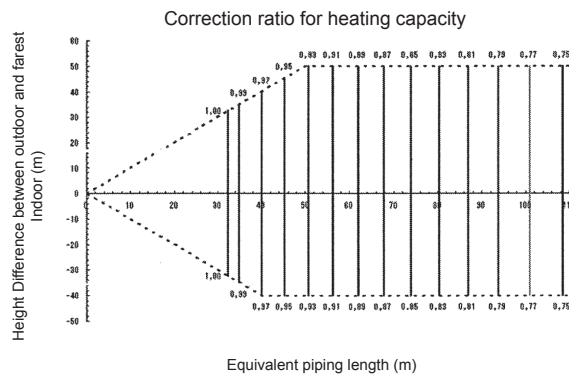
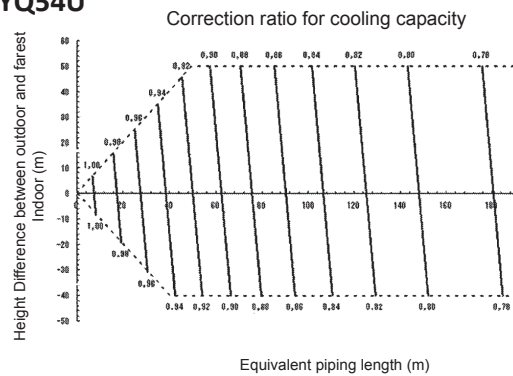
5 Capacity tables

5 - 2 Capacity Correction Factor

RYYQ54U

RXYQQ54U

RXYQ54U



NOTES

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

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

Condition: Indoor connection ratio exceeds 100%.

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

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

Model	Gas	Liquid
54 HP	41.3	22.2

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

Diameter of main pipes (standard size)

Model	Gas	Liquid
54 HP	41.3	19.1

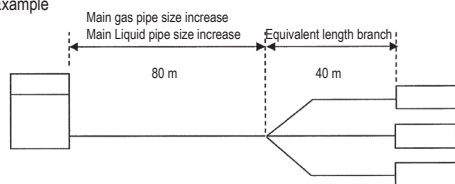
- Equivalent length used in the above figures is based upon the following equivalent length

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

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

	Correction factor	
	Standard size	Size increase
Cooling (gas pipe)	1.0	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 = 120 m
(Heating) Overall equivalent length = 80 m x 0.5 + 40 m = 80 m

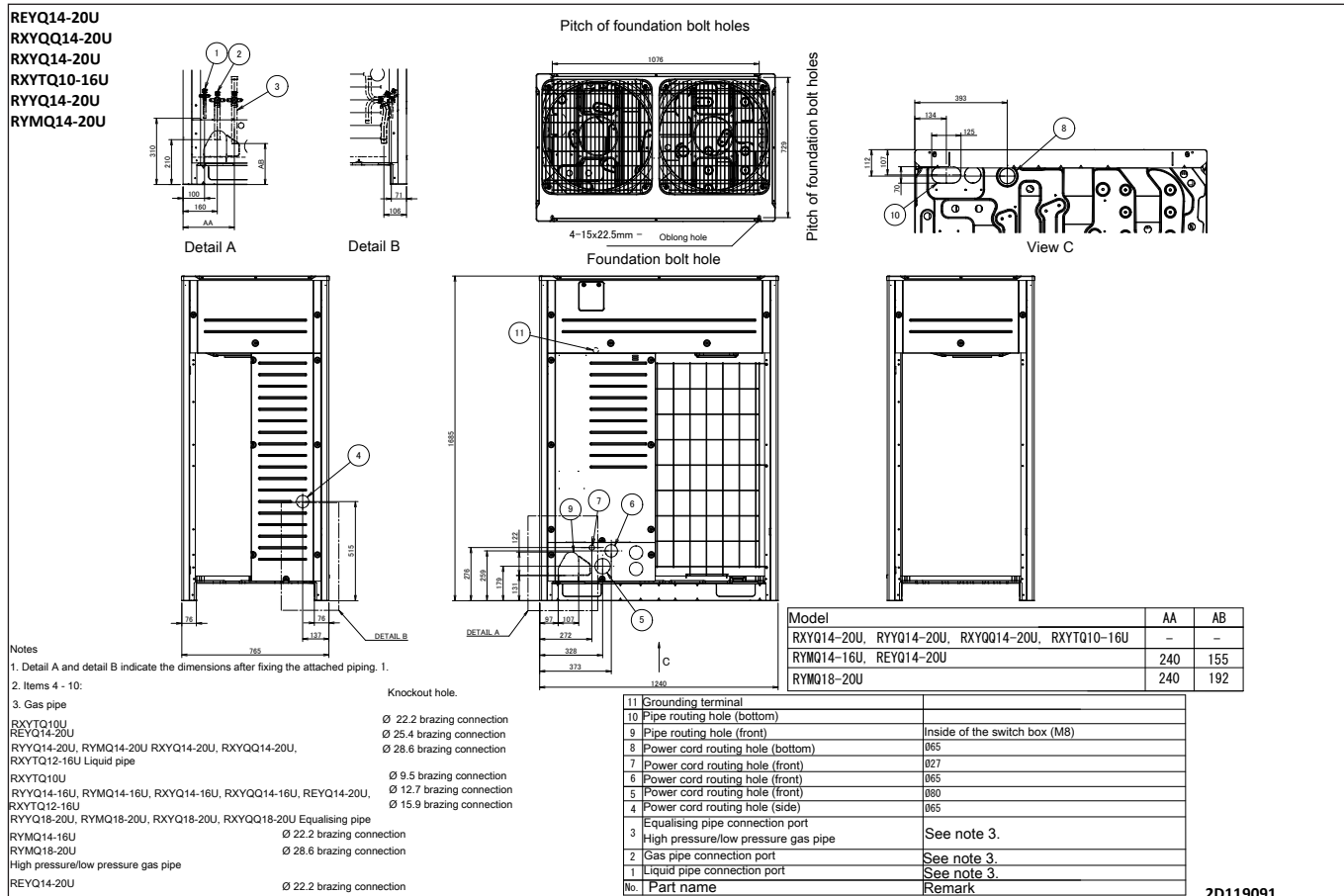
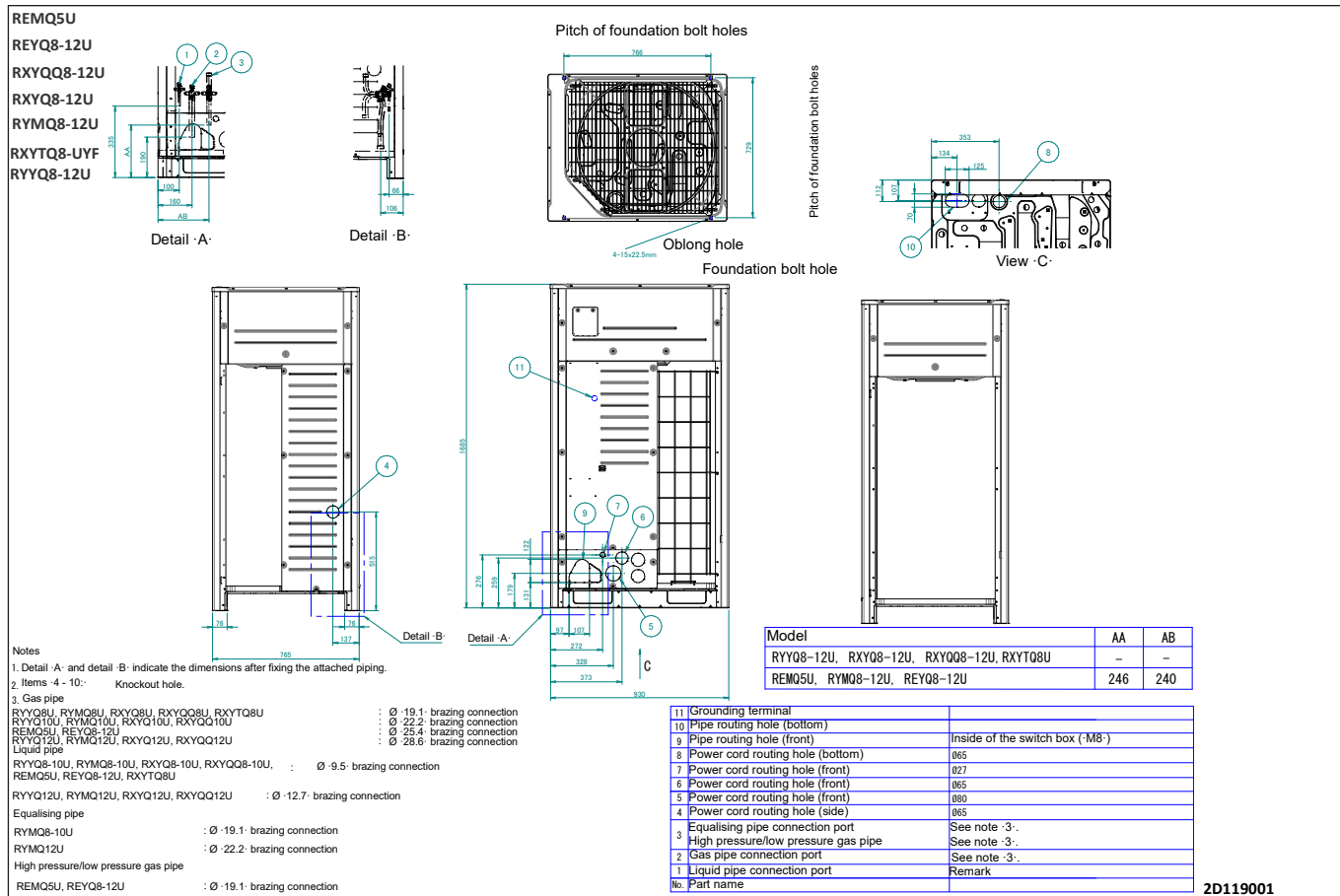
The rate of change in cooling capacity when height difference = 0 is thus approximately 0.83
heating capacity when height difference = 0 is thus approximately 0.83

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6 Dimensional drawings

6 - 1 Dimensional Drawings

6

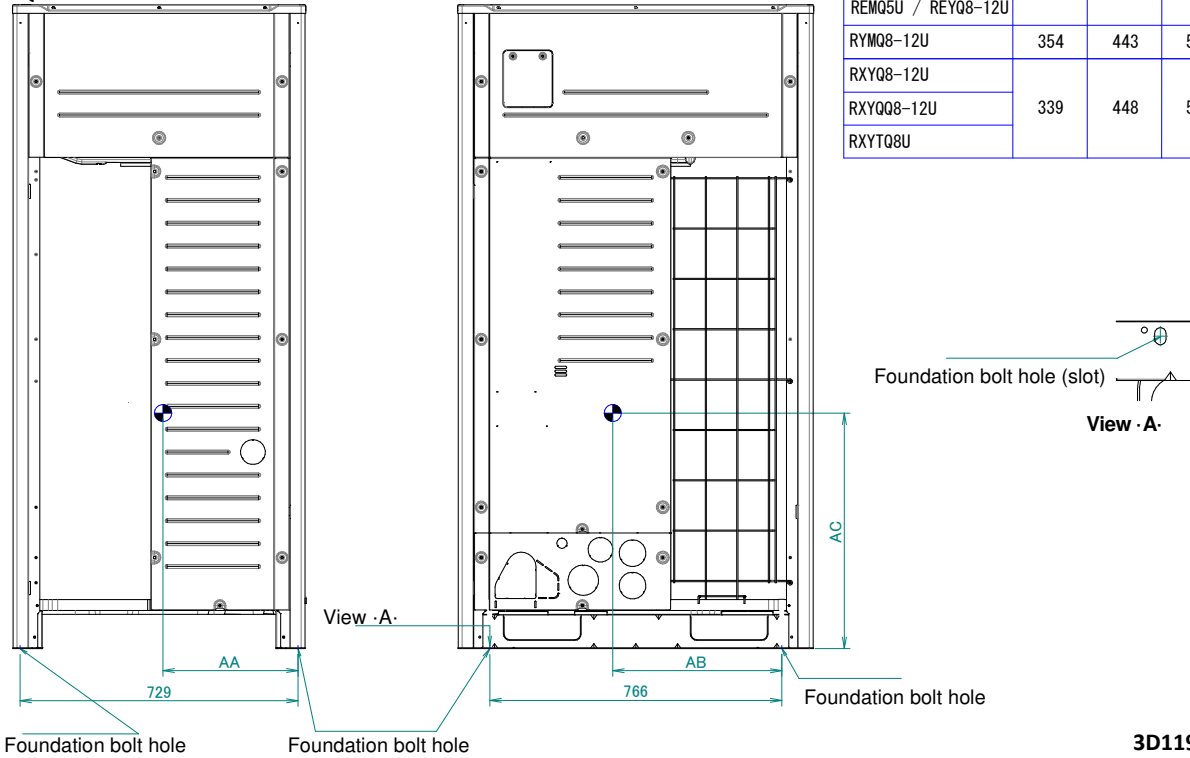


7 Centre of gravity

7 - 1 Centre of Gravity

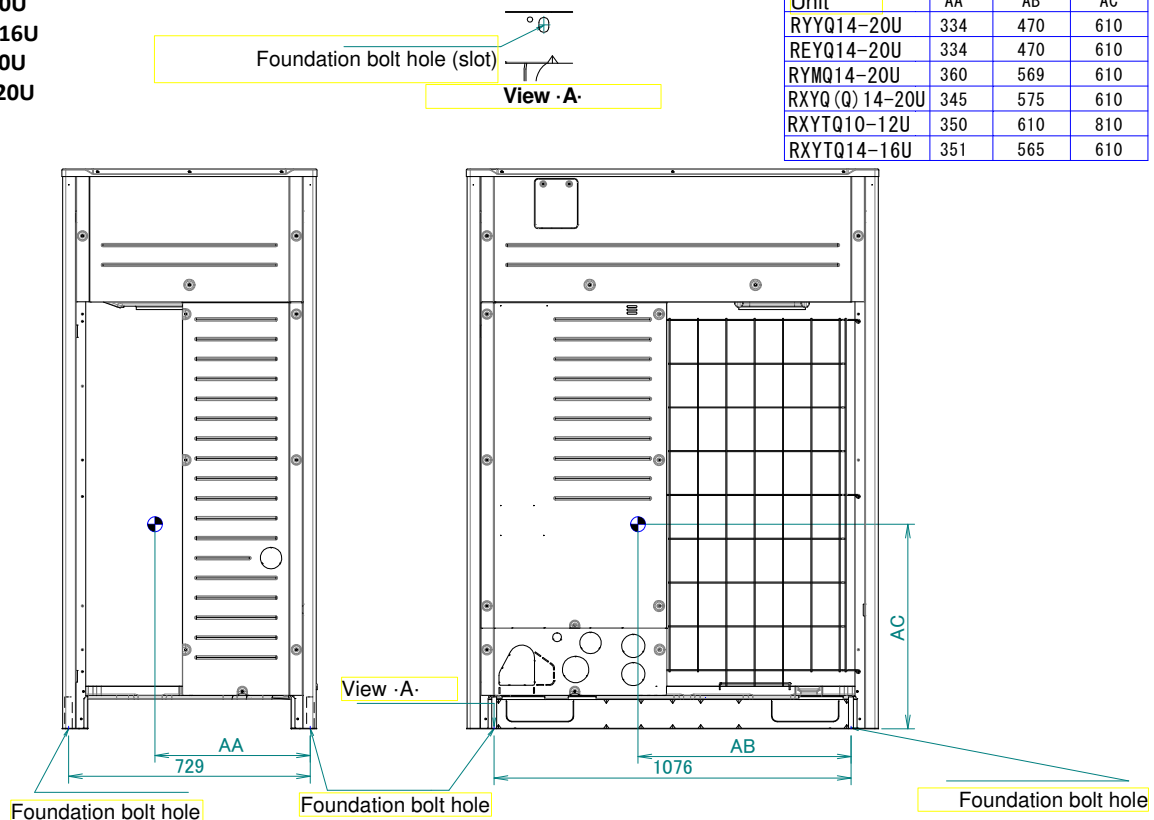
RXYQQ8-12U
RXYQ8-12U
RXYTQ8U
RYYQ8-12U
RYMQ8-12U

Unit	AA	AB	AC
RYYQ8-12U	328	366	565
REMQ5U / REYQ8-12U			
RYMQ8-12U	354	443	565
RXYQ8-12U	339	448	565
RXYQQ8-12U			
RXYTQ8U			



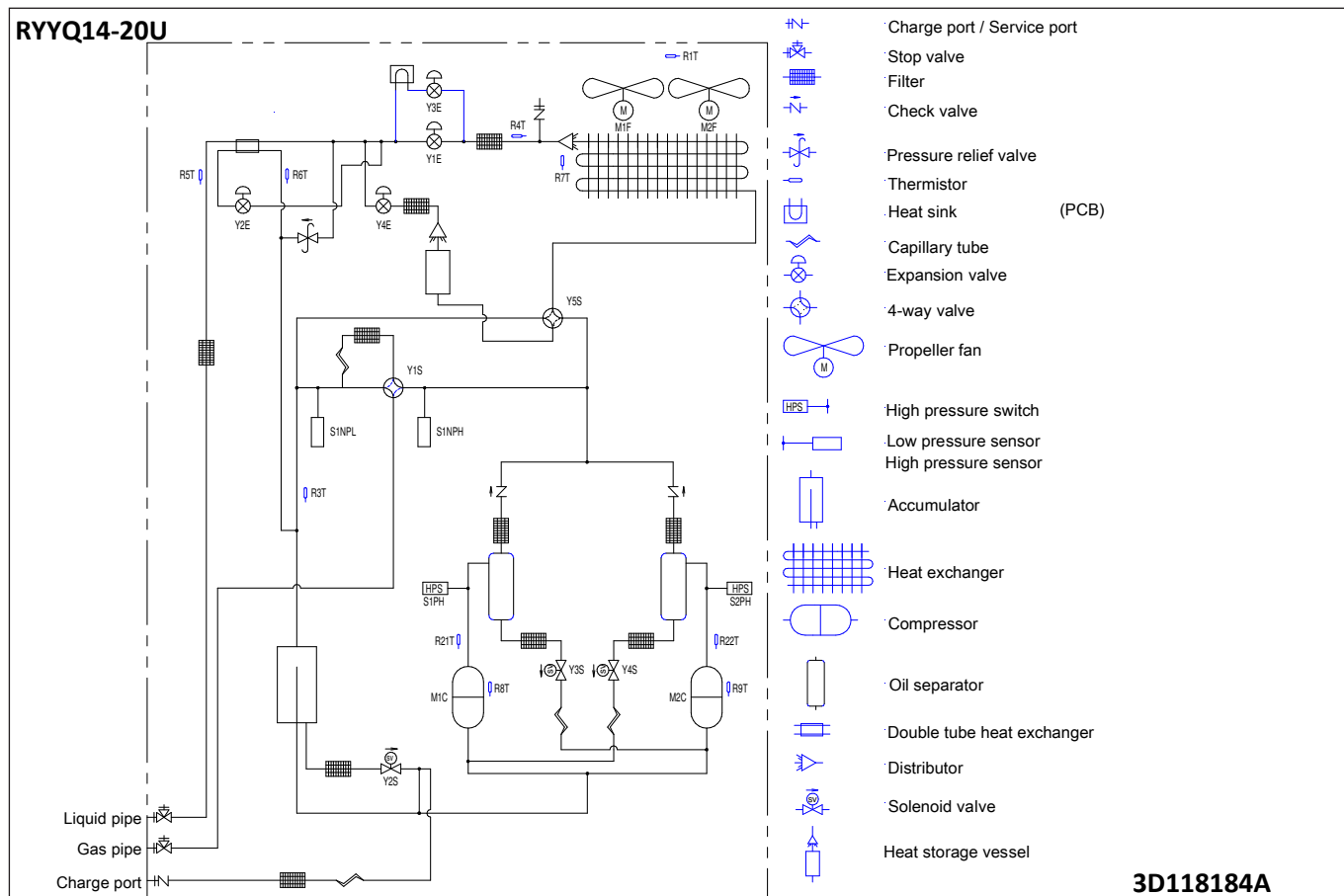
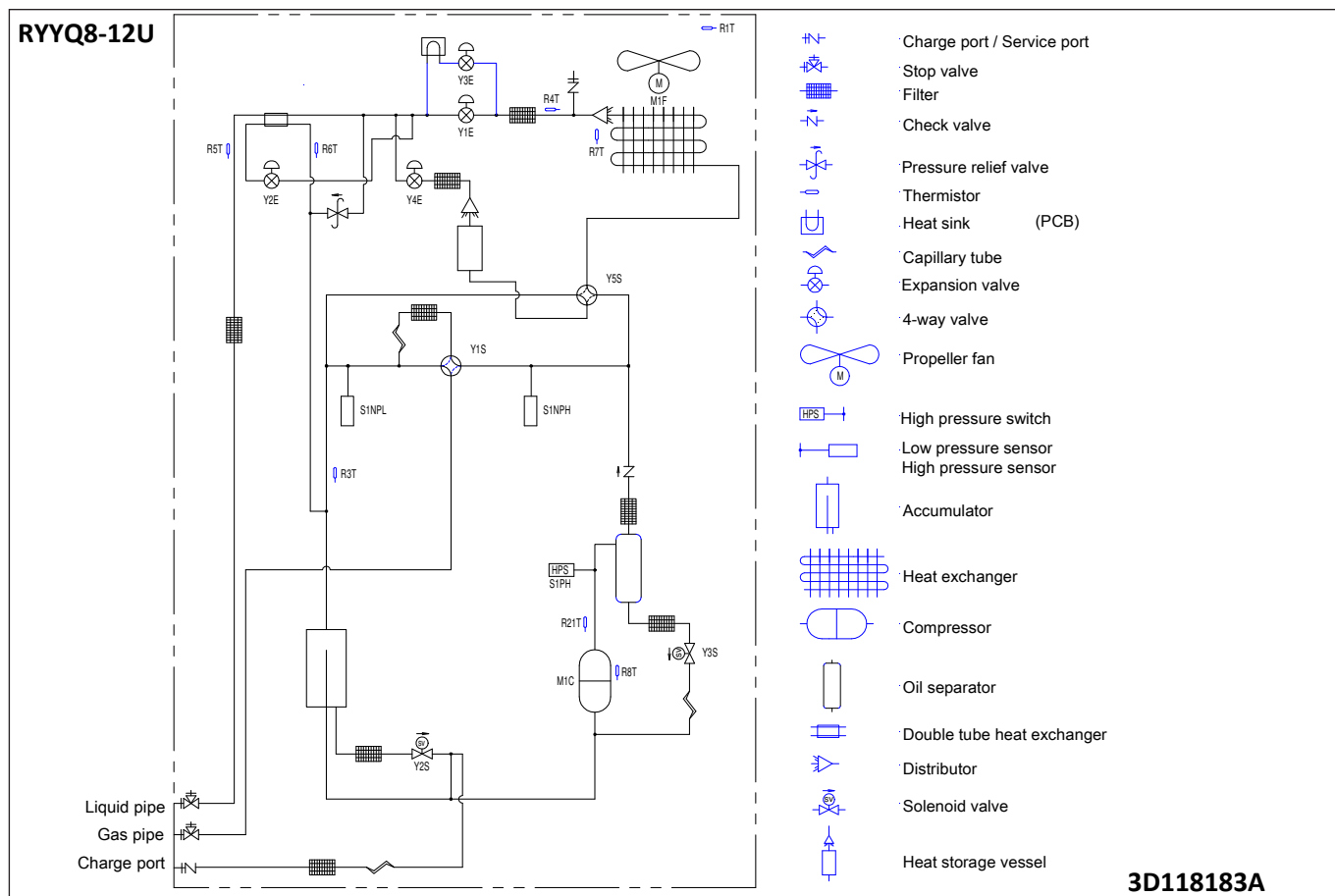
RXYQQ14-20U
RXYQ14-20U
RXYTQ10-16U
RYYQ14-20U
RYMQ14-20U

Unit	AA	AB	AC
RYYQ14-20U	334	470	610
REYQ14-20U	334	470	610
RYMQ14-20U	360	569	610
RXYQ (Q) 14-20U	345	575	610
RXYTQ10-12U	350	610	810
RXYTQ14-16U	351	565	610



8 - 1 Piping Diagrams

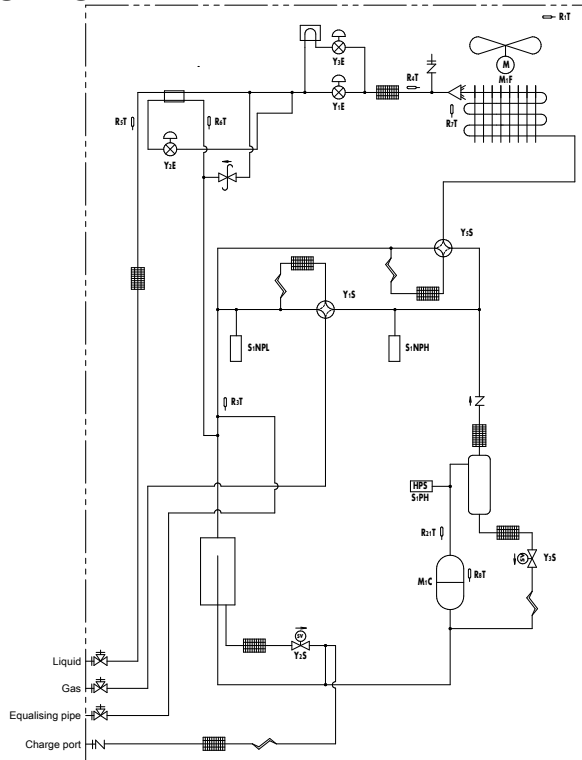
8



8 Piping diagrams

8 - 1 Piping Diagrams

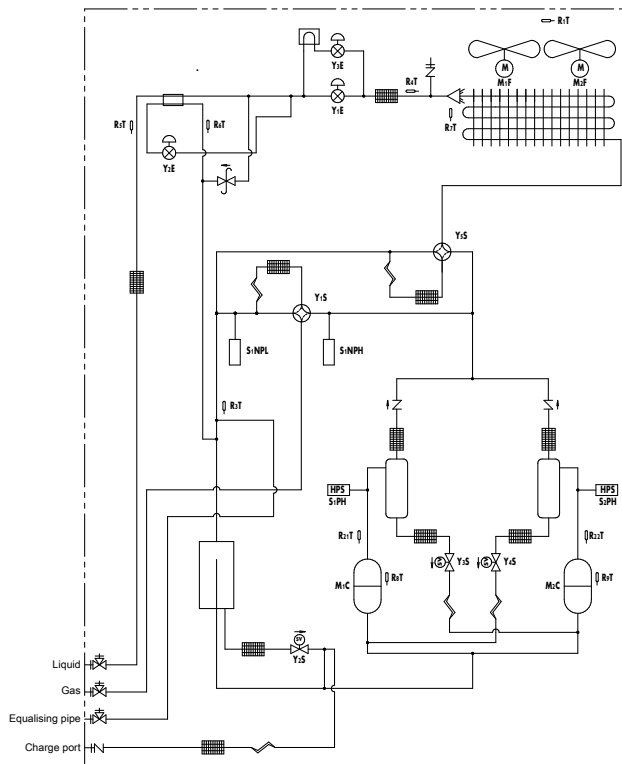
RYMQ8-12U



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

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RYMQ14-20U



- 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

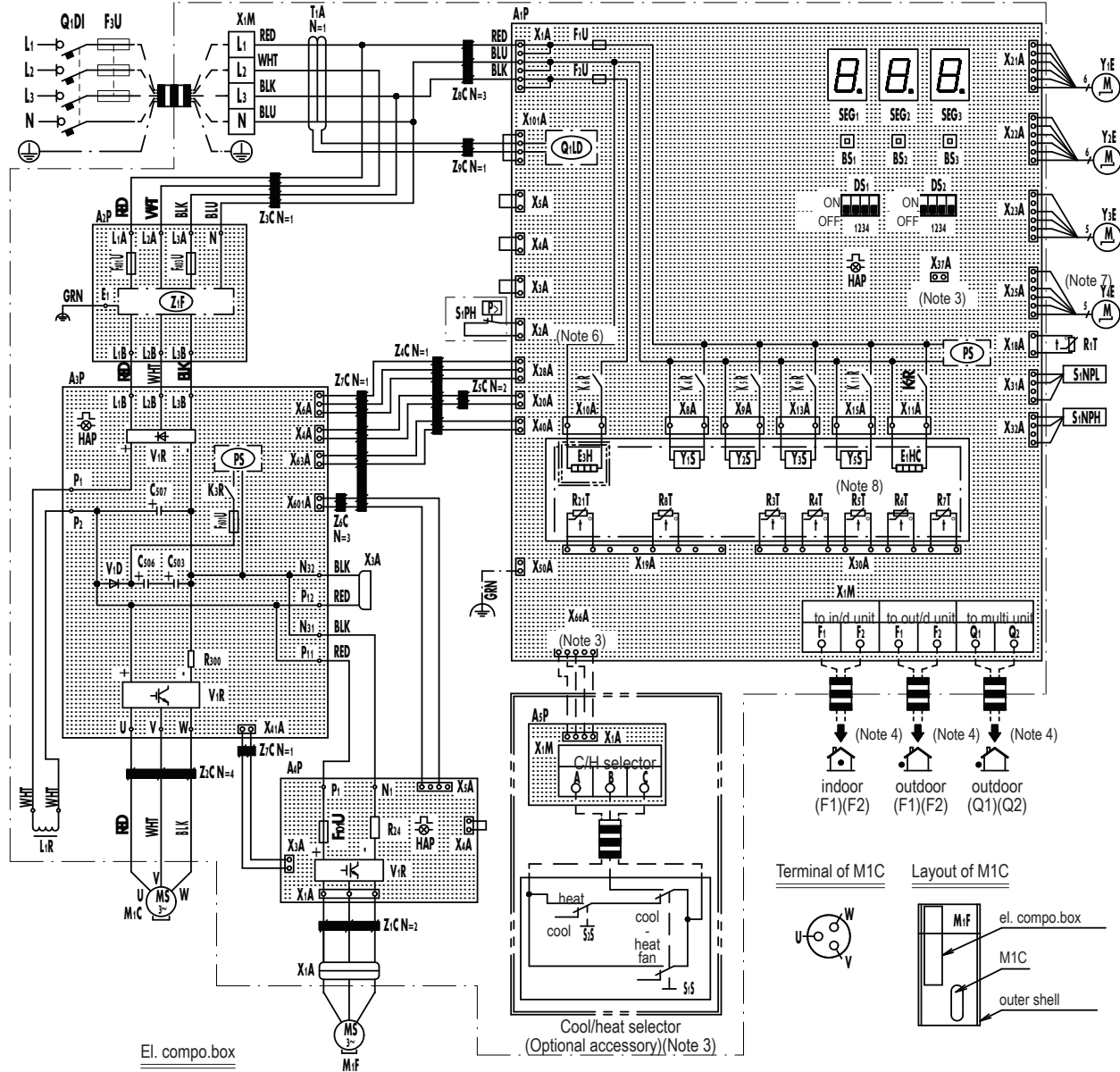
9 - 1 Wiring Diagrams - Three Phase

9

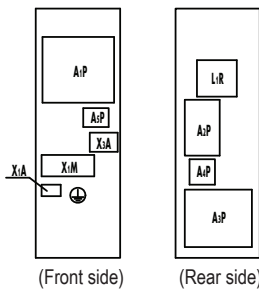
RXYQ8-12U
RXYTQ8UYF
RYYQ8-12U
RYMQ8-12U

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

Wiring diagram



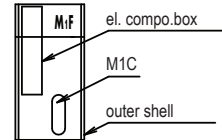
El. compo.box



Terminal of M1C



Layout of M1C



2D117534

9 Wiring diagrams

9 - 1 Wiring Diagrams - Three Phase

RXYQ8-12U
RXYTQ8UYF
RYYQ8-12U
RYMQ8-12U

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 - 1 Wiring Diagrams - Three Phase

9



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)

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

54

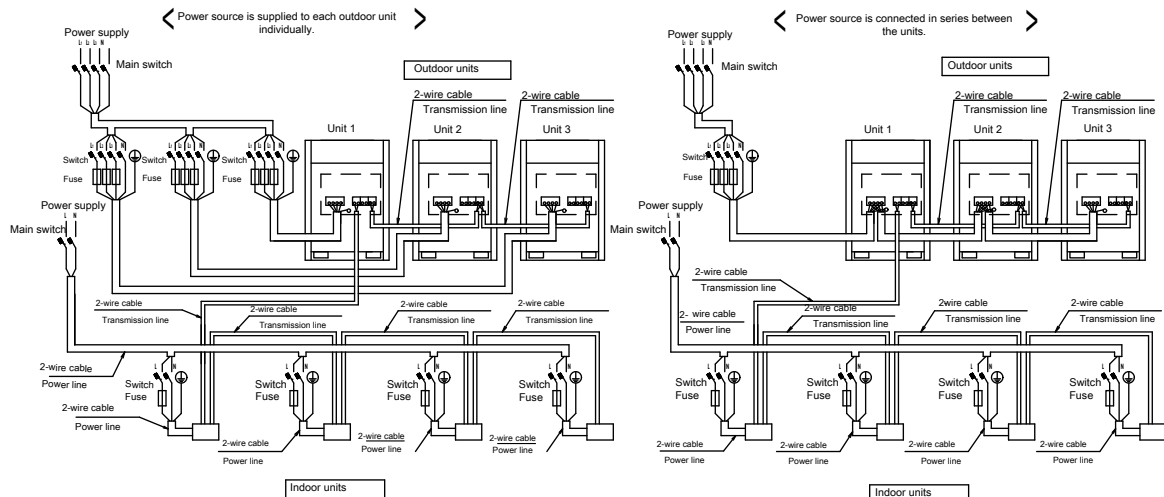
10 External connection diagrams

10 - 1 External Connection Diagrams

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

Notes

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

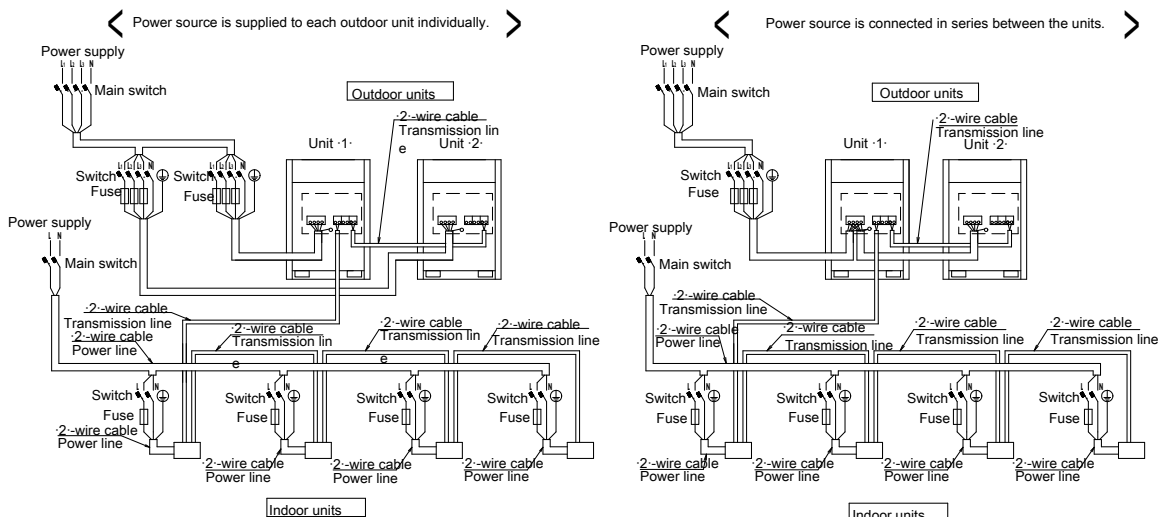


3D119200

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

Notes

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



3D119316

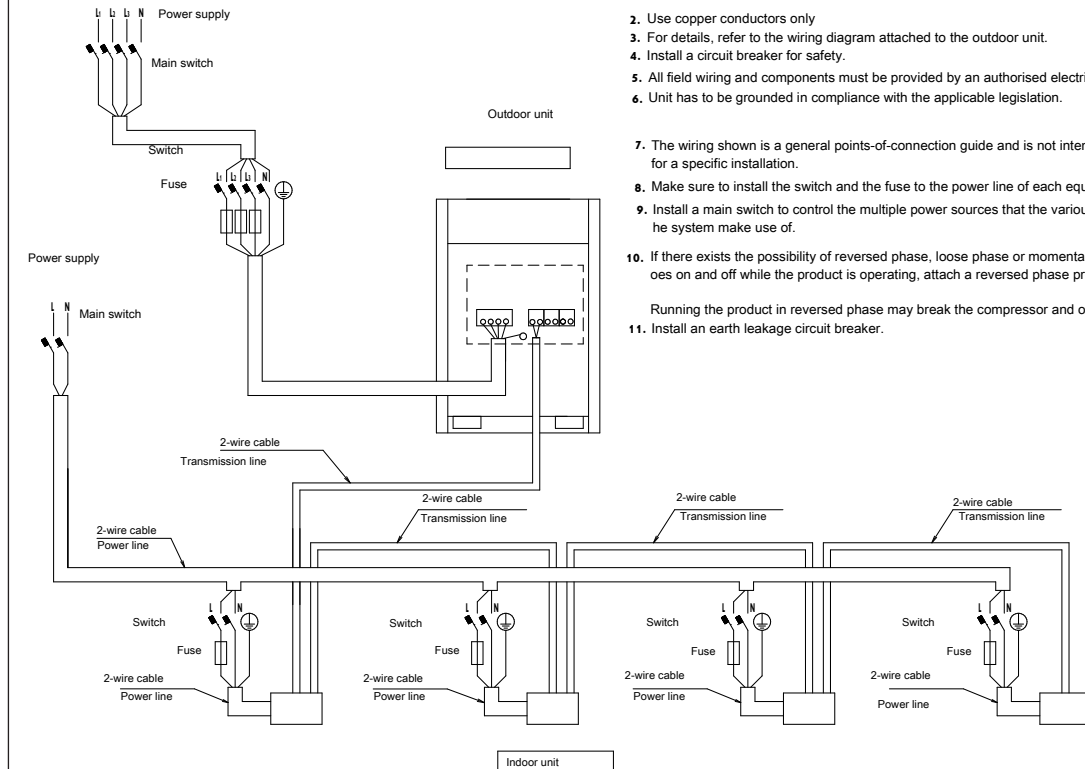
10 External connection diagrams

10 - 1 External Connection Diagrams

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

Notes

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

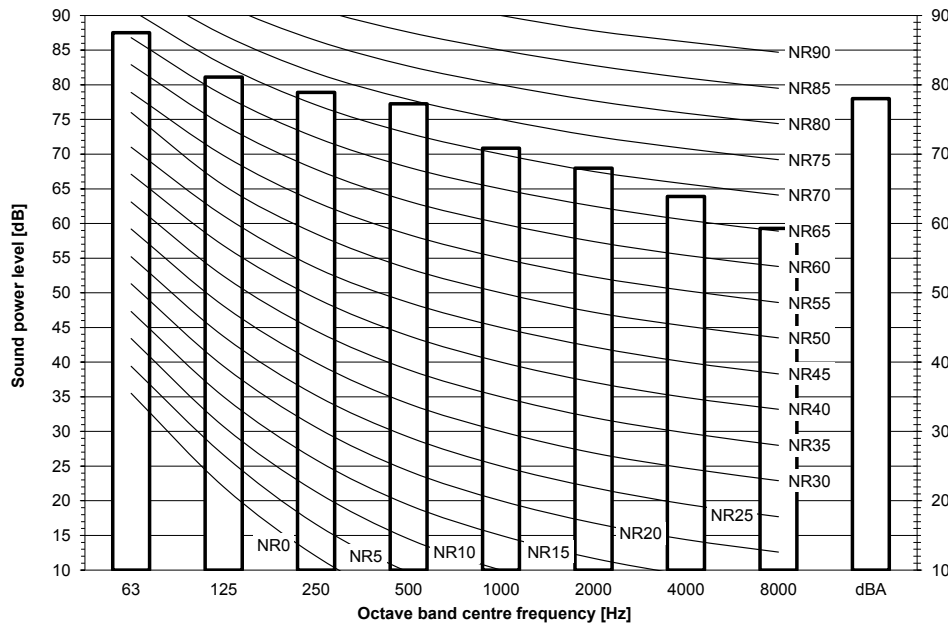


3D119317

11 Sound data

11 - 1 Sound Power Spectrum

REMQ5U
REYQ8U
RXYQQ8U
RXYQ8U
RXYTQ8UYF
RYYQ8U
RYMQ8U



Notes

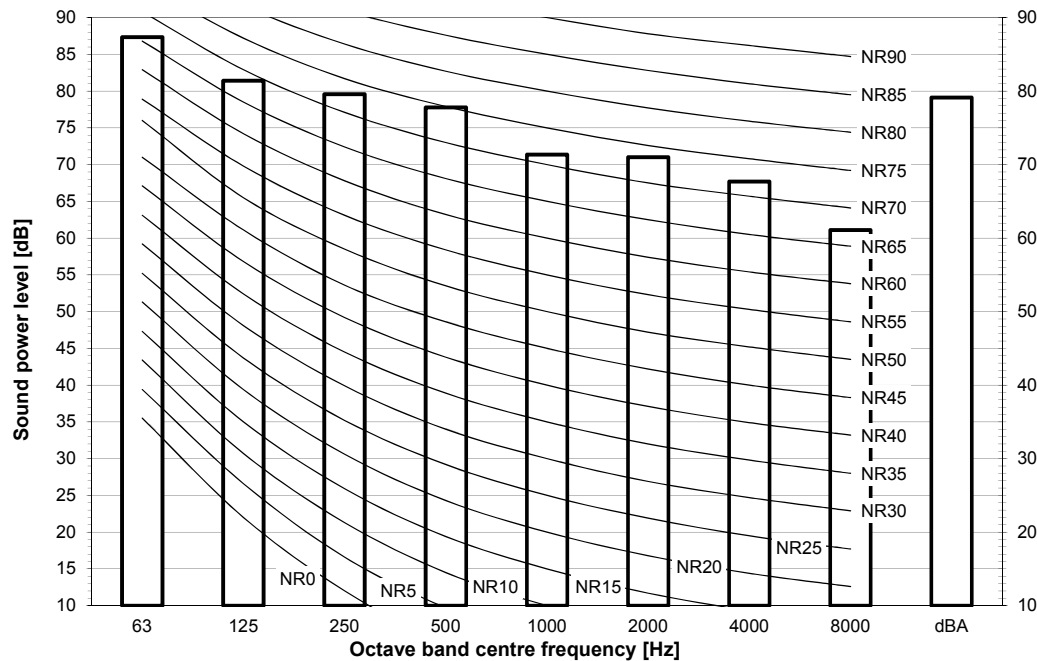
dBA = A-weighted sound power level (A scale according to IEC).

Reference acoustic intensity 0dB = $10E-6\mu W/m^2$

Measured according to ISO 3744

3D119528

REYQ10U
RXYQQ10U
RXYQ10U
RYYQ10U
RYMQ10U



Notes

dBA = A-weighted sound power level (A scale according to IEC).

Reference acoustic intensity 0dB = $10E-6\mu W/m^2$

Measured according to ISO 3744

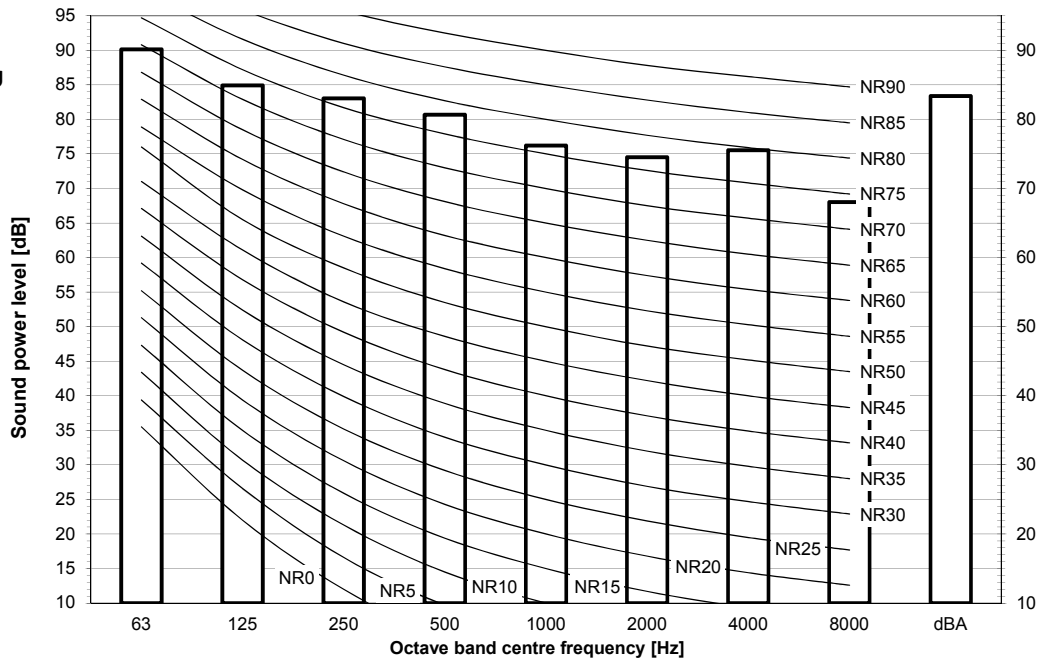
3D119529

11 Sound data

11 - 1 Sound Power Spectrum

11

REYQ12U
RXYQ12U
RXYQ12U
RYYQ12U
RYMQ12U



Notes

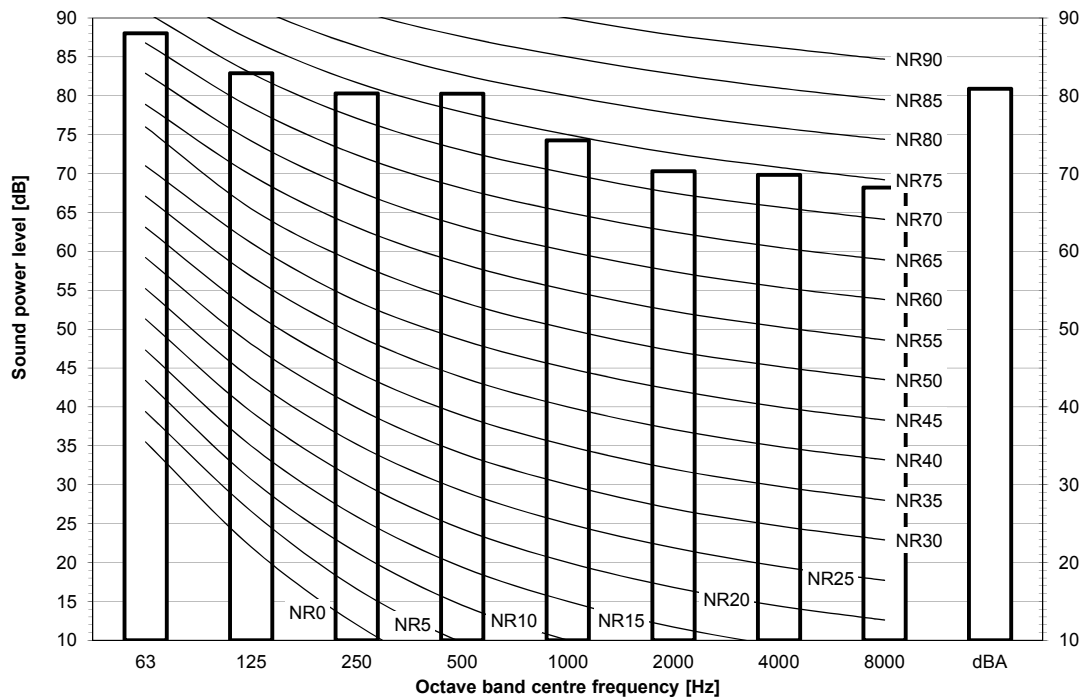
dBA = A-weighted sound power level (A scale according to IEC).

Reference acoustic intensity 0dB = 10E-6μW/m²

Measured according to ISO 3744

3D119530

REYQ14U
RXYQ14U
RXYQ14U
RYYQ14U
RYMQ14U



Notes

dBA = A-weighted sound power level (A scale according to IEC).

Reference acoustic intensity 0dB = 10E-6μW/m²

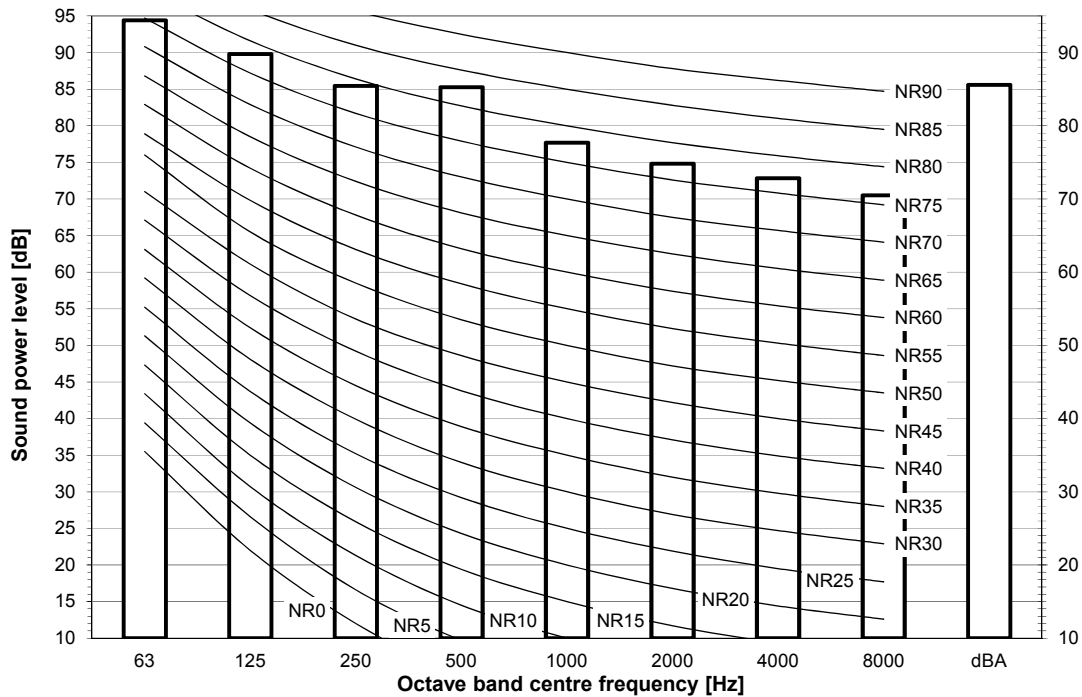
Measured according to ISO 3744

3D119531

11 Sound data

11 - 1 Sound Power Spectrum

REYQ16U
RXYQQ16U
RXYQ16U
RYYQ16U
RYMQ16U

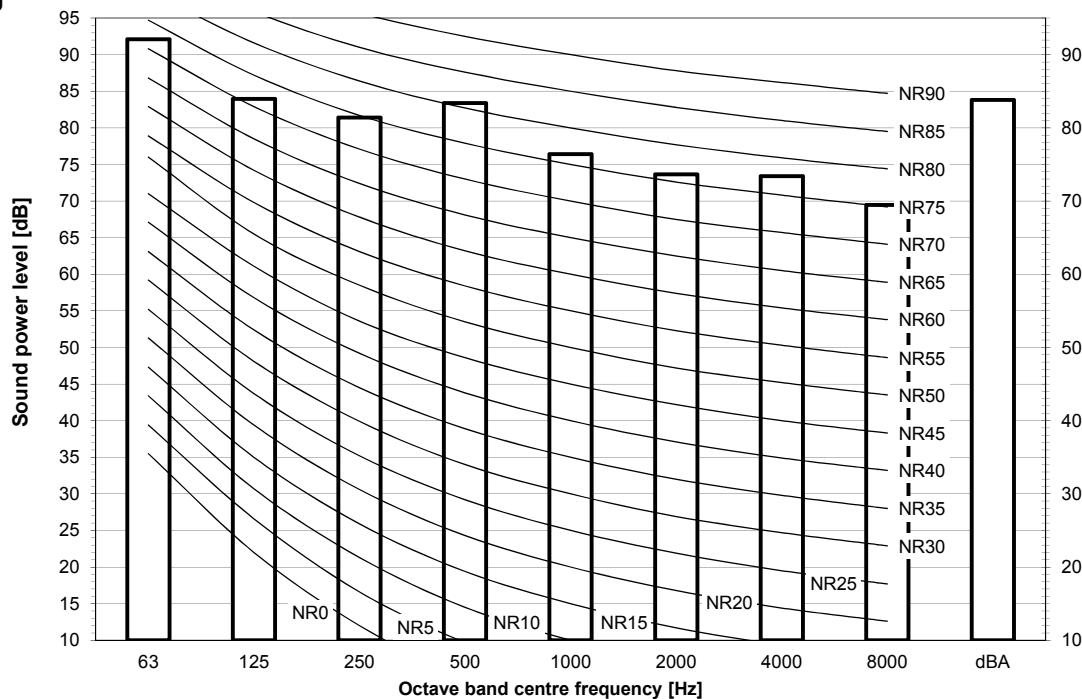


Notes

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

3D119532

REYQ18U
RXYQQ18U
RXYQ18U
RYYQ18U
RYMQ18U



Notes

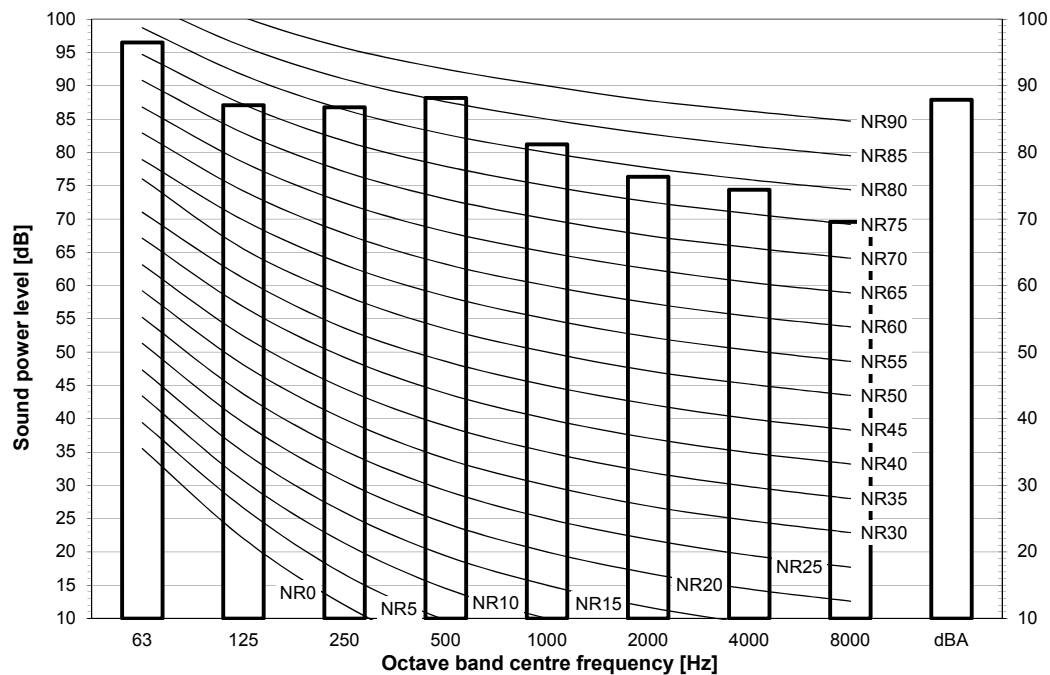
dBA = A-weighted sound power level (A scale according to IEC).
Reference acoustic intensity 0dB = $10E-6\mu W/m^2$
Measured according to ISO 3744

3D119533

11 Sound data

11 - 1 Sound Power Spectrum

REYQ20U
RXYQQ20U
RXYQ20U
RYYQ20U
RYMQ20U



Notes

dBA = A-weighted sound power level (A scale according to IEC).

Reference acoustic intensity 0dB = 10^{-6} W/m²

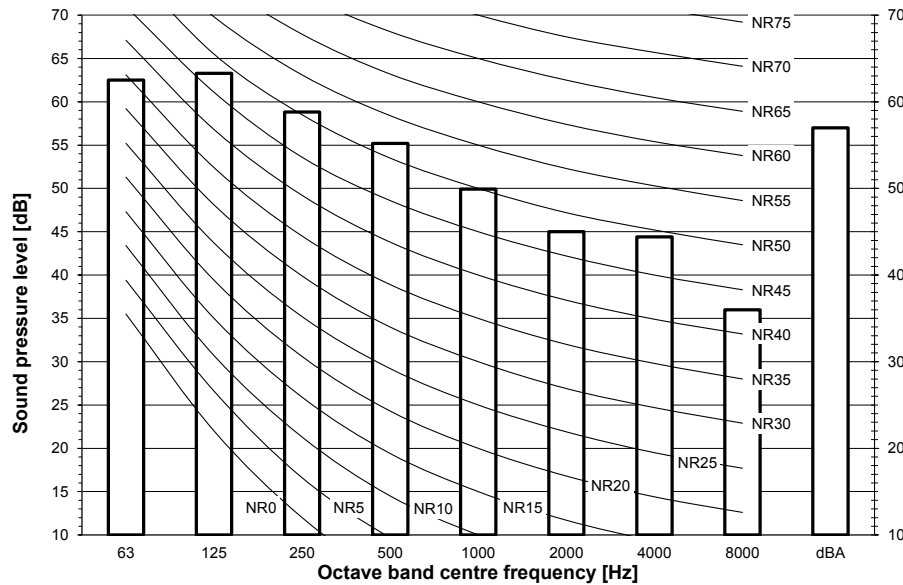
Measured according to ISO 3744

3D119534

11 Sound data

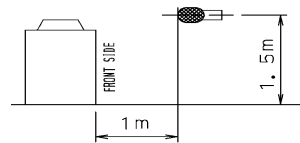
11 - 2 Sound Pressure Spectrum

REMQ5U
REYQ8U
RXYQ8U
RXYTQ8UYF
RYYQ8U
RYMQ8U



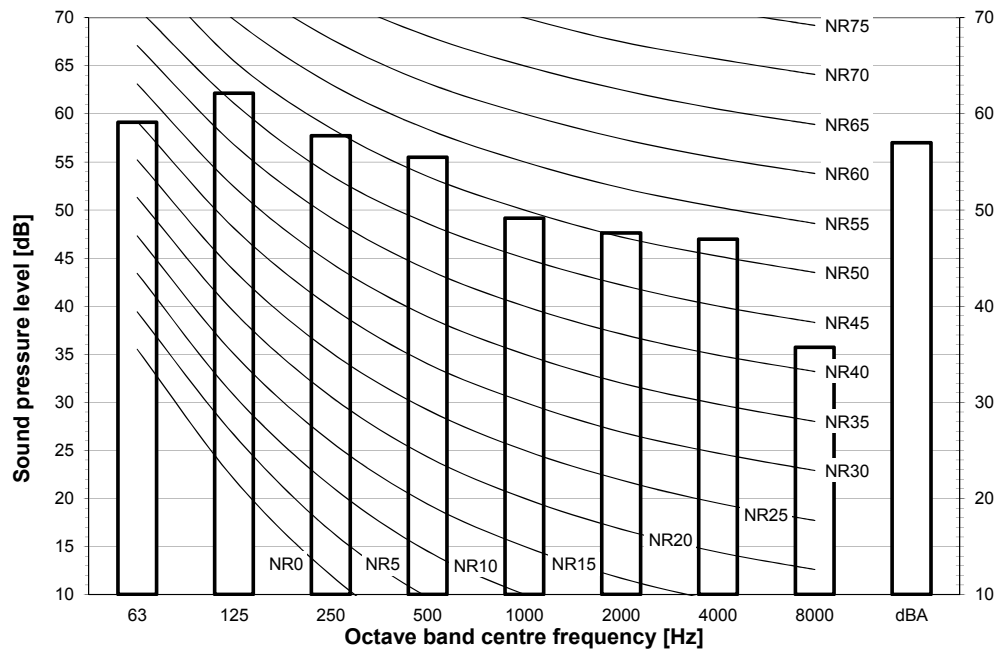
Notes

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



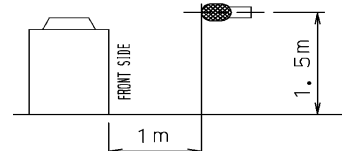
3D119521

REYQ10U
RXYQ10U
RXYQ10U
RYYQ10U
RYMQ10U



Notes

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



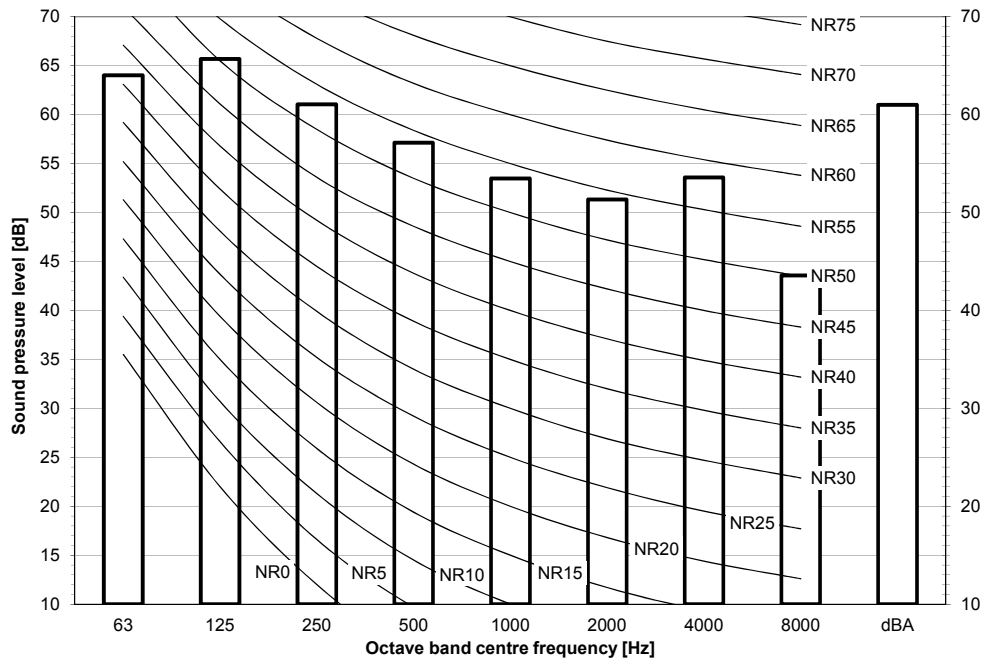
3D119522

11 Sound data

11 - 2 Sound Pressure Spectrum

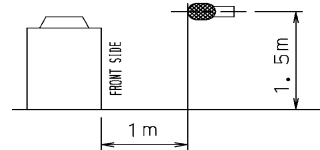
11

REYQ12U
RXYQ12U
RXYQ12U
RYYQ12U
RYMQ12U



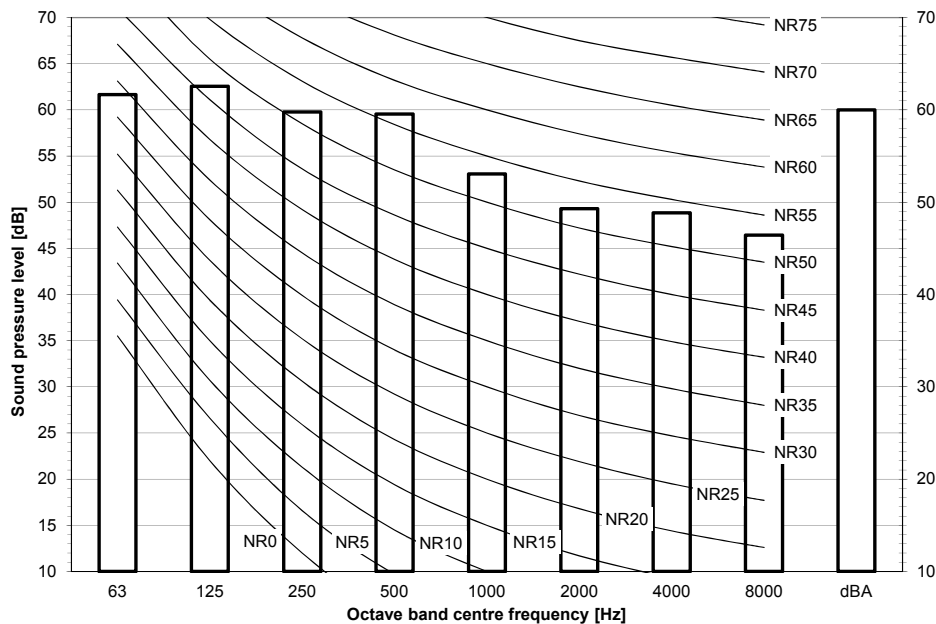
Notes

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



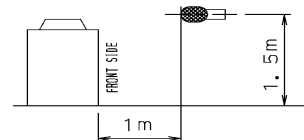
3D119523

REYQ14U
RXYQ14U
RXYQ14U
RYYQ14U
RYMQ14U



Notes

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

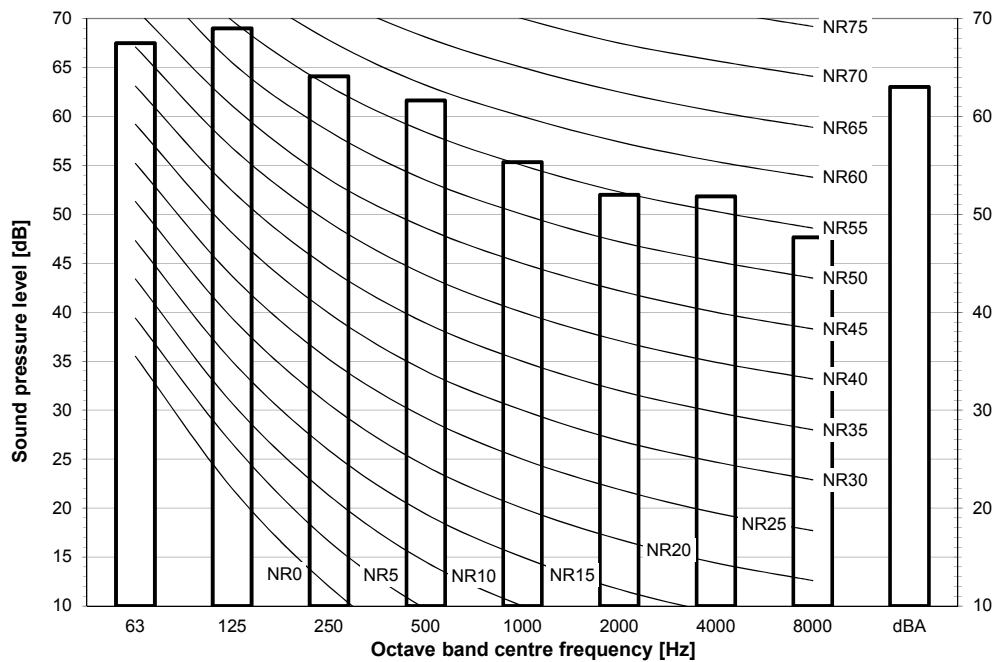


3D119524

11 Sound data

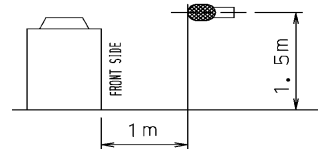
11 - 2 Sound Pressure Spectrum

REYQ16U
RXYQQ16U
RXYQ16U
RYYQ16U
RYMQ16U



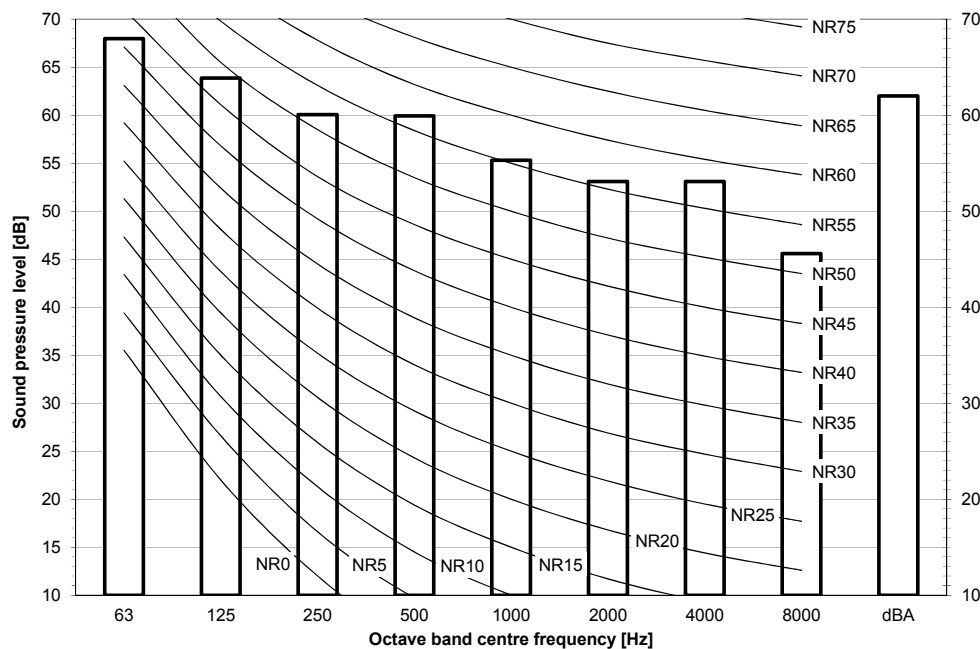
Notes

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



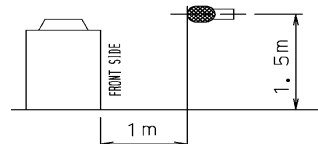
3D119525

REYQ18U
RXYQQ18U
RXYQ18U
RYYQ18U
RYMQ18U



Notes

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

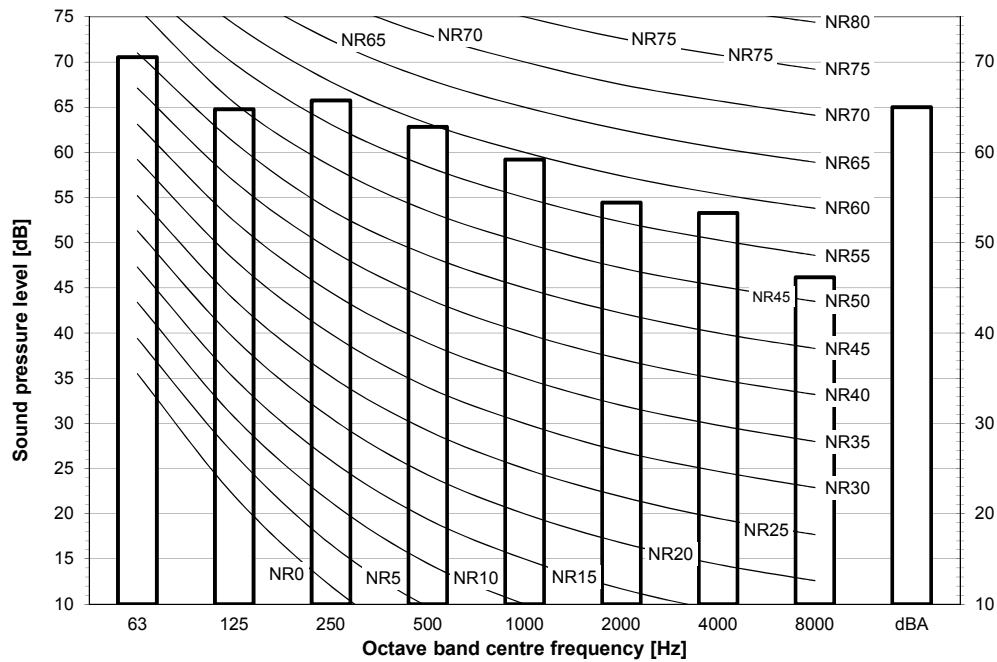


3D119526

11 Sound data

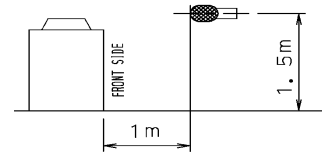
11 - 2 Sound Pressure Spectrum

REYQ20U
RXYQQ20U
RXYQ20U
RYYQ20U
RYMQ20U



Notes

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



3D119527

11 Sound data

11 - 3 Sound Pressure Spectrum Quiet Mode Level 1

REMQ5U

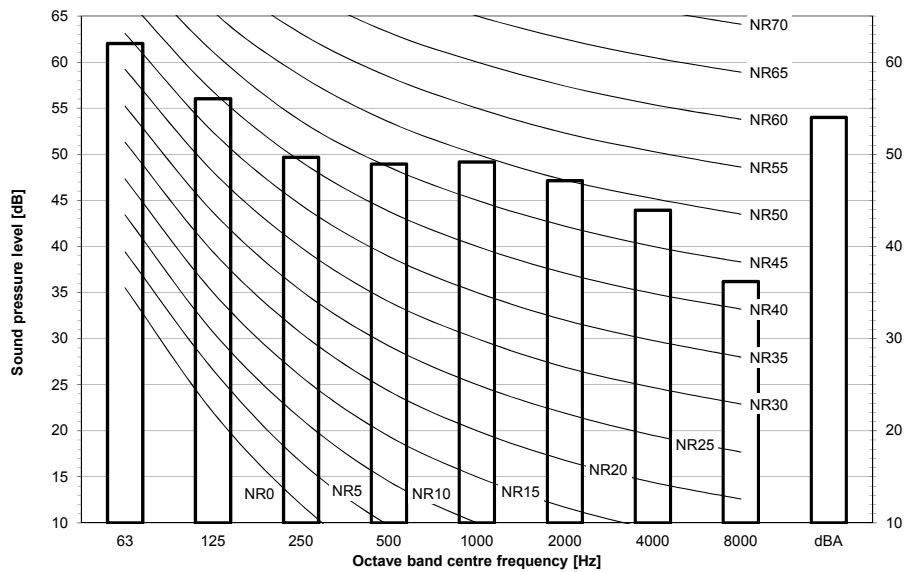
REYQ8-12U

RXYQ8-12U

RXYTQ8UYF

RYY8-12U

RYMQ8-12U



Notes

Data is valid at free field condition.

Data is valid at nominal operation condition.

dBA = A-weighted sound pressure level (A scale according to IEC).

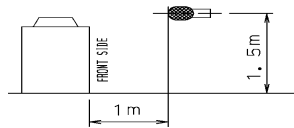
Reference acoustic pressure 0 dB = 20 μ Pa

Data is valid under the following conditions

Cooling operation

Outdoor Ta: 35°C

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



3D119535

REYQ14-16U

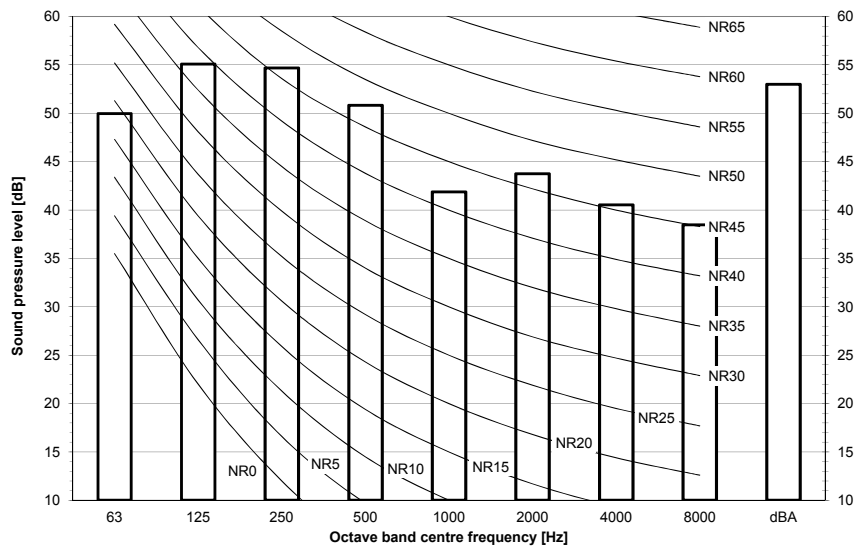
RXYQ14-16U

RXYQ14-16U

RXYTQ14-16UYF

RYYQ14-16U

RYMQ14-16U



Notes

Data is valid at free field condition.

Data is valid at nominal operation condition.

dBA = A-weighted sound pressure level (A scale according to IEC).

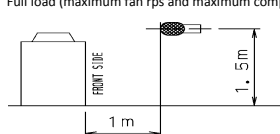
Reference acoustic pressure 0 dB = 20 μ Pa

Data is valid under the following conditions

Cooling operation

Outdoor Ta: 35°C

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

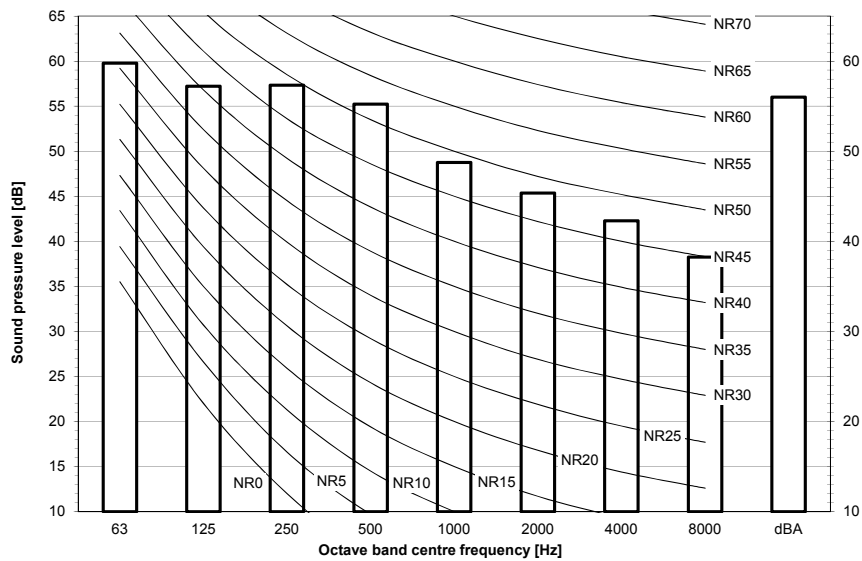


3D119538

11 Sound data

11 - 3 Sound Pressure Spectrum Quiet Mode Level 1

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



Notes

Data is valid at free field condition.

Data is valid at nominal operation condition.

dBA = A-weighted sound pressure level (A scale according to IEC).

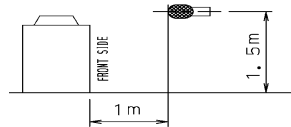
Reference acoustic pressure 0 dB = 20 μ Pa

Data is valid under the following conditions

Cooling operation

Outdoor Ta: 35°C

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



3D119541

11 Sound data

11 - 4 Sound Pressure Spectrum Quiet Mode Level 2

REMQ5U

REYQ8-12U

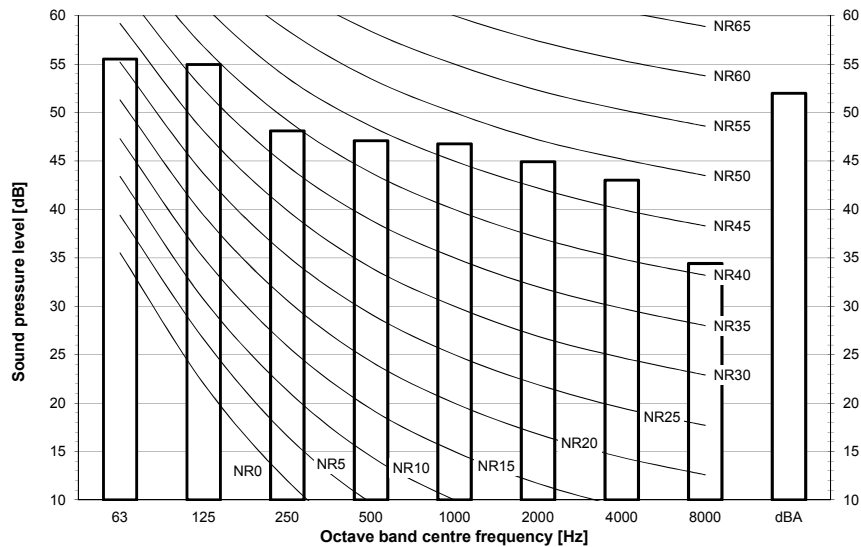
RXYQ8-12U

RXYQ8-12U

RXYTQ8UYF

RYYQ8-12U

RYMQ8-12U



Notes

Data is valid at free field condition.

Data is valid at nominal operation condition.

dBA = A-weighted sound pressure level (A scale according to IEC).

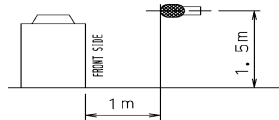
Reference acoustic pressure 0 dB = 20 µPa

Data is valid under the following conditions

Cooling operation

Outdoor Ta: 35°C

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



3D119536

REYQ14-16U

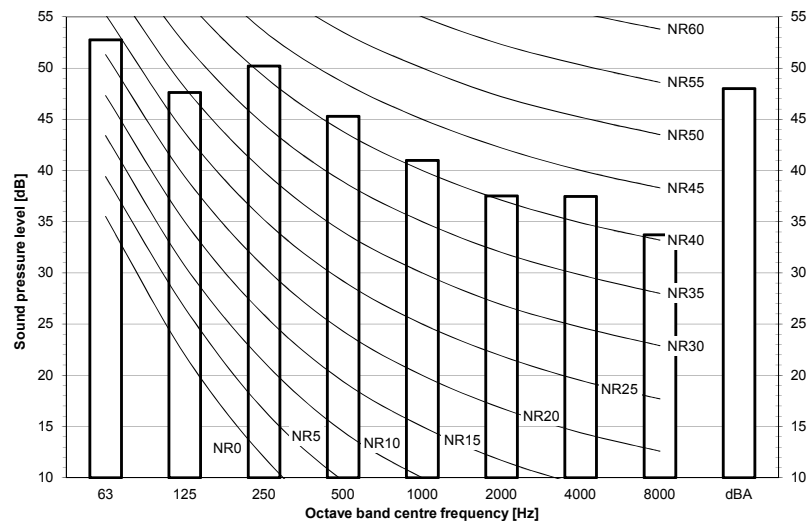
RXYQ14-16U

RXYQ14-16U

RXYTQ14-16UYF

RYYQ14-16U

RYMQ14-16U



Notes

Data is valid at free field condition.

Data is valid at nominal operation condition.

dBA = A-weighted sound pressure level (A scale according to IEC).

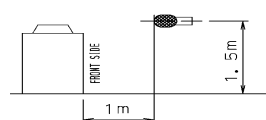
Reference acoustic pressure 0 dB = 20 µPa

Data is valid under the following conditions

Cooling operation

Outdoor Ta: 35°C

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

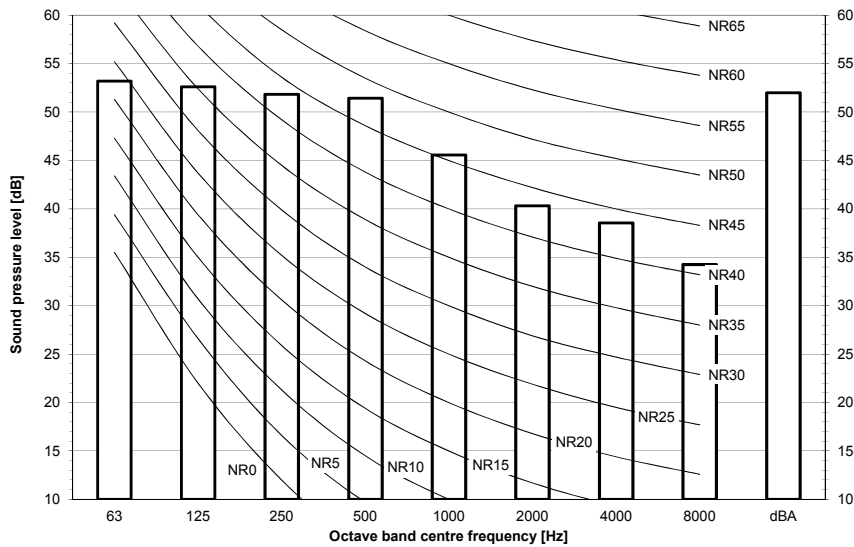


3D119539

11 Sound data

11 - 4 Sound Pressure Spectrum Quiet Mode Level 2

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



Notes

Data is valid at free field condition.

Data is valid at nominal operation condition.

dBA = A-weighted sound pressure level (A scale according to IEC).

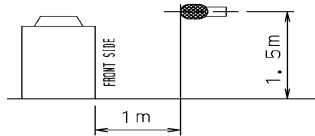
Reference acoustic pressure 0 dB = 20 μ Pa

Data is valid under the following conditions

Cooling operation

Outdoor Ta: 35°C

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



3D119542

11 Sound data

11 - 5 Sound Pressure Spectrum Quiet Mode Level 3

REMQ5U

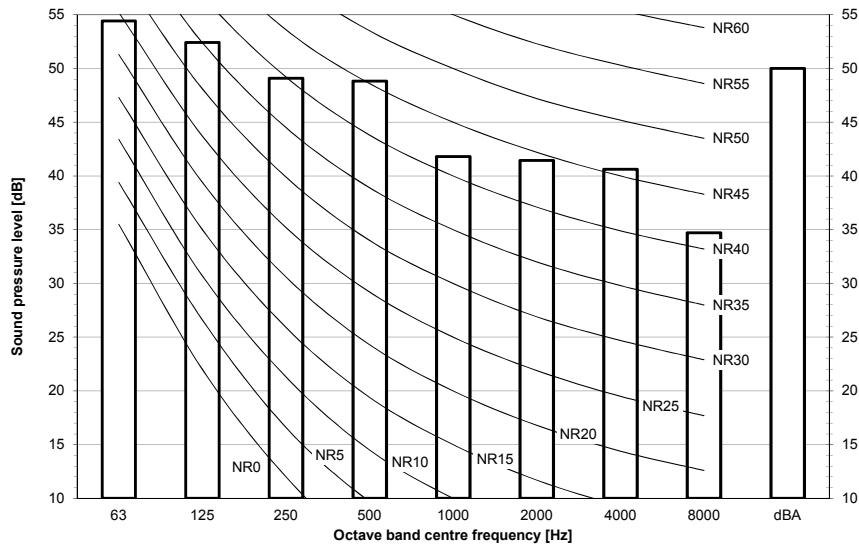
REYQ8-12U

RXYQ8-12U

RXYTQ8UYF

RYYQ8-12U

RYMQ8-12U



Notes

Data is valid at free field condition.

Data is valid at nominal operation condition.

dBA = A-weighted sound pressure level (A scale according to IEC).

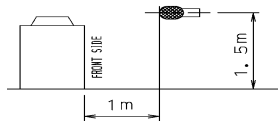
Reference acoustic pressure 0 dB = 20 μ Pa

Data is valid under the following conditions

Cooling operation

Outdoor Ta: 35°C

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



3D119537

REYQ14-16U

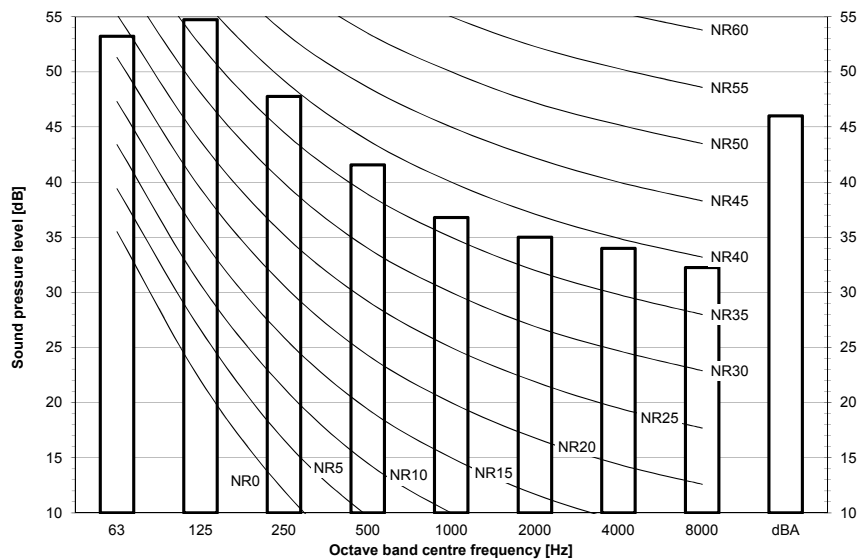
RXYQ14-16U

RXYQ14U-16U

RXYTQ14-16UYF

RYYQ14-16U

RYMQ14-16U



Notes

Data is valid at free field condition.

Data is valid at nominal operation condition.

dBA = A-weighted sound pressure level (A scale according to IEC).

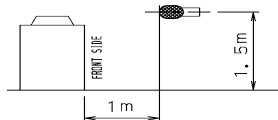
Reference acoustic pressure 0 dB = 20 μ Pa

Data is valid under the following conditions

Cooling operation

Outdoor Ta: 35°C

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

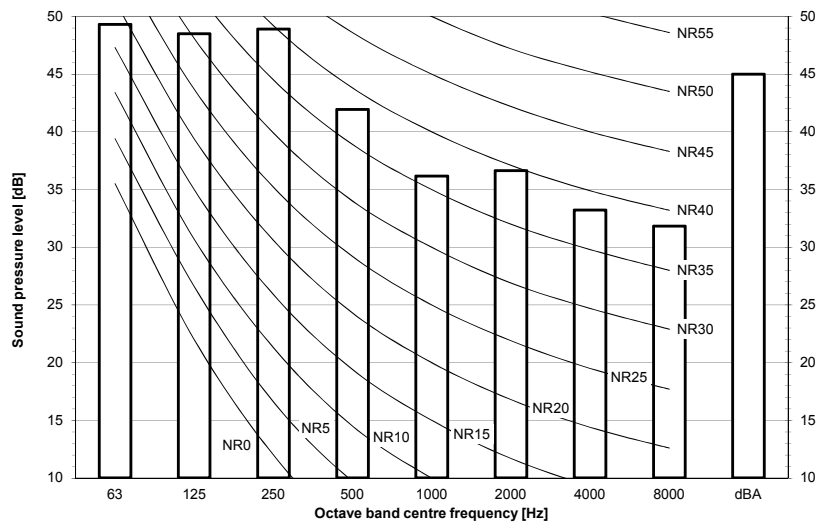


3D119540

11 Sound data

11 - 5 Sound Pressure Spectrum Quiet Mode Level 3

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



Notes

Data is valid at free field condition.

Data is valid at nominal operation condition.

dBA = A-weighted sound pressure level (A scale according to IEC).

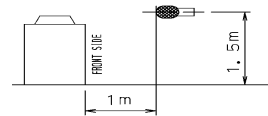
Reference acoustic pressure 0 dB = 20 μ Pa

Data is valid under the following conditions

Cooling operation

Outdoor Ta: 35°C

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



3D119543

12 Installation

12 - 1 Installation Method

REMQ5U

REYQ8-20U

RXYQ8-20U

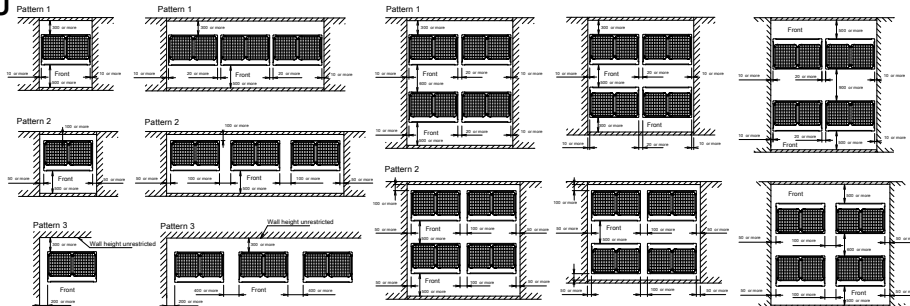
RXYQ8-20U For single unit installation

RYYQ8-20U

RYMQ-20U

For installation in rows

For centralised group layout



Notes

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

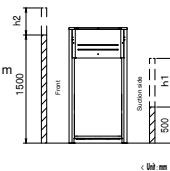
Front: 1500mm

Suction side: 500mm

Side: height unrestricted

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

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



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

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

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

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

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

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

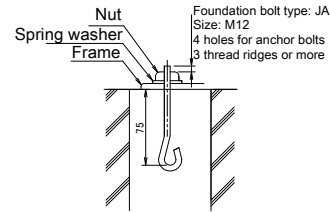
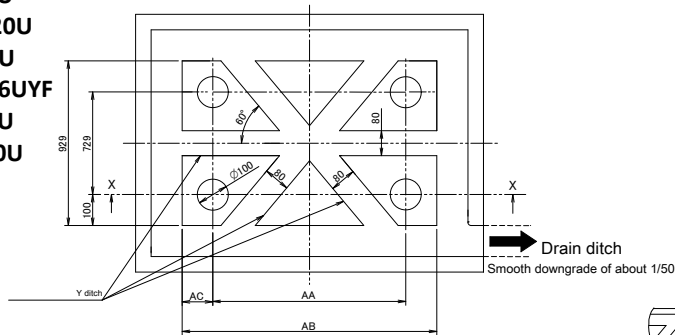
4. Provide sufficient space at the front to connect refrigerant piping (comfortably).

3D118467

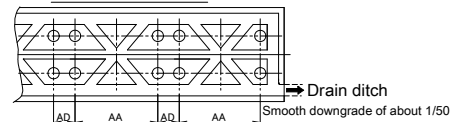
12 Installation

12 - 2 Fixation and Foundation of Units

12

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


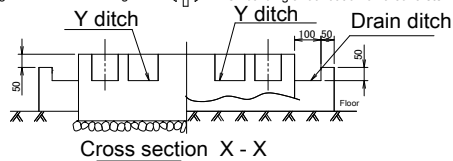
Foundation bolt fixing method



For multi-unit installation

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

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



Cross section X - X

Notes

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

12 Installation

12 - 3 Refrigerant Pipe Selection

RXYQ-U
RYYQ-Y
RYMQ-U

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								
VRV DX indoor units only		165/(190)m	40m ⁽¹⁾	10/(13)m	50/(40)m ⁽³⁾	30m	5m	1000m
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.

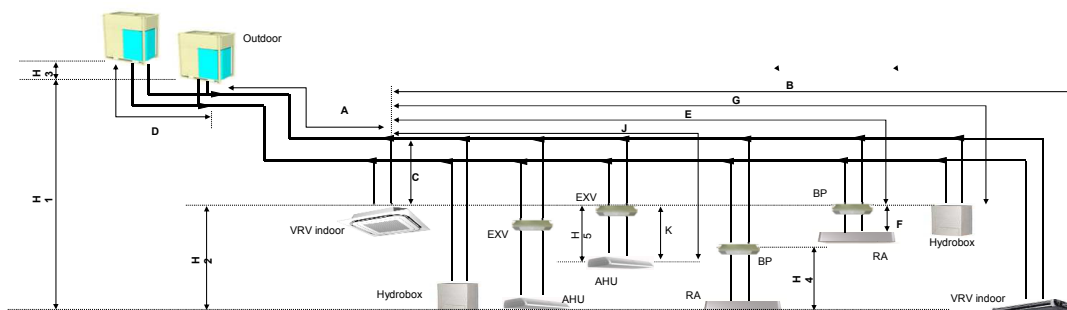
3D079540E

12 Installation

12 - 3 Refrigerant Pipe Selection

RXYQ-U
RYYQ-U
RYMQ-U

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-U
RYYQ-U
RYMQ-U

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.

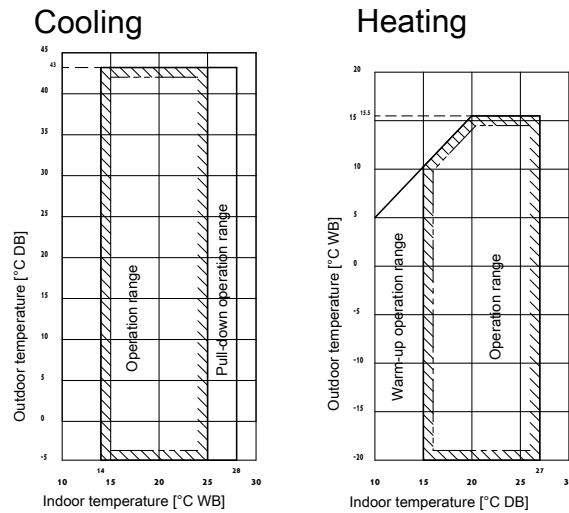
3D079540E

13 Operation range

13 - 1 Operation Range

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

13



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-U
RYYQ-U
RYMQ-U

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

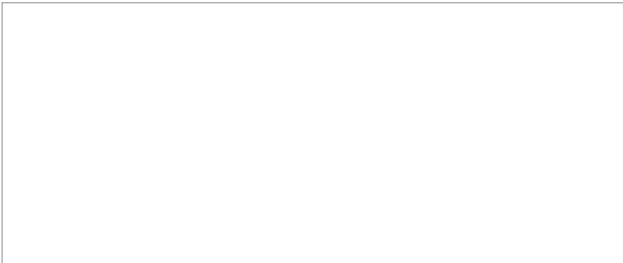
Covered by ·ENER LOT10·

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

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

3D118461D



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01/2022



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