

VRV IV+ heat pump,
without continuous
heating
Air Conditioning
Technical Data
RXYQ-UD

RXYQ8U5Y1BD
RXYQ10U5Y1BD
RXYQ12U5Y1BD
RXYQ14U5Y1BD
RXYQ16U5Y1BD
RXYQ18U5Y1BD
RXYQ20U5Y1BD
RXYQ22U5Y1BD
RXYQ24U5Y1BD
RXYQ26U5Y1BD
RXYQ28U5Y1BD
RXYQ30U5Y1BD
RXYQ32U5Y1BD
RXYQ34U5Y1BD
RXYQ36U5Y1BD
RXYQ38U5Y1BD
RXYQ40U5Y1BD
RXYQ42U5Y1BD
RXYQ44U5Y1BD
RXYQ46U5Y1BD
RXYQ48U5Y1BD
RXYQ50U5Y1BD
RXYQ52U5Y1BD
RXYQ54U5Y1BD



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RXYQ-UD

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1 Features

1 - 1 RXYQ-UD

Daikin's solution for comfort & low energy consumption

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- › By choosing this product with LOOP by Daikin 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, 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
- › 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



Replacement technology



Variable refrigerant temperature

2 Specifications

2 - 1 Specifications

Technical Specifications			RXYQ8UD	RXYQ10UD	RXYQ12UD	RXYQ14UD	RXYQ16UD	RXYQ18UD	RXYQ20UD	
Recommended combination			4 x FXFQ50AVEB	4 x FXFQ63AVEB	6 x FXFQ50AVEB	1 x FXFQ50AVEB + 5 x FXFQ63AVEB	4 x FXFQ63AVEB + 2 x FXFQ80AVEB	3 x FXFQ50AVEB + 5 x FXFQ63AVEB	2 x FXFQ50AVEB + 6 x FXFQ63AVEB	
Recommended combination 2			4 x FXSQ50A2VEB	4 x FXSQ63A2VEB	6 x FXSQ50A2VEB	1 x FXSQ50A2VEB + 5 x FXSQ63A2VEB	4 x FXSQ63A2VEB + 2 x FXSQ80A2VEB	3 x FXSQ50A2VEB + 5 x FXSQ63A2VEB	2 x FXSQ50A2VEB + 6 x FXSQ63A2VEB	
Recommended combination 3			4 x FXMQ50P7VEB	4 x FXMQ63P7VEB	6 x FXMQ50P7VEB	1 x FXMQ50P7VEB + 5 x FXMQ63P7VEB	4 x FXMQ63P7VEB + 2 x FXMQ80P7VEB	3 x FXMQ50P7VEB + 5 x FXMQ63P7VEB	2 x FXMQ50P7VEB + 6 x FXMQ63P7VEB	
Cooling capacity	Prated,c	kW	22.4 (1)	28.0 (1)	33.5 (1)	40.0 (1)	45.0 (1)	50.4 (1)	52.0 (1)	
Heating capacity	Nom.	6°CWB	22.4 (2)	28.0 (2)	33.5 (2)	40.0 (2)	45.0 (2)	50.4 (2)	56.0 (2)	
	Prated,h	kW	22.4 (2)	28.0 (2)	33.5 (2)	40.0 (2)	45.0 (2)	50.4 (2)	56.0 (2)	
	Max.	6°CWB	25.0 (2)	31.5 (2)	37.5 (2)	45.0 (2)	50.0 (2)	56.5 (2)	63.0 (2)	
Power input - 50Hz	Heating	Nom. 6°CWB	kW	5.40 (2)	7.58 (2)	9.65 (2)	10.69 (2)	12.54 (2)	14.22 (2)	17.47 (2)
COP at nom. capacity	6°CWB	kW/kW	4.15 (2)	3.69 (2)	3.47 (2)	3.74 (2)	3.59 (2)	3.54 (2)	3.20 (2)	
ESEER - Automatic			7.53	7.20	6.96	6.83	6.50	6.38	5.67	
ESEER - Standard			6.37	5.67	5.50	5.31	5.05	4.97	4.42	
SCOP			4.3	4.1	4.1	4.0	4.0	4.2	4.0	
SCOP recommended combination 2			4.2	4.3	4.1	4.0	4.1	4.2	4.0	
SCOP recommended combination 3			4.2	4.1	4.1	4.0	4.1	4.1	3.9	
SEER			7.6	6.8	6.3	6.3	6.0	6.0	5.9	
SEER recommended combination 2			6.9	6.8	5.9	6.3	5.9	6.0	5.9	
SEER recommended combination 3			7.5	6.8	6.2	6.2	5.8	6.0	5.9	
ηs,c		%	302.4	267.6	247.8	250.7	236.5	238.3	233.7	
ηs,h		%	167.9	168.2	161.4	155.4	157.8	163.1	156.6	
Space cooling	A Condition	EERd	3.0	2.3	2.4	2.6	2.1	1.9	1.9	
	(35°C - 27/19)	Pdc	kW	22.4	28.0	33.5	40.0	45.0	50.4	52.0
	B Condition	EERd	5.2	4.7	4.3	4.1	3.9	3.8	3.7	
	(30°C - 27/19)	Pdc	kW	16.5	20.6	24.7	29.5	33.2	37.1	38.3
	C Condition	EERd	9.5	8.3	7.7	7.8	7.7	7.5	7.3	
	(25°C - 27/19)	Pdc	kW	10.6	13.3	15.9	18.9	21.3	23.9	24.6
	D Condition	EERd	18.8	17.0	13.9	14.3	14.2	18.3	18.3	
	(20°C - 27/19)	Pdc	kW	8.0	9.3	9.4	8.4	9.5	11.5	
Space cooling recom- mended combination 2	A Condition	EERd	2.6	2.4	2.6	2.1	1.9	1.9	1.9	
	(35°C - 27/19)	Pdc	kW	22.4	28.0	33.5	40.0	45.0	50.4	52.0
	B Condition	EERd	4.9	4.7	4.0	4.1	3.8	3.7	3.6	
	(30°C - 27/19)	Pdc	kW	16.5	20.6	24.7	29.5	33.2	37.1	38.3
	C Condition	EERd	8.8	8.5	7.1	7.9	7.6	7.5	7.3	
	(25°C - 27/19)	Pdc	kW	10.6	13.3	15.9	18.9	21.3	23.9	24.6
	D Condition	EERd	15.1	17.2	13.1	14.0	14.0	18.1	18.9	
	(20°C - 27/19)	Pdc	kW	8.8	9.3	9.1	8.4	9.5	11.4	10.9
Space cooling recom- mended combination 3	A Condition	EERd	3.0	2.3	2.4	2.6	2.1	1.9	1.9	
Space cooling recom- mended combination 3	A Condition	Pdc	kW	22.4	28.0	33.5	40.0	45.0	50.4	52.0
	(35°C - 27/19)									
	B Condition	EERd	5.1	4.7	4.2	4.0	3.7	3.6	3.6	
	(30°C - 27/19)	Pdc	kW	16.5	20.6	24.7	29.5	33.2	37.1	38.3
	C Condition	EERd	9.6	8.4	7.7	7.7	7.4	7.6	7.3	
	(25°C - 27/19)	Pdc	kW	10.6	13.3	15.9	19.0	21.3	23.9	24.6
	D Condition	EERd	16.0	16.9	13.7	14.0	14.1	18.3	18.3	
	(20°C - 27/19)	Pdc	kW	9.1	9.3	9.4	8.4	9.5	11.6	
Space heating (Average climate)	TBivalent	COPd (declared COP)	2.5	2.4	2.0	2.3	2.2	1.9	1.8	
		Pdh (declared heating cap)	kW	13.7	16.0	18.4	20.6	23.2	27.9	31.0
		Tbiv (bivalent temperature)	°C				-10			
	TOL	COPd (declared COP)	2.5	2.4	2.0	2.3	2.2	1.9	1.8	
		Pdh (declared heating cap)	kW	13.7	16.0	18.4	20.6	23.2	27.9	31.0
		Tol (temperature operating limit)	°C				-10			
	A Condition (-7°C)	COPd (declared COP)	2.7	2.6	2.4	2.6	2.4	2.1		
		Pdh (declared heating cap)	kW	12.1	14.2	16.3	18.2	20.5	24.7	27.4
	B Condition (2°C)	COPd (declared COP)	3.9	3.5	3.5	3.5	3.7	3.6		
		Pdh (declared heating cap)	kW	7.4	8.6	9.9	11.1	12.5	15.0	16.7
	C Condition (7°C)	COPd (declared COP)	6.3	6.4	6.1	6.1	6.3	6.7	6.5	
		Pdh (declared heating cap)	kW	5.0	5.5	6.4	7.1	8.0	9.7	10.7
D Condition (12°C)	COPd (declared COP)	7.9	8.2	7.9	8.5	8.6	9.0	9.1		
	Pdh (declared heating cap)	kW	5.9	6.3	6.3	4.9	4.9	7.1	7.1	

2 Specifications

2 - 1 Specifications

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Technical Specifications				RXYQ8UD	RXYQ10UD	RXYQ12UD	RXYQ14UD	RXYQ16UD	RXYQ18UD	RXYQ20UD	
Space heating (Average climate) recommended combination 2	A Condition (-7°C)	COPd (declared COP)		2.7		2.4	2.6		2.4	2.2	
		Pdh (declared heating cap)		kW	12.1	14.2	16.3	18.2	20.5	24.7	27.4
	B Condition (2°C)	COPd (declared COP)		3.9	4.0	3.9	3.5		3.8	3.7	
		Pdh (declared heating cap)		kW	7.4	8.6	9.9	11.1	12.2	15.0	16.7
	C Condition (7°C)	COPd (declared COP)		6.3	6.5	6.1		6.3	6.8	6.5	
		Pdh (declared heating cap)		kW	5.0	5.5	6.4	7.1	8.0	9.7	10.7
	D Condition (12°C)	COPd (declared COP)		7.8	8.3	7.9	8.6	8.7	9.1	9.2	
		Pdh (declared heating cap)		kW	5.9	6.0	6.4	4.9	5.0	7.2	
	TBivalent	COPd (declared COP)		2.4		1.9	2.3	2.2	1.9	1.8	
		Pdh (declared heating cap)		kW	13.7	16.0	18.4	20.6	23.2	27.9	31.0
		Tbiv (bivalent temperature)		°C	-10						
	TOL	COPd (declared COP)		2.4		1.9	2.3	2.2	1.9	1.8	
		Pdh (declared heating cap)		kW	13.7	16.0	18.4	20.6	23.2	27.9	31.0
		Tol (temperature operating limit)		°C	-10						
Space heating (Average climate) recommended combination 3	A Condition (-7°C)	COPd (declared COP)		2.7	2.6	2.4	2.6		2.4	2.1	
		Pdh (declared heating cap)		kW	12.1	14.2	16.3	18.2	20.5	24.7	27.4
Space heating (Average climate) recommended combination 3	B Condition (2°C)	COPd (declared COP)		3.9	3.7	3.9	3.5		3.7	3.6	
		Pdh (declared heating cap)		kW	7.4	8.6	9.9	11.1	12.5	15.0	16.7
	C Condition (7°C)	COPd (declared COP)		6.2	6.4	6.0	6.1	6.2	6.5	6.3	
		Pdh (declared heating cap)		kW	4.9	5.5	6.4	7.1	8.0	9.7	10.7
	D Condition (12°C)	COPd (declared COP)		7.8	8.1	7.8	8.5	8.6	8.7		
		Pdh (declared heating cap)		kW	5.8	5.9	6.2	4.9		6.9	
	TBivalent	COPd (declared COP)		2.5	2.4	2.0	2.3	2.2	1.9	1.8	
		Pdh (declared heating cap)		kW	13.7	16.0	18.4	20.6	23.2	27.9	31.0
		Tbiv (bivalent temperature)		°C	-10						
	TOL	COPd (declared COP)		2.5	2.4	2.0	2.3	2.2	1.9	1.8	
Pdh (declared heating cap)		kW	13.7	16.0	18.4	20.6	23.2	27.9	31.0		
Tol (temperature operating limit)		°C	-10								
Capacity range	HP			8	10	12	14	16	18	20	
PED	Category			Category II							
	Most critical part	Name	Ps*V	Bar*l	325		415		493		
Maximum number of connectable indoor units				64 (3)							
Indoor index connection	Min.			100.0	125.0	150.0	175.0	200.0	225.0	250.0	
	Max.			260.0	325.0	390.0	455.0	520.0	585.0	650.0	
Dimensions	Unit	Height	mm	1,685							
		Width	mm	930		1,240					
		Depth	mm	765							
	Packed unit	Height	mm	1,820							
		Width	mm	995		1,305					
		Depth	mm	860							
Weight	Unit	kg	201		281		314				
	Packed unit	kg	219		302		335				
Packing	Material			Carton							
	Weight			4.7		5.7					
Packing 2	Material			Wood							
	Weight			12.1		14.7					
Packing 3	Material			Plastic							
	Weight			0.5		0.7					
Casing	Colour			Ivory white							
	Material			Painted galvanized steel plate							
Heat exchanger	Type			Cross fin coil							
	Indoor side			Air							
Heat exchanger	Outdoor side			Air							
	Air flow rate	Cooling	Rated	m ³ /h	9,720	10,500	11,100	13,380	15,600	15,060	15,660
		Heating	Rated	m ³ /h	9,720	10,500	11,100	13,380	15,600	15,060	15,660
Fan	Quantity			1			2				
	External static pressure	Max.	Pa	78							
Fan motor	Quantity			1			2				
	Type			DC motor							
Compressor	Output			550		750					
	Quantity			1			2				
Type				Hermetically sealed scroll compressor							
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	78.0 (4)	79.1 (4)	83.4 (4)	80.9 (4)	85.6 (4)	83.8 (4)	87.9 (4)	
	Heating	Prated,h	dBA	79.6 (4)	80.9 (4)	83.5 (4)	83.1 (4)	86.5 (4)	85.3 (4)	89.8 (4)	
Sound pressure level	Cooling	Nom.	dBA	57.0 (5)		61.0 (5)	60.0 (5)	63.0 (5)	62.0 (5)	65.0 (5)	

2 Specifications

2 - 1 Specifications

Technical Specifications				RXYQ8UD	RXYQ10UD	RXYQ12UD	RXYQ14UD	RXYQ16UD	RXYQ18UD	RXYQ20UD	
Refrigerant	Type	R-410A									
	GWP	2,087.5									
	Charge	kg	5.9	6.0	6.3	10.3	11.3	11.7	11.8		
Refrigerant oil	Type	Synthetic (ether) oil FVC68D									
Piping connections	Liquid	Type	Braze connection								
		OD	mm	9.52			12.7		15.9		
	Gas	Type	Braze connection								
		OD	mm	19.1	22.2	28.6					
	Total piping length	System	Actual	1,000 (6)							
Defrost method	Reversed cycle										
Capacity control	Method	Inverter controlled									
Indication if the heater is equipped with a supplementary heater											
no											
Supplementary heater	Back-up capacity	Heating	elbu	kW	0.0						
Power consumption in other than active mode	Crankcase heater	Cooling	PCK	kW	0.000						
		Heating	PCK	kW	0.052	0.077		0.089			
	Off mode	Cooling	POFF	kW	0.041	0.074		0.075			
		Heating	POFF	kW	0.052	0.077		0.089			
	Standby mode	Cooling	PSB	kW	0.041	0.074		0.075			
		Heating	PSB	kW	0.052	0.077		0.089			
	Thermo-stat-off mode	Cooling	PTO	kW	0.005	0.010					
	Power consumption in other than active mode	Thermo-stat-off mode	Heating	PTO	kW	0.056	0.097		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				RXYQ8UD	RXYQ10UD	RXYQ12UD	RXYQ14UD	RXYQ16UD	RXYQ18UD	RXYQ20UD	
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 7							
	Zmax	List	No requirements								
	Minimum Ssc value	kVa	4,050 (7)	5,535 (7)	6,038 (7)	6,793 (7)	7,547 (7)	8,805 (7)	9,812 (7)		
	Minimum circuit amps (MCA)	A	16.1 (8)	22.0 (8)	24.0 (8)	27.0 (8)	31.0 (8)	35.0 (8)	39.0 (8)		
Maximum fuse amps (MFA)	A	20 (9)	25 (9)	32 (9)		40 (9)		50 (9)			
Full load amps (FLA)	Total	A	1.2 (10)	1.3 (10)	1.5 (10)	1.8 (10)	2.6 (10)				
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									

(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)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 |

(8)MCA must be used to select the correct field wiring size. The MCA can be regarded as the maximum running current. |

(9)MFA is used to select the circuit breaker and the ground fault circuit interrupter (earth leakage circuit breaker). |

2 Specifications

2 - 1 Specifications

(I0)FLA means the nominal running current of the fan |
 MSC means the maximum current during start up of the compressor. This unit uses only inverter compressors. Starting current is always ≤ max. running current. |
 Maximum allowable voltage range variation between phases is 2%. |
 Voltage range: units are suitable for use on electrical systems where voltage supplied to unit terminal is not below or above listed range limits. |
 The AUTOMATIC ESEER value corresponds with normal VRV4 Heat Pump operation, taking into account advanced energy saving operation functionality (variable refrigerant temperature) |
 The STANDARD ESEER value corresponds with normal VRV4 Heat Pump operation, not taking into account advanced energy saving operation functionality |
 Sound values are measured in a semi-anechoic room. |
 Soundpressure system [dBA] = 10*log[10^(A/10)+10^(B/10)+10^(C/10)] , with Unit A = A dBA, Unit B = B dBA, Unit C = C dBA |
 EN/IEC 61000-3-12: European/international technical standard setting the limits for harmonic currents produced by equipment connected to public low-voltage system with input current > 16A and ≤ 75A per phase |
 Ssc: Short-circuit power |
 For detailed contents of standard accessories, see installation/operation manual |
 Multi combination (22~54HP) data is corresponding with the standard multi combination

Technical specifications System			RXYQ22UD	RXYQ24UD	RXYQ26UD	RXYQ28UD	RXYQ30UD	RXYQ32UD	RXYQ34UD	RXYQ36UD	RXYQ38UD		
System	Outdoor unit module 1		RXYQ10U	RXYQ8U	RXYQ12U			RXYQ16U			RXYQ8U		
	Outdoor unit module 2		RXYQ12U	RXYQ16U	RXYQ14U	RXYQ16U	RXYQ18U	RXYQ16U	RXYQ18U	RXYQ20U	RXYQ10U		
	Outdoor unit module 3		-									RXYQ20U	
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	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		
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	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		
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	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		
Cooling capacity	Prated,c	kW	61.5 (1)	67.4 (1)	73.5 (1)	78.5 (1)	83.9 (1)	90.0 (1)	95.4 (1)	97.0 (1)	102.4 (1)		
Heating capacity	Nom.	6°CWB	61.5 (2)	67.4 (2)	73.5 (2)	78.5 (2)	83.9 (2)	90.0 (2)	95.4 (2)	101.0 (2)	106.4 (2)		
	Prated,h		61.5 (2)	67.4 (2)	73.5 (2)	78.5 (2)	83.9 (2)	90.0 (2)	95.4 (2)	101.0 (2)	106.4 (2)		
	Max.	6°CWB	69.0 (2)	75.0 (2)	82.5 (2)	87.5 (2)	94.0 (2)	100.0 (2)	106.5 (2)	113.0 (2)	119.5 (2)		
Power input - 50Hz	Heating	Nom.	6°CWB	kW	17.23 (2)	17.94 (2)	20.33 (2)	22.19 (2)	23.87 (2)	25.08 (2)	26.76 (2)	30.02 (2)	30.45 (2)
COP at nom. capacity	6°CWB	kW/kW	3.57 (2)	3.76 (2)	3.61 (2)	3.54 (2)	3.51 (2)	3.59 (2)	3.56 (2)	3.36 (2)	3.49 (2)		
ESEER - Automatic			7.07	6.81	6.89	6.69	6.60	6.50	6.44	6.02	6.36		
ESEER - Standard			5.58	5.42	5.39	5.23	5.17	5.05	5.01	4.68	5.03		
SCOP			4.4	4.3	4.2		4.3	4.2		4.1	4.3		
SCOP recommended combination 2			4.4	4.3	4.2		4.3	4.2	4.3	4.2	4.3		
SCOP recommended combination 3			4.3	4.2		4.3	4.1	4.2	4.1	4.2			
SEER			6.9	6.8	6.7	6.5		6.4		6.3	6.9		
SEER recommended combination 2			6.7	6.6	6.5	6.3		6.3		6.8			
SEER recommended combination 3			6.9	6.7	6.6	6.4	6.5	6.2	6.3		6.9		
ηs,c		%	274.5	269.9	264.2	257.8	256.8	251.7	253.3	250.8	272.4		
ηs,h		%	171.2	167.0	164.6	166.0	169.8	163.1	166.2	162.4	167.5		
Space cooling	A Condition	EERd	2.6	2.5	2.6	2.3	2.1	2.3	2.1		2.4		
	(35°C - 27/19) Pdc	kW	61.5	67.4	73.5	78.5	83.9	90.0	95.4	97.0	102.4		
	B Condition	EERd	4.8	4.6		4.4	4.3		4.2	4.1	4.5		
	(30°C - 27/19) Pdc	kW	45.3	49.7	54.2	57.8	61.8	66.3	70.3	71.5	75.5		
	C Condition	EERd	8.5	8.6	8.2	8.1	8.2	8.1		7.9	8.5		
(25°C - 27/19) Pdc	kW	29.1	31.9	34.8	37.2	39.7	42.6	45.2	45.9	48.5			
D Condition	EERd	16.0	15.2	14.2	14.3	16.8	14.3	16.8	16.7	17.9			
(20°C - 27/19) Pdc	kW	18.8	15.8	16.2	16.5	21.0	19.0	20.1	20.4	21.6			
Space cooling recom- mended combination 2	A Condition	EERd	2.6	2.4	2.6	2.3	2.1	2.2	2.1		2.3		
	(35°C - 27/19) Pdc	kW	61.5	67.4	73.5	78.5	83.9	90.0	95.4	97.0	102.4		
	B Condition	EERd	4.6	4.5	4.4	4.3	4.2		4.1	4.5			
	(30°C - 27/19) Pdc	kW	45.3	49.7	54.1	57.8	61.8	66.3	70.3	71.5	75.4		
C Condition	EERd	8.2	8.4	7.9	7.8	7.9	8.0	8.1	7.9	8.4			
(25°C - 27/19) Pdc	kW	29.1	31.9	34.8	37.2	39.7	42.6	45.2	45.9	48.5			
Space cooling recom- mended combination 2	D Condition	EERd	15.6	14.7	13.6	13.8	16.1	14.0	16.5		17.8		
	(20°C - 27/19) Pdc	kW	18.4	15.4	15.7	16.5	20.5	18.9	20.1	20.4	21.6		
	A Condition	EERd	2.5		2.3	2.1	2.2	2.1		2.4			
	(35°C - 27/19) Pdc	kW	61.5	67.4	73.5	78.5	83.9	90.0	95.4	97.0	102.4		
Space cooling recom- mended combination 3	B Condition	EERd	4.8	4.5		4.3		4.1		4.0	4.5		
	(30°C - 27/19) Pdc	kW	45.3	49.7	54.2	57.8	61.8	66.3	70.3	71.5	75.5		
	C Condition	EERd	8.5	8.4	8.1	8.0	8.2	7.8	8.0	7.8	8.5		
	(25°C - 27/19) Pdc	kW	29.1	31.9	34.8	37.2	39.7	42.6	45.2	45.9	48.5		
	D Condition	EERd	15.8	15.2	14.0	14.1	16.6	13.8	16.6	16.5	17.9		
(20°C - 27/19) Pdc	kW	18.8	15.7	16.0	16.6	21.0	19.0	20.1	20.4	21.6			

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Technical specifications System				RXYQ22UD	RXYQ24UD	RXYQ26UD	RXYQ28UD	RXYQ30UD	RXYQ32UD	RXYQ34UD	RXYQ36UD	RXYQ38UD	
Space heating (Average climate)	TBivalent	COPd (declared COP)		2.3	2.5	2.3	2.2	2.1	2.4	2.2	2.1	2.2	
		Pdh (declared heating cap)		kW	34.4	36.9	39.0	41.6	46.3	46.4	51.1	54.2	60.7
		Tbiv (bivalent temperature)		°C	-10								
	TOL	COPd (declared COP)		2.3	2.5	2.3	2.2	2.1	2.4	2.2	2.1	2.2	
		Pdh (declared heating cap)		kW	34.4	36.9	39.0	41.6	46.3	46.4	51.1	54.2	60.7
		Tol (temperature operating limit)		°C	-10								
	A Condition (-7°C)	COPd (declared COP)		2.6	2.8	2.6		2.7		2.6	2.5		
		Pdh (declared heating cap)		kW	30.4	32.6	34.5	36.8	41.0		45.2	47.9	53.7
	B Condition (2°C)	COPd (declared COP)		4.0	3.7	3.8			3.9	3.6	3.7		
		Pdh (declared heating cap)		kW	18.5	19.9	21.0	22.4	24.9	25.0	27.5	29.2	32.7
	C Condition (7°C)	COPd (declared COP)		6.3		6.1	6.2	6.5	6.3	6.5	6.4	6.5	
		Pdh (declared heating cap)		kW	11.9	13.0	13.5	14.4	16.0	16.1	17.7	18.8	21.3
	D Condition (12°C)	COPd (declared COP)		8.2	8.9	8.8			9.0		8.8	8.6	8.7
		Pdh (declared heating cap)		kW	6.0	5.7	6.0	6.4	7.1		7.9	8.3	13.1
Space heating (Average climate) recommended combination 2	A Condition (-7°C)	COPd (declared COP)		2.6	2.7	2.6		2.7		2.6	2.5		
		Pdh (declared heating cap)		kW	30.4	32.6	34.5	36.8	41.0		45.2	47.9	53.7
		COPd (declared COP)		4.1	3.7	3.8			3.9	3.6	3.7		
	B Condition (2°C)	Pdh (declared heating cap)		kW	18.5	19.9	21.0	22.4	24.9	25.0	27.5	29.2	32.7
		COPd (declared COP)		6.3		6.1	6.3	6.6	6.3	6.6	6.5		
	C Condition (7°C)	Pdh (declared heating cap)		kW	11.9	13.1		14.4	16.0	16.1	17.7	18.8	21.3
		D Condition (12°C)		COPd (declared COP)		8.4	9.0	8.9	9.1		8.9		8.8
		Pdh (declared heating cap)		kW	6.0	5.7	6.0	6.4	7.2	7.1	7.9	8.3	13.2
		TBivalent	COPd (declared COP)		2.2	2.4	2.2		2.1	2.4	2.2		2.3
	Pdh (declared heating cap)		kW	34.4	36.9	39.0	41.6	46.3	46.4	51.1	54.2	60.7	
	Tbiv (bivalent temperature)		°C	-10									
	TOL	COPd (declared COP)		2.2	2.4	2.2		2.1	2.4	2.2		2.3	
		Pdh (declared heating cap)		kW	34.4	36.9	39.0	41.6	46.3	46.4	51.1	54.2	60.7
		Tol (temperature operating limit)		°C	-10								
Space heating (Average climate) recommended combination 2	TOL	Tol (temperature operating limit)											
Space heating (Average climate) recommended combination 3	A Condition (-7°C)	COPd (declared COP)		2.6	2.7	2.6		2.5	2.7	2.6	2.4	2.5	
		Pdh (declared heating cap)		kW	30.4	32.6	34.5	36.8	41.0		45.2	47.9	53.7
	B Condition (2°C)	COPd (declared COP)		4.0	3.7	3.8			3.9	3.6	3.7	3.6	3.8
		Pdh (declared heating cap)		kW	18.5	19.9	21.0	22.4	24.9	25.0	27.5	29.2	32.7
	C Condition (7°C)	COPd (declared COP)		6.2	6.3	6.1	6.2	6.3		6.4	6.3		
		Pdh (declared heating cap)		kW	11.9	12.9	13.5	14.4	16.0	16.1	17.7	18.8	21.2
	D Condition (12°C)	COPd (declared COP)		8.2	8.9	8.8	9.0	8.6	9.0	8.9	8.3	8.5	
		Pdh (declared heating cap)		kW	6.0	5.7	6.0	6.4	7.1		7.9	8.3	12.9
	TBivalent	COPd (declared COP)		2.3	2.4	2.2		2.1	2.4	2.2	2.1	2.2	
		Pdh (declared heating cap)		kW	34.4	36.9	39.0	41.6	46.3	46.4	51.1	54.2	60.7
		Tbiv (bivalent temperature)		°C	-10								
	TOL	COPd (declared COP)		2.3	2.4	2.2		2.1	2.4	2.2	2.1	2.2	
		Pdh (declared heating cap)		kW	34.4	36.9	39.0	41.6	46.3	46.4	51.1	54.2	60.7
		Tol (temperature operating limit)		°C	-10								
Capacity range	HP			22	24	26	28	30	32	34	36	38	
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	400.0	425.0	450.0	475.0	
	Max.			715.0	780.0	845.0	910.0	975.0	1,040.0	1,105.0	1,170.0	1,235.0	
Heat exchanger	Indoor side		Air										
	Outdoor side		Air										
	Air flow rate	Cooling	Rated	m ³ /h	21,600	25,320	24,480	26,700	26,160	31,200	30,660	31,260	35,880
		Heating	Rated	m ³ /h	21,600	25,320	24,480	26,700	26,160	31,200	30,660	31,260	35,880
Sound power level	Cooling	Nom.	dBA	84.8 (4)	86.3 (4)	85.3 (4)	87.6 (4)	86.6 (4)	88.6 (4)	87.8 (4)	89.9 (4)	88.8 (4)	
	Heating	Prated,h	dBA	85.4 (4)	87.3 (4)	86.3 (4)	88.3 (4)	87.5 (4)	89.5 (4)	88.9 (4)	91.5 (4)	90.7 (4)	
Sound pressure level	Cooling	Nom.	dBA	62.5 (5)	64.0 (5)	63.5 (5)	65.1 (5)	64.5 (5)	66.0 (5)	65.5 (5)	67.1 (5)	66.2 (5)	
Refrigerant	Type			R-410A									
	GWP			2,087.5									
Refrigerant oil	Type			Synthetic (ether) oil FVC68D									
Piping connections	Liquid	Type			Braze connection								
		OD	mm	15.9			19.1						
	Gas	Type			Braze connection								
		OD	mm	28.6	34.9					41.3			
	Total piping length	System	Actual	m	1,000 (6)								
Indication if the heater is equipped with a supplementary heater					no								
Supplementary heater	Back-up capacity	Heating elbu	kW	0.0									

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Technical specifications System					RXYQ22UD	RXYQ24UD	RXYQ26UD	RXYQ28UD	RXYQ30UD	RXYQ32UD	RXYQ34UD	RXYQ36UD	RXYQ38UD	
Power consumption in other than active mode	Crankcase heater mode	Cooling	PCK	kW	0.000									
		Heating	PCK	kW	0.103	0.129			0.141	0.154	0.166		0.192	
	Off mode	Cooling	POFF	kW	0.081	0.115			0.116	0.149	0.150		0.157	
		Heating	POFF	kW	0.103	0.129			0.141	0.154	0.166		0.192	
	Standby mode	Cooling	PSB	kW	0.081	0.115			0.116	0.149	0.150		0.157	
		Heating	PSB	kW	0.103	0.129			0.141	0.154	0.166		0.192	
	Thermo-stat-off mode	Cooling	PTO	kW	0.009	0.014					0.019			
		Heating	PTO	kW	0.113	0.154			0.155	0.195	0.196		0.211	
Cooling	Cdc (Degradation cooling)			0.25										
Heating	Cdh (Degradation heating)			0.25										

Technical specifications System					RXYQ40UD	RXYQ42UD	RXYQ44UD	RXYQ46UD	RXYQ48UD	RXYQ50UD	RXYQ52UD	RXYQ54UD		
System	Outdoor unit module 1				RXYQ10U		RXYQ12U	RXYQ14U	RXYQ16U			RXYQ18U		
	Outdoor unit module 2				RXYQ12U		RXYQ16U			RXYQ18U				
	Outdoor unit module 3				RXYQ18U		RXYQ16U			RXYQ18U				
Recommended combination					9 x FXFQ50AVEB + 9 x FXFQ63AVEB	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	6 x FXFQ50AVEB + 14 x FXFQ63AVEB + 2 x FXFQ80AVEB	9 x FXFQ50AVEB + 15 x FXFQ63AVEB		
Recommended combination 2					9 x FXSQ50A2VEB + 9 x FXSQ63A2VEB	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	6 x FXSQ50A2VEB + 14 x FXSQ63A2VEB + 2 x FXSQ80A2VEB	9 x FXSQ50A2VEB + 15 x FXSQ63A2VEB		
Recommended combination 3					9 x FXMQ50P7VEB + 9 x FXMQ63P7VEB	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	6 x FXMQ50P7VEB + 14 x FXMQ63P7VEB + 2 x FXMQ80P7VEB	9 x FXMQ50P7VEB + 15 x FXMQ63P7VEB		
Cooling capacity	Prated,c	kW			111.9 (1)	118.0 (1)	123.5 (1)	130.0 (1)	135.0 (1)	140.4 (1)	145.8 (1)	151.2 (1)		
Heating capacity	Nom.	6°CWB	kW			111.9 (2)	118.0 (2)	123.5 (2)	130.0 (2)	135.0 (2)	140.4 (2)	145.8 (2)	151.2 (2)	
			Prated,h	kW			111.9 (2)	118.0 (2)	123.5 (2)	130.0 (2)	135.0 (2)	140.4 (2)	145.8 (2)	151.2 (2)
	Max.	6°CWB	kW			125.5 (2)	131.5 (2)	137.5 (2)	145.0 (2)	150.0 (2)	156.5 (2)	163.0 (2)	169.5 (2)	
Power input - 50Hz	Heating	Nom.	6°CWB	kW			31.45 (2)	32.66 (2)	34.73 (2)	35.77 (2)	37.62 (2)	39.30 (2)	42.66 (2)	
COP at nom. capacity	6°CWB			kW/kW			3.56 (2)	3.61 (2)	3.56 (2)	3.63 (2)	3.59 (2)	3.57 (2)	3.56 (2)	3.54 (2)
ESEER - Automatic							6.74	6.65	6.62	6.60	6.50	6.46	6.42	6.38
ESEER - Standard							5.29	5.19	5.17	5.13	5.05	5.02	4.99	4.97
SCOP							4.3	4.2		4.1		4.2		4.3
SCOP recommended combination 2							4.4	4.3	4.2			4.3		
SCOP recommended combination 3							4.3	4.2		4.1		4.2		
SEER							6.7	6.6	6.5	6.4				
SEER recommended combination 2							6.6		6.3	6.4	6.3		6.4	
SEER recommended combination 3							6.7	6.5	6.3		6.2	6.3	6.4	
ηs,c							263.5	261.2	255.9	254.9	251.7	252.8	253.7	254.1
ηs,h							170.0	165.5	164.5	162.0	162.8	165.2	167.2	169.4
Space cooling	A Condition (35°C - 27/19) Pdc	EERd	kW			2.2	2.3		2.4	2.3	2.1	2.0	1.9	
			kW			111.9	118.0	123.5	130.0	135.0	140.4	145.8	151.2	
	B Condition (30°C - 27/19) Pdc	EERd	kW			4.5	4.4			4.3	4.2		4.1	
			kW			82.5	86.9	91.0	95.8	99.5	103.4	107.4	111.4	
	C Condition (25°C - 27/19) Pdc	EERd	kW			8.3	8.2			8.1				
			kW			53.0	55.9	58.5	61.6	64.0	66.5	69.1	71.6	
	D Condition (20°C - 27/19) Pdc	EERd	kW			16.0	15.4	14.4	14.3		15.9	17.6	19.1	
			kW			23.6	24.8	26.0	27.4	28.4	29.6	30.7	34.4	
Space cooling recommended combination 2	A Condition (35°C - 27/19) Pdc	EERd	kW			2.2	2.3		2.2	2.1	2.0	1.9		
			kW			111.9	118.0	123.5	130.0	135.0	140.4	145.8	151.2	
	B Condition (30°C - 27/19) Pdc	EERd	kW			82.4	86.9	91.0	95.8	99.5	103.5	107.4	111.4	
kW			8.1	8.2	7.9	8.1	8.0		8.1					
Space cooling recommended combination 2	D Condition (20°C - 27/19) Pdc	EERd	kW			15.9	15.3	14.0	14.0					
			kW			23.6	24.8	26.0	27.4	28.4	29.6	30.7	34.1	
Space cooling recommended combination 3	A Condition (35°C - 27/19) Pdc	EERd	kW			2.2	2.3		2.2	2.1	2.0	1.9		
			kW			111.9	118.0	123.5	130.0	135.0	140.4	145.8	151.2	
	B Condition (30°C - 27/19) Pdc	EERd	kW			4.4	4.3		4.2	4.1				
			kW			82.5	87.0	91.0	95.8	99.5	103.5	107.4	111.4	
	C Condition (25°C - 27/19) Pdc	EERd	kW			8.4	7.9			7.8	7.9	8.0	8.2	
			kW			53.0	55.9	58.5	61.6	63.9	66.5	69.1	71.6	
D Condition (20°C - 27/19) Pdc	EERd	kW			16.1	15.2	14.2	13.9	13.8	15.6	17.5	19.1		
		kW			23.6	24.8	26.0	27.4	28.4	29.6	30.7	34.7		

2 Specifications

2 - 1 Specifications

Technical specifications System				RXYQ40UD	RXYQ42UD	RXYQ44UD	RXYQ46UD	RXYQ48UD	RXYQ50UD	RXYQ52UD	RXYQ54UD			
Space heating (Average climate)	TBivalent	COPd (declared COP)		2.2	2.4	2.3	2.4		2.3	2.2	2.1			
		Pdh (declared heating cap)		kW	62.3	62.4	64.8	67.0	69.6	74.3	79.0	83.7		
		Tbiv (bivalent temperature)		°C	-10									
	TOL	COPd (declared COP)		2.2	2.4	2.3	2.4		2.3	2.2	2.1			
		Pdh (declared heating cap)		kW	62.3	62.4	64.8	67.0	69.6	74.3	79.0	83.7		
		Tol (temperature operating limit)		°C	-10									
	A Condition (-7°C)	COPd (declared COP)		2.6				2.7		2.6				
		Pdh (declared heating cap)		kW	55.1	55.2	57.3	59.3	61.6	65.7	69.9	74.0		
	B Condition (2°C)	COPd (declared COP)		4.0	3.7			3.6		3.7	3.8	3.9		
		Pdh (declared heating cap)		kW	33.5	33.6	34.9	36.1	37.5	40.0	42.5	45.1		
	C Condition (7°C)	COPd (declared COP)		6.5	6.3					6.2	6.3	6.5	6.6	6.8
		Pdh (declared heating cap)		kW	21.6		22.4	23.2	24.1	25.7	27.4	29.0		
	D Condition (12°C)	COPd (declared COP)		8.7	8.6			8.7		8.8	8.9	9.0		
		Pdh (declared heating cap)		kW	13.1	9.9	10.0	10.3	10.7	12.0	14.2			
Space heating (Average climate) recommended combination 2	A Condition (-7°C)	COPd (declared COP)		2.6				2.7		2.6				
		Pdh (declared heating cap)		kW	55.1	55.2	57.3	59.3	61.6	65.7	69.9	74.0		
		COPd (declared COP)		4.0	3.7			3.6		3.7	3.8	3.9		
	B Condition (2°C)	Pdh (declared heating cap)		kW	33.5	33.6	34.9	36.1	37.5	40.0	42.6	45.1		
		COPd (declared COP)		6.5	6.4					6.3	6.5	6.7	6.8	
	C Condition (7°C)	Pdh (declared heating cap)		kW	21.6		22.4	22.8	24.1	25.7	27.4	29.0		
		D Condition (12°C)		COPd (declared COP)		8.8	8.7			8.8	8.9	9.0	9.1	
	Pdh (declared heating cap)		kW	13.2	10.0		10.3	10.7	12.2	14.4				
	TBivalent	COPd (declared COP)		2.2	2.4	2.3	2.4		2.3	2.2	2.1			
		Pdh (declared heating cap)		kW	62.3	62.4	64.8	67.0	69.6	74.3	79.0	83.7		
		Tbiv (bivalent temperature)		°C	-10									
	TOL	COPd (declared COP)		2.2	2.4	2.3	2.4		2.3	2.2	2.1			
		Pdh (declared heating cap)		kW	62.3	62.4	64.8	67.0	69.6	74.3	79.0	83.7		
	Space heating (Average climate) recommended combination 2	TOL	Tol (temperature operating limit)		°C -10									
Space heating (Average climate) recommended combination 3	A Condition (-7°C)	COPd (declared COP)		2.6	2.7	2.6	2.7		2.6		2.5			
		Pdh (declared heating cap)		kW	55.1	55.2	57.3	59.3	61.6	65.7	69.9	74.0		
	B Condition (2°C)	COPd (declared COP)		3.9	3.7			3.6		3.7				
		Pdh (declared heating cap)		kW	33.5	33.6	34.9	36.1	37.5	40.0	42.5	45.1		
	C Condition (7°C)	COPd (declared COP)		6.4	6.3	6.2			6.3	6.4		6.5		
		Pdh (declared heating cap)		kW	21.6		22.4	23.2	24.1	25.7	27.3	29.0		
	D Condition (12°C)	COPd (declared COP)		8.4	8.6			8.7	8.8	8.7				
		Pdh (declared heating cap)		kW	12.8	9.9	10.0	10.3	10.7	11.8	13.7			
	TBivalent	COPd (declared COP)		2.2	2.4	2.3	2.4		2.2		2.1			
		Pdh (declared heating cap)		kW	62.3	62.4	64.8	67.0	69.6	74.3	79.0	83.7		
		Tbiv (bivalent temperature)		°C	-10									
	TOL	COPd (declared COP)		2.2	2.4	2.3	2.4		2.2		2.1			
		Pdh (declared heating cap)		kW	62.3	62.4	64.8	67.0	69.6	74.3	79.0	83.7		
	Tol (temperature operating limit)		°C	-10										
Capacity range	HP	40		42	44	46	48	50	52	54				
PED	Category	Category II												
Maximum number of connectable indoor units		64 (3)												
Indoor index connection	Min.	500.0		525.0	550.0	575.0	600.0	625.0	650.0	675.0				
	Max.	1,300.0		1,365.0	1,430.0	1,495.0	1,560.0	1,625.0	1,690.0	1,755.0				
Heat exchanger	Indoor side		Air											
	Outdoor side		Air											
	Air flow rate	Cooling	Rated	m ³ /h	36,660	41,700	42,300	44,580	46,800	46,260	45,720	45,180		
		Heating	Rated	m ³ /h	36,660	41,700	42,300	44,580	46,800	46,260	45,720	45,180		
Sound power level	Cooling	Nom.	dBA	87.3 (4)	89.1 (4)	89.8 (4)	89.3 (4)	90.4 (4)	89.8 (4)	89.3 (4)	88.6 (4)			
	Heating	Prated,h	dBA	88.4 (4)	90.1 (4)	90.5 (4)	90.4 (4)	91.3 (4)	90.9 (4)	90.5 (4)	90.1 (4)			
Sound pressure level	Cooling	Nom.	dBA	65.2 (5)	66.5 (5)	67.2 (5)	67.0 (5)	67.8 (5)	67.5 (5)	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	mm	19.1										
	Gas	Type	Braze connection											
		OD	mm	41.3										
Total piping length	System	Actual	m	1,000 (6)										
Indication if the heater is equipped with a supplementary heater		no												
Supplementary heater	Back-up capacity	Heating	elbu	kW	0.0									

2 Specifications

2 - 1 Specifications

2

Technical specifications System					RXYQ40UD	RXYQ42UD	RXYQ44UD	RXYQ46UD	RXYQ48UD	RXYQ50UD	RXYQ52UD	RXYQ54UD
Power consumption in other than active mode	Crankcase heater mode	Cooling	PCK	kW	0.000							
		Heating	PCK	kW	0.192	0.206		0.231	0.243	0.255	0.267	
	Off mode	Cooling	POFF	kW	0.157	0.190		0.223	0.224	0.225	0.226	
		Heating	POFF	kW	0.192	0.206		0.231	0.243	0.255	0.267	
	Standby mode	Cooling	PSB	kW	0.157	0.190		0.223	0.224	0.225	0.226	
		Heating	PSB	kW	0.192	0.206		0.231	0.243	0.255	0.267	
	Thermo-stat-off mode	Cooling	PTO	kW	0.019	0.024		0.029				
		Heating	PTO	kW	0.211	0.251		0.292	0.293	0.294		
	Cooling	Cdc (Degradation cooling)			0.25							
	Heating	Cdh (Degradation heating)			0.25							

Electrical specifications System					RXYQ22UD	RXYQ24UD	RXYQ26UD	RXYQ28UD	RXYQ30UD	RXYQ32UD	RXYQ34UD	RXYQ36UD	RXYQ38UD
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 7								
	Zmax	List			No requirements								
Minimum Ssc value	kVa			11,573 (7)	11,597 (7)	12,831 (7)	13,585 (7)	14,843 (7)	15,094 (7)	16,352 (7)	17,359 (7)	19,397 (7)	
Minimum circuit amps (MCA)	A			46.0 (8)		51.0 (8)	55.0 (8)	59.0 (8)	62.0 (8)	66.0 (8)	70.0 (8)	76.0 (8)	
Maximum fuse amps (MFA)	A			63 (9)					80 (9)			100 (9)	
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								

Electrical specifications System					RXYQ40UD	RXYQ42UD	RXYQ44UD	RXYQ46UD	RXYQ48UD	RXYQ50UD	RXYQ52UD	RXYQ54UD
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 7							
	Zmax	List			No requirements							
Minimum Ssc value	kVa			20,378 (7)	20,629 (7)	21,132 (7)	21,887 (7)	22,641 (7)	23,899 (7)	25,157 (7)	26,415 (7)	
Minimum circuit amps (MCA)	A			81.0 (8)	84.0 (8)	86.0 (8)	89.0 (8)	93.0 (8)	97.0 (8)	101.0 (8)	105.0 (8)	
Maximum fuse amps (MFA)	A			100 (9)				125 (9)				
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							

3 Options

3 - 1 Options

RXYQ-UD

No	Item	RXYQ8U * RYYQ8U RXYQQ8U	RXYQ10-12U * RYYQ10-12U RXYQQ10-12U	RXYQ14-18U * RYYQ14-18U RXYQQ14-18U	RXYQ20U * RYYQ20U RXYQQ20U	RXYQ22~54U * RYYQ22~54U * 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-.			---		KKS26B1*		

Notes

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

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

3D120006B

4 Combination table

4 - 1 Combination Table

RXYQ-UD

**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: [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-UD

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

Combination table	RYYQ*	RYYQ*	RXVQ* RXMLQ* RXYLQ*	RXVQ* 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

RXYQ-UD

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

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

Remark

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

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

3D082373H

5 Capacity tables

5 - 2 Capacity Correction Factor

5

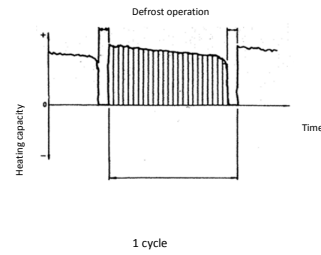
RXYQ-UD

VRV4 Heat pump Integrated heating capacity coefficient

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

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

Inlet air temperature of heat exchanger							
[°CDB/°CWB]	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.

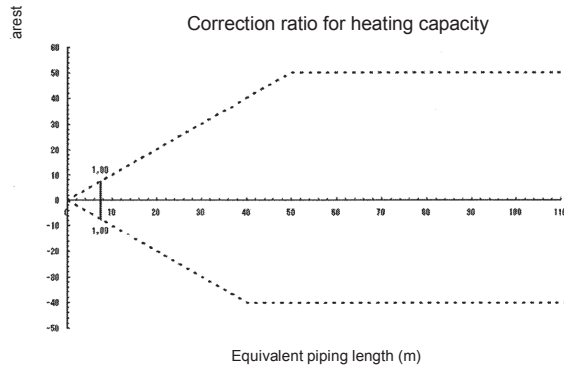
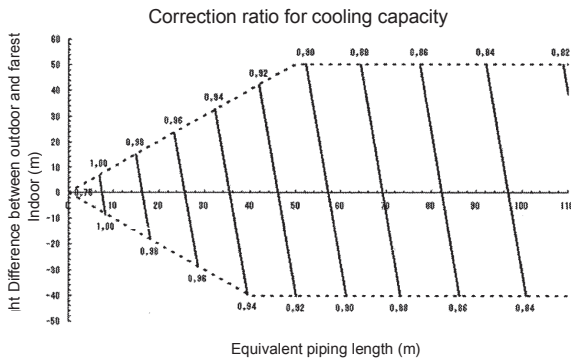
The multi-combination data 22~54HP corresponds with the standard multi-combination of drawing 3D079534.

3D079898A

5 Capacity tables

5 - 2 Capacity Correction Factor

RXYQ8UD



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%.

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

Condition: Indoor connection ratio exceeds 100%.

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

- 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
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

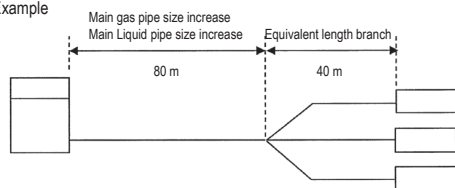
- Equivalent length used in the above figures is based upon the following equivalent length

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

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 (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

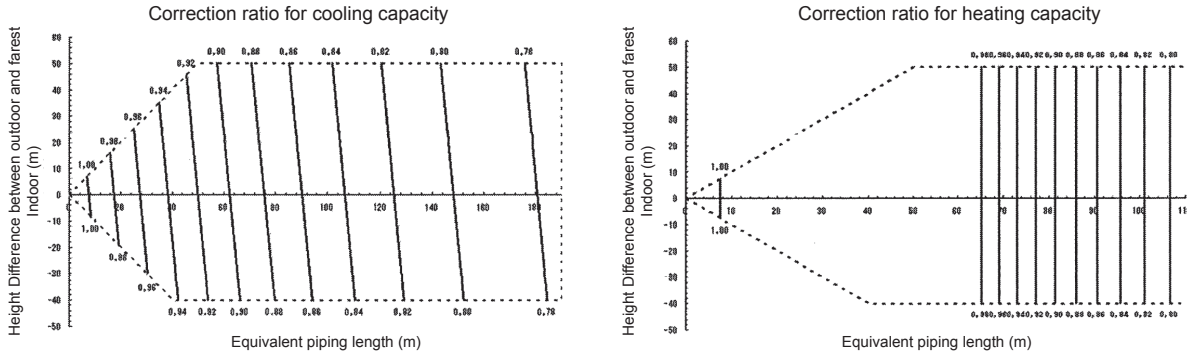
3D079897A

5 Capacity tables

5 - 2 Capacity Correction Factor

5

RXYQ10UD



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
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

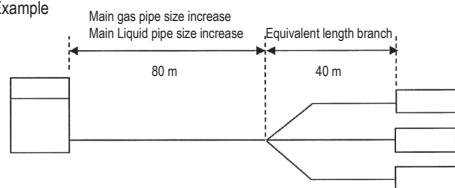
- Equivalent length used in the above figures is based upon the following equivalent length

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

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 (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

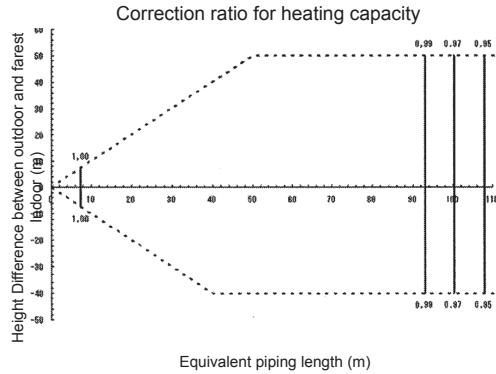
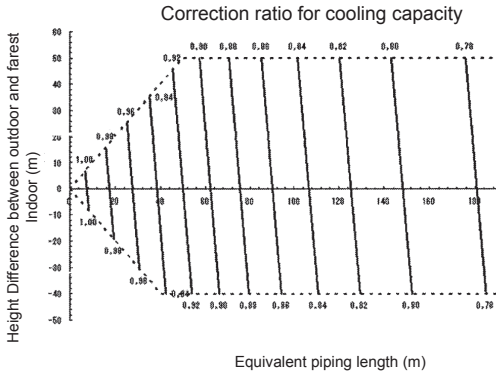
3D079897A

5 Capacity tables

5 - 2 Capacity Correction Factor

5

RXYQ46UD



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

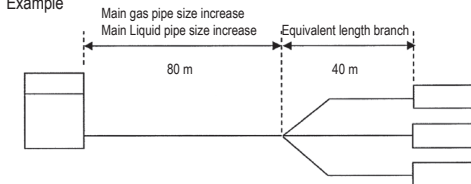
- Equivalent length used in the above figures is based upon the following equivalent length

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

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



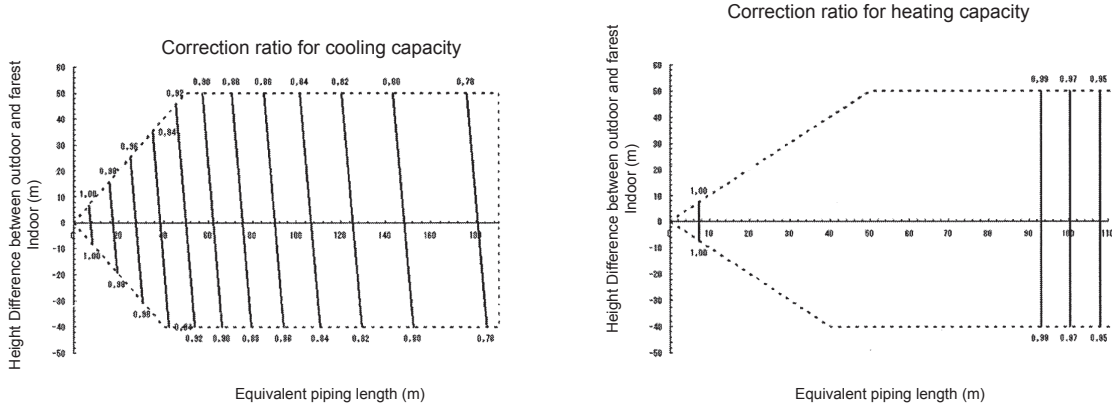
In the above case (Cooling) Overall equivalent length = 80 m x 1.0 + 40 m = 120 m
(Heating) Overall equivalent length = 80 m x 0.5 + 40 m = 80 m
The rate of change in cooling capacity when height difference = 0 is thus approximately 0.83
heating capacity when height difference = 0 is thus approximately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

3D079897A

5 Capacity tables

5 - 2 Capacity Correction Factor

RXYQ48UD



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
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

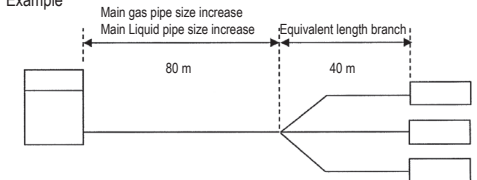
- Equivalent length used in the above figures is based upon the following equivalent length

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

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	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 0.97

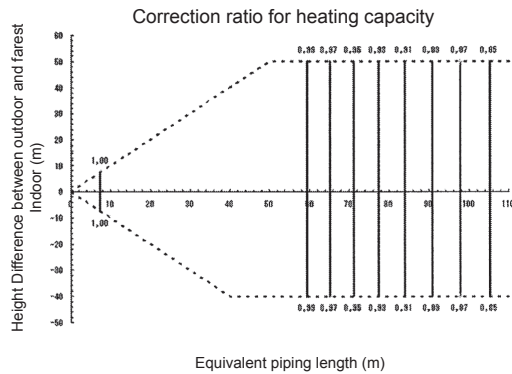
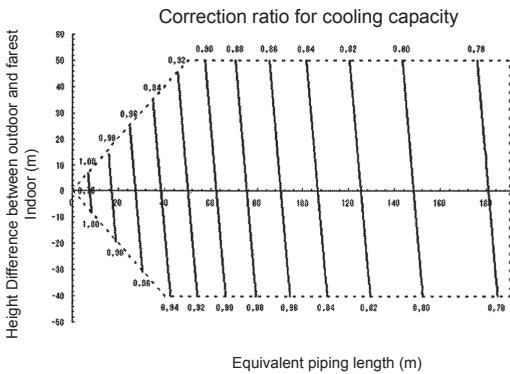
3D079897A

5 Capacity tables

5 - 2 Capacity Correction Factor

RXYQ50UD

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
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

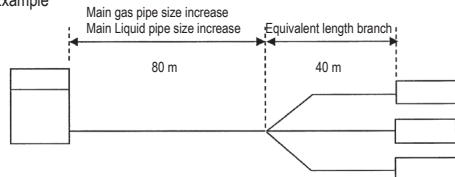
- Equivalent length used in the above figures is based upon the following equivalent length

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

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	0.5
Heating (liquid pipe)	1.0	0.5

Example



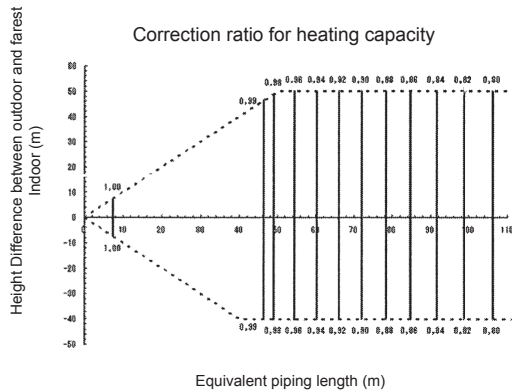
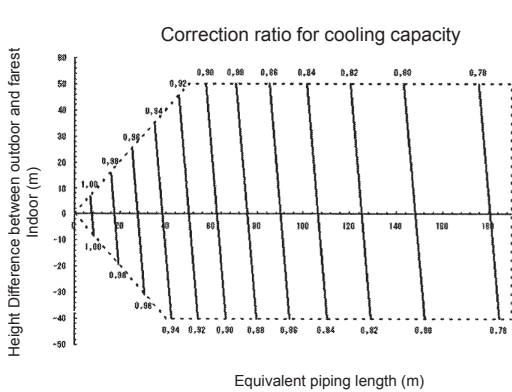
In the above case (Cooling) Overall equivalent length = 80 m x 1.0 + 40 m = 120 m
(Heating) Overall equivalent length = 80 m x 0.5 + 40 m = 80 m
The rate of change in cooling capacity when height difference = 0 is thus approximately 0.83
heating capacity when height difference = 0 is thus approximately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

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5 Capacity tables

5 - 2 Capacity Correction Factor

RXYQ52UD



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

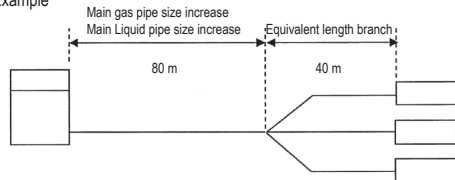
- Equivalent length used in the above figures is based upon the following equivalent length

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

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	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 0.88

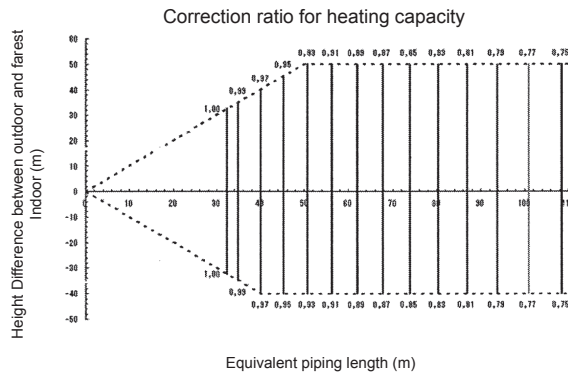
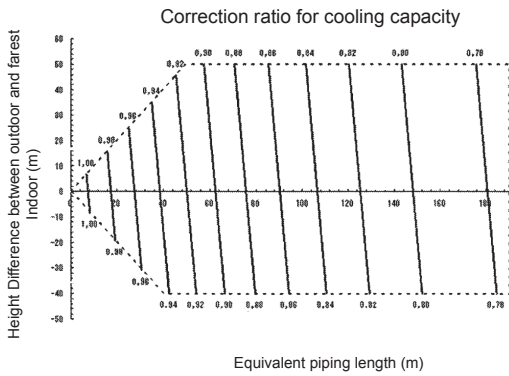
3D079897A

5 Capacity tables

5 - 2 Capacity Correction Factor

5

RXYQ54UD



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
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

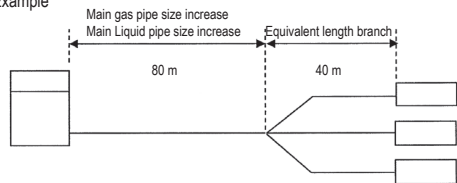
- Equivalent length used in the above figures is based upon the following equivalent length

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

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

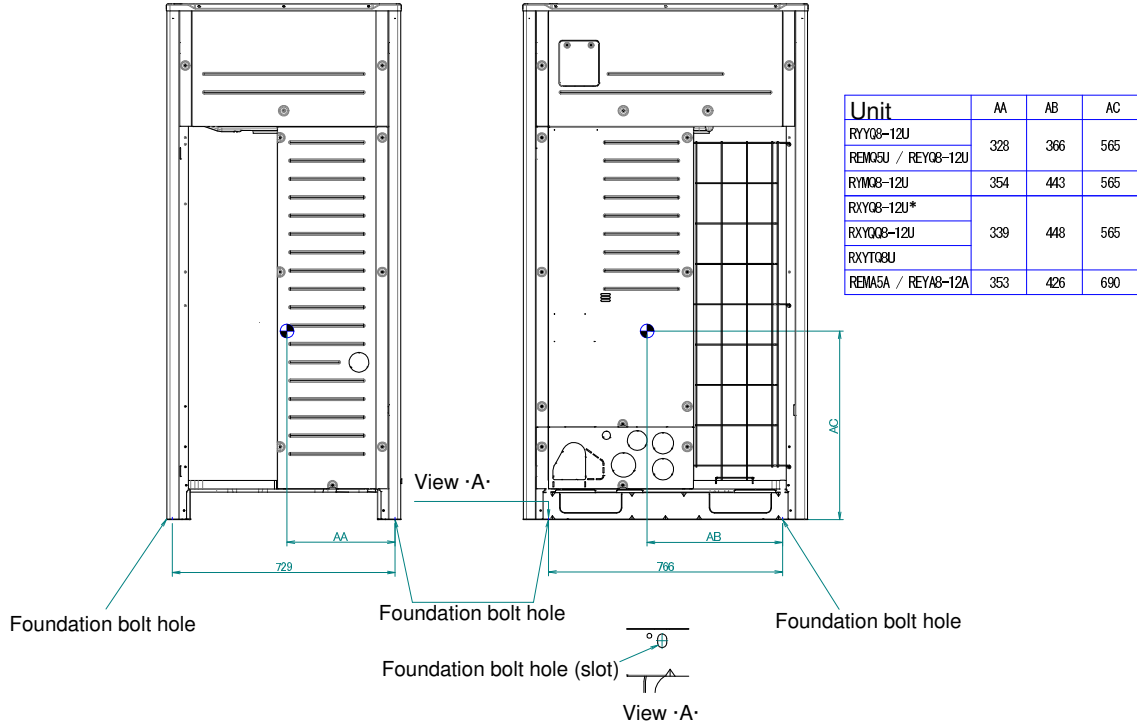
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7 Centre of gravity

7 - 1 Centre of Gravity

7

RXYQ8-12UD

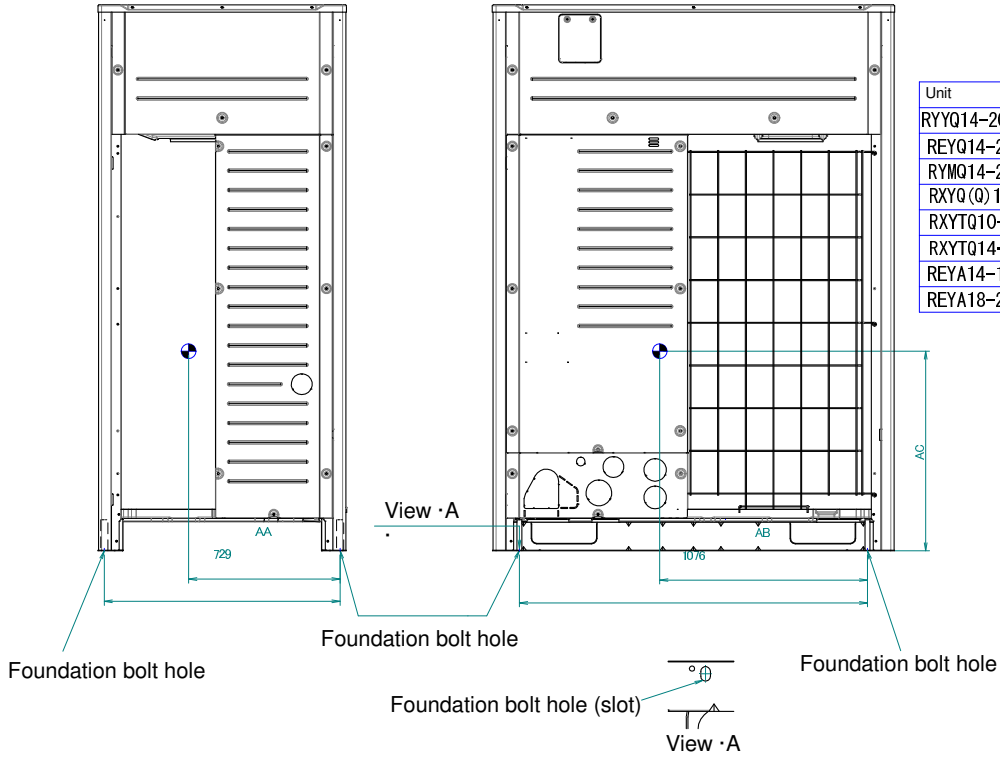


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7 Centre of gravity

7 - 1 Centre of Gravity

RXYQ14-20UD



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
REYA14-16A	339	596	758
REYA18-20A	350	587	752

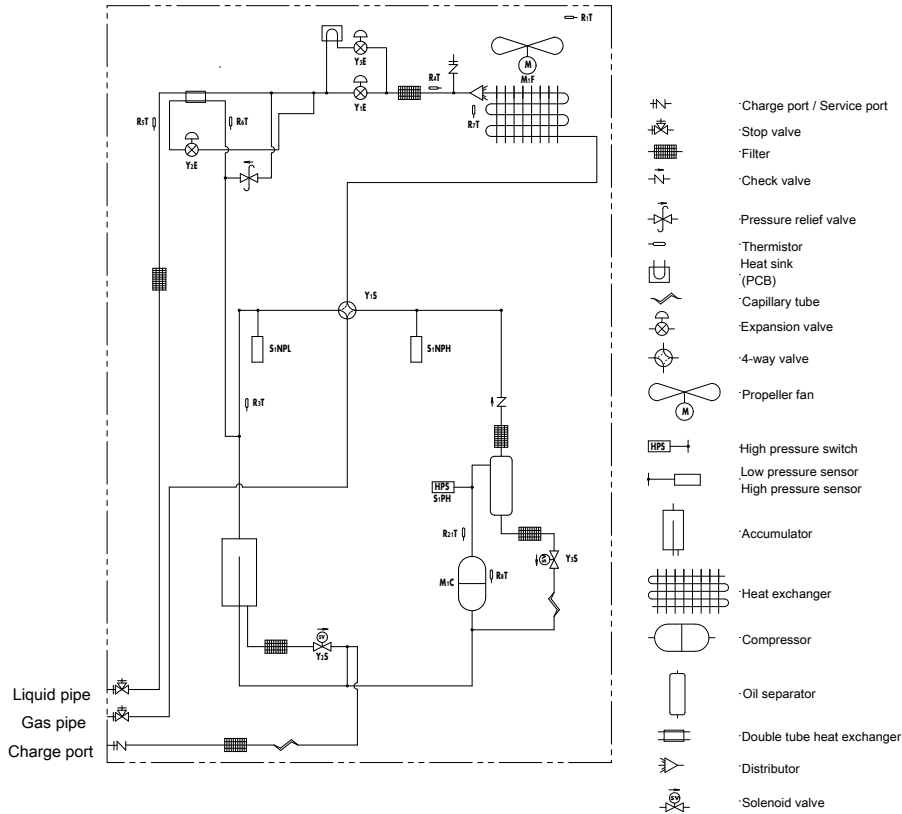
3D119704A

8 Piping diagrams

8 - 1 Piping Diagrams

8

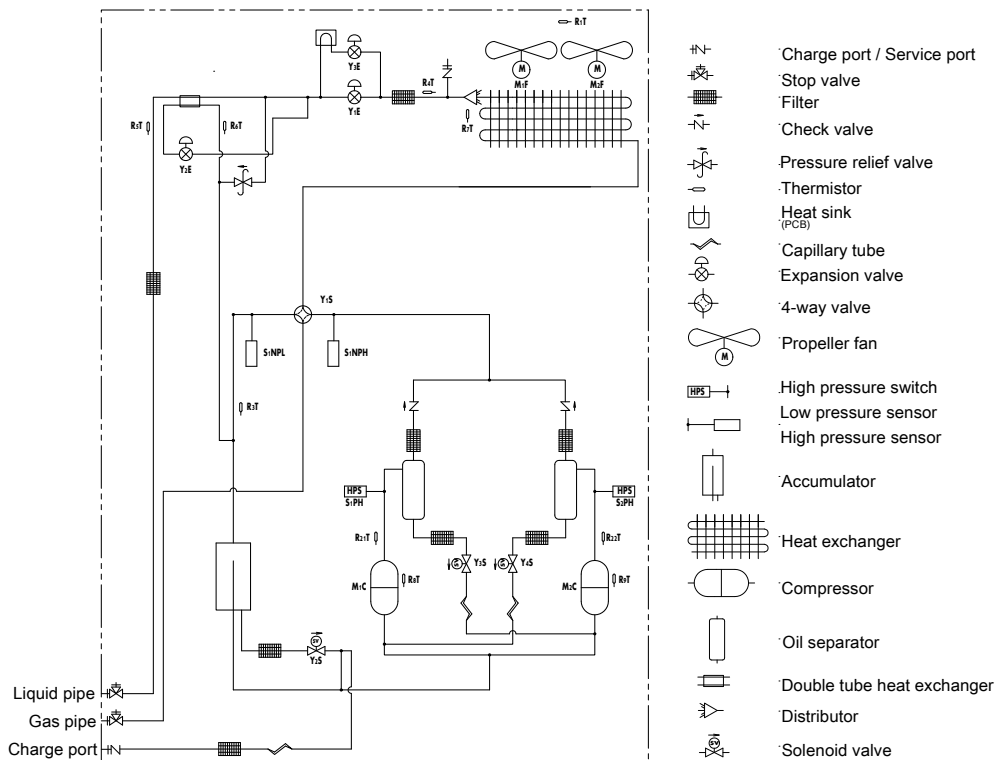
RXYQ8-12UD



- 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

3D118179

RXYQ14-20UD



- 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

3D118180

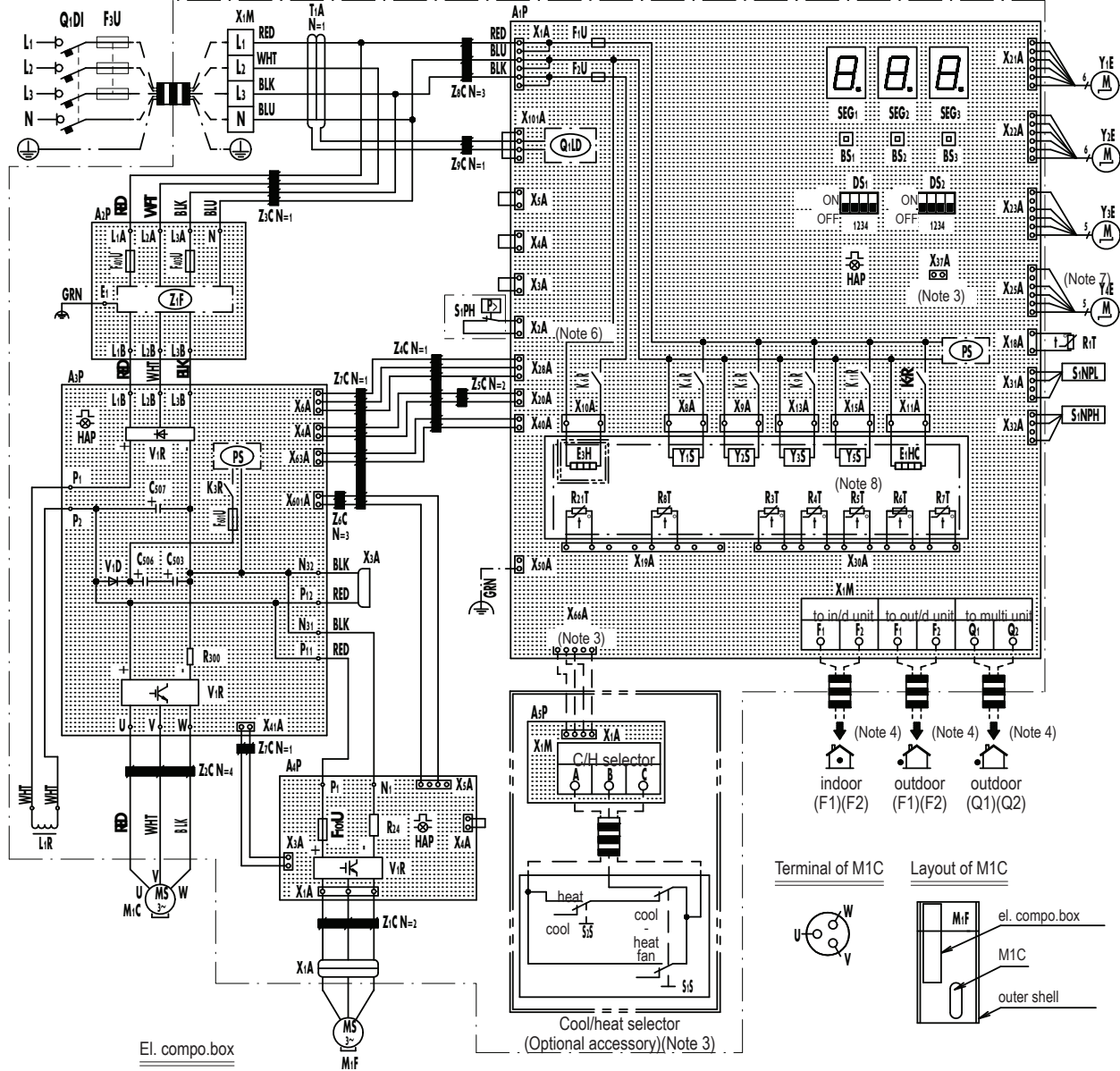
9 Wiring diagrams

9 - 1 Wiring Diagrams - Three Phase

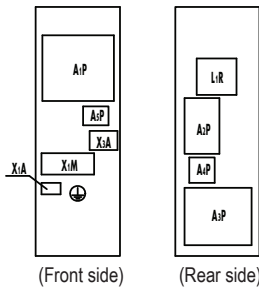
RXYQ8-12UD

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

Wiring diagram



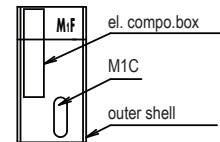
El. compo.box



Terminal of M1C



Layout of M1C



2D117534

9 Wiring diagrams

9 - 1 Wiring Diagrams - Three Phase

9

RXYQ8-12UD

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

- This wiring diagram applies only to the outdoor unit.
- : field wiring, □□□□: terminal block, ⊗□: connector, ○-: terminal, ⊕: protective earth (screw), ⚡: functional earth,
 — — —: earth wiring, — — —: field supply, □□□□: PCB, □□□□: switch box, □□□□: option
- When using the optional adapter, refer to the installation manual of the optional adapter.
- For connection wiring to indoor-outdoor transmission F1-F2, outdoor-outdoor transmission F1-F2, outdoor-multi transmission Q1-Q2, refer to the installation manual.
- How to use BS1~3 switch. Refer to "service precaution" label on el. compo. box cover.
- When operating, don't shortcircuit the protection devices (S1PH).
- Only for RYYQ model.
- Only for RYYQ/RYYMQ model.
- Colors: BLK: Black, RED: Red, BLU: Blue, WHT: White, GRN: Green.

2D117534

10 External connection diagrams

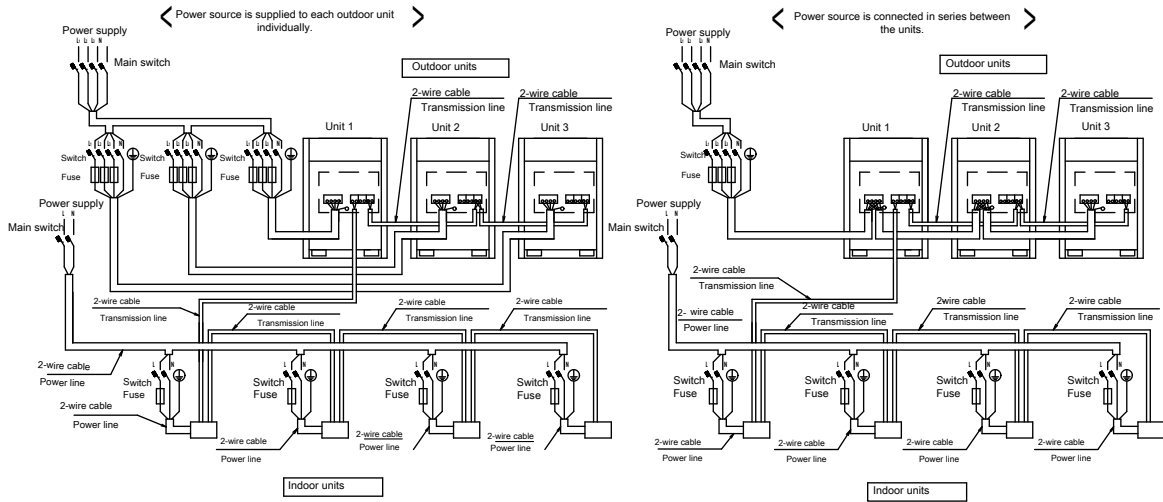
10 - 1 External Connection Diagrams

10

RXYQ8-20UD

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.

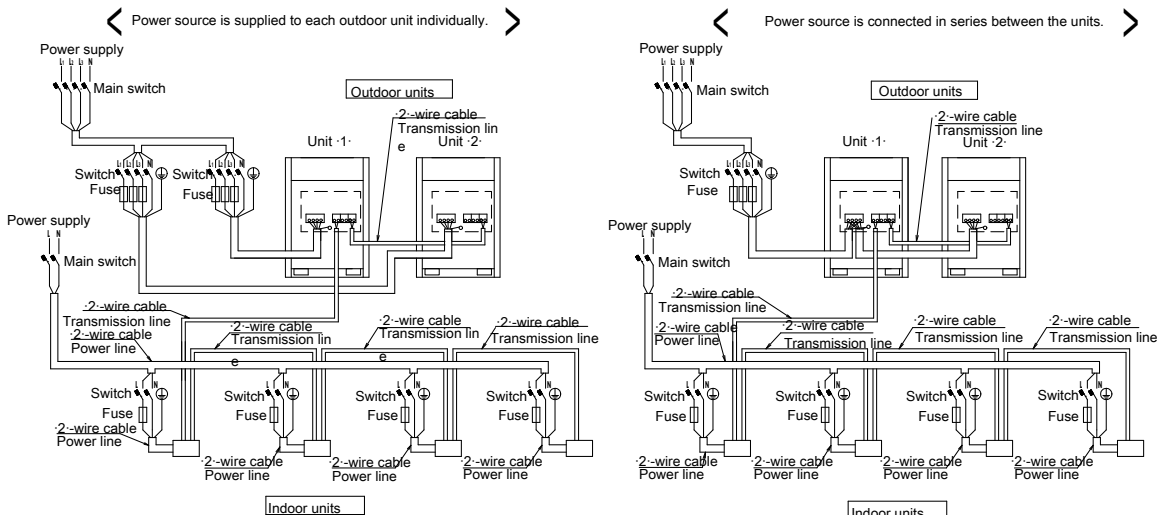


3D119200

RXYQ8-20UD

Notes

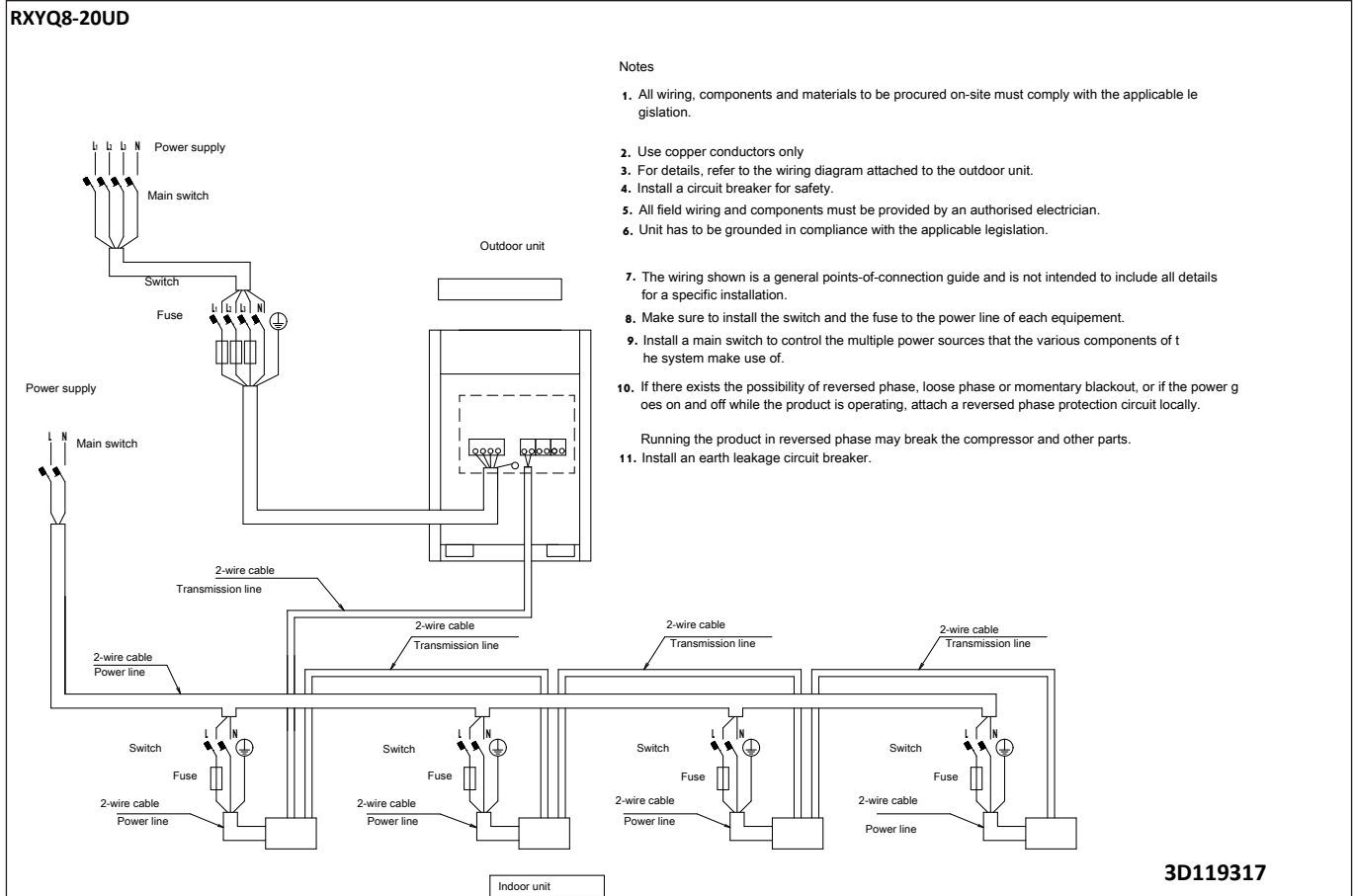
1. All wiring, components and materials to be procured on-site must comply with the applicable legislation.
2. Use copper conductors only
3. For details, refer to the wiring diagram attached to the outdoor unit.
4. Install a circuit breaker for safety.
5. All field wiring and components must be provided 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

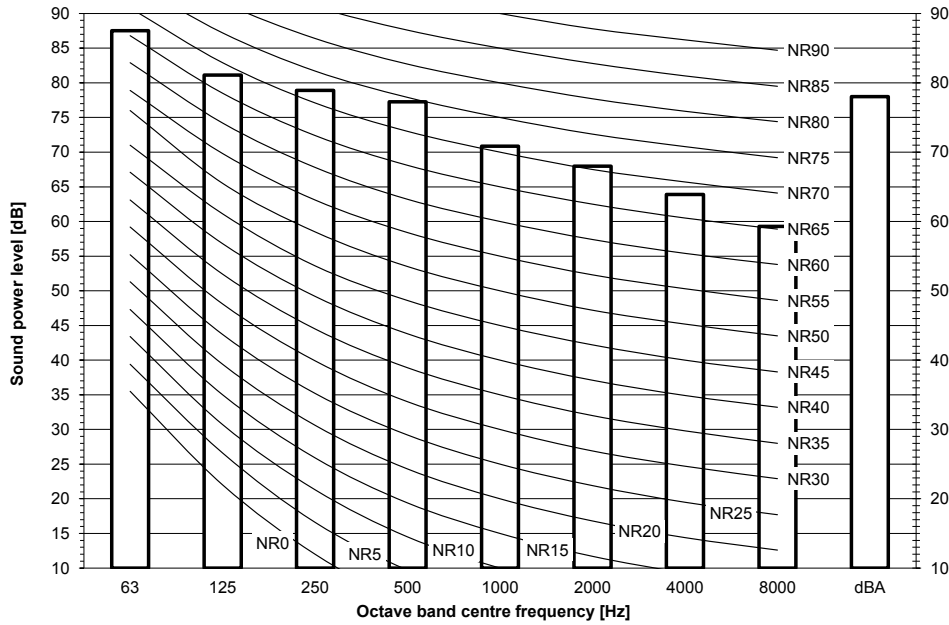


11 Sound data

11 - 1 Sound Power Spectrum

11

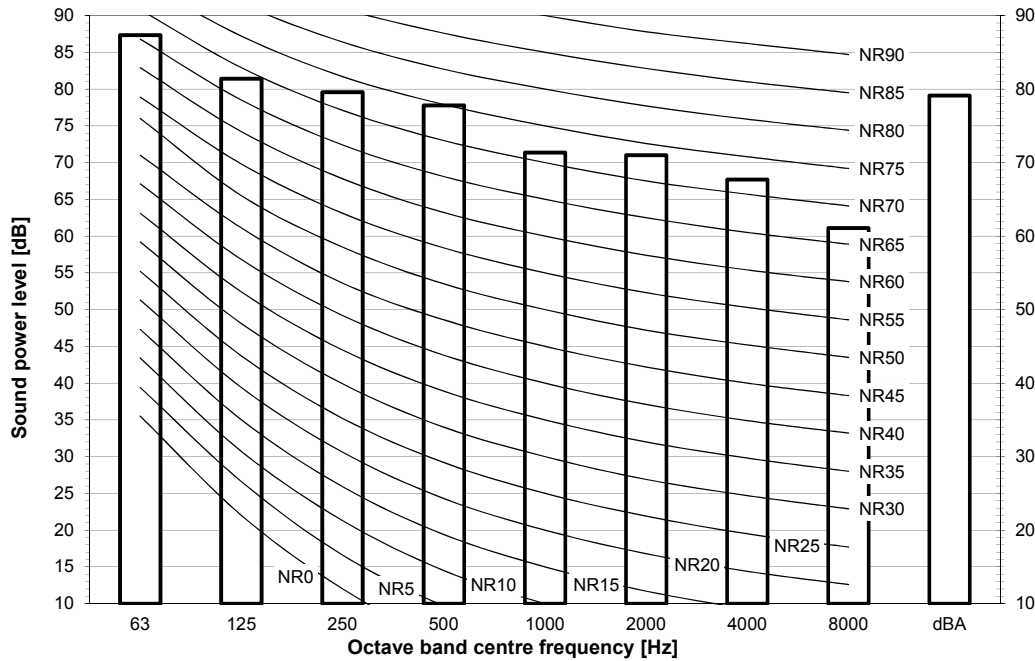
RXYQ8UD



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

3D119528

RXYQ10UD



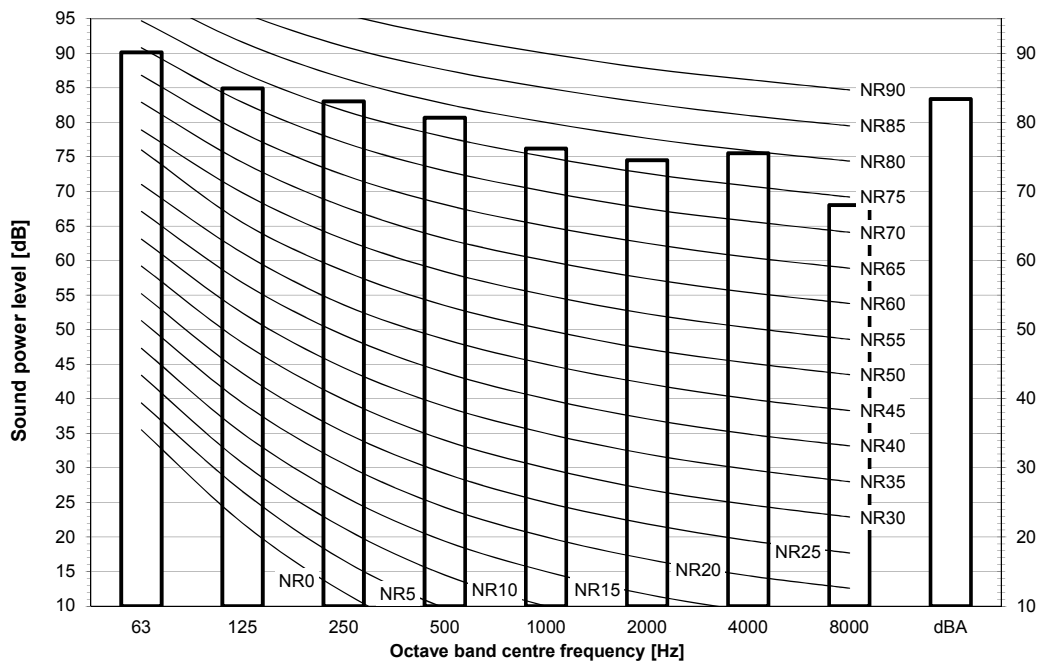
Notes
 dBA = A-weighted sound power level (A scale according to IEC).
 Reference acoustic intensity 0dB = 10E-6μW/m²
 Measured according to ISO 3744

3D119529

11 Sound data

11 - 1 Sound Power Spectrum

RXYQ12UD

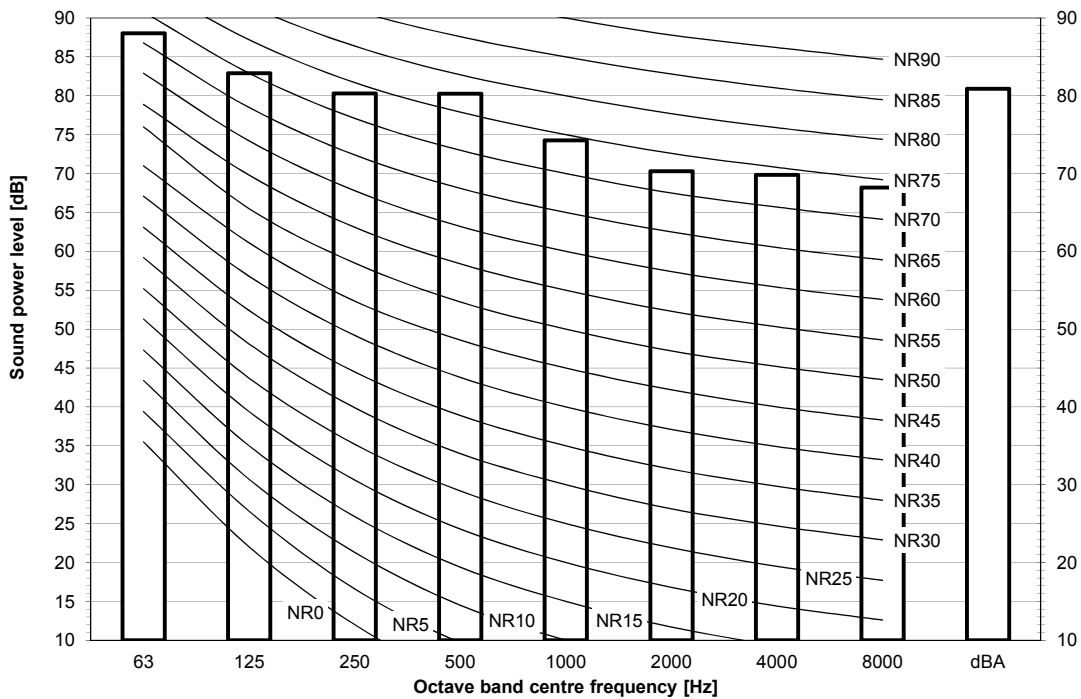


Notes

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

3D119530

RXYQ14UD



Notes

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

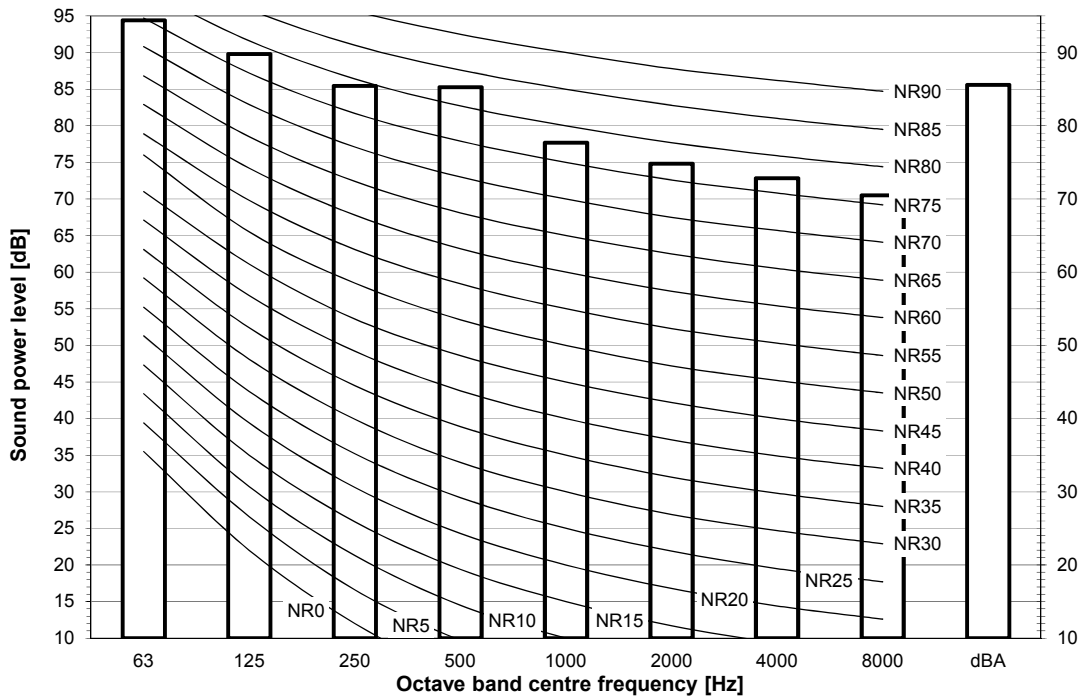
3D119531

11 Sound data

11 - 1 Sound Power Spectrum

11

RXYQ16UD

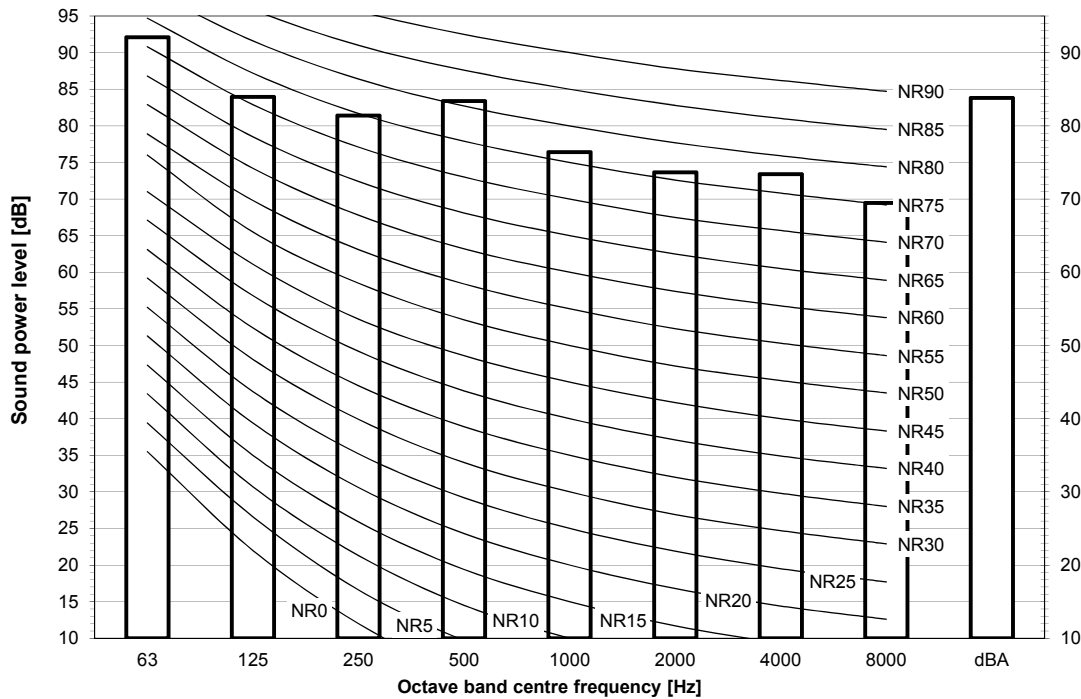


Notes

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

3D119532

RXYQ18UD



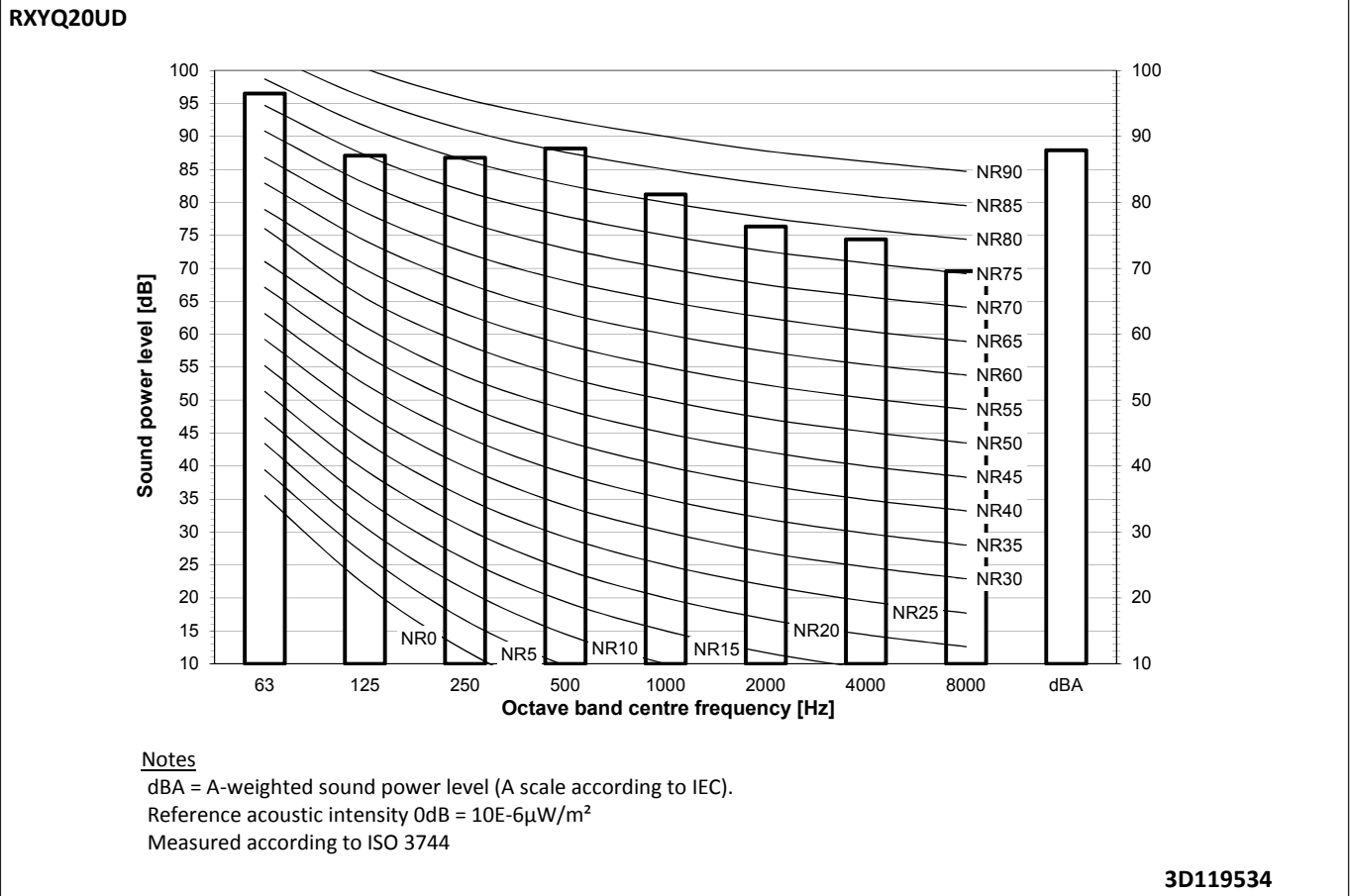
Notes

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

3D119533

11 Sound data

11 - 1 Sound Power Spectrum

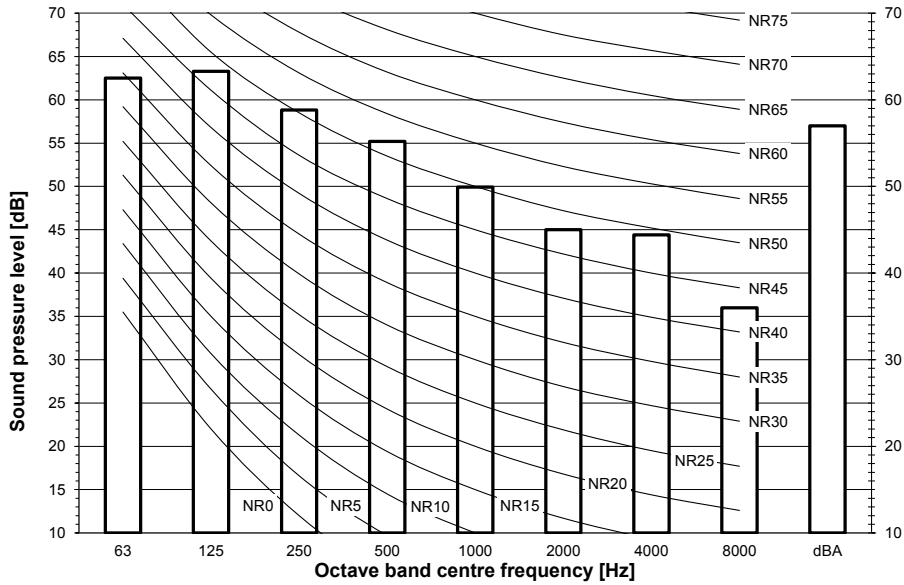


11 Sound data

11 - 2 Sound Pressure Spectrum

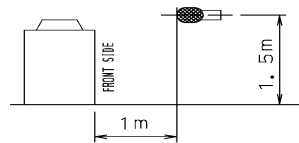
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RXYQ8UD



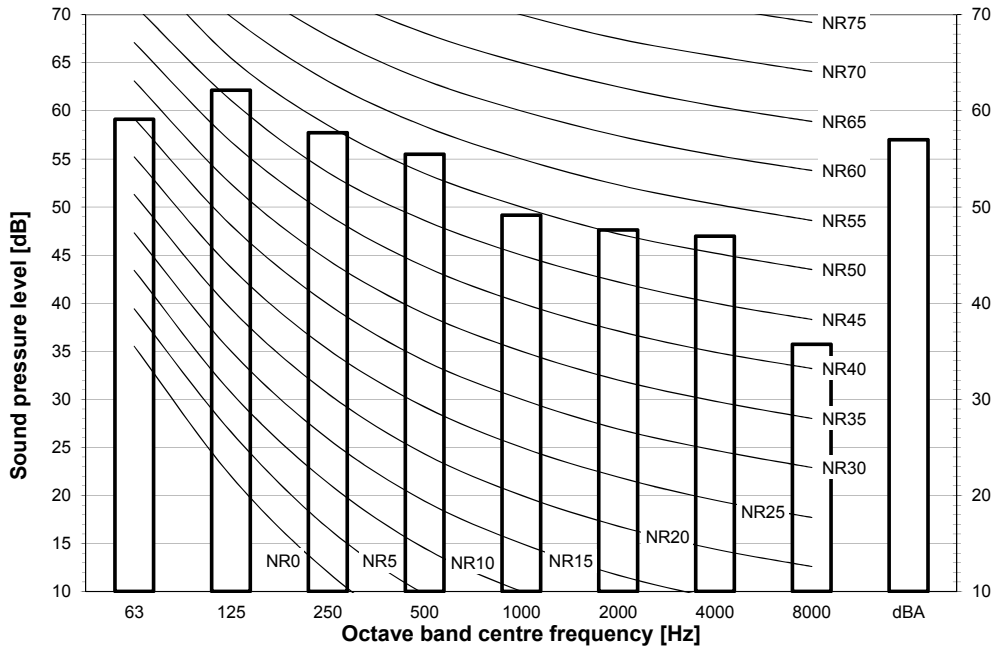
Notes

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



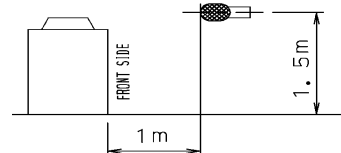
3D119521

RXYQ10UD



Notes

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

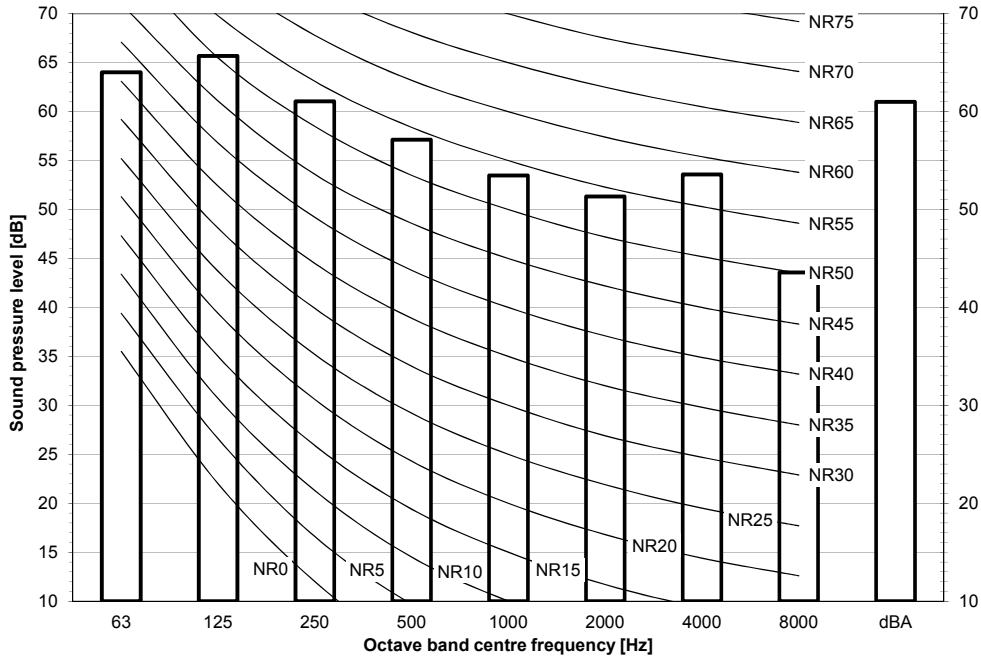


3D119522

11 Sound data

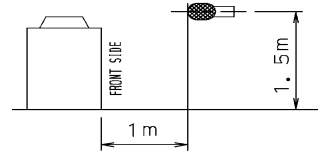
11 - 2 Sound Pressure Spectrum

RXYQ12UD



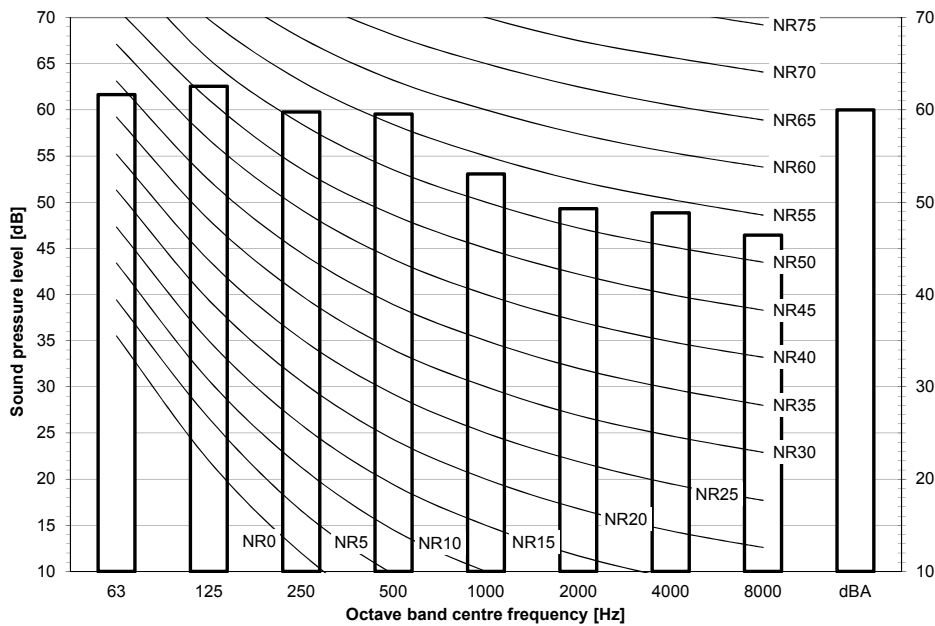
Notes

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



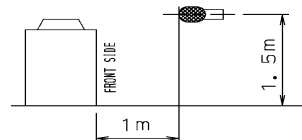
3D119523

RXYQ14UD



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



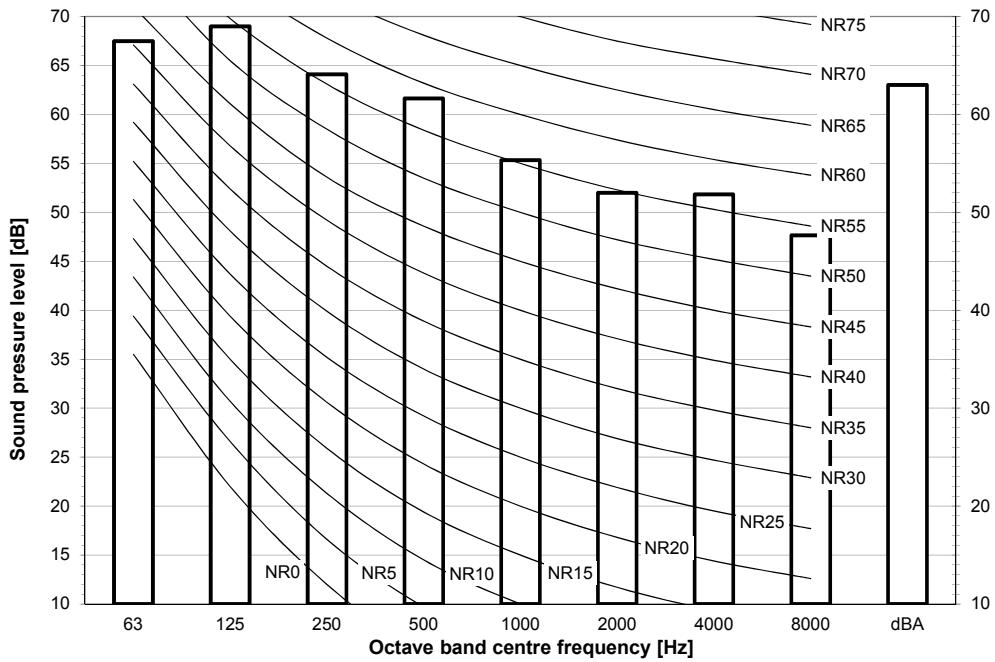
3D119524

11 Sound data

11 - 2 Sound Pressure Spectrum

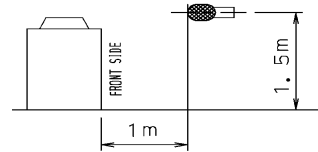
11

RXYQ16UD



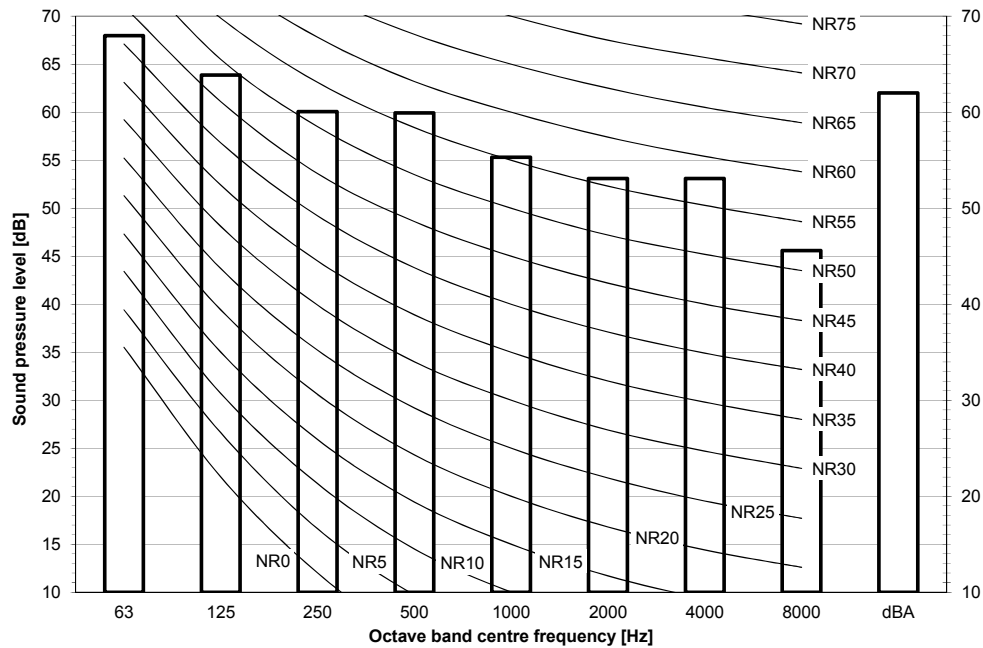
Notes

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



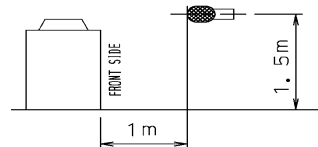
3D119525

RXYQ18UD



Notes

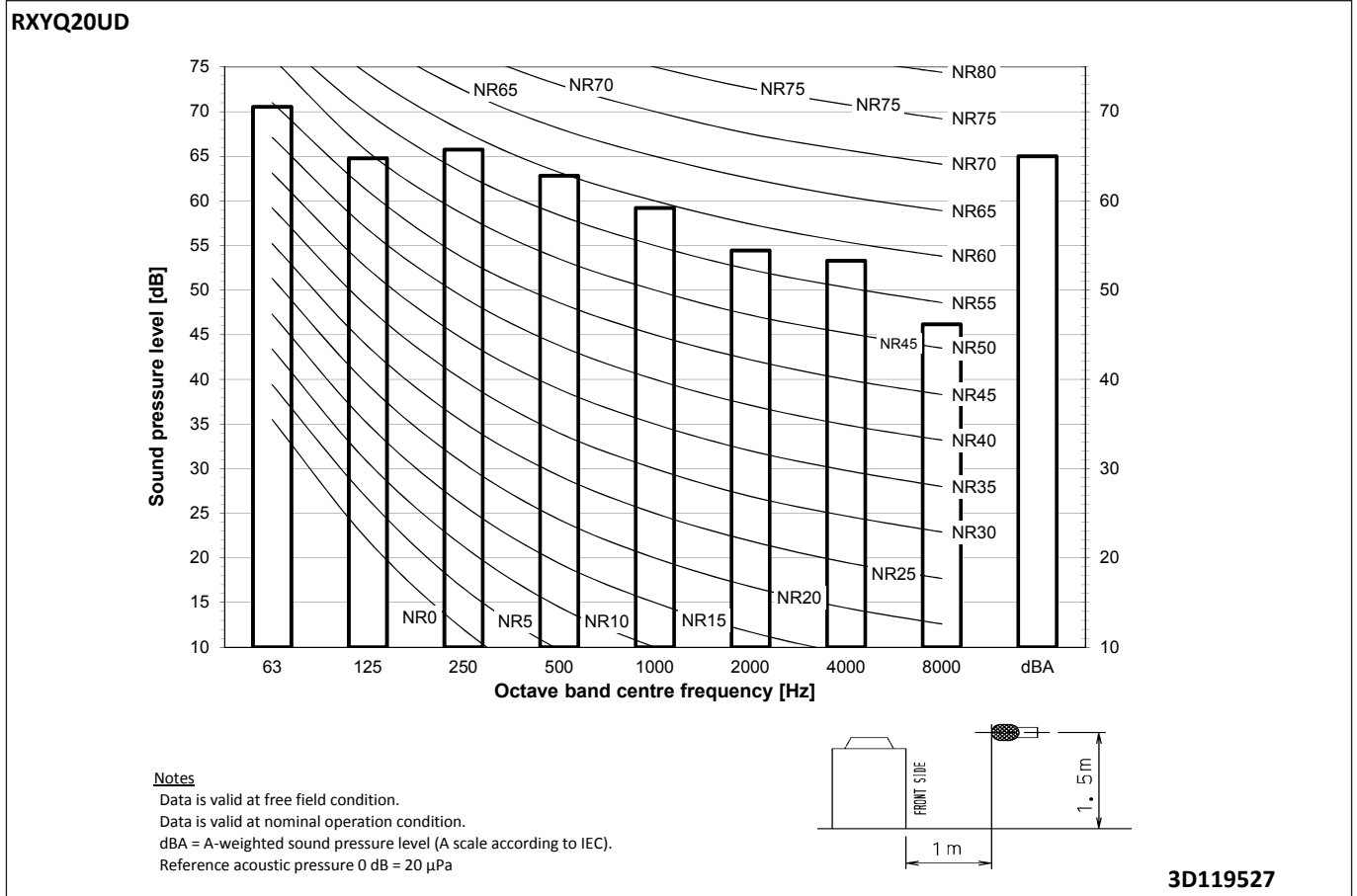
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 Reference acoustic pressure 0 dB = 20 µPa



3D119526

11 Sound data

11 - 2 Sound Pressure Spectrum

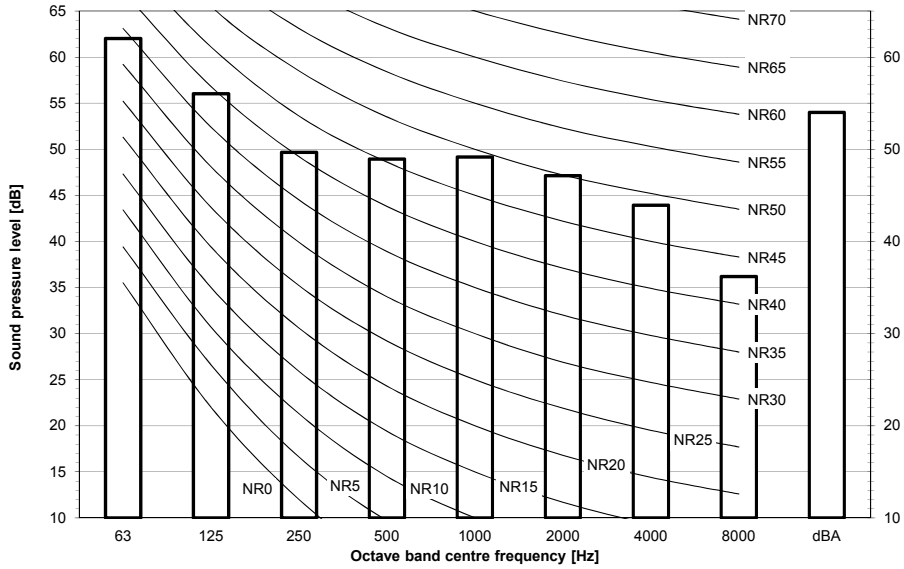


11 Sound data

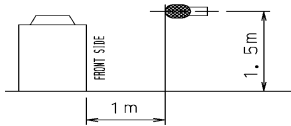
11 - 3 Sound Pressure Spectrum Quiet Mode Level 1

11

RXYQ8-12UD

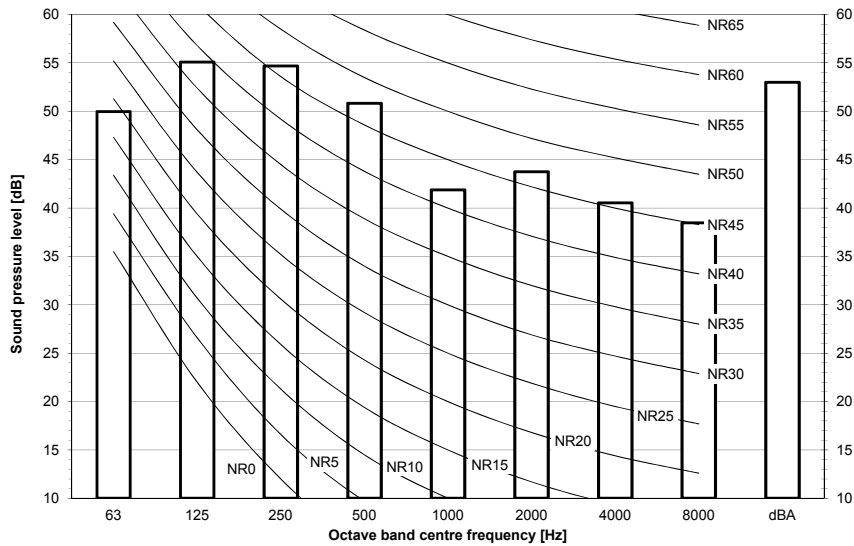


Notes
 Data is valid at free field condition.
 Data is valid at nominal operation condition.
 dBA = A-weighted sound pressure level (A scale according to IEC).
 Reference acoustic pressure 0 dB = 20 μPa
Data is valid under the following conditions
 Cooling operation
 Outdoor Ta: 35°C
 Full load (maximum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

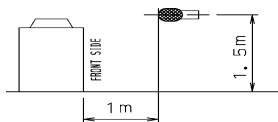


3D119535

RXYQ14-16UD



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

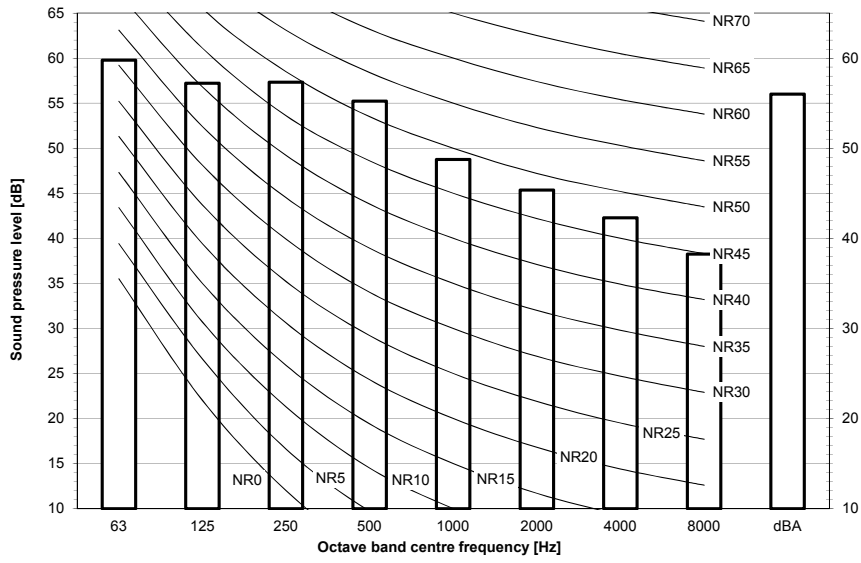


3D119538

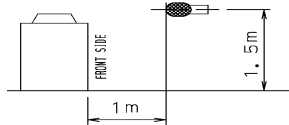
11 Sound data

11 - 3 Sound Pressure Spectrum Quiet Mode Level 1

RXYQ18-20UD



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



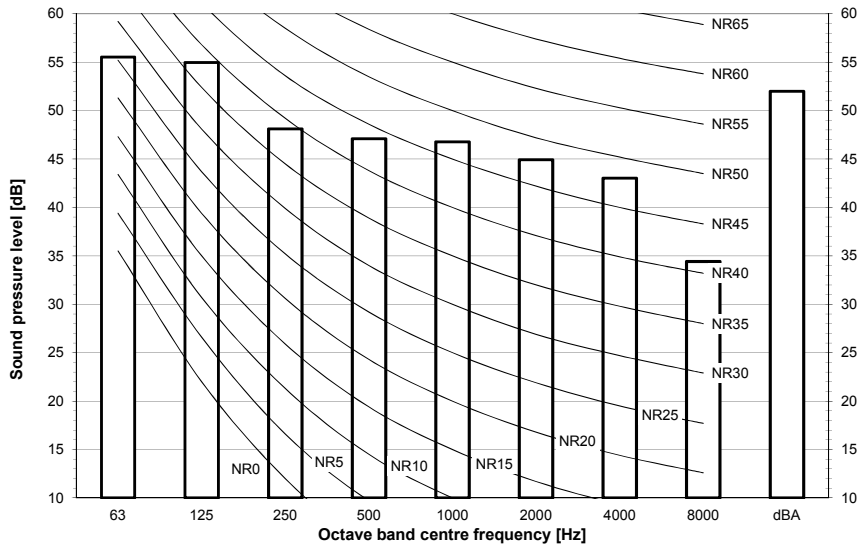
3D119541

11 Sound data

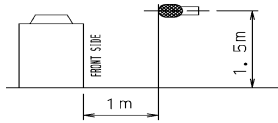
11 - 4 Sound Pressure Spectrum Quiet Mode Level 2

11

RXYQ8-12UD

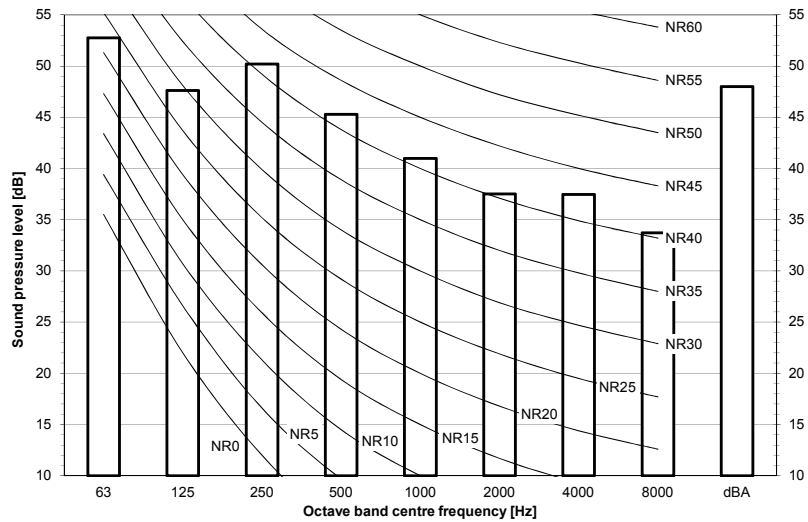


Notes
 Data is valid at free field condition.
 Data is valid at nominal operation condition.
 dBA = A-weighted sound pressure level (A scale according to IEC).
 Reference acoustic pressure 0 dB = 20 μPa
Data is valid under the following conditions
 Cooling operation
 Outdoor Ta: 35°C
 Full load (maximum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

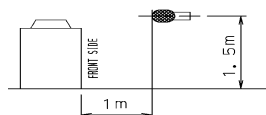


3D119536

RXYQ14-16UD



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

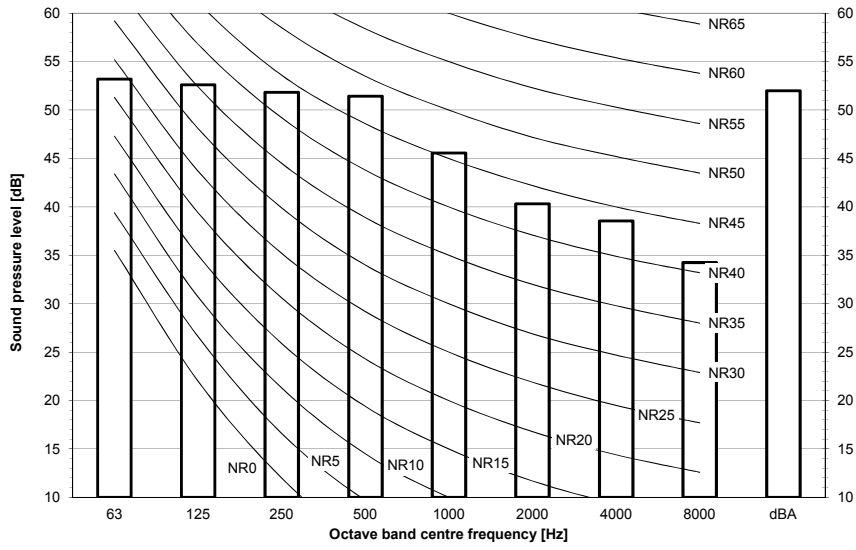


3D119539

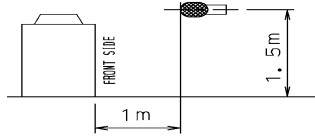
11 Sound data

11 - 4 Sound Pressure Spectrum Quiet Mode Level 2

RXYQ18-20UD



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



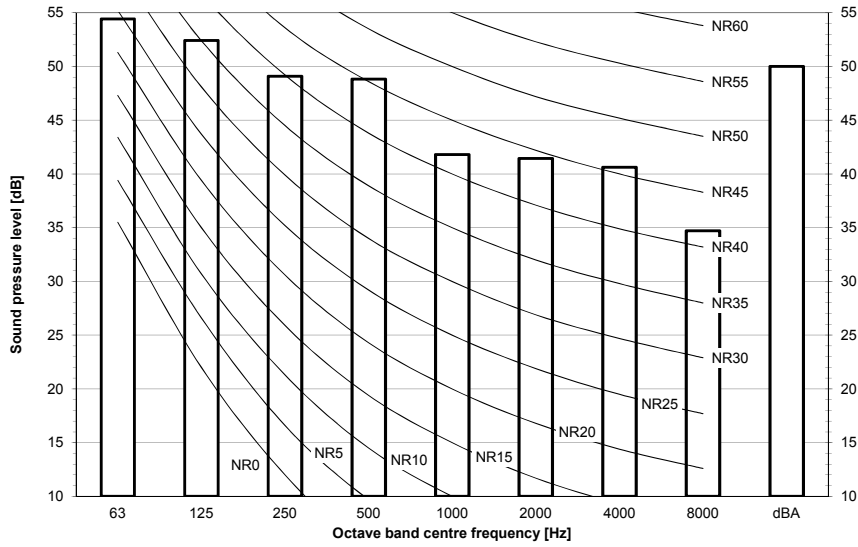
3D119542

11 Sound data

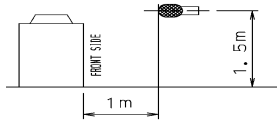
11 - 5 Sound Pressure Spectrum Quiet Mode Level 3

11

RXYQ8-12UD

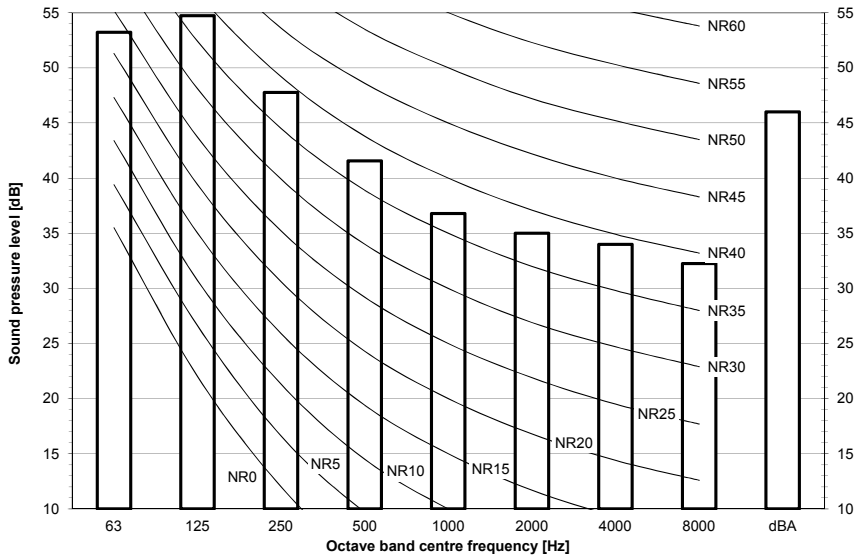


Notes
 Data is valid at free field condition.
 Data is valid at nominal operation condition.
 dBA = A-weighted sound pressure level (A scale according to IEC).
 Reference acoustic pressure 0 dB = 20 µPa
Data is valid under the following conditions
 Cooling operation
 Outdoor Ta: 35°C
 Full load (maximum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

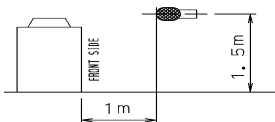


3D119537

RXYQ14-16UD



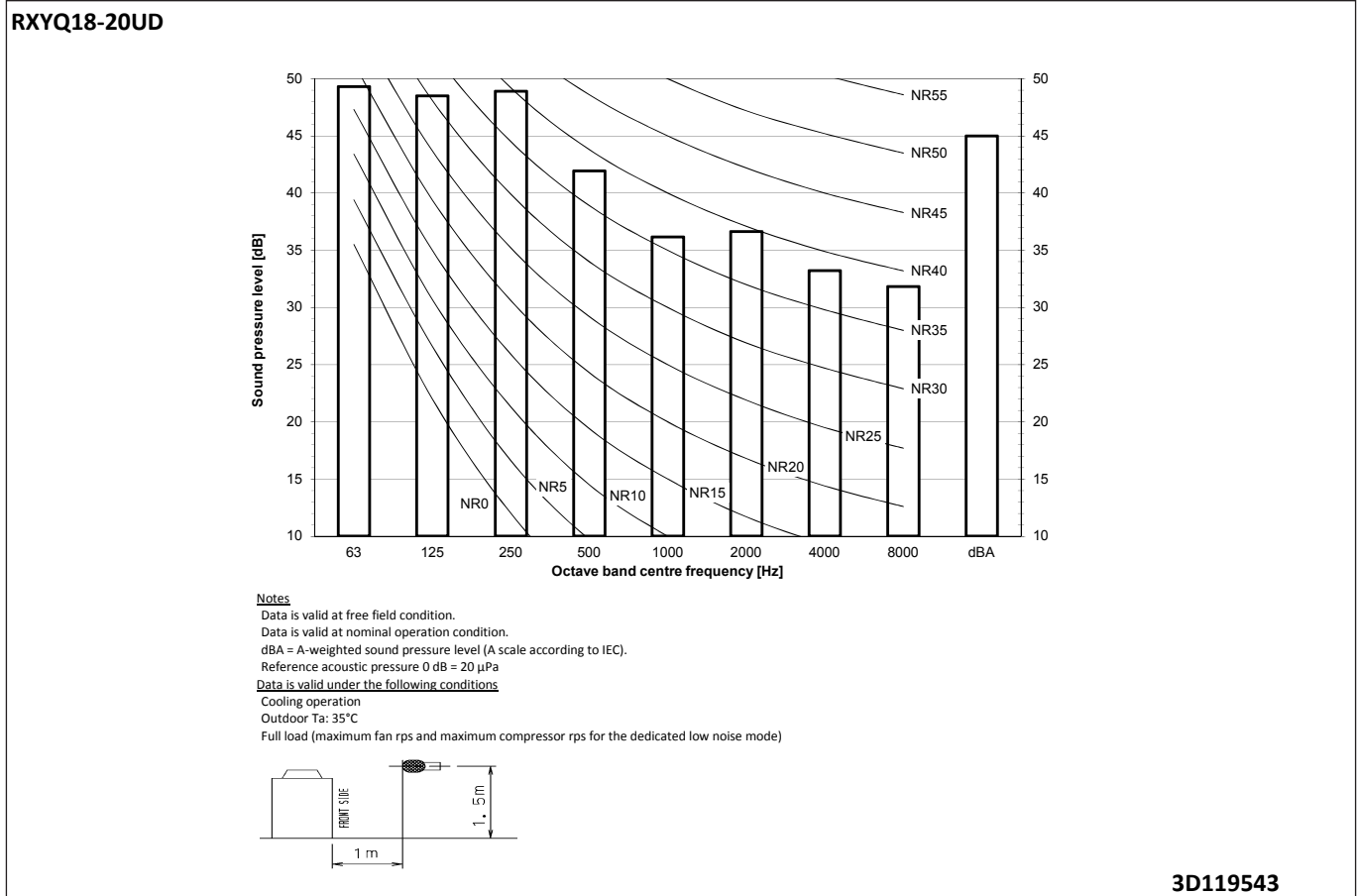
Notes
 Data is valid at free field condition.
 Data is valid at nominal operation condition.
 dBA = A-weighted sound pressure level (A scale according to IEC).
 Reference acoustic pressure 0 dB = 20 µPa
Data is valid under the following conditions
 Cooling operation
 Outdoor Ta: 35°C
 Full load (maximum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



3D119540

11 Sound data

11 - 5 Sound Pressure Spectrum Quiet Mode Level 3



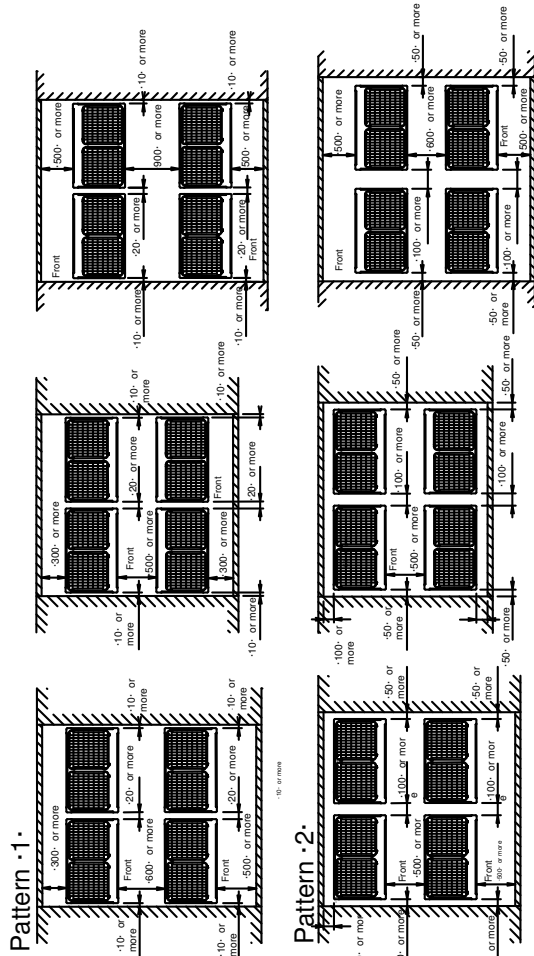
12 Installation

12 - 1 Installation Method

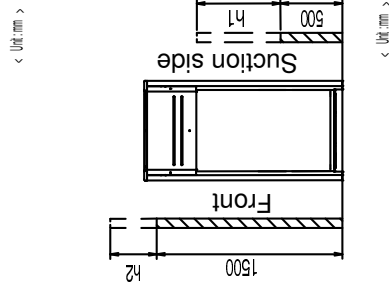
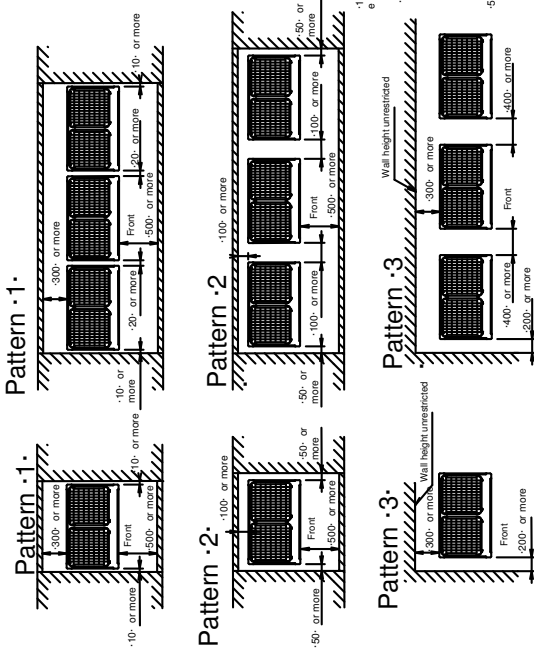
RXYQ-UD

12

For centralised group layout



For single unit installation For installation in rows



Notes

1. Height of the walls in case of patterns 1 and 2:
 - Front: 1500 mm
 - Suction side: 500 mm
 - Side: height unrestricted

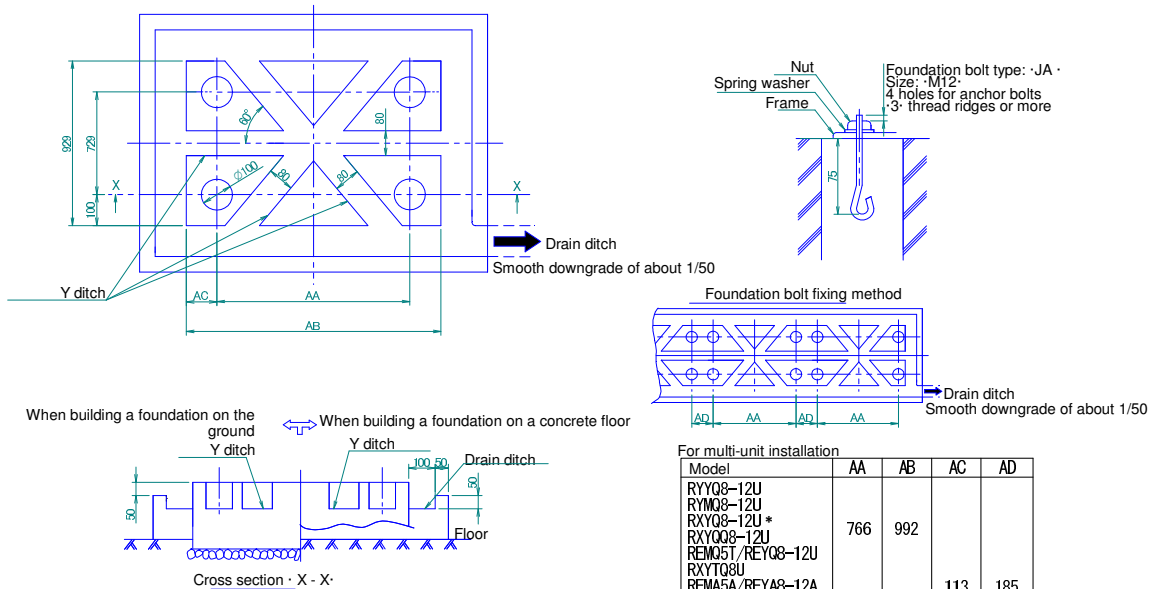
The installation space shown on this drawing is based on cooling operation at 35°C (outdoor temperature). When the design outdoor ambient temperature exceeds 35°C or the load exceeds maximum ability of much generation load of heat in all outdoor unit, make sure the suction-side space is broader than 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.
4. Provide sufficient space at the front to connect refrigerant piping (comfortably). 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.

3D118467A

12 Installation

12 - 2 Fixation and Foundation of Units

RXYQ-UD



Notes

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

3D118459A

12 Installation

12 - 3 Refrigerant Pipe Selection

12

RXYQ-UD

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	1000m
	Mix ⁽⁷⁾	165/(190)m	40m	10/13m	40/(40)m	15m	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)(EKEVX + 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.

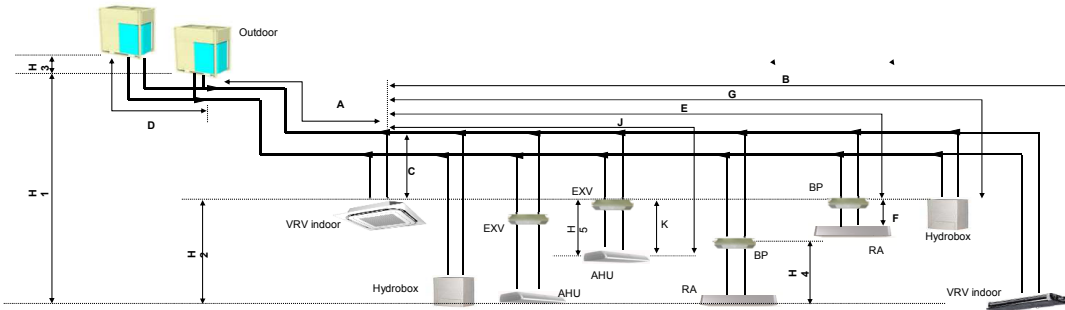
3D079540E

12 Installation

12 - 3 Refrigerant Pipe Selection

RXYQ-UD

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

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12 Installation

12 - 3 Refrigerant Pipe Selection

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RXYQ-UD

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.

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14 Appropriate Indoors

14 - 1 Appropriate Indoors

14

RXYQ-UD

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

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

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

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

Covered by ·ENER LOT21·

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

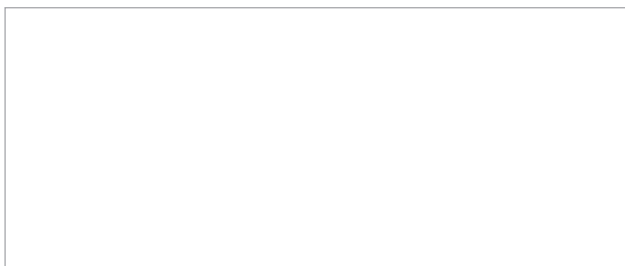
Covered by ·ENER LOT10·

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

Outside the scope of ·ENER LOT21·

EKEV50-63-80-100-125-140-200-250-400-500 + EKEQM / EKEQF
 HXY080-125
 VKM50-80-100
 CYVS100-150-200-250
 CYVM100-150-200-250
 CYVL100-150-200-250
 EKVDX32-50-80-100 + VAMJ8

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