VRV IV heat pump, optimised for heating Air Conditioning Technical Data

RXYLQ-T

RXYLQ10T7Y1B
RXYLQ12T7Y1B
RXYLQ14T7Y1B
RXYLQ16T7Y1B
RXYLQ18T7Y1B
RXYLQ20T7Y1B
RXYLQ22T7Y1B
RXYLQ24T7Y1B
RXYLQ26T7Y1B
RXYLQ28T7Y1B
RXYLQ30T7Y1B
RXYLQ32T7Y1B
RXYLQ34T7Y1B
RXYLQ36T7Y1B
RXYLQ38T7Y1B
RXYLQ40T7Y1B
RXYLQ42T7Y1B
RXMLQ8T7Y1B

TABLE OF CONTENTS

RXYLQ-T

1 Features

1 - 1 RXYLQ-T

Where heating is priority without compromising on efficiency

- By choosing this product with LOOP by Daikin you support the reuse of refrigerant
- Specifically developed for heating operation in low ambient conditions, making it suitable for single source heating
- Stable heating capacity down to -15°C, thanks to vapour injection compressor
- Extended operation range down to -25°C in heating
- High reliability in severe conditions, thanks to hot gas bypass circuit in the heat exchanger
- 15% increased heating capacity at high relative humidity (2°CDB/1°CWB and RH=83%) vs previous model
- Shorter defrost and heat up time, compared to standard VRV heat pump
- Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, air handling units and Biddle air cutains
- 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
- Already fully ErP 2021 compliant (LOT 21 - Tier 2)
- Free combination of outdoor units to meet installation space or efficiency requirements
- High external static pressure (up to 78.4Pa) allows indoor installation
- 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: 500m

Inverter

2 Specifications

1 - 1 RXYLQ-T

Technical Specifications					RXYLQ10T	RXYLQ12T	RXYLQ14T
System	Outdoor unit module 1				RXYLQ10T	RXYLQ12T	RXYLQ14T
Recommended combination					4 x FXMQ63P7VEB	6 x FXMQ50P7VEB	1 x FXMQ50P7VEB + 5 x FXMQ63P7VEB
Recommended combination 2					4 x FXSQ63A2VEB	6 x FXSQ50A2VEB	1 x FXSQ50A2VEB + 5 x FXSQ63A2VEB
Cooling capacity	Prated,c			kW	28.0 (1)	33.5 (1)	40.0 (1)
Heating capacity	Nom.	6°CWB		kW	28.00 (2)	33.50 (2)	40.00 (2)
	Prated,h			kW	31.5	37.5	45.0
	Max.	6°CWB		kW	31.5 (2)	37.5 (2)	45.0 (2)
Power input - 50Hz	Heating	Nom.	6°CWB	kW	7.13 (2)	7.85 (2)	10.26 (2)
COP at nom. capacity	6°CWB			kW/kW	3.93	4.27	3.90
SCOP					3.7	3.5	
SCOP recommended combination 2					3.7	3.5	
SEER					6.4	6.9	6.8
SEER recommended combination 2					6.4	6.8	
ηs,c				%	251.4	274.4	270.1
ηs,c recommended combination 2					251.4	267.0	270.2
ηs,h				%	144.3	137.6	137.1
ηs,h recommended combination 2					144.2	137.0	
Space cooling	A Condition (35°C - 27/19)	EERd			3.2	3.5	3.2
		Pdc		kW	28.0	33.5	40.0
	B Condition (30°C - 27/19)	EERd			4.9	5.1	5.0
		Pdc		kW	20.6	24.7	29.5
	C Condition (25°C - 27/19)	EERd			8.1	8.4	7.0
		Pdc		kW	13.5	15.9	18.9
	D Condition (20°C - 27/19)	EERd			9.3	11.2	16.1
		Pdc		kW	9.0	9.3	10.4
Space cooling recommended combination 2	A Condition (35°C - 27/19)	EERd			3.2	3.4	3.2
		Pdc		kW	28.0	33.5	40.0
	B Condition (30°C - 27/19)	EERd			4.9	5.1	5.0
		Pdc		kW	20.6	24.7	29.5
	C Condition (25°C - 27/19)	EERd			8.1		7.0
		Pdc		kW	13.5	15.9	18.9
	D Condition (20°C - 27/19)	EERd			9.36	10.9	16.1
		Pdc		kW	9.17	9.24	10.5
Space heating (Average climate)	TBivalent	COPd (declared COP)			2.33	2.11	1.84
		Pdh (declared heating cap)		kW	27.6	33.2	39.8
		Tbiv (bivalent temperature)		°C	-6.8	-7.0	
Space heating (Average climate)	TOL	COPd (declared COP)			2.58	2.38	2.47
		Pdh (declared heating cap)		kW	19.7	23.5	30.6
		Tol (temperature operating limit)		°C	-10		
	A Condition (-7°C)	COPd (declared COP)			2.38	2.11	1.84
		Pdh (declared heating cap)		kW	26.2	33.2	39.8
	B Condition (2°C)	COPd (declared COP)			3.48	3.41	3.16
		Pdh (declared heating cap)		kW	17.0	20.2	24.2
	C Condition (7°C)	COPd (declared COP)			5.06	4.93	5.92
		Pdh (declared heating cap)		kW	10.9	13.1	15.9
	D Condition (12°C)	COPd (declared COP)			7.15	5.74	7.45
		Pdh (declared heating cap)		kW	7.75	8.98	8.14

2 Specifications

1 - 1 RXYLQ-T

Technical Specifications					RXYLQ10T	RXYLQ12T	RXYLQ14T
Space heating (Average climate) recommended combination 2	A Condition (-7°C)	COPd (declared COP)			2.40	2.10	1.80
		Pdh (declared heating cap)		kW	26.2	33.2	39.8
	B Condition (2°C)	COPd (declared COP)			3.50	3.41	3.20
		Pdh (declared heating cap)		kW	17.0	20.2	24.2
	C Condition (7°C)	COPd (declared COP)			5.10	4.71	5.90
		Pdh (declared heating cap)		kW	10.9	13.1	15.9
	D Condition (12°C)	COPd (declared COP)			7.20	6.53	7.50
		Pdh (declared heating cap)		kW	7.80	9.73	8.10
	TBivalent	COPd (declared COP)			2.30	2.10	1.80
		Pdh (declared heating cap)		kW	27.6	33.2	39.8
		Tbiv (bivalent temperature)		°C	-6.8	-7.0	
Capacity range				HP	10	12	14
PED	Category				Category II		
	Most critical part	Name			Compressor		
		Ps*V		Bar*l	459		
Maximum number of connectable indoor units					64 (3)		
Indoor index connection	Min.				175	210	245
	Nom.				250	300	350
	Max.				325	390	455
Dimensions	Unit	Height		mm	1,685		
		Width		mm	1,240		
		Depth		mm	765		
	Packed unit	Height		mm	1,820		
		Width		mm	1,305		
		Depth		mm	860		
Weight	Unit			kg	302		
Weight	Packed unit			kg	322		
Packing	Material				Carton		
	Weight			kg	3		
Packing 2	Material				Wood		
	Weight			kg	19		
Packing 3	Material				Plastic		
	Weight			kg	1		
Casing	Colour				Daikin White		
	Material				Painted galvanized steel plate		
Heat exchanger	Type				Cross fin coil		
	Indoor side				Air		
	Outdoor side				Air		
	Air flow rate	Cooling	Rated	m^3/h	10,290	13,554	
		Heating	Rated	m^3/h	13,554	14,940	17,280
Fan	Quantity				2		
	Diameter			mm	541		
	External static pressure	Max.		Pa	78		
Fan motor	Quantity				2		
	Type				DC motor		
	Output			W	750		
Compressor	Quantity				1		
	Type				Hermetically sealed scroll compressor		
	Crankcase heater			W	33		
Operation range	Cooling	Min.		°CDB	-5		
		Max.		°CDB	43		
	Heating	Min.		°CWB	-25		
		Max.		°CWB	16		
Sound power level	Cooling	Nom.		dBA	77.0 (4)	81.0 (4)	
Sound pressure level	Cooling	Nom.		dBA	56.0 (5)	59.0 (5)	
Refrigerant	Type				R-410A		
	GWP				2,087.5		
	Charge			TCO2Eq	24.6		
	Charge			kg	11.8		
Refrigerant oil	Type				Synthetic (ether) oil FVC68D		
Piping connections	Liquid	Type			Braze connection		
		OD		mm	10	13	
	Gas	Type			Braze connection		

2 Specifications

1 - 1 RXYLQ-T

Technical Specifications					RXYLQ10T	RXYLQ12T	RXYLQ14T
Piping connections	Gas	OD		mm	22.2	28.6	
	Total piping length	System	Actual	m	500 (6)		
	Level difference	OU - IU	Outdoor unit in highest position	m	50		
			Indoor unit in highest position	m	40		
		IU - IU		m	30		
Defrost method					Reversed cycle		
Capacity control	Method				Inverter controlled		
Indication if the heater is equipped with a supplementary heater					no		
Supplementary heater	Back-up capacity	Heating	elbu	kW	0.0		
Power consumption in other than active mode	Crankcase heater mode	Cooling	PCK	kW	0.000		
		Heating	PCK	kW	0.0430		
	Off mode	Cooling	POFF	kW	0.0380		
		Heating	POFF	kW	0.0380		
	Standby mode	Cooling	PSB	kW	0.0380		
		Heating	PSB	kW	0.0380		
	Thermostat-off mode	Cooling	PTO	kW	0.0140		
		Heating	PTO	kW	0.0610		
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		

Standard accessories: Installation manual;Quantity: 1;

Standard accessories: Operation manual;Quantity: 2;

Standard accessories: Connection pipes;Quantity: 25;

Electrical Specifications					RXYLQ10T	RXYLQ12T	RXYLQ14T
Power supply	Name				Y1		
	Phase				3N~		
	Frequency			Hz	50		
	Voltage			V	380-415		
Power supply intake					Both indoor and outdoor unit		
Voltage range	Min.			%	-10		
	Max.			%	10		
Current	Nominal running current (RLA)	Cooling		A	13.8 (7)	15.0 (7)	19.6 (7)
Current - 50Hz	Nominal running current (RLA)	Combination A	Cooling		-		
		Combination B	Cooling		-		
	Starting current (MSC) - remark				See note 8		
	Zmax	List			No requirements		
	Minimum Ssc value			kVa	5,638 (8)		
	Minimum circuit amps (MCA)			A	22.0 (9)	24.0 (9)	27.0 (9)
	Maximum fuse amps (MFA)			A	25 (10)	32 (10)	
	Total overcurrent amps (TOCA)			A	42.5 (11)		
	Full load amps (FLA)	Total		A	1.5 (12)		
Power Performance	Power factor	Combination B	35°C ISO - Full load		-		
			46°C ISO - Full load		-		
Wiring connections - 50Hz	For power supply	Quantity			5G		
	For connection with indoor	Quantity			2		
		Remark			F1,F2		

(1)Cooling: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB; equivalent piping length: 7.5m (horizontal); 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 (70% <= CR <= 130%) |
(4)Sound power level is an absolute value that a sound source generates. |

2 Specifications

1 - 1 RXYLQ-T

(5)Sound pressure level is a relative value, depending on the distance and acoustic environment. For more details, please refer to the sound level drawings. |
(6)Refer to refrigerant pipe selection or installation manual |
(7)RLA is based on following conditions: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB |
(8)In accordance with EN/IEC 61000-3-12, it may be necessary to consult the distribution network operator to ensure that the equipment is connected only to a supply wih Ssc ≥ minimum Ssc value |
(9)MCA must be used to select the correct field wiring size. The MCA can be regarded as the maximum running current. |
(10)MFA is used to select the circuit breaker and the ground fault circuit interrupter (earth leakage circuit breaker). |
(11)TOCA means the total value of each OC set. |
(12)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.

Technical specifications System					RXYLQ16T	RXYLQ18T	RXYLQ20T	RXYLQ22T	RXYLQ24T	RXYLQ26T	RXYLQ28T
System	Outdoor unit module 1				RXMLQ8T	RXYLQ10T			RXYLQ12T		RXYLQ14T
	Outdoor unit module 2				RXMLQ8T		RXYLQ10T	RXYLQ12T		RXYLQ14T	
Recommended combination					4 x FXMQ63P7VEB + 2 x FXMQ80P7VEB	3 x FXMQ50P7VEB + 5 x FXMQ63P7VEB	2 x FXMQ50P7VEB + 6 x FXMQ63P7VEB	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
Cooling capacity	Prated,c			kW	44.8 (1)	50.4 (1)	56.0 (1)	61.5 (1)	67.0 (1)	73.5 (1)	80.0 (1)
Heating capacity	Prated,h			kW	50.0	56.5	63.0	69.0	75.0	82.5	90.0
	Max.	6°CWB		kW	50.0 (2)	56.5 (2)	63.0 (2)	69.0 (2)	75.0 (2)	82.5 (2)	90.0 (2)
SCOP					3.5	3.6	3.7	3.6	3.5		
SEER					6.6	6.5	6.4	6.6	6.9	6.8	
ηs,c				%	261.8	255.7	251.4	263.0	274.4	270.8	270.1
ηs,h				%	138.0	140.5	144.3	140.3	137.6	137.1	
Space cooling	A Condition (35°C - 27/19)	EERd			3.6	3.3	3.2	3.4	3.5	3.3	3.2
		Pdc		kW	44.8	50.4	56.0	61.5	67.0	73.5	80.0
	B Condition (30°C - 27/19)	EERd			4.7	4.8	4.9	5.0	5.1		5.0
		Pdc		kW	33.0	37.1	41.3	45.3	49.4	54.2	59.0
	C Condition (25°C - 27/19)	EERd			9.1	8.5	8.1	8.3	8.4	7.6	7.0
		Pdc		kW	21.2	24.1	27.0	29.4	31.8	34.8	37.8
	D Condition (20°C - 27/19)	EERd			9.6	9.5	9.3	10.2	11.2	13.3	16.1
		Pdc		kW	17.4	17.7	18.1	18.3	18.6	19.7	20.8
Space heating (Average climate)	TBivalent	COPd (declared COP)				2.33		2.21	2.11	1.95	1.84
		Pdh (declared heating cap)		kW	47.1	51.2	55.3	60.8	66.3	73.0	79.6
		Tbiv (bivalent temperature)		°C	-8.5		-6.8			-7.0	
	TOL	COPd (declared COP)			2.55	2.57	2.58	2.47	2.38	2.43	2.47
		Pdh (declared heating cap)		kW	37.5	38.5	39.5	43.2	47.0	54.1	61.2
		Tol (temperature operating limit)		°C	-10						
	A Condition (-7°C)	COPd (declared COP)			2.47	2.42	2.38	2.22	2.11	1.95	1.84
		Pdh (declared heating cap)		kW	44.2	48.3	52.3	59.3	66.3	73.0	79.6
	B Condition (2°C)	COPd (declared COP)			3.22	3.36	3.48	3.44	3.41	3.27	3.16
		Pdh (declared heating cap)		kW	26.9	30.4	33.9	37.2	40.4	44.4	48.5
	C Condition (7°C)	COPd (declared COP)			4.79	4.94	5.06	4.99	4.93	5.43	5.92
		Pdh (declared heating cap)		kW	17.3	19.6	21.8	24.0	26.2	29.0	31.8
	D Condition (12°C)	COPd (declared COP)			6.38	6.76	7.15	6.32	5.74	6.48	7.45
		Pdh (declared heating cap)		kW	14.6	15.0	15.5	16.7	18.0	17.1	16.3
Capacity range				HP	16	18	20	22	24	26	28
PED	Category				Category II						
Maximum number of connectable indoor units					64 (3)						
Indoor index connection	Min.				280	315	350	385	420	455	490
Indoor index connection	Nom.				400	450	500	550	600	650	700
	Max.				520	585	650	715	780	845	910
Sound power level	Cooling	Nom.		dBA	78.0 (4)	79.0 (4)	80.0 (4)	82.0 (4)		84.0 (4)	
Sound pressure level	Cooling	Nom.		dBA	58.0 (5)	59.0 (5)		61.0 (5)		62.0 (5)	
Refrigerant	Type				R-410A						
	GWP				2,087.5						
Refrigerant oil	Type				Synthetic (ether) oil FVC68D						
Piping connections	Liquid	Type			Braze connection						
		OD		mm	13	16				19	
	Gas	Type			Braze connection						
		OD		mm	28.6				34.9		
	Total piping length	System	Actual	m	500 (6)						
	Level difference	OU - IU	Outdoor unit in highest position	m	50						
			Indoor unit in highest position	m	40						
		IU - IU		m	30						

2 Specifications

1 - 1 RXYLQ-T

Technical specifications System					RXYLQ16T	RXYLQ18T	RXYLQ20T	RXYLQ22T	RXYLQ24T	RXYLQ26T	RXYLQ28T
Defrost method					Reversed cycle						
Capacity control	Method				Inverter controlled						
Indication if the heater is equipped with a supplementary heater					no						
Supplementary heater	Back-up capacity	Heating	elbu	kW	0.0						
Power consumption in other than active mode	Crankcase heater mode	Cooling	PCK	kW	0.000						
		Heating	PCK	kW	0.0860						
	Off mode	Cooling	POFF	kW	0.0760						
		Heating	POFF	kW	0.0760						
	Standby mode	Cooling	PSB	kW	0.0760						
		Heating	PSB	kW	0.0760						
	Thermostat-off mode	Cooling	PTO	kW	0.0280						
		Heating	PTO	kW	0.1220						
Cooling	Cdc (Degradation cooling)				0.25						
Heating	Cdh (Degradation heating)				0.25						

Technical specifications System				RXYLQ30T	RXYLQ32T	RXYLQ34T	RXYLQ36T	RXYLQ38T	RXYLQ40T	RXYLQ42T
System	Outdoor unit module 1			RXYLQ10T			RXYLQ12T			RXYLQ14T
	Outdoor unit module 2			RXYLQ10T		RXYLQ12T			RXYLQ14T	
	Outdoor unit module 3			RXYLQ10T	RXYLQ12T			RXYLQ14T		
Recommended combination				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 FXMQ80P7VEB	6 x FXMQ50P7VEB + 10 x FXMQ63P7VEB	9 x FXMQ50P7VEB + 9 x FXMQ63P7VEB	12 x FXMQ63P7VEB + 4 x FXMQ80P7VEB
Cooling capacity	Prated,c		kW	84.0 (1)	89.5 (1)	95.0 (1)	100.5 (1)	107.0 (1)	113.5 (1)	120.0 (1)
Heating capacity	Prated,h		kW	94.5	101	107	113	120	128	135
	Max.	6°CWB	kW	94.5 (2)	100.5 (2)	106.5 (2)	112.5 (2)	120.0 (2)	127.5 (2)	135.0 (2)
SCOP				3.7	3.6		3.5			
SEER				6.4	6.6	6.7	6.9		6.8	
ηs,c			%	251.4	259.1	266.8	274.4	271.6	270.3	270.1
ηs,h			%	144.3	141.6	139.2	137.6		137.1	
Space cooling	A Condition (35°C - 27/19)	EERd		3.2	3.3	3.4	3.5	3.4	3.3	3.2
		Pdc	kW	84.0	89.5	95.0	100.5	107.0	113.5	120.0
	B Condition (30°C - 27/19)	EERd		4.9	5.0		5.1		5.0	
		Pdc	kW	61.9	66.0	70.0	74.1	78.9	83.7	88.5
	C Condition (25°C - 27/19)	EERd		8.1	8.2	8.3	8.4	7.8	7.4	7.0
		Pdc	kW	40.5	42.9	45.3	47.7	50.7	53.7	56.7
	D Condition (20°C - 27/19)	EERd		9.3	9.9	10.5	11.2	12.5	14.1	16.1
		Pdc	kW	27.1	27.4	27.6	27.9	29.0	30.1	31.3
Space heating (Average climate)	TBivalent	COPd (declared COP)		2.33	2.24	2.17	2.11	2.00	1.91	1.84
		Pdh (declared heating cap)	kW	82.9	88.4	94.0	99.5	106	113	119
		Tbiv (bivalent temperature)	°C	-6.8			-7.0			
	TOL	COPd (declared COP)		2.58	2.50	2.44	2.38	2.41	2.44	2.47
		Pdh (declared heating cap)	kW	59.2	63.0	66.7	70.5	77.6	84.7	91.8
		Tol (temperature operating limit)	°C	-10						
	A Condition (-7°C)	COPd (declared COP)		2.38	2.27	2.18	2.11	2.00	1.91	1.84
		Pdh (declared heating cap)	kW	78.5	85.5	92.5	99.5	106	113	119
	B Condition (2°C)	COPd (declared COP)		3.48	3.45	3.43	3.41	3.31	3.23	3.16
		Pdh (declared heating cap)	kW	50.9	54.1	57.3	60.6	64.6	68.7	72.7
	C Condition (7°C)	COPd (declared COP)		5.06	5.01	4.97	4.93	5.26	5.59	5.92
		Pdh (declared heating cap)	kW	32.7	34.9	37.1	39.3	42.1	44.9	47.7
	D Condition (12°C)	COPd (declared COP)		7.15	6.56	6.10	5.74	6.18	6.82	7.45
		Pdh (declared heating cap)	kW	23.3	24.5	25.7	26.9	26.1	25.3	24.4
Capacity range			HP	30	32	34	36	38	40	42
PED	Category			Category II						
Maximum number of connectable indoor units				64 (3)						
Indoor index connection	Min.			525	560	595	630	665	700	735
	Nom.			750	800	850	900	950	1,000	1,050
	Max.			975	1,040	1,105	1,170	1,235	1,300	1,365
Sound power level	Cooling	Nom.	dBA	82.0 (4)	84.0 (4)	85.0 (4)	86.0 (4)			
Sound pressure level	Cooling	Nom.	dBA	61.0 (5)	62.0 (5)	63.0 (5)	64.0 (5)			
Refrigerant	Type			R-410A						
	GWP			2,087.5						

2 Specifications

1 - 1 RXYLQ-T

Technical specifications System					RXYLQ30T	RXYLQ32T	RXYLQ34T	RXYLQ36T	RXYLQ38T	RXYLQ40T	RXYLQ42T
Refrigerant oil	Type				Synthetic (ether) oil FVC68D						
Piping connections	Liquid	Type			Braze connection						
		OD		mm	19						
	Gas	Type			Braze connection						
		OD		mm	34.9			41.3			
	Total piping length	System	Actual	m	500 (6)						
	Level difference	OU - IU	Outdoor unit in highest position	m	50						
			Indoor unit in highest position	m	40						
		IU - IU		m	30						
Defrost method					Reversed cycle						
Capacity control	Method				Inverter controlled						
Indication if the heater is equipped with a supplementary heater					no						
Supplementary heater	Back-up capacity	Heating	elbu	kW	0.0						
Power consumption in other than active mode	Crankcase heater mode	Cooling	PCK	kW	0.000						
		Heating	PCK	kW	0.1290						
	Off mode	Cooling	POFF	kW	0.1140						
		Heating	POFF	kW	0.1140						
	Standby mode	Cooling	PSB	kW	0.1140						
		Heating	PSB	kW	0.1140						
	Thermostat-off mode	Cooling	PTO	kW	0.0420						
		Heating	PTO	kW	0.1830						
Cooling	Cdc (Degradation cooling)				0.25						
Heating	Cdh (Degradation heating)				0.25						

Electrical specifications System				RXYLQ16T	RXYLQ18T	RXYLQ20T	RXYLQ22T	RXYLQ24T	RXYLQ26T	RXYLQ28T
Current	Nominal running current (RLA)	Cooling	A	20.2 (7)	23.9 (7)	27.6 (7)	28.8 (7)	29.9 (7)	34.6 (7)	39.2 (7)
Current - 50Hz	Nominal running current (RLA)	Combination A	Cooling	-						
		Combination B	Cooling	-						
	Starting current (MSC) - remark			See note 8						
	Zmax	List		No requirements						
	Minimum Ssc value		kVa	11,277 (8)						
	Minimum circuit amps (MCA)		A	32.2 (9)	38.1 (9)	44.0 (9)	46.0 (9)	48.0 (9)	51.0 (9)	54.0 (9)
	Maximum fuse amps (MFA)		A	40 (10)	45 (10)	50 (10)	60 (10)			
	Total overcurrent amps (TOCA)		A	85.0 (11)						
	Full load amps (FLA)	Total	A	3.0 (12)						
Power Performance	Power factor	Combination B	35°C ISO - Full load	-						
			46°C ISO - Full load	-						

Electrical specifications System				RXYLQ30T	RXYLQ32T	RXYLQ34T	RXYLQ36T	RXYLQ38T	RXYLQ40T	RXYLQ42T
Current	Nominal running current (RLA)	Cooling	A	41.4 (7)	42.6 (7)	43.8 (7)	44.9 (7)	49.6 (7)	54.2 (7)	58.8 (7)
Current - 50Hz	Nominal running current (RLA)	Combination A	Cooling	-						
		Combination B	Cooling	-						
	Starting current (MSC) - remark			See note 8						
	Zmax	List		No requirements						
	Minimum Ssc value		kVa	16,915 (8)						
	Minimum circuit amps (MCA)		A	66.0 (9)	68.0 (9)	70.0 (9)	72.0 (9)	75.0 (9)	78.0 (9)	81.0 (9)
	Maximum fuse amps (MFA)		A	80 (10)				90 (10)		
	Total overcurrent amps (TOCA)		A	127.5 (11)						
	Full load amps (FLA)	Total	A	4.5 (12)						
Power Performance	Power factor	Combination B	35°C ISO - Full load	-						
			46°C ISO - Full load	-						

2 Specifications

1 - 1 RXYLQ-T

Technical specifications Module					RXMLQ8T
PED	Category				Category II
	Most critical part	Name			Compressor
		Ps*V		Bar*l	459
Dimensions	Unit	Height		mm	1,685
		Width		mm	1,240
		Depth		mm	765
	Packed unit	Height		mm	1,820
		Width		mm	1,305
		Depth		mm	860
Weight	Unit			kg	302
	Packed unit			kg	322
Packing	Material				Carton
	Weight			kg	3
Packing 2	Material				Wood
	Weight			kg	19
Packing 3	Material				Plastic
	Weight			kg	1
Casing	Colour				Daikin White
	Material				Painted galvanized steel plate
Heat exchanger	Type				Cross fin coil
	Indoor side				Air
	Outdoor side				Air
	Air flow rate	Cooling	Rated	m^3/h	10,290
		Heating	Rated	m^3/h	13,554
Fan	Quantity				2
	Diameter			mm	541
	External static pressure	Max.		Pa	78
Fan motor	Quantity				2
	Type				DC motor
	Output			W	750
Compressor	Quantity				1
	Type				Hermetically sealed scroll compressor
	Crankcase heater			W	33
Operation range	Cooling	Min.		°CDB	-5
		Max.		°CDB	43
	Heating	Min.		°CWB	-25
Operation range	Heating	Max.		°CWB	16
Sound power level	Cooling	Nom.		dBA	75.0 (1)
Sound pressure level	Cooling	Nom.		dBA	55.0 (2)
Refrigerant	Type				R-410A
	GWP				2,087.5
	Charge			TCO2Eq	24.6
	Charge			kg	11.8
Refrigerant oil	Type				Synthetic (ether) oil FVC68D
Piping connections	Liquid	Type			Braze connection
		OD		mm	10
	Gas	Type			Braze connection
		OD		mm	19.1
	Total piping length	System	Actual	m	500 (3)
	Level difference	OU - IU	Outdoor unit in highest position	m	50
			Indoor unit in highest position	m	40
		IU - IU		m	30
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

2 Specifications

1 - 1 RXYLQ-T

Technical specifications Module					RXMLQ8T
Power consumption in other than active mode	Crankcase heater mode	Cooling	PCK	kW	0.000
		Heating	PCK	kW	0.0430
	Off mode	Cooling	POFF	kW	0.0380
		Heating	POFF	kW	0.0380
	Standby mode	Cooling	PSB	kW	0.0380
		Heating	PSB	kW	0.0380
	Thermostat-off mode	Cooling	PTO	kW	0.0140
		Heating	PTO	kW	0.0610
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

Electrical specifications Module					RXMLQ8T
Power supply	Name				Y1
	Phase				3N~
	Frequency			Hz	50
	Voltage			V	380-415
Power supply intake					Both indoor and outdoor unit
Voltage range	Min.			%	-10
	Max.			%	10
Current	Nominal running current (RLA)	Cooling		A	10.1 (4)
Current - 50Hz	Nominal running current (RLA)	Combination A	Cooling		-
		Combination B	Cooling		-
	Starting current (MSC) - remark				See note 8
	Zmax	List			No requirements
	Minimum Ssc value			kVa	5,638 (5)
	Minimum circuit amps (MCA)			A	16.1 (6)
	Maximum fuse amps (MFA)			A	20 (7)
	Total overcurrent amps (TOCA)			A	42.5 (8)
	Full load amps (FLA)	Total		A	1.5 (9)
Power Performance	Power factor	Combination B	35°C ISO - Full load		-
			46°C ISO - Full load		-
Wiring connections - 50Hz	For power supply	Quantity			5G
	For connection with indoor	Quantity			2
		Remark			F1,F2

(1)Sound power level is an absolute value that a sound source generates. |
(2)Sound pressure level is a relative value, depending on the distance and acoustic environment. For more details, please refer to the sound level drawings. |
(3)Refer to refrigerant pipe selection or installation manual |
(4)RLA is based on following conditions: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB |
(5)In accordance with EN/IEC 61000-3-12, it may be necessary to consult the distribution network operator to ensure that the equipment is connected only to a supply wih Ssc ≥ minimum Ssc value |
(6)MCA must be used to select the correct field wiring size. The MCA can be regarded as the maximum running current. |
(7)MFA is used to select the circuit breaker and the ground fault circuit interrupter (earth leakage circuit breaker). |
(8)TOCA means the total value of each OC set. |
(9)FLA means the nominal running current of the fan |
Cooling: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB; equivalent piping length: 7.5m (horizontal); level difference: 0m |
Heating: indoor temp. 20°CDB; outdoor temp. 7°CDB, 6°CWB; equivalent refrigerant piping: 7.5m; level difference: 0m |
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 (70% <= CR <= 130%) |
MSC means the maximum current during start up of the compressor. This unit uses only inverter compressors. Starting current is always ≤ max. running current.

3 Options

3 - 1 Options

RXYLQ-T
RXMLQ-T

VRV IV (cold regions)
Heat pump
Option list

Number	Item		Single unit			Multi ·2· unit	Multi ·3· unit
			RXYLQ10	RXYLQ12	4RXYLQ10		
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
Number	**Item**		Single unit			Multi ·2· unit	Multi ·3· unit
			RXYLQ10	RXYLQ12	4RXYLQ10		
1a	Cool/heat selector (switch)	See note ·3 & 4·.	KRC19-26A				
1b	Cool/heat selector (PCB)	See note ·3·.	BRP2A81				
1d	Cool/heat selector (fixing box)	See note ·4·.	KJB111A				
2	VRV configurator		EKPCCAB				
3	Branch selector box	·2· units	BPMKS967A2				
		·3· units	BPMKS967A3				
4	Demand PCB	See note ·5·.	DTA104A61/62*				
5	Demand PCB mounting plate		KKSB26B1*				

Notes

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

3D117168B

4 Combination table

4 - 1 Combination Table

RXMLQ-T
RXYLQ-T

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

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

O: Allowed
X: Not allowed

Notes

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

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

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

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

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

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

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

3D079543F

RXMLQ-T
RXYLQ-T

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

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

O: Allowed
X: Not allowed

Notes

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

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

3D079543F

4 Combination table

4 - 1 Combination Table

RXMLQ-T

RXYLQ-T

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

Units in scope: FXZQ15A and FXAQ15A.

1. In case the system contains these indoor units and the total connection ratio (CR) ≤ 100%: no special restrictions. Follow the restrictions that apply to regular VRV DX indoor units.
2. In case the system contains these indoor units and the total connection ratio (CR) > 100%: special restrictions apply.
   A. When the connection ratio (CR1) of the sum of all FXZQ15A and/or FXAQ15A units in the system ≤ 70%, and ALL other VRV DX indoor units have an individual capacity class > 50: no special restrictions.
   B. When the connection ratio (CR1) of the sum of all FXZQ15A and/or FXAQ15A units in the system ≤ 70%, and NOT ALL other VRV DX indoor units have an individual capacity class > 50: the restrictions below apply.
      - 100% < CR ≤ 105% → CR1 of the sum of all FXZQ15A and/or FXAQ15A indoor units in the system must be ≤ 70%.
      - 105% < CR ≤ 110% → CR1 of the sum of all FXZQ15A and/or FXAQ15A indoor units in the system must be ≤ 60%.
      - 110% < CR ≤ 115% → CR1 of the sum of all FXZQ15A and/or FXAQ15A indoor units in the system must be ≤ 40%.
      - 115% < CR ≤ 120% → CR1 of the sum of all FXZQ15A and/or FXAQ15A indoor units in the system must be ≤ 25%.
      - 120% < CR ≤ 125% → CR1 of the sum of all FXZQ15A and/or FXAQ15A indoor units in the system must be ≤ 10%.
      - 125% < CR ≤ 130% → FXZQ15A andFXAQ15A cannot be used

REMARK

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

3D104665

RXYLQ-T

·VRV· Cold region heat pump

Multi-unit standard combinations table

		8HP	10HP	12HP	14HP
Heat PUMP	RXYLQ10		1		
	RXYLQ12			1	
	RXYLQ14				1
Multi combination with 2 outdoor units	RXYLQ16	2			
	RXYLQ18	1	1		
	RXYLQ20		2		
	RXYLQ22		1	1	
	RXYLQ24			2	
	RXYLQ26			1	1
	RXYLQ28				2
Multi combination with 3 outdoor units	RXYLQ30		3		
	RXYLQ32		2	1	
	RXYLQ34		1	2	
	RXYLQ36			3	
	RXYLQ38			2	1
	RXYLQ40			1	2
	RXYLQ42				3

Notes

1) It is allowed to have other combinations than those described above.
2) Never combine more than 3 units to create a multi-combination.
3) RXYLQ10~14 = single non continuous heating model
4) RXYLQ16~42 = multi non continuous heating model

3D117167

4 Combination table

4 - 1 Combination Table

RXYLQ-T
RXMLQ-T

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

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

Remark

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

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

3D082373H

5 Capacity tables

5 - 1 Capacity Table Legend

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

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

- **Capacity table database:** lets you find back and export quickly the capacity information you are looking for based upon unit model, refrigerant temperature and connection ratio.
- You can access the capacity table viewer here:
  https://my.daikin.eu/content/denv/en_US/home/applications/software-finder/capacity-table-viewer.html

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

5 Capacity tables

5 - 2 Capacity Correction Factor

RXMLQ-T
RXYLQ-T

·VRV· Cold region heat pump
Integrated Heating Capacity coefficient

The heating capacity tables do not take account of the reduction in capacity, when frost has accumulated or while the defrosting operaton is in progress. The capacity values, which take these factors into account, in other words, the integrated heating capacity values, can be calculated as follows:

Formula:

Integrated heating capacity = **A**
Value given in table of capacity characteristics = **B** Integrating correction factor for frost accumulation (kW) = **C A = B * C**

Inlet air temperature of heat exchanger

[°CDB/°CWB]	-7/-7,6 or less	-5/-5,6	-3/-3,7	0/-0,7	3/2,2	5/4,1	7/6
Correction factor defrost	0,95	0,90	0,90	0,90	0,90	0,95	1,00

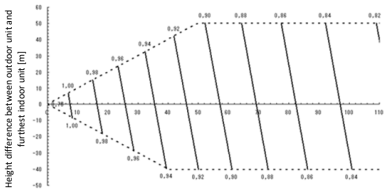
Notes

1) The figure shows that the integrated heating capacity expresses the integrated capacity for a single cycle (from defrost operation to defrost operation) in terms or time.
2) Note that, when there is an accumulation of snow against the outside surface of the outdoor unit heat exchanger, there will always be a temporary reduction in capacity, although this will of course vary in degree in accordance with a number of other factors, such as the outdoor temperature (°CDB), relative humidity (RH) and the amount of frosting which occurs.
3) Multi combination data is corresponding with the standard multi combination as mentioned on 3D117167.

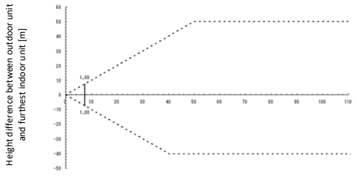
3D117196

RXMLQ8T

Correction ratio for cooling capacity



Correction ratio for heating capacity



Notes

1. These figures illustrate the capacity correction factor due to the piping length 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, as shown in the above figures.
2. With this outdoor unit, the following control is used:
   - in case of cooling: constant evaporating pressure control
   - in case of heating: constant condensing pressure control
3. Method of calculating the capacity of the outdoor units.
   The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity of the outdoor units as mentioned below, whichever is less.

Condition Indoor connection ratio ≤ 100%.

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

Condition Indoor connection ratio > 100%.

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

4. When the level difference is 50 m or more and the equivalent piping length is 90 m or more, the diameter of the main gas and liquid pipes (outdoor unit - branch sections) must be increased.
   Refer to installation manual ·3D079540 / 3D79543·
   For the new diameters, see below.

Model	Gas pipe	Liquid pipe
8HP	22,2	12,7

5. When the pipe length after the first refrigerant branch kit is more than 40 m, the pipe size between the first and the final branch kit must be increased (only for VRV DX indoor units).
   For details, see the installer reference guide.

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

Equivalent piping length [m]

Diameter of the main pipes (standard size)

Model	Gas pipe	Liquid pipe
8HP	19,1	9,5

6. The equivalent lengths from the graphs above were obtained with the following calculation:

Equivalent piping length [m]	=			
		Equivalent length of the main pipe	x	Correction factor
		+		
		Equivalent length of the branch pipes		

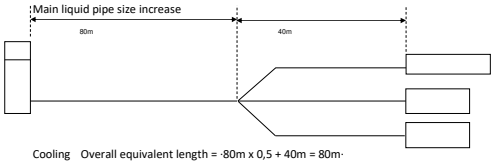
Choose the correction factor from the following table.

When calculating the cooling capacity: gas pipe size
When calculating the heating capacity: liquid pipe size

	Correction factor	
	Standard size	Size increase
Cooling (gas pipe)	1,0	0,5
Heating (liquid pipe)	1,0	0,5

Example

Main gas pipe size increase
Main liquid pipe size increase
Equivalent length of the branch pipes



Cooling Overall equivalent length = ·80m x 0,5 + 40m = 80m·
Heating Overall equivalent length = ·80m x 0,5 + 40m = 80m·

The change rate of the cooling capacity when the height difference = 0 is about ·0,86·
The change rate of the heating capacity when the height difference = 0 is about ·1,0·

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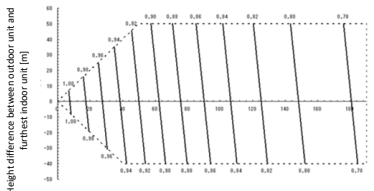
5 Capacity tables

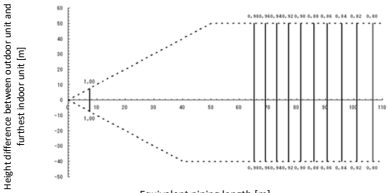
5 - 2 Capacity Correction Factor

RXYLQ10T

Correction ratio for cooling capacity



Correction ratio for heating capacity



Notes

1. These figures illustrate the capacity correction factor due to the piping length 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, as shown in the above figures.
2. With this outdoor unit, the following control is used:
   - in case of cooling: constant evaporating pressure control
   - in case of heating: constant condensing pressure control
3. Method of calculating the capacity of the outdoor units.
   The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity of the outdoor units as mentioned below, whichever is less.

Conditions Indoor connection ratio ≤ 100%.

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

Conditions Indoor connection ratio > 100%.

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

4. When the level difference is 50 m or more and the equivalent piping length is 90 m or more, the diameter of the main gas and liquid pipes (outdoor unit - branch sections) must be increased.
   Refer to installation manual ·3D079540 / 3D79543·
   For the new diameters, see below.

Model	Gas pipe	Liquid pipe
10HP	25,4 *	12,7

** If not available on-site, do not increase the piping diameter.*
** If not increased, do not apply a correction factor to the equivalent piping length (see note ·6·).*

5. When the pipe length after the first refrigerant branch kit is more than 40 m, the pipe size between the first and the final branch kit must be increased (only for VRV DX indoor units).
   For details, see the installer reference guide.

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

Diameter of the main pipes (standard size)

Model	Gas pipe	Liquid pipe
10HP	22,2	9,5

6. The equivalent lengths from the graphs above were obtained with the following calculation:

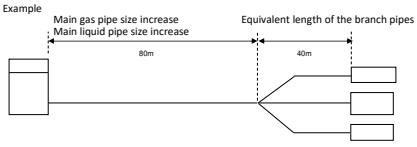
Equivalent piping length [m]	=		
Equivalent length of the main pipe		x	Correction factor
+			
Equivalent length of the branch pipes			

Choose the correction factor from the following table.

When calculating the cooling capacity: gas pipe size
When calculating the heating capacity: liquid pipe size

	Correction factor	
	Standard size	Size increase
Cooling (gas pipe)	1,0	0,5
Heating (liquid pipe)	1,0	0,5

Example



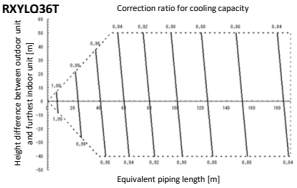
Cooling Overall equivalent length = ·80m x 0,5 + 40m = 80m·
Heating Overall equivalent length = ·80m x 0,5 + 40m = 80m·

The change rate of the cooling capacity when the height difference = 0 is about ·0,87·
The change rate of the heating capacity when the height difference = 0 is about ·0,90·

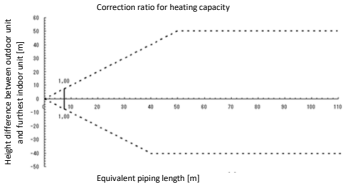
3D108958B

RXYLQ12T
RXYLQ14T
RXYLQ24T
RXYLQ36T

Correction ratio for cooling capacity



Correction ratio for heating capacity



Notes

1. These figures illustrate the capacity correction factor due to the piping length 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, as shown in the above figures.
2. With this outdoor unit, the following control is used:
   - in case of cooling: constant evaporating pressure control
   - in case of heating: constant condensing pressure control
3. Method of calculating the capacity of the outdoor units.
   The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity of the outdoor units as mentioned below, whichever is less.

Conditions Indoor connection ratio ≤ 100%.

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

Conditions Indoor connection ratio > 100%.

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

4. When the level difference is 50 m or more and the equivalent piping length is 90 m or more, the diameter of the main gas and liquid pipes (outdoor unit - branch sections) must be increased.
   Refer to installation manual ·3D079540 / 3D79543·
   For the new diameters, see below.

Model	Gas pipe	Liquid pipe
12HP	28,6	15,9
14HP	28,6	15,9
24HP	34,9	19,1
36HP	41,3	22,2

5. When the pipe length after the first refrigerant branch kit is more than 40 m, the pipe size between the first and the final branch kit must be increased (only for VRV DX indoor units).
   For details, see the installer reference guide.

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

Diameter of the main pipes (standard size)

Model	Gas pipe	Liquid pipe
12HP	28,6	12,7
14HP	28,6	12,7
24HP	34,9	15,9
36HP	41,3	19,1

6. The equivalent lengths from the graphs above were obtained with the following calculation:

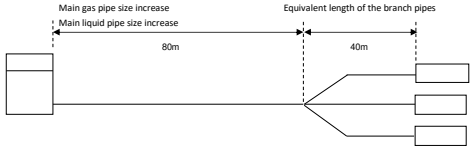
Equivalent piping length [m]	=		
Equivalent length of the main pipe		x	Correction factor
+			
Equivalent length of the branch pipes			

Choose the correction factor from the following table.

When calculating the cooling capacity: gas pipe size
When calculating the heating capacity: liquid pipe size

	Correction factor	
	Standard size	Size increase
Cooling (gas pipe)	1,0	
Heating (liquid pipe)	1,0	0,5

Example



Cooling Overall equivalent length = ·80m x 1,0 + 40m = 120m·
Heating Overall equivalent length = ·80m x 0,5 + 40m = 80m·

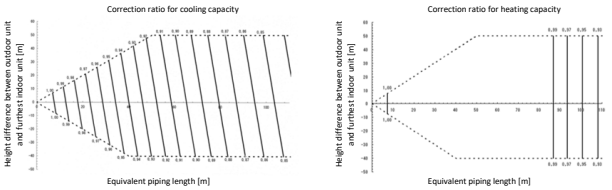
The change rate of the cooling capacity when the height difference = 0 is about ·0,89·
The change rate of the heating capacity when the height difference = 0 is about ·1,0·

3D108958B

5 Capacity tables

5 - 2 Capacity Correction Factor

RXYLQ16T



Notes

1. These figures illustrate the capacity correction factor due to the piping length 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, as shown in the above figures.

2. With this outdoor unit, the following control is used:
   - in case of cooling: constant evaporating pressure control
   - in case of heating: constant condensing pressure control

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

   Conditions Indoor connection ratio ≤ 100%.
   Maximum capacity of outdoor units = Capacity of outdoor units from capacity table at 100% connection ratio.
   x Correction ratio of piping to furthest indoor unit

   Conditions Indoor connection ratio > 100%.
   Maximum capacity of outdoor units = Capacity of outdoor units from capacity table at installed connection ratio.
   x Correction ratio of piping to furthest indoor unit

4. When the level difference is 50 m or more and the equivalent piping length is 90 m or more, the diameter of the main gas and liquid pipes (outdoor unit - branch sections) must be increased.
   Refer to installation manual ·3D079540 / 3D79543·
   For the new diameters, see below.

Model	Gas pipe	Liquid pipe
16HP	31,8 *	15,9

* *If not available on-site, do not increase the piping diameter.*
* *If not increased, do not apply a correction factor to the equivalent piping length (see note ·6·).*

5. When the pipe length after the first refrigerant branch kit is more than 40 m, the pipe size between the first and the final branch kit must be increased (only for VRV DX indoor units).
   For details, see the installer reference guide.

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

Diameter of the main pipes (standard size)

Model	Gas pipe	Liquid pipe
16HP	28,6	12,7

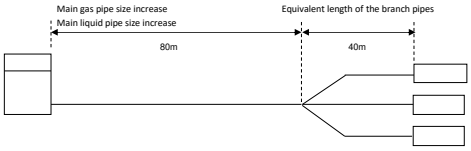
6. The equivalent lengths from the graphs above were obtained with the following calculation:
   Equivalent piping length [m] =
   Equivalent length of the main pipe x Correction factor
   +
   Equivalent length of the branch pipes

Choose the correction factor from the following table.

When calculating the cooling capacity: gas pipe size
When calculating the heating capacity: liquid pipe size

	Correction factor	
	Standard size	Size increase
Cooling (gas pipe)	1,0	0,5
Heating (liquid pipe)	1,0	0,5

Example

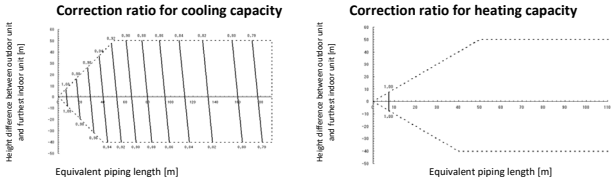


Cooling Overall equivalent length = ·80m x 0,5 + 40m = 80m·
Heating Overall equivalent length = ·80m x 0,5 + 40m = 80m·

The change rate of the cooling capacity when the height difference = 0 is about ·0,88·
The change rate of the heating capacity when the height difference = 0 is about ·0,99·

3D108958B

RXYLQ18T
RXYLQ26T
RXYLQ28T
RXYLQ30T
RXYLQ38T
RXYLQ40T
RXYLQ42T



Notes

1. These figures illustrate the capacity correction factor due to the piping length 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, as shown in the above figures.

2. With this outdoor unit, the following control is used:
   - in case of cooling: constant evaporating pressure control
   - in case of heating: constant condensing pressure control

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

   Conditions Indoor connection ratio ≤ 100%.
   Maximum capacity of outdoor units = Capacity of outdoor units from capacity table at 100% connection ratio.
   x Correction ratio of piping to furthest indoor unit

   Conditions Indoor connection ratio > 100%.
   Maximum capacity of outdoor units = Capacity of outdoor units from capacity table at installed connection ratio.
   x Correction ratio of piping to furthest indoor unit

4. When the level difference is 50 m or more and the equivalent piping length is 90 m or more, the diameter of the main gas and liquid pipes (outdoor unit - branch sections) must be increased.
   Refer to installation manual 3D079540 / 3D79543
   For the new diameters, see below.

Model	Gas pipe	Liquid pipe
18HP	31,8 *	19,1
26~30HP	38,1 *	22,2
38~42HP	41,3	22,2

* *If not available on-site, do not increase the piping diameter.*
* *If not increased, do not apply a correction factor to the equivalent piping length (see note 6).*

5. When the pipe length after the first refrigerant branch kit is more than 40 m, the pipe size between the first and the final branch kit must be increased (only for VRV DX indoor units).
   For details, see the installer reference guide.

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

Diameter of the main pipes (standard size)

Model	Gas pipe	Liquid pipe
18HP	28,6	15,9
26~30HP	34,9	19,1
38~42HP	41,3	19,1

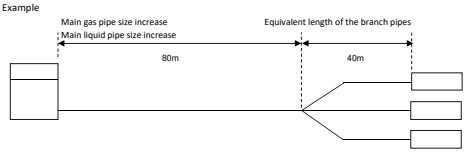
6. The equivalent lengths from the graphs above were obtained with the following calculation:
   Equivalent piping length [m] =
   Equivalent length of the main pipe x Correction factor
   +
   Equivalent length of the branch pipes

Choose the correction factor from the following table.

When calculating the cooling capacity: gas pipe size
When calculating the heating capacity: liquid pipe size

	Correction factor	
	Standard size	Size increase
Cooling (gas pipe)	1,0	0,5
Heating (liquid pipe)	1,0	0,5

Example



Cooling Overall equivalent length = 80m x 1,0 + 40m = 120m
Heating Overall equivalent length = 80m x 0,5 + 40m = 80m

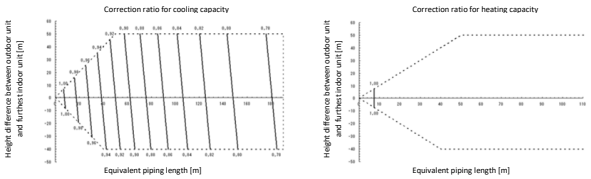
The change rate of the cooling capacity when the height difference = 0 is about 0,83
The change rate of the heating capacity when the height difference = 0 is about 1,0

3D108958B

5 Capacity tables

5 - 2 Capacity Correction Factor

RXYLQ20T
RXYLQ32T
RXYLQ34T



Notes

1. These figures illustrate the capacity correction factor due to the piping length 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, as shown in the above figures.

2. With this outdoor unit, the following control is used:
   - in case of cooling: constant evaporating pressure control
   - in case of heating: constant condensing pressure control

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

   Conditions Indoor connection ratio ≤ 100%.
   Maximum capacity of outdoor units = Capacity of outdoor units from capacity table at 100% connection ratio.
   x Correction ratio of piping to furthest indoor unit

   Conditions Indoor connection ratio > 100%.
   Maximum capacity of outdoor units = Capacity of outdoor units from capacity table at installed connection ratio.
   x Correction ratio of piping to furthest indoor unit

4. When the level difference is 50 m or more and the equivalent piping length is 90 m or more, the diameter of the main gas and liquid pipes (outdoor unit - branch sections) must be increased.
   Refer to installation manual ·3D079540 / 3D79543·
   For the new diameters, see below.

Model	Gas pipe	Liquid pipe
20HP	31,8 *	19,1
32/34HP	38,1 *	22,2

5. When the pipe length after the first refrigerant branch kit is more than 40 m, the pipe size between the first and the final branch kit must be increased (only for VRV DX indoor units).
   For details, see the installer reference guide.

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

Diameter of the main pipes (standard size)

Model	Gas pipe	Liquid pipe
20HP	28,6	15,9
32/34HP	34,9	19,1

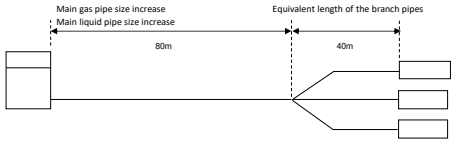
6. The equivalent lengths from the graphs above were obtained with the following calculation:
   Equivalent piping length [m] =
   Equivalent length of the main pipe x Correction factor
   +
   Equivalent length of the branch pipes

Choose the correction factor from the following table.

When calculating the cooling capacity: gas pipe size
When calculating the heating capacity: liquid pipe size

	Correction factor	
	Standard size	Size increase
Cooling (gas pipe)	1,0	0,5
Heating (liquid pipe)	1,0	0,5

Example

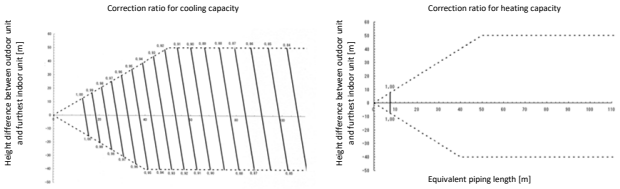


Cooling Overall equivalent length = ·80m x 0,5 + 40m = 80m·
Heating Overall equivalent length = ·80m x 0,5 + 40m = 80m·

The change rate of the cooling capacity when the height difference = 0 is about ·0,88·
The change rate of the heating capacity when the height difference = 0 is about ·1,0·

3D108958B

RXYLQ22T



Notes

1. These figures illustrate the capacity correction factor due to the piping length 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, as shown in the above figures.

2. With this outdoor unit, the following control is used:
   - in case of cooling: constant evaporating pressure control
   - in case of heating: constant condensing pressure control

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

   Conditions Indoor connection ratio ≤ 100%.
   Maximum capacity of outdoor units = Capacity of outdoor units from capacity table at 100% connection ratio.
   x Correction ratio of piping to furthest indoor unit

   Conditions Indoor connection ratio > 100%.
   Maximum capacity of outdoor units = Capacity of outdoor units from capacity table at installed connection ratio.
   x Correction ratio of piping to furthest indoor unit

4. When the level difference is 50 m or more and the equivalent piping length is 90 m or more, the diameter of the main gas and liquid pipes (outdoor unit - branch sections) must be increased.
   Refer to installation manual ·3D079540 / 3D79543·
   For the new diameters, see below.

Model	Gas pipe	Liquid pipe
22HP	31,8 *	19,1

* *If not available on-site, do not increase the piping diameter.*
* *If not increased, do not apply a correction factor to the equivalent piping length (see note ·6·).*

5. When the pipe length after the first refrigerant branch kit is more than 40 m, the pipe size between the first and the final branch kit must be increased (only for VRV DX indoor units).
   For details, see the installer reference guide.

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

Diameter of the main pipes (standard size)

Model	Gas pipe	Liquid pipe
22HP	28,6	15,9

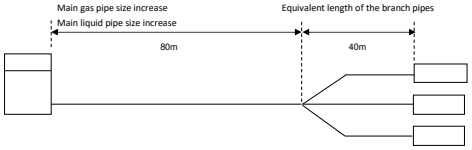
6. The equivalent lengths from the graphs above were obtained with the following calculation:
   Equivalent piping length [m] =
   Equivalent length of the main pipe x Correction factor
   +
   Equivalent length of the branch pipes

Choose the correction factor from the following table.

When calculating the cooling capacity: gas pipe size
When calculating the heating capacity: liquid pipe size

	Correction factor	
	Standard size	Size increase
Cooling (gas pipe)	1,0	0,5
Heating (liquid pipe)	1,0	0,5

Example



Cooling Overall equivalent length = ·80m x 0,5 + 40m = 80m·
Heating Overall equivalent length = ·80m x 0,5 + 40m = 80m·

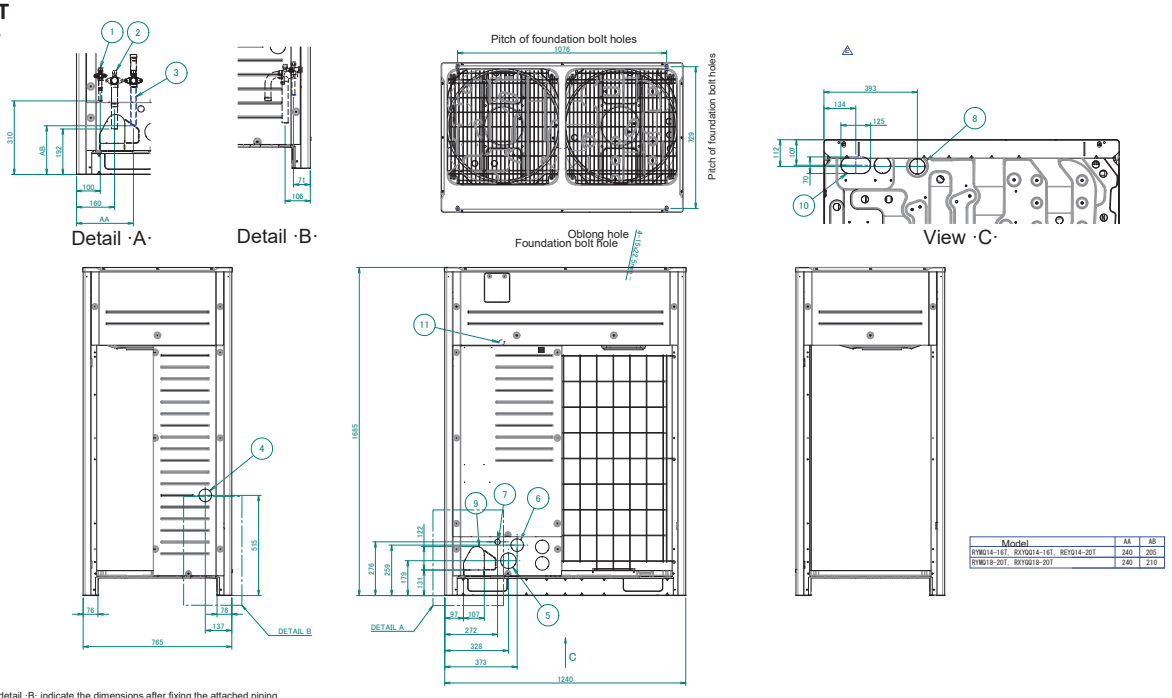
The change rate of the cooling capacity when the height difference = 0 is about ·0,88·
The change rate of the heating capacity when the height difference = 0 is about ·1,0·

3D108958B

6 Dimensional drawings

6 - 1 Dimensional Drawings

RXMLQ-T
RXYLQ-T



Model	AA	AB
RYMQ14-16T, RXYQQ14-16T, REYQ14-20T	240	205
RYMQ18-20T, RXYQQ18-20T	240	210

Notes

1 Detail ·A· and detail ·B· indicate the dimensions after fixing the attached piping.
2 Items ·4 - 10· Knockout hole.
3 Gas pipe
RXMLQ8T⚠
RXYTQ10T, RXYLQ10T ⚠
REYQ14-20T
RYYQ14-20T, RYMQ14-20T, RXYQ14-20T, RXYQQ14-20T, RXYTQ12-16T, RXYLQ12-14T
Liquid pipe
RXYTQ10T, RXMLQ8T, RXYLQ10T ⚠
RYYQ14-16T, RYMQ14-16T, RXYQ14-16T, RXYQQ14-16T, REYQ14-20T, RXYTQ12-16T, RXYLQ12-14T
RYYQ18-20T, RYMQ18-20T, RXYQ18-20T, RXYQQ18-20T
Equalising pipe
RYMQ14-16T
RYMQ18-20T
High pressure/low pressure gas pipe
REYQ14-20T

Ø ·19.1· brazing connection ⚠
Ø ·22.2· brazing connection
Ø ·25.4· brazing connection
⚠ Ø ·28.6· brazing connection

Ø ·9.5· brazing connection
Ø ·12.7· brazing connection
Ø ·15.9· brazing connection

Ø ·22.2· brazing connection
Ø ·28.6· brazing connection

Ø ·22.2· brazing connection

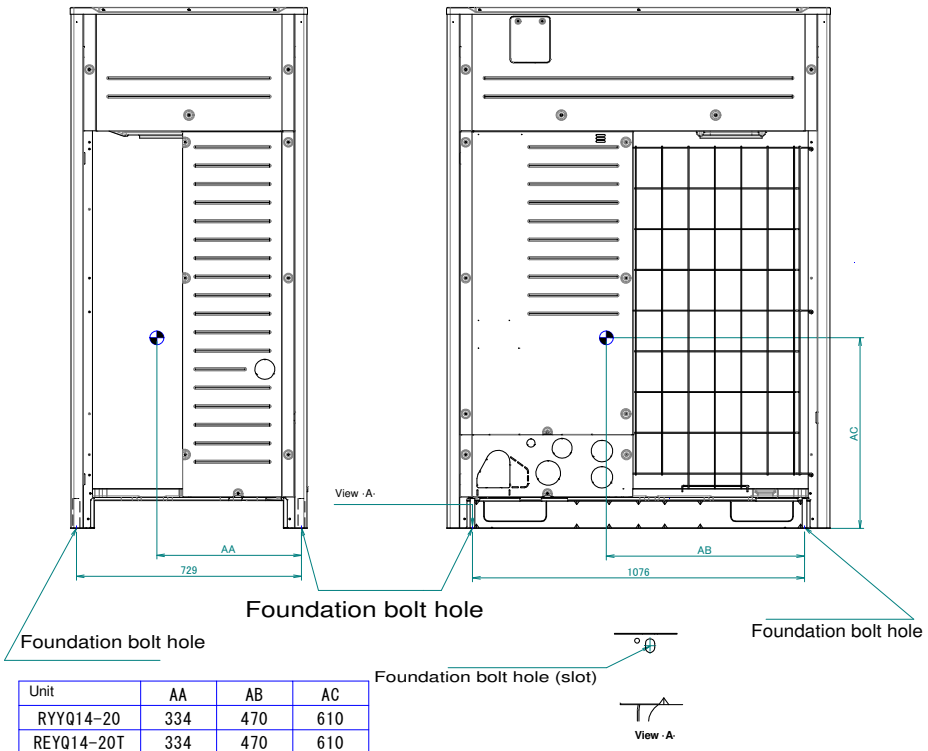
No.	Name	Remark
11	Grounding terminal	Inside of the switch box (·M8·)
10	Pipe routing hole (bottom)	
9	Pipe routing hole (front)	
8	Power cord routing hole (bottom)	Ø65
7	Power cord routing hole (front)	Ø27
6	Power cord routing hole (front)	Ø65
5	Power cord routing hole (front)	Ø80
4	Power cord routing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

2D079533E

7 Centre of gravity

7 - 1 Centre of Gravity

RXMLQ-T
RXYLQ-T



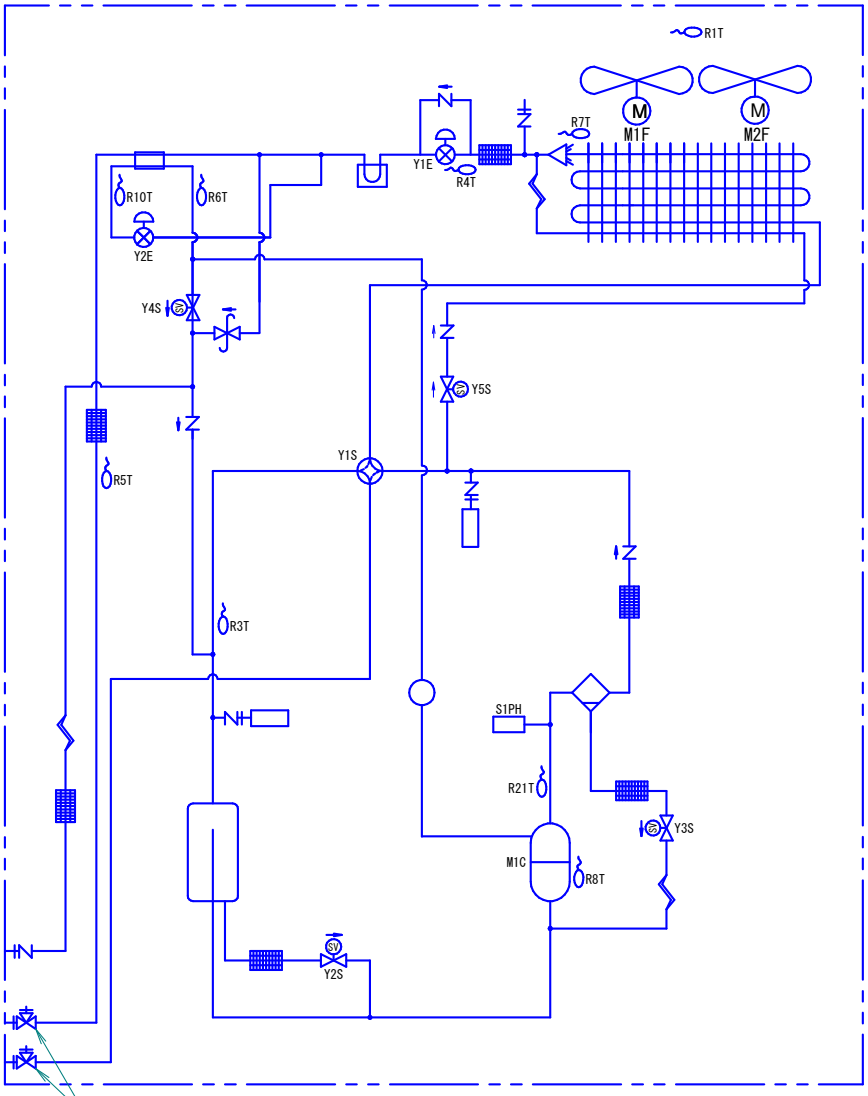
Unit	AA	AB	AC
RYYQ14-20	334	470	610
REYQ14-20T	334	470	610
RYMQ14-20	360	569	610
RXYQ(Q)14-20	345	575	610
RXYTQ10-12T	350	610	810
RXYTQ14-16T	351	565	610
RX(M/Y)LQ*T	350	571	787

3D079583D

8 Piping diagrams

8 - 1 Piping Diagrams

RXMLQ-T
RXYLQ-T



- Propeller fan
- Heat exchanger
- Electronic expansion valve
- 4-way valve
- Service port · 5/16"· flare
- High pressure switch
- Low pressure switch
- Compressor
- Oil separator
- Stop valve
- Distributor
- PCB Cooling
- Accumulator
- Subcool heat exchanger
- Muffler
- Check valve
- Filter
- Solenoid valve
- Capillary tube
- Pressure relief valve

R1T: Thermistor (air)
R21T: Thermistor (discharge)
R3T: Thermistor (suction)
R4T: Thermistor (heat exchanger liquid main)
R5T: Thermistor (subcool heat exchanger liquid)
R6T: Thermistor (subcool heat exchanger gas)
R7T: Thermistor (heat exchanger, deicer)
R8T: Thermistor (compressor body)
R10T: ThermistorSubcool heat exchanger inlet

3D117164A

8 Piping diagrams

8 - 2 Refrigerant pipe selection

RXMLQ-T
RXYLQ-T

VRV4
Heat pump
Piping restrictions 1/3

For the reference drawing, see page 2/3.

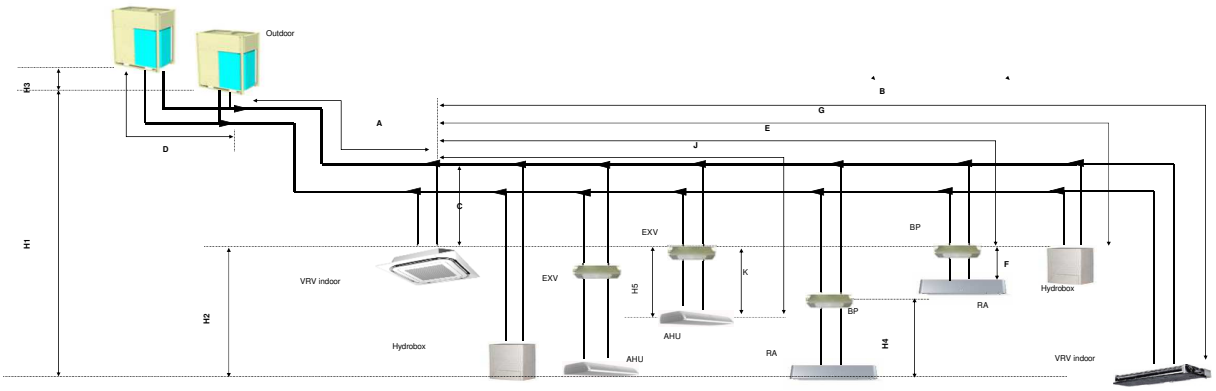
		Maximum piping length			Maximum height difference			Total piping length
		Longest pipe (A+[B,G,E,J]) Actual / (Equivalent)	After first branch (B,G,E,J) Actual	After first branch (for multi-outdoor) (D) Actual / (Equivalent)	Indoor-to-outdoor (H1) Outdoor above indoor / (indoor above outdoor)	Indoor-to-indoor (H2)	Outdoor-to-outdoor (H3)	
Standard		165/(190)m (6)	40m(1)	10/(13)m	50/(40)m(3)	30m	5m	500m
VRV DX indoor units only								
Standard multi-combination								
All multi-outdoor-unit combinations except standard multi-outdoor-unit combinations		135/(160)m (8)	40m(1)	10/(13)m	50/(40)m(3)	30m	5m	300m
Hydrobox connection		135/(160)m (8)	40m	10/(13)m	50/(40)m	15m	5m	300m(5)
RA connection		100/(120)m (8)	50m(2)	-	50/(40)m	15m	-	250m
AHU connection	Pair	50/(55)m(4)	-	-	40/(40)m	-	-	-
	Multi (6)	120/(140)m (8)	40m	10/(13)m	40/(40)m	15m	5m	500m
	Mix (7)	120/(140)m (8)	40m	10/(13)m	40/(40)m	15m	5m	500m

Remark
For standard multi-outdoor-unit combinations, see 3D117167.
(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 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. 40~6 Minimum connection ratio: 80%
60~6 Minimum connection ratio: 90%
65~8 Minimum connection ratio: 100%
80~9 Minimum connection ratio: 110%
b. Size up the liquid piping
A dedicated setting on the outdoor unit is required.
(4) The allowable minimum length is 5 m.
(5) In case of multi-outdoor-unit combinations.
(6) Multiple air handling units (AHU)(EKEXV + EKEQ kits).
(7) Mix of AHU units and VRV DX indoor
(8) If the equivalent piping length between is > 90m, size up the main liquid and gas piping.

3D117169

RXMLQ-T
RXYLQ-T

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	EXV to AHU	BP to RA	EXV to AHU
		(F)	(K)	(H4)	(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

3D117169

8 Piping diagrams

8 - 2 Refrigerant pipe selection

RXMLQ-T
RXYLQ-T

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	70~130%	Max.64	70~130%	-	-	-
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	70~130%	Max.32	70~130%	-	0~50%	-
VRV DX indoor unit + AHU	70~110%(3)	Max.64(2)	70~110%	-	-	0~110%
AHU only (4) Pair + multi	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.

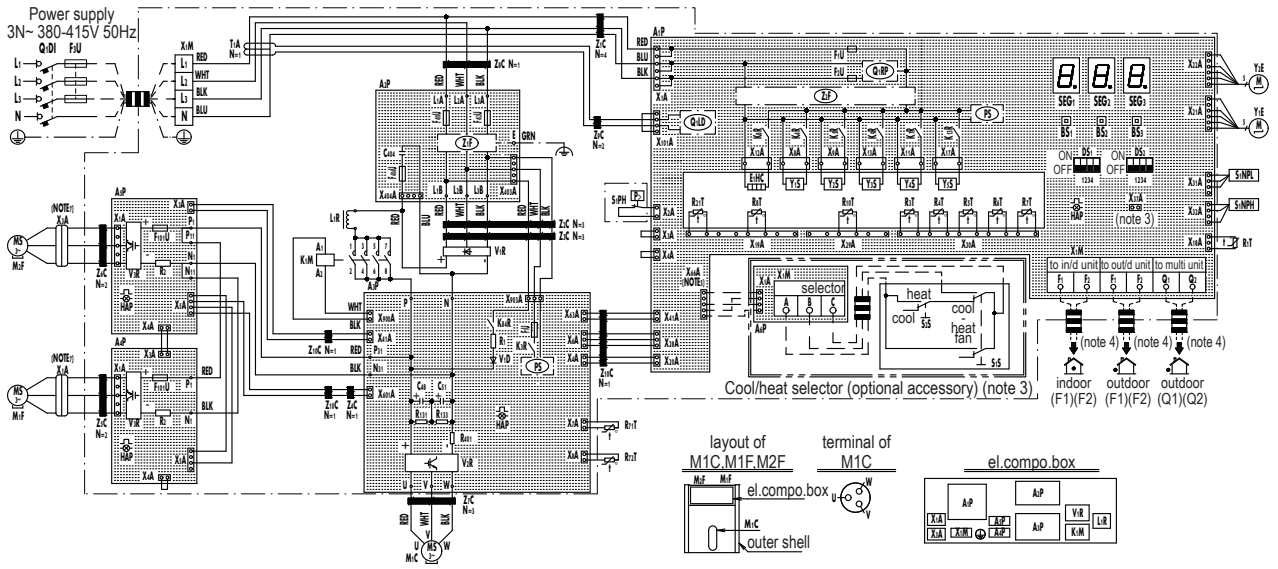
V. Because there is no refrigerant connection with the outdoor unit (only communication F1/F2), VAM units do not have connection limitations.
However, since there is communication via F1/F2, count them as regular indoor unit when calculating the maximum allowed number of connectable indoor units.

3D117169

9 Wiring diagrams

9 - 1 Wiring Diagrams - Three Phase

RXMLQ-T, RXYLQ-T



A1P	Printed circuit board (main)
A2P	Printed circuit board (noise filter)
A3P	Printed circuit board (inv)
A4P, A5P	Printed circuit board (fan)
A6P	Printed circuit board (ABC I/P)
BS1~3 (A1P)	Push button switch (mode, set, return)
C48, C51 (A3P)	Capacitor
C404 (A2P)	Capacitor
DS1~2 (A1P)	Dip switch
E1HC	Cranck case heater
F1U, F2U (A1P)	Fuse (T, 3, 15A, 250V)
F1U (A3P)	Fuse (T, 1A, 500V)
F3U	Field fuse
F101U (A4P, A5P)	Fuse
F404U, F410U, F412U (A2P)	Fuse
HAP (A1P, A3P, A4P, A5P)	Pilotlamp (service monitor-green)
K1M	Magnetic contactor
K3R (A3P)	Magnetic relay
K4R (A1P)	Magnetic relay (Y1S)
K5R (A1P)	Magnetic relay (Y2S)
K7R (A1P)	Magnetic relay (Y4S)
K8R (A1P)	Magnetic relay (E1HC)
K9R (A1P)	Magnetic relay (Y3S)
K13R (A1P)	Magnetic relay (Y5S)
K84R (A3P)	Magnetic relay
L1R	Reactor
M1C	Motor (compressor
M1F, M2F	Motor (fan)
PS (A1P, A3P)	Switching power supply
Q1DI	Field earth leakage breaker
Q1LD (A1P)	Earth leakage current detector
Q1RP (A1P)	Phase reversal detect circuit
R1 (A3P)	Resistor (current limiting)
R2 (A4P, A5P)	Resistor (current sensor)
R131, R133 (A3P)	Resistor
R401 (A3P)	Resistor (current sensor)
R1T	Thermistor (air)

R3T	Thermistor (suction)
R4T	Thermistor (heat exc, liq, main)
R5T	Thermistor (subcool, heat exc, liq)
R6T	Thermistor (subcool, heat exc, gas)
R7T	Thermistor (heat exc, deicer)
R8T	Thermistor (compressor body)
R10T	Thermistor (subcool, heat exc, inl)
R21T	Thermistor (discharge)
R71T	Thermistor (power modular)
R72T	Thermistor (rectifier bridge plate)
S1NPH	Pressure sensor (high)
S1NPL	Pressure sensor (low)
S1PH	Pressure switch (disch)
SEG1~3 (A1P)	7-Segment display
T1A	Current sensor
V1D (A3P)	Diode
V1R	Power module
V2R (A3P)	Power module
V3R (A4P, A5P)	Power module
X1A, X3A	Connector (M1F, M2F)
X1M	Terminal block (power supply)
X1M (A6P)	Terminal block (control)
X*A (A*P)	Connector
Y1E	Electronic expansion valve (main)
Y2E	Electronic expansion valve (injection)
Y1S	Solenoid valve (main)
Y2S	Solenoid valve (accumulator oil return)
Y3S	Solenoid valve (oil1)
Y4S	Solenoid valve (inj.)
Y5S	Solenoid valve (hot gas)
Z*C	Noise filter (ferrite core)
Z1F (A2P)	Noise filter (with surge absorber)
Z2F (A1P)	Noise filter
Connector for optional accessories	
X37A	Connector (power adapter)
X66A	Connector (remote switching cool/heat selector)

NOTES

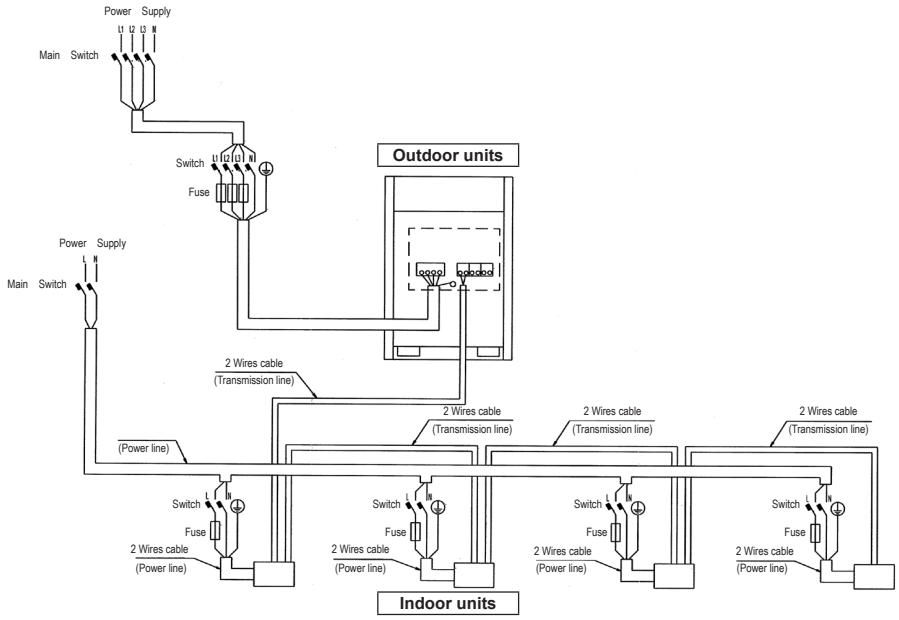
1. This wiring diagram applies only to the outdoor unit.
2. ⊏⊐: field wiring, ⊏⊐: terminal block, ⊏⊐: connector, —○—: terminal, ⏚: protective earth (screw), ⏚: functional earth, ——: earth wiring, — — —: field supply, ⊏⊐: PCB, ⊏⊐: switch box, ⊏⊐: options
3. When using the optional adapter, refer to the installation manual of the optional adapter.
4. For connection wiring from indoor-outdoor transmission F1-F2
5. Outdoor-outdoor transmission F1-F2, outdoor-multi transmission Q1-Q2
6. Refer to the installation manual.
7. How to use BS1~3 switch. Refer to “service precaution” label on el. compo. box cover.
8. When operating, don’t shortcircuit the protection devices (S1PH).
9. Connector X1A (M1F) is white, connector X3A (M2F) is red.

2D117163A

10 External connection diagrams

10 - 1 External Connection Diagrams

RXMLQ-T
RXYLQ-T

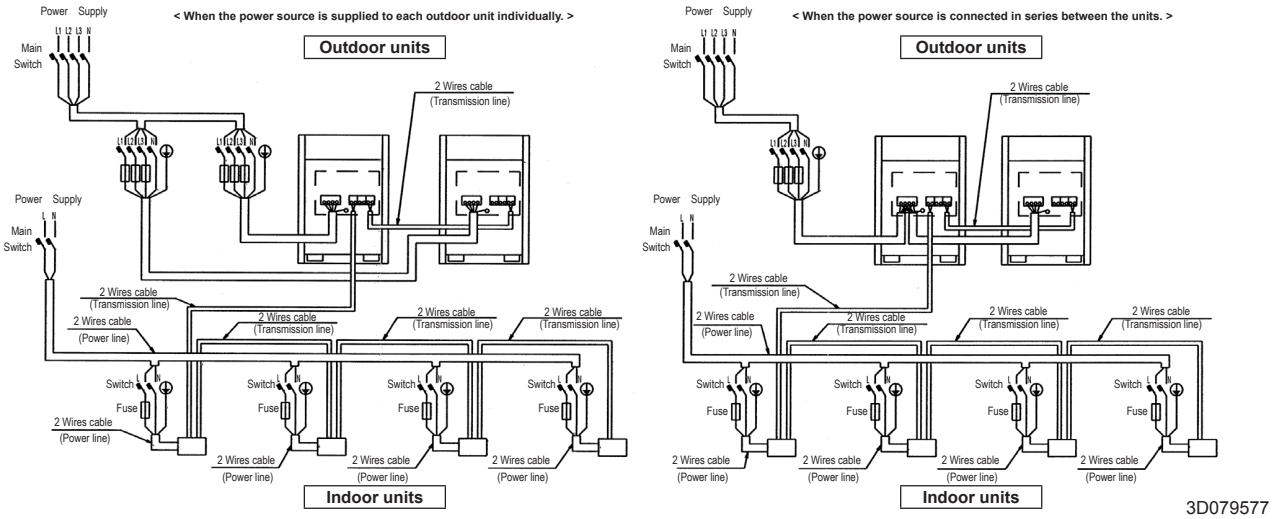


3D079576

NOTES

1. All wiring, components and materials to be procured on the site must comply with the applicable local and national codes.
2. Use copper conductors only.
3. As for details, see wiring diagram.
4. Install circuit breaker for safety.
5. All field wiring and components must be provided by licensed electrician.
6. Unit shall be grounded in compliance with the applicable local and national codes.
7. Wiring shown are general points-of-connection guides only and are not intended for or to include all details for a specific installation.
8. Be sure to install the switch and the fuse to the power line of each equipement.
9. Install the main switch that can interrupt all the power sources in an integrated manner because this system consists of the equipment utilizing the multiple power sources.
10. If there exists the possibility of reversed phase, lose phase, momentary blackout or the power goes on and off while the product is operating, attach a reversed phase protection circuit locally. Running the product in reversed phase may break the compressor and other parts.
11. Must install earth leakage circuit breaker.

RXMLQ-T
RXYLQ-T



3D079577

NOTES

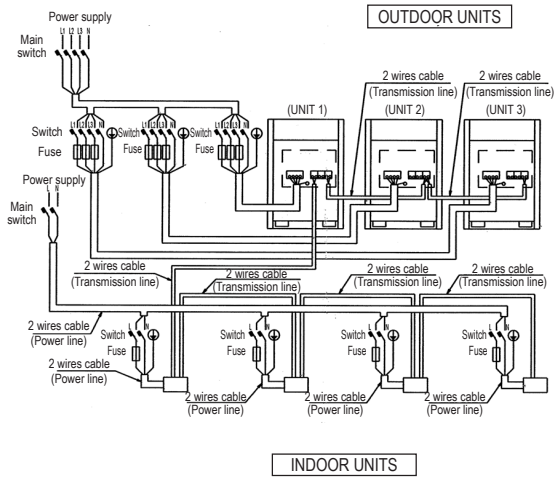
1. All wiring, components and materials to be procured on the site must comply with the applicable local and national codes.
2. Use copper conductors only.
3. As for details, see wiring diagram.
4. Install circuit breaker for safety.
5. All field wiring and components must be provided by licensed electrician.
6. Unit shall be grounded in compliance with the applicable local and national codes.
7. Wiring shown are general points-of-connection guides only and are not intended for or to include all details for a specific installation.
8. Be sure to install the switch and the fuse to the power line of each equipement.
9. Install the main switch that can interrupt all the power sources in an integrated manner because this system consists of the equipment utilizing the multiple power sources.
10. the capacity of UNIT1 must be larger than UNIT2 when the power source is connected in series between the units.
11. If there exists the possibility of reversed phase, lose phase, momentary blackout or 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. Must install earth leakage circuit breaker.

10 External connection diagrams

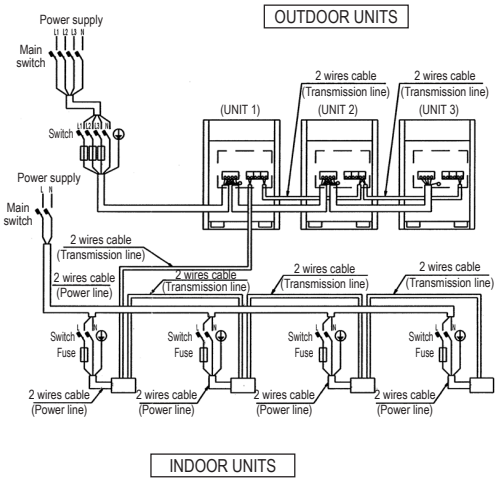
10 - 1 External Connection Diagrams

RXMLQ-T
RXYLQ-T

<When the power source is supplied to each outdoor unit individaully>



<When the power sourse is connected in series between the units>



3D079578

NOTES

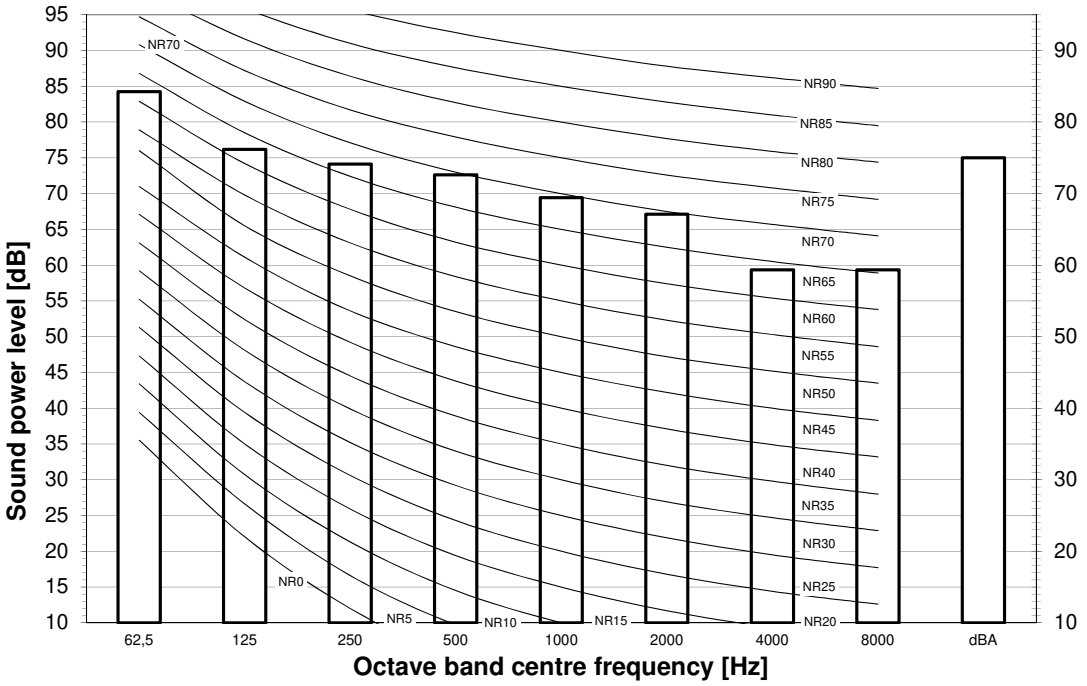
1. All wiring, components and materials to be produced on the site must comply with the applicable local and national codes.
2. Use copper conductors only.
3. As for details, see wiring diagram.
4. Install circuit breaker for safety.
5. All field wiring and components must be provided by licensed electrician.
6. Unit shall be grounded in compliance with the applicable local and national codes.
7. Wiring shown are general points-of-connection guides only and are nog intended for or to include all details for a specific installation.
8. Be sure to install the switch and the fuse to the power line of each equipement.
9. Install the main switch that can interrupt all the power sources in an integrated manner because this system consists of the equipment utilizing the multiple power sources.
10. The capacity of UNIT1 must be larger than UNIT2 when the power source is connected in series between the units.
11. If there exists the possibility of reversed phase, lose phase, momentary blackout or 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. Must install earth leakage circuit breaker.

11 Sound data

11 - 1 Sound Power Spectrum

11

RXMLQ8T

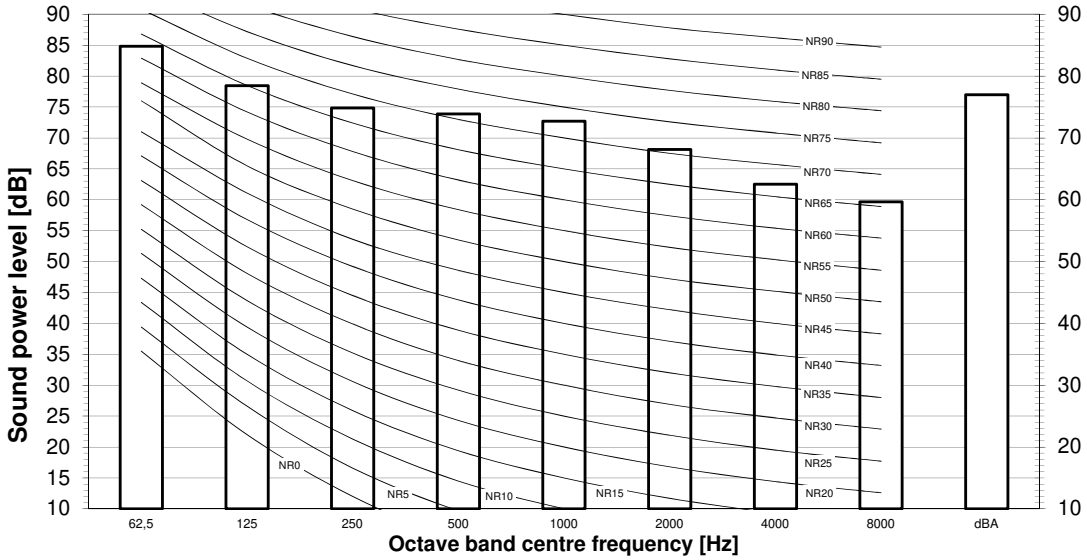


Notes

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

3D117172

RXYLQ10T



Notes

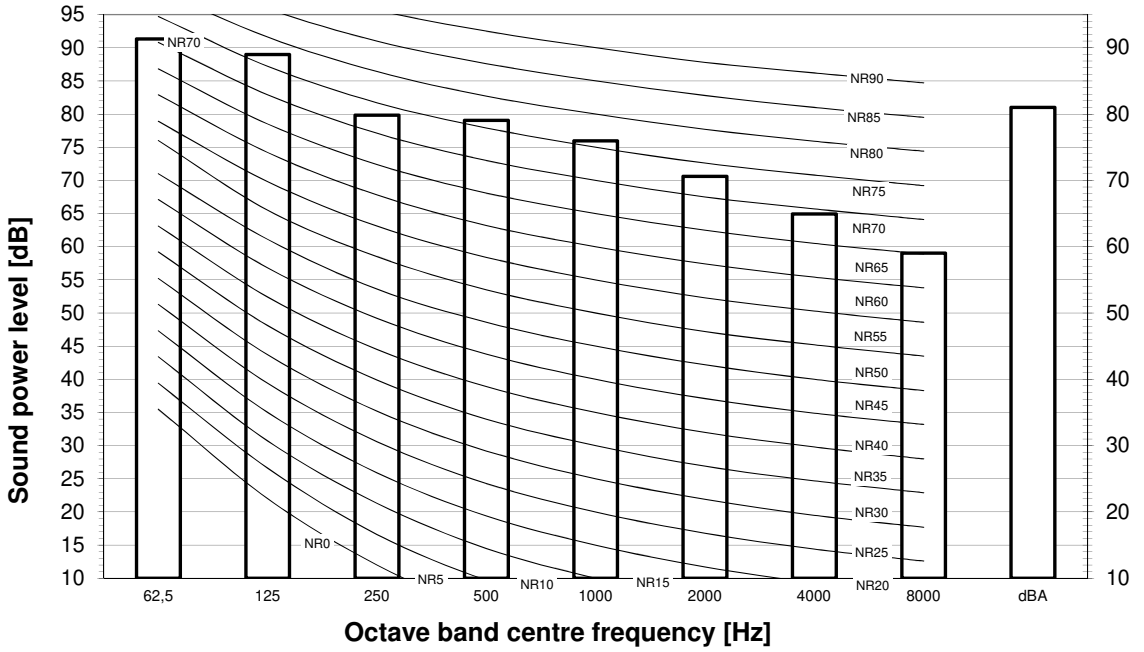
- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity 0dB = 10E-6µW/m²
- Measured according to ISO 3744

3D117174

11 Sound data

11 - 1 Sound Power Spectrum

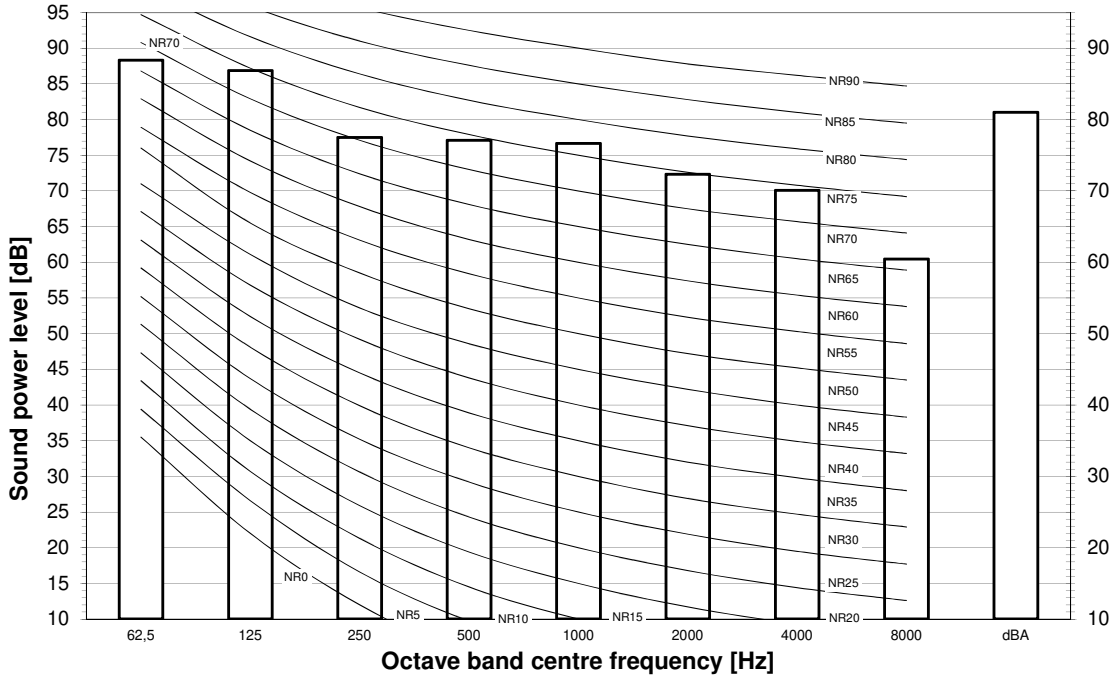
RXYLQ12T



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

3D117176

RXYLQ14T

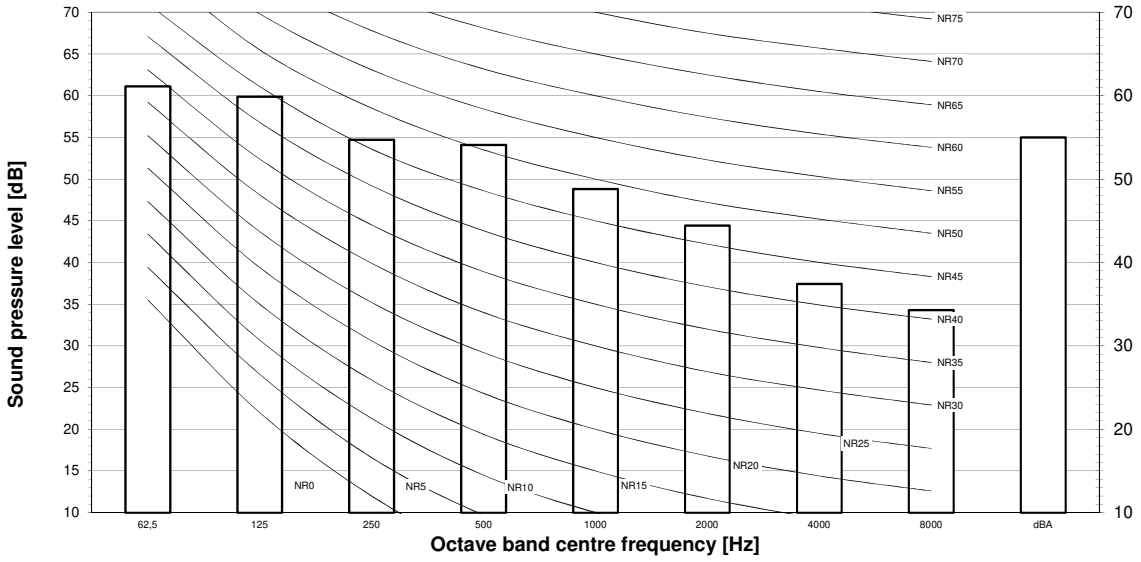


3D117178

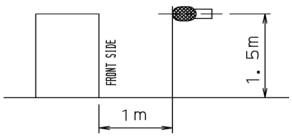
11 Sound data

11 - 2 Sound Pressure Spectrum

RXMLQ8T

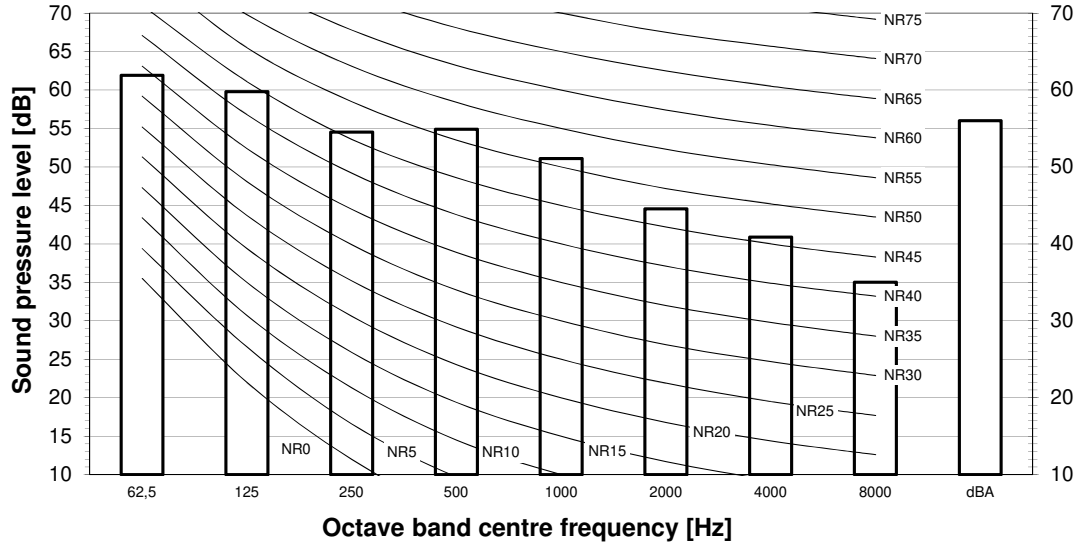


Notes
- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 µPa

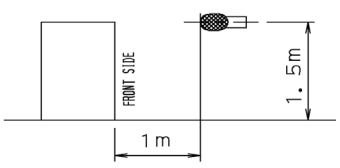


3D117171

RXYLQ10T



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

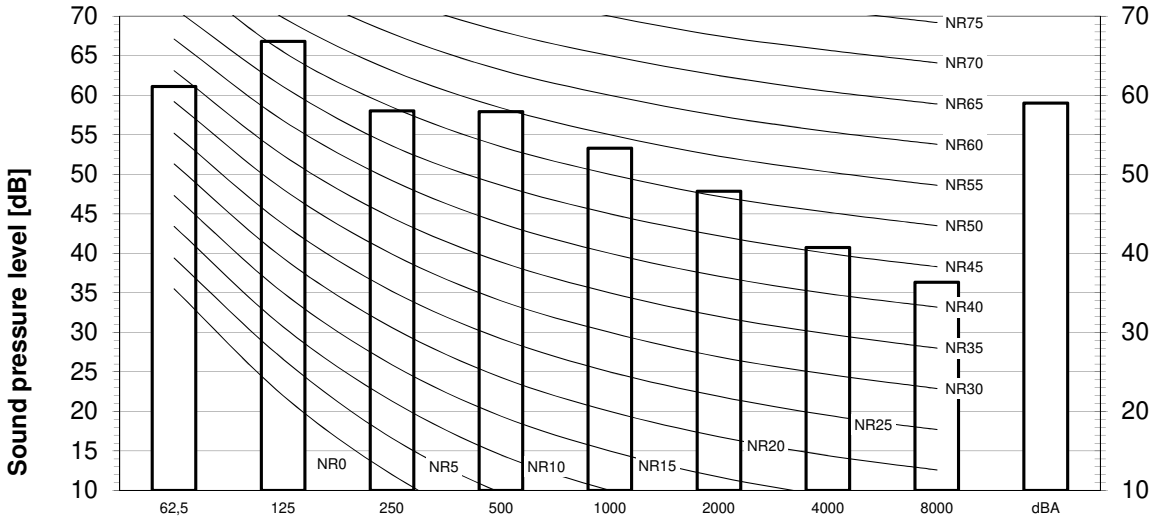


3D117173

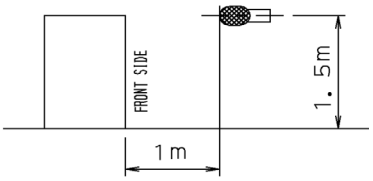
11 Sound data

11 - 2 Sound Pressure Spectrum

RXYLQ12T

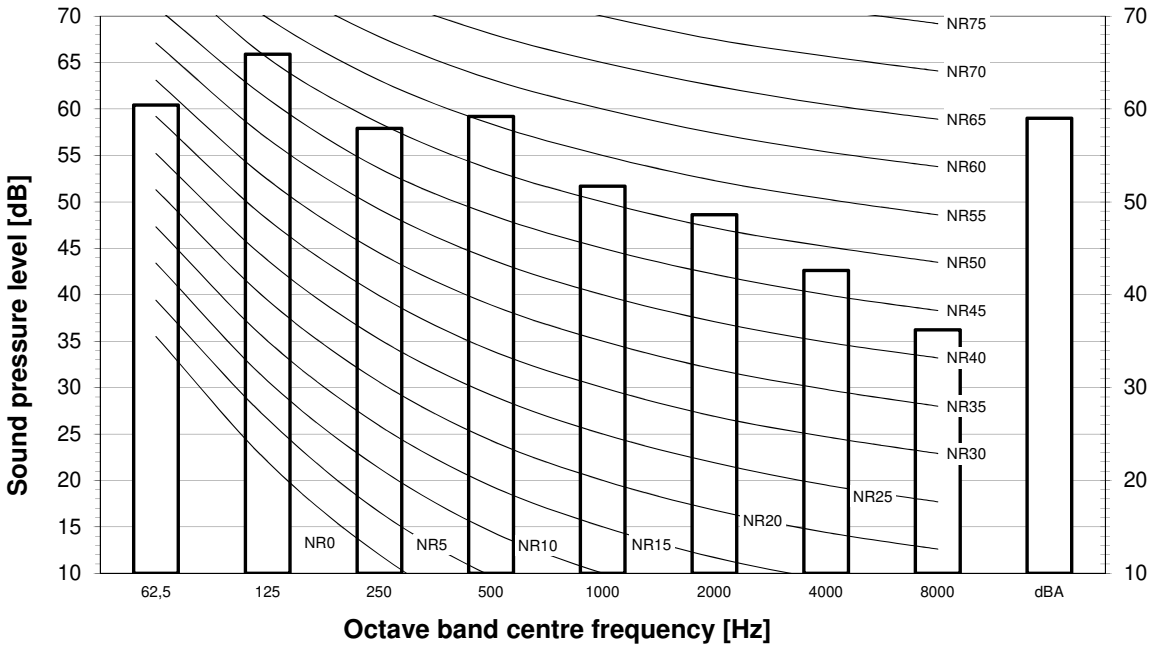


Notes
- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 µPa

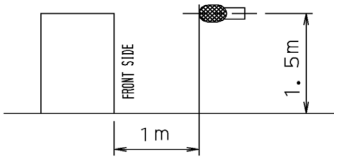


3D117175

RXYLQ14T



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



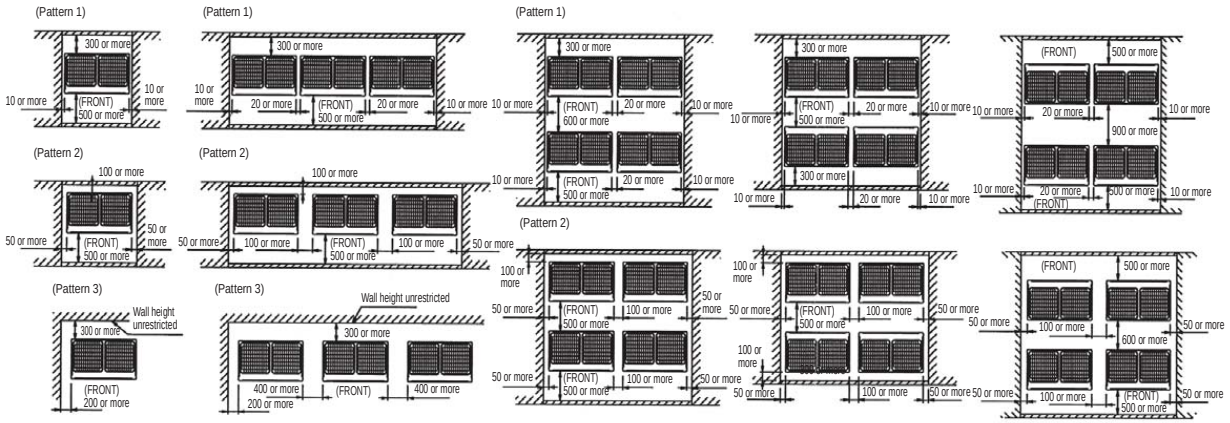
3D117177

12 Installation

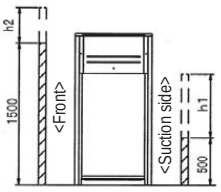
12 - 1 Installation Method

RXMLQ-T
RXYLQ-T

For single unit installation | For installation in rows | For centralized group layout



<Unit = mm>



NOTES

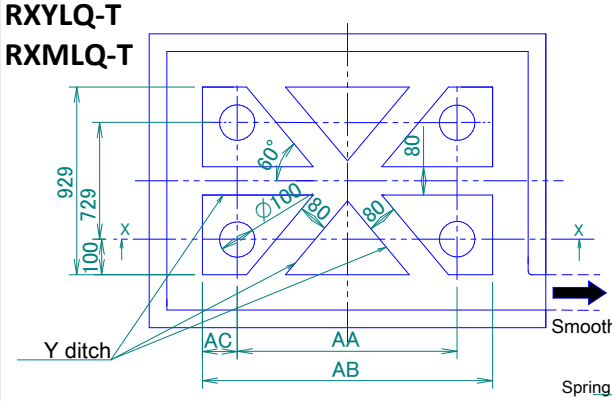
1. Heights of walls in case of patterns 1 and 2:
   Front: 1500mm
   Suction side: 500mm
   Side: Height unrestricted
   Installation space as shown on this drawing is based on the cooling operation at 35 degrees outdoor air temperature.
   When the design outdoor air temperature exceeds 35 degrees or the load exceeds maximum ability of much generation load of heat in all outdoor unit, take the suction side space more broadly than the space as shown on this drawing.
2. If the above wall heights are exceeded then h2/2 and h1/2 should be added to the front and suction side service spaces respectively as shown in the figure on the right.
3. When installing the units most appropriate pattern should be selected from those shown above in order to obtain the best fit in the space available. Always keep in mind the need to leave enough space for a person to pass between units and wall and also for the air to circulate freely.
   (If more units are to be installed than are catered for in the above patterns your layout should take account of the possibility of short circuits).
4. The units should be installed to leave sufficient space at the front for the on site refrigerant piping work to be carried out comfortably.

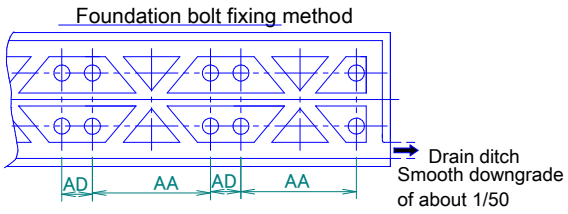
3D079542

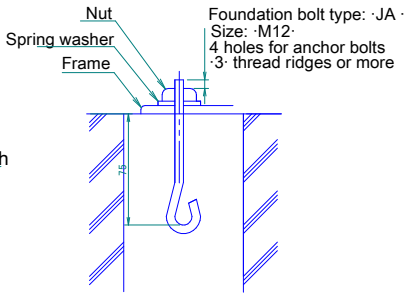
12 Installation

12 - 2 Fixation and Foundation of Units

RXYLQ-T
RXMLQ-T

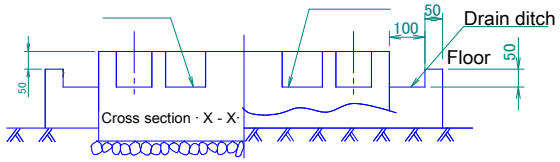






When building a foundation on the ground
Y ditch

When building a foundation on a concrete floor
Y ditch



FOR MULTI-UNIT INSTALLATION				
MODEL	AA	AB	AC	AD
RYYQ8-12T RYMQ8-12T RXYQ8-12T RXYQQ8-12T REMQ5T/REYQ8-12T RXYTQ8T	766	992	113	185
RYYQ14-20T RYMQ14-20T RXYQ14-20T RXYQQ14-20T REYQ14-20T RXYTQ10-16T RXMLQ8T RXYLQ10-14T	1076			
RXYCQ8	497	697	100	160
RXYCQ10-14 SERHQ020	792	992		
RXYCQ16-20 SERHQ032	1102	1302		

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 ad equate water proofing measures.

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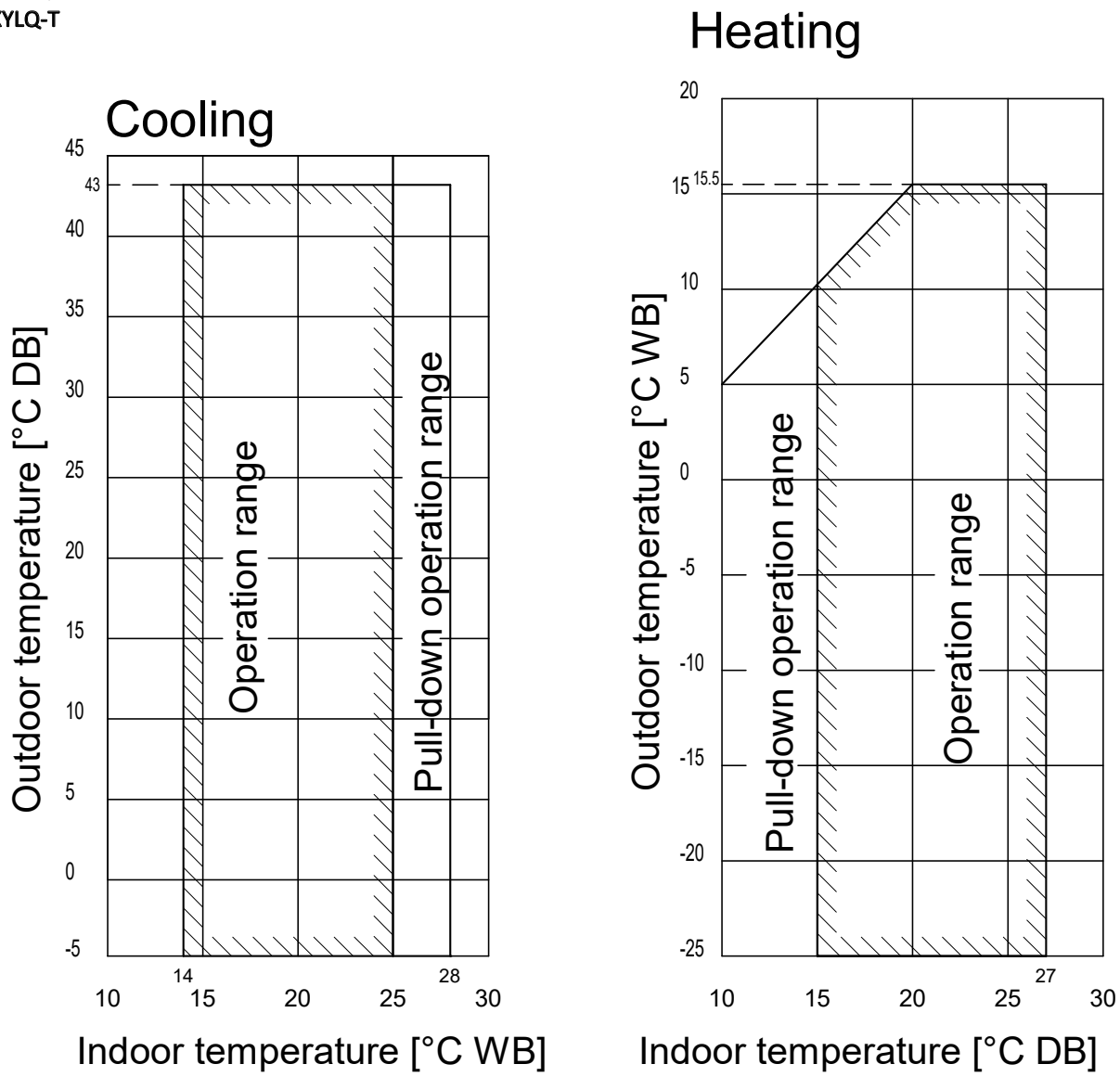
13 Operation range

13 - 1 Operation Range

RXMLQ-T
RXYLQ-T



Notes

1. These figures assume the following operation conditions
   Indoor and outdoor units
   Equivalent piping length: ·5·m
   Level difference: ·0·m

2. Depending on operation and installation conditions, the indoor unit can change over to freeze-up operation (indoor de-icing).

3. To reduce the freeze-up operation (indoor de-icing) frequency, it is recommended to install the outdoor unit in a location not exposed to wind.

4. Operation range is valid in case direct expansion indoor units are used.
   If other indoor units are used, refer to the documentation of the respective indoor units.

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14 Appropriate Indoors

14 - 1 Appropriate Indoors

RXMLQ-T
RXYLQ-T

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

·· HP	8	10	12	14	16	18	20
1	4xFXFQ50	4xFXFQ63	6xFXFQ50	1xFXFQ50 5XFXFQ63	4XFXFQ63 2xFXFQ80	3xFXFQ50 5XFXFQ63	2xFXFQ50 6xFXFQ63
2	4xFXSQ50	4xFXSQ63	6xFXSQ50	1xFXSQ50 5XFXSQ63	4XFXSQ63 2xFXSQ80	3xFXSQ50 5XFXSQ63	2xFXSQ50 6xFXSQ63
3	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* / RXMLQ*T* / RXYLQ*T*· 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
FTXM20R-25R-35R-42R-50R-60R-71R
FLXS25-35-50-60
FVXM25F-35F-50F
FVXG25-35-50
FVXM25A-35A-50A
CVXM20A

Outside the scope of ·ENER LOT21·

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

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