

Air Conditioning
Technical Data

RWEYQ-T9



- > RWEYQ8T9Y1B
- > RWEYQ10T9Y1B
- > RWEYQ12T9Y1B
- > RWEYQ14T9Y1B

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RWEYQ-T9

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1 Features

Ideal for high rise buildings, using water as heat source

- Environmental conscious solution: reduced CO2 emissions thanks to the use of geothermal energy as a renewable energy source and typical lower refrigerant levels making it ideal to comply with EN378
- Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, air handling units, Biddle air curtains and hot water
- Unique zero heat dissipation principle obviates the need for ventilation or cooling in the technical room, maximising installation flexibility
- Wide range of indoor units: possibility to combine VRV with stylish indoor units (Daikin Emura, Nexura, ...)
- Incorporates VRV IV standards & technologies: Variable Refrigerant Temperature, VRV configurator, 7-segment display and full inverter compressors
- Customize your VRV for best seasonal efficiency & comfort with the weather dependant Variable Refrigerant Temperature function. Increased seasonal efficiency and no more cold draft by supply of high outblow temperatures
- Developed for easy installation and servicing: choice between top or front connection for refrigerant piping and rotating switch box for easy access to serviceable parts
- Compact & lightweight design can be stacked for maximum space saving: 42HP can be installed in less than 0,5m² floorspace
- 2-stage heat recovery: first stage between indoor units, second stage between outdoor units thanks to the storage of energy in the water circuit
- Unified model for heat pump and heat recovery version and geothermal and standard operation
- Variable Water Flow control option increases flexibility and control
- 2 analogue input signals allowing external control of ON-OFF, operation mode, error signal, ...
- Easy compliance with F-gas regulation thanks to automated refrigerant containment check
- 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



Inverter

2 Specifications

2-1 Technical Specifications				RWEYQ8T9	RWEYQ10T9	RWEYQ12T9	RWEYQ14T9	
Recommended combinations				4 x FXMQ50P7VEB	4 x FXMQ63P7VEB	6 x FXMQ50P7VEB	1 x FXMQ50P7VEB + 5 x FXMQ63P7VEB	
Cooling capacity	Prated,c		kW	22.4 (1)	28.0 (1)	33.5 (1)	40.0 (1)	
Heating capacity	Prated,h		kW	25.0 (2)	31.5 (2)	37.5 (2)	45.0 (2)	
	Max.	6°CWB	kW	25.0 (3)	31.5 (3)	37.5 (3)	45.0 (3)	
SEER				8.4	7.9	9.2	8.5	
SCOP				13.3	11.8	11.1	10.1	
ηs,c			%	326.8	307.8	359.0	330.7	
ηs,h			%	524.3	465.9	436.0	397.1	
Space cooling	A Condition (35°C - 27/19), cooling tower (inlet/outlet) 30/35	EERd	%	5.6	4.6	5.4	4.2	
		Pdc	kW	22.4	28.0	33.5	40.0	
	B Condition (30°C - 27/19), cooling tower (inlet/outlet) 26/*	EERd	%	6.9	6.3	7.0	6.3	
		Pdc	kW	16.5	20.6	24.7	29.5	
	C Condition (25°C - 27/19), cooling tower (inlet/outlet) 22/*	EERd	%	10.1	9.1	10.5	9.4	
		Pdc	kW	10.6	13.3	15.9	18.9	
	D Condition (20°C - 27/19), cooling tower (inlet/outlet) 18/*	EERd	%	11.9	12.3	14.9	15.6	
		Pdc	kW	7.9		8.2	8.4	
Space heating (Average climate)	TBivalent	COPd (declared COP)		7.2	6.1	5.8		
		Pdh (declared heating cap)	kW	25.0	31.5	37.5	45.0	
		Tbiv (bivalent temperature)	°C	-10				
	TOL	COPd (declared COP)		7.2	6.1	5.8		
		Pdh (declared heating cap)	kW	25.0	31.5	37.5	45.0	
		Tol (temperature operating limit)	°C	-10				
	A Condition (-7°C)	COPd (declared COP)		8.1	7.1	6.6	5.8	
		Pdh (declared heating cap)	kW	22.1	27.9	33.2	39.6	
	B Condition (2°C)	COPd (declared COP)		13.0	11.4	10.7	9.5	
		Pdh (declared heating cap)	kW	13.5	17.0	20.2	24.3	
	C Condition (7°C)	COPd (declared COP)		19.1	16.8	15.5	14.3	
		Pdh (declared heating cap)	kW	8.9	10.9	13.0	15.8	
	D Condition (12°C)	COPd (declared COP)		19.1	20.1	19.3	23.8	
		Pdh (declared heating cap)	kW	8.9	8.8		9.2	
	Capacity range			HP	8	10	12	14
	Maximum number of connectable indoor units				64 (4)			
	Indoor index connection	Min.			100.0	125.0	150.0	175.0
		Max.			300.0	375.0	450.0	525.0
Dimensions	Unit	Height	mm	980				
		Width	mm	767				
		Depth	mm	560				
	Packed unit	Height	mm	1,131				
		Width	mm	890				
		Depth	mm	660				
Weight	Unit		kg	195		197		
	Packed unit		kg	207		208		
Packing	Material			Carton				
	Weight			kg				3.1
Packing 2	Material			Wood				
	Weight			kg				8.3
Packing 3	Material			Plastic				
	Weight			kg				0.2

2 Specifications

2

2-1 Technical Specifications					RWEYQ8T9	RWEYQ10T9	RWEYQ12T9	RWEYQ14T9
Capacity control	Method				Inverter controlled			
Casing	Colour				Ivory white			
	Material				Painted galvanized steel plate			
Heat exchanger	Type				Braze plate			
	Indoor side				Air			
	Outdoor side				water			
	Max. allowable water pressure			bar	37.0			
	Water flow rate	Cooling	Rated	m ³ /h	4.4 (5)	5.5 (5)	6.6 (5)	8.3 (5)
Heating		Rated	m ³ /h	6.1 (5)	7.6 (5)	8.9 (5)	10.3 (5)	
Compressor	Quantity				1			
	Type				Hermetically sealed scroll inverter compressor			
	Crankcase heater			W	33			
Sound power level	Cooling	Nom.	dBA	65.0 (6)	71.0 (6)	72.0 (6)	74.0 (6)	
Sound pressure level	Cooling	Nom.	dBA	48.0 (7)	50.0 (7)	56.0 (7)	58.0 (7)	
Operation range	Inlet water temperature	Cooling	Min.~Max.	°CDB	10~45			
		Heating	Min.~Max.	°CWB	10~45			
	Temperature around casing	Min.		°CDB	0			
		Max.		°CDB	40			
	Humidity around casing	Cooling	Max.	%	80			
Heating		Max.	%	80				
Refrigerant	Type				R-410A			
	GWP				2,087.5			
	Charge				TCO _{2eq}	16.5	20.0	
					kg	7.9	9.6	
Refrigerant oil	Type				Synthetic (ether) oil FVC68D			
Piping connections	Liquid	Type			Braze connection			
		OD	mm		9.52	12.7		
	Gas	Type			Braze connection			
		OD	mm		19.1 (8)	22.2 (8)	28.6 (8)	
	HP/LP gas	Type			Braze connections			
		OD	mm		15.9 (9) / 19.1 (10)	19.1 (9) / 22.2 (10)	19.1 (9) / 28.6 (10)	22.2 (9) / 28.6 (10)
	Drain	Size			14mm OD/ 10mm ID			
Type			Flexible PVC hose					
Total piping length	System	Actual	m	500 (11)				
Safety devices	Item	01			High pressure switch			
		02			Inverter overload protector			
		03			PC board fuse			
PED	Category				Category II			
	Most critical part	Name			Liquid receiver			
		Ps*V	Bar*l		484			
Cooling	Cdc (Degradation cooling)				0.25			
Heating	Cdh (Degradation heating)				0.25			
Power consumption in other than active mode	Off mode	Cooling	POFF	kW	0.046			
		Heating	POFF	kW	0.050			
	Standby mode	Cooling	PSB	kW	0.046			
		Heating	PSB	kW	0.050			
	Thermostat-off mode	Cooling	PTO	kW	0.013			
		Heating	PTO	kW	0.067			
Indication if the heater is equipped with a supplementary heater					no			
Supplementary heater	Back-up capacity	Heating	elbu	kW	0.0			

Standard Accessories : Installation manual; Quantity : 1;

Standard Accessories : Operation manual; Quantity : 1;

Standard Accessories : Connection pipes; Quantity : 1;

Standard Accessories : Water supply piping with strainer; Quantity : 1;

2 Specifications

2-1 Technical Specifications				RWEYQ16T9	RWEYQ18T9	RWEYQ20T9	RWEYQ24T9	RWEYQ26T9	RWEYQ28T9	
System	Outdoor unit module 1			RWEYQ8T		RWEYQ10T	RWEYQ12T		RWEYQ14T	
	Outdoor unit module 2			RWEYQ8T	RWEYQ10T		RWEYQ12T	RWEYQ14T		
Recommended combinations				4 x FXMQ63P7VEB + 2 x FXMQ80P7VEB	4 x FXMQ50P7VEB + 4 x FXMQ63P7VEB	8 x FXMQ63P7VEB	12 x FXMQ50P7VEB	7 x FXMQ50P7VEB + 5 x FXMQ63P7VEB	2 x FXMQ50P7VEB + 10 x FXMQ63P7VEB	
Cooling capacity	Prated,c		kW	44.8 (1)	50.4 (1)	56.0 (1)	67.0 (1)	73.5 (1)	80.0 (1)	
Heating capacity	Prated,h		kW	50.0 (2)	56.5 (2)	62.5 (2)	75.0 (2)	82.5 (2)	90.0 (2)	
	Max.	6°CWB	kW	50.0 (3)	56.5 (3)	62.5 (3)	75.0 (3)	82.5 (3)	90.0 (3)	
SEER				7.9		7.7	8.8	8.3	7.9	
SCOP				11.7	12.5	11.9	11.1	10.4	9.9	
ηs,c			%	307.6	308.7	298.1	342.6	322.5	306.1	
ηs,h			%	459.2	491.1	466.8	434.5	406.9	387.9	
Space cooling	A Condition (35°C - 27/19), cooling tower (inlet/outlet) 30/35	EERd	%	5.1	5.0	4.6	5.4	4.9	4.5	
		Pdc	kW	44.8	50.4	56.0	67.0	73.5	80.0	
	B Condition (30°C - 27/19), cooling tower (inlet/outlet) 26/*	EERd	%	6.5		6.3	7.0	6.6	6.3	
		Pdc	kW	33.0	37.1	41.3	49.4	54.2	58.9	
	C Condition (25°C - 27/19), cooling tower (inlet/outlet) 22/*	EERd	%	9.0	9.5	9.1	10.5	9.9	9.4	
		Pdc	kW	21.2	23.9	26.5	31.7	34.8	37.9	
	D Condition (20°C - 27/19), cooling tower (inlet/outlet) 18/*	EERd	%	11.0	10.1	9.9	11.5	10.8	10.2	
		Pdc	kW	9.4	10.6	11.8	14.1	15.5	16.8	
Space heating (Average climate)	TBivalent	COPd (declared COP)		6.1	6.6	6.2	5.8	5.3	4.9	
		Pdh (declared heating cap)	kW	50.0	56.5	63.0	75.0	82.5	90.0	
		Tbiv (bivalent temperature)	°C	-10						
	TOL	COPd (declared COP)		6.1	6.6	6.2	5.8	5.3	4.9	
		Pdh (declared heating cap)	kW	50.0	56.5	63.0	75.0	82.5	90.0	
		Tol (temperature operating limit)	°C	-10						
	A Condition (-7°C)	COPd (declared COP)		6.9	7.5	7.1	6.6	6.1	5.7	
		Pdh (declared heating cap)	kW	44.2	50.0	55.7	66.3	73.0	79.6	
	B Condition (2°C)	COPd (declared COP)		11.4	12.1	11.4	10.7	10.0	9.5	
		Pdh (declared heating cap)	kW	26.9	30.4	33.9	40.4	44.4	48.5	
	C Condition (7°C)	COPd (declared COP)		16.3	17.8	16.8	15.5	14.8	14.3	
		Pdh (declared heating cap)	kW	17.5	19.8	21.8	26.0	28.6	31.2	
	D Condition (12°C)	COPd (declared COP)		17.8	17.7	18.3	16.7	15.8	16.0	
		Pdh (declared heating cap)	kW	8.6	8.7	9.6	11.5	12.7	13.9	
	Capacity range			HP	16	18	20	24	26	28
	Maximum number of connectable indoor units				64 (4)					
	Indoor index connection	Min.			200.0	225.0	250.0	300.0	325.0	350.0
		Max.			600.0	675.0	750.0	900.0	975.0	1,050.0
Capacity control	Method			Inverter controlled						
Heat exchanger	Indoor side			Air						
	Outdoor side			water						
	Water flow rate	Cooling	Rated	m³/h	8.9 (5)	9.9 (5)	11.0 (5)	13.3 (5)	14.9 (5)	16.5 (5)
Heating		Rated	m³/h	12.1 (5)	13.6 (5)	15.1 (5)	17.7 (5)	19.2 (5)	20.6 (5)	
Sound power level	Cooling	Nom.		dBA	68.0 (6)	72.0 (6)	74.0 (6)	75.0 (6)	76.0 (6)	77.0 (6)
Sound pressure level	Cooling	Nom.		dBA	51.0 (7)	52.0 (7)	53.0 (7)	59.0 (7)	60.0 (7)	61.0 (7)
Refrigerant	Type			R-410A						
	GWP			2,087.5						

2 Specifications

2

2-1 Technical Specifications					RWEYQ16T9	RWEYQ18T9	RWEYQ20T9	RWEYQ24T9	RWEYQ26T9	RWEYQ28T9
Refrigerant oil	Type				Synthetic (ether) oil FVC68D					
Piping connections	Liquid	Type			Braze connection					
		OD	mm		12,7	15,9			19,1	
	Gas	Type			Braze connection					
		OD	mm		28.6 (8)			34.9 (8)		
	HP/LP gas	Type			Braze connections					
		OD	mm		22.2 (9) / 28.6 (10)		28.6 (9) / 28.6 (10)		28.6 (9) / 34.9 (10)	
Drain	Size			14mm OD/ 10mm ID						
	Type		mm	Flexible PVC hose						
Total piping length	System	Actual	m		500 (11)					
Safety devices	Item	01			High pressure switch					
		02			Inverter overload protector					
		03			PC board fuse					
PED	Category				Category II					
	Most critical part	Name			Liquid receiver					
		Ps*V	Bar*l		484					
Cooling	Cdc (Degradation cooling)				0.25					
Heating	Cdh (Degradation heating)				0.25					
Power consumption in other than active mode	Off mode	Cooling	POFF	kW	0.092					
		Heating	POFF	kW	0.100					
	Standby mode	Cooling	PSB	kW	0.092					
		Heating	PSB	kW	0.100					
	Thermostat-off mode	Cooling	PTO	kW	0.026					
		Heating	PTO	kW	0.134					
Indication if the heater is equipped with a supplementary heater					no					
Supplementary heater	Back-up capacity	Heating	elbu	kW	0.0					

Standard Accessories : Installation manual; Quantity : 1;

Standard Accessories : Operation manual; Quantity : 1;

Standard Accessories : Connection pipes; Quantity : 1;

Standard Accessories : Water supply piping with strainer; Quantity : 1;

2 Specifications

2-1 Technical Specifications				RWEYQ30T9	RWEYQ22T9	RWEYQ32T9	RWEYQ34T9	RWEYQ36T9	RWEYQ38T9	
System	Outdoor unit module 1			RWEYQ10T				RWEYQ12T		
	Outdoor unit module 2			RWEYQ10T	RWEYQ12T	RWEYQ10T	RWEYQ12T			
	Outdoor unit module 3			RWEYQ10T	-	RWEYQ12T			RWEYQ14T	
Recommended combinations				12 x FXMQ63P7VEB	6 x FXMQ50P7VEB + 4 x FXMQ63P7VEB	6 x FXMQ50P7VEB + 8 x FXMQ63P7VEB	12 x FXMQ50P7VEB + 4 x FXMQ63P7VEB	18 x FXMQ50P7VEB	13 x FXMQ50P7VEB + 5 x FXMQ63P7VEB	
Cooling capacity	Prated,c		kW	84.0 (1)	61.5 (1)	89.5 (1)	95.0 (1)	100.5 (1)	107.0 (1)	
Heating capacity	Prated,h		kW	94.5 (2)	69.0 (2)	100.5 (2)	106.5 (2)	112.5 (2)	120.0 (2)	
	Max.	6°CWB	kW	94.5 (3)	69.0 (12)	100.5 (3)	106.5 (3)	112.5 (3)	120.0 (3)	
SEER				7.9	8.0	8.2	8.8	9.0	8.7	
SCOP				11.9	11.4	11.6	11.4	11.2	10.7	
ηs,c			%	308.3	311.3	318.2	342.5	352.3	338.8	
ηs,h			%	467.2	447.9	456.1	447.0	438.5	419.4	
Space cooling	A Condition (35°C - 27/19), cooling tower (inlet/outlet) 30/35	EERd	%	4.6	5.0	4.9	5.1	5.4	5.0	
		Pdc	kW	84.0	61.5	89.5	95.0	100.5	107.0	
	B Condition (30°C - 27/19), cooling tower (inlet/outlet) 26/*	EERd	%	6.3	6.6	6.5	6.7	7.0	6.7	
		Pdc	kW	61.9	45.3	66.0	70.0	74.1	78.8	
	C Condition (25°C - 27/19), cooling tower (inlet/outlet) 22/*	EERd	%	9.1	9.8	9.6	10.1	10.5	10.1	
		Pdc	kW	39.8	29.1	42.4	45.0	47.6	50.7	
	D Condition (20°C - 27/19), cooling tower (inlet/outlet) 18/*	EERd	%	11.6	9.4	11.2	13.5	13.1	12.8	
		Pdc	kW	17.7	13.0	18.8	20.0	21.2	22.5	
Space heating (Average climate)	TBivalent	COPd (declared COP)		6.2	6.0	6.1	5.9	5.8	5.4	
		Pdh (declared heating cap)	kW	94.5	69.0	100.5	106.5	112.5	120.0	
		Tbiv (bivalent temperature)	°C	-10						
	TOL	COPd (declared COP)		6.2	6.0	6.1	5.9	5.8	5.4	
		Pdh (declared heating cap)	kW	94.5	69.0	100.5	106.5	112.5	120.0	
		Tol (temperature operating limit)	°C	-10						
	A Condition (-7°C)	COPd (declared COP)		7.1	6.8	6.9	6.7	6.6	6.3	
		Pdh (declared heating cap)	kW	83.6	61.0	88.9	94.2	99.5	106.2	
	B Condition (2°C)	COPd (declared COP)		11.4	11.0	11.1	10.9	10.7	10.2	
		Pdh (declared heating cap)	kW	50.9	37.2	54.1	57.3	60.6	64.6	
	C Condition (7°C)	COPd (declared COP)		16.8	16.1	16.3	15.9	15.5	15.0	
		Pdh (declared heating cap)	kW	32.7	23.9	34.8	36.9	38.9	41.5	
	D Condition (12°C)	COPd (declared COP)		19.4	17.0	19.4	19.3		18.8	
		Pdh (declared heating cap)	kW	17.7	10.6	17.7	17.6		18.5	
	Capacity range			HP	30	22	32	34	36	38
	Maximum number of connectable indoor units				64 (4)	64 (13)	64 (4)			
	Indoor index connection	Min.			375.0	275.0	400.0	425.0	450.0	475.0
		Max.			1,125.0	825.0	1,200.0	1,275.0	1,350.0	1,425.0
Capacity control	Method			Inverter controlled						
Heat exchanger	Indoor side			Air						
	Outdoor side			water						
	Water flow rate	Cooling	Rated	m³/h	16.5 (5)	12.2 (14)	17.7 (5)	18.8 (5)	19.9 (5)	21.5 (5)
Heating		Rated	m³/h	22.7 (5)	16.4 (14)	24.0 (5)	25.3 (5)	26.6 (5)	28.0 (5)	
Sound power level	Cooling	Nom.		dBA	76.0 (6)	75.0 (15)	76.0 (6)		77.0 (6)	78.0 (6)
Sound pressure level	Cooling	Nom.		dBA	55.0 (7)	57.0 (3)	58.0 (7)	60.0 (7)	61.0 (7)	62.0 (7)

2 Specifications

2-1 Technical Specifications					RWEYQ30T9	RWEYQ22T9	RWEYQ32T9	RWEYQ34T9	RWEYQ36T9	RWEYQ38T9	
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	15,9	19,1					
	Gas	Type	Braze connection								
		OD	mm	34.9 (8)	28.6 (4)	34.9 (8)			41.3 (8)		
	HP/LP gas	Type	Brazing connections								
		OD	mm	28.6 (9) / 34.9 (10)	28.6 (5) / 28.6 (6)	28.6 (9) / 34.9 (10)			28.6 (9) / 41.3 (10)	41.3 (10) / 34.9 (9)	
	Drain	Size	14mm OD/ 10mm ID								
Type		mm	Flexible PVC hose								
Total piping length	System	Actual	m	500 (11)	500 (7)	500 (11)					
Safety devices	Item	01	High pressure switch								
		02	Inverter overload protector								
		03	PC board fuse								
PED	Category	Category II									
	Most critical part	Name	Liquid receiver								
		Ps*V	Bar*l	484							
Cooling	Cdc (Degradation cooling)			0.25							
Heating	Cdh (Degradation heating)			0.25							
Power consumption in other than active mode	Off mode	Cooling	POFF	kW	0.138	0.092	0.138				
		Heating	POFF	kW	0.150	0.100	0.150				
	Standby mode	Cooling	PSB	kW	0.138	0.092	0.138				
		Heating	PSB	kW	0.150	0.100	0.150				
	Thermostat-off mode	Cooling	PTO	kW	0.039	0.026	0.039				
		Heating	PTO	kW	0.201	0.134	0.201				
Indication if the heater is equipped with a supplementary heater				no							
Supplementary heater	Back-up capacity	Heating	elbu	kW	0.0						

Standard Accessories : Installation manual; Quantity : 1;

Standard Accessories : Operation manual; Quantity : 1;

Standard Accessories : Connection pipes; Quantity : 1;

Standard Accessories : Water supply piping with strainer; Quantity : 1;

2 Specifications

2-1 Technical Specifications					RWEYQ40T9		RWEYQ42T9			
System	Outdoor unit module 1				RWEYQ12T		RWEYQ14T			
	Outdoor unit module 2				RWEYQ14T					
	Outdoor unit module 3				RWEYQ14T					
Recommended combinations					8 x FXMQ50P7VEB + 10 x FXMQ63P7VEB		3 x FXMQ50P7VEB + 15 x FXMQ63P7VEB			
Cooling capacity	Prated,c		kW		113.5 (1)		120.0 (1)			
Heating capacity	Prated,h		kW		127.5 (2)		135.0 (2)			
	Max.	6°CWB		kW		127.5 (3)		135.0 (3)		
SEER					8.7		8.5			
SCOP					10.3		10.0			
ηs,c				%		341.4		332.9		
ηs,h				%		404.4		391.2		
Space cooling	A Condition (35°C - 27/19), cooling tower (inlet/outlet) 30/35	EERd		%		4.7		4.5		
		Pdc		kW		113.5		120.0		
	B Condition (30°C - 27/19), cooling tower (inlet/outlet) 26/*	EERd		%		6.5		6.3		
		Pdc		kW		83.6		88.4		
	C Condition (25°C - 27/19), cooling tower (inlet/outlet) 22/*	EERd		%		9.7		9.4		
		Pdc		kW		53.8		56.8		
	D Condition (20°C - 27/19), cooling tower (inlet/outlet) 18/*	EERd		%		15.4				
		Pdc		kW		24.5		25.3		
Space heating (Average climate)	TBivalent	COPd (declared COP)			5.1		4.9			
		Pdh (declared heating cap)		kW		127.5		135.0		
		Tbiv (bivalent temperature)		°C		-10				
	TOL	COPd (declared COP)			5.1		4.9			
		Pdh (declared heating cap)		kW		127.5		135.0		
		Tol (temperature operating limit)		°C		-10				
	A Condition (-7°C)	COPd (declared COP)			6.0		5.7			
		Pdh (declared heating cap)		kW		112.8		119.4		
	B Condition (2°C)	COPd (declared COP)			9.8		9.5			
		Pdh (declared heating cap)		kW		68.6		72.7		
	C Condition (7°C)	COPd (declared COP)			14.6		14.3			
		Pdh (declared heating cap)		kW		44.1		46.7		
	D Condition (12°C)	COPd (declared COP)			18.9		18.4			
		Pdh (declared heating cap)		kW		19.6		20.8		
	Capacity range				HP		40		42	
	Maximum number of connectable indoor units					64 (4)				
Indoor index connection	Min.				500.0		525.0			
	Max.				1,500.0		1,575.0			
Capacity control	Method				Inverter controlled					
Heat exchanger	Indoor side				Air					
	Outdoor side				water					
	Water flow rate	Cooling	Rated	m³/h		23.1 (5)		24.8 (5)		
Heating		Rated	m³/h		29.4 (5)		30.9 (5)			
Sound power level	Cooling	Nom.		dBA		78.0 (6)		79.0 (6)		
Sound pressure level	Cooling	Nom.		dBA		62.0 (7)		63.0 (7)		
Refrigerant	Type				R-410A					
	GWP				2,087.5					

2 Specifications

2

2-1 Technical Specifications					RWEYQ40T9	RWEYQ42T9
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 (8)	
	HP/LP gas	Type			Brazing connections	
		OD	mm		41.3 (10) / 34.9 (9)	
	Drain	Size			14mm OD/ 10mm ID	
Type			Flexible PVC hose			
Total piping length	System	Actual	m		500 (11)	
Safety devices	Item	01			High pressure switch	
		02			Inverter overload protector	
		03			PC board fuse	
PED	Category				Category II	
	Most critical part	Name			Liquid receiver	
		Ps*V	Bar*l		484	
Cooling	Cdc (Degradation cooling)				0.25	
Heating	Cdh (Degradation heating)				0.25	
Power consumption in other than active mode	Off mode	Cooling	POFF	kW	0.138	
		Heating	POFF	kW	0.150	
	Standby mode	Cooling	PSB	kW	0.138	
		Heating	PSB	kW	0.150	
	Thermostat-off mode	Cooling	PTO	kW	0.039	
		Heating	PTO	kW	0.201	
Indication if the heater is equipped with a supplementary heater					no	
Supplementary heater	Back-up capacity	Heating	elbu	kW	0.0	

Standard Accessories : Installation manual; Quantity : 1;

Standard Accessories : Operation manual; Quantity : 1;

Standard Accessories : Connection pipes; Quantity : 1;

Standard Accessories : Water supply piping with strainer; Quantity : 1;

2 Specifications

2-2 Electrical Specifications				RWEYQ8T9	RWEYQ10T9	RWEYQ12T9	RWEYQ14T9
Power supply	Name		Y1				
	Phase		3N~				
	Frequency	Hz	50				
	Voltage	V	380-415				
Voltage range	Min.	%	-10				
	Max.	%	10				
Current	Nominal running current (RLA) - 50Hz	Cooling	A	6.5 (12)	9.0 (12)	10.0 (12)	12.6 (12)
Current - 50Hz	Starting current (MSC) - remark		(13)				
	Zmax	List	No requirements				
	Minimum circuit amps (MCA)	A	15.5 (14)	16.4 (14)	19.5 (14)	22.3 (14)	
	Maximum fuse amps (MFA)	A	20 (15)		25 (15)		
	Total overcurrent amps (TOCA)	A	25.0 (16)				
Wiring connections - 50Hz	For power supply	Quantity	5G				
	For connection with indoor	Quantity	2				
		Remark	F1,F2				
Power supply intake				Both indoor and outdoor unit			

2

2-2 Electrical Specifications				RWEYQ16T9	RWEYQ18T9	RWEYQ20T9	RWEYQ24T9	RWEYQ26T9	RWEYQ28T9
Voltage range	Min.	%	-10						
	Max.	%	10						
Current	Nominal running current (RLA) - 50Hz	Cooling	A	13.0 (16)	15.5 (16)	18.0 (16)	20.0 (16)	22.6 (16)	25.2 (16)
Current - 50Hz	Starting current (MSC) - remark		(17)						
	Zmax	List	No requirements						
	Minimum circuit amps (MCA)	A	31.0 (18)	31.9 (18)	32.7 (18)	38.9 (18)	41.7 (18)	44.6 (18)	
	Maximum fuse amps (MFA)	A	32 (19)		35 (19)	40 (19)	50 (19)		
	Total overcurrent amps (TOCA)	A	50.0 (20)						
Wiring connections - 50Hz	For power supply	Quantity	5G						
	For connection with indoor	Quantity	2						
		Remark	F1,F2						
Power supply intake				Both indoor and outdoor unit					

2-2 Electrical Specifications				RWEYQ30T9	RWEYQ22T9	RWEYQ32T9	RWEYQ34T9	RWEYQ36T9	RWEYQ38T9
Voltage range	Min.	%	-10						
	Max.	%	10						
Current	Nominal running current (RLA) - 50Hz	Cooling	A	27.0 (16)	19.0 (8)	28.0 (16)	29.0 (16)	30.0 (16)	32.6 (16)
Current - 50Hz	Starting current (MSC) - remark		(17)	(9)	(17)				
	Zmax	List	No requirements						
	Minimum circuit amps (MCA)	A	49.1 (18)	35.8 (11)	52.2 (18)	55.3 (18)	58.3 (18)	61.2 (18)	
	Maximum fuse amps (MFA)	A	50 (19)	40 (16)	63 (19)				
	Total overcurrent amps (TOCA)	A	75.0 (20)	50.0 (17)	75.0 (20)				
Wiring connections - 50Hz	For power supply	Quantity	5G						
	For connection with indoor	Quantity	2						
		Remark	F1,F2						
Power supply intake				Both indoor and outdoor unit					

2-2 Electrical Specifications				RWEYQ40T9			RWEYQ42T9		
Voltage range	Min.	%	-10						
	Max.	%	10						
Current	Nominal running current (RLA) - 50Hz	Cooling	A	35.2 (16)			37.8 (16)		
Current - 50Hz	Starting current (MSC) - remark		(17)						
	Zmax	List	No requirements						
	Minimum circuit amps (MCA)	A	64.0 (18)			66.9 (18)			
	Maximum fuse amps (MFA)	A	80 (19)						
	Total overcurrent amps (TOCA)	A	75.0 (20)						

2 Specifications

2-2 Electrical Specifications			RWEYQ40T9	RWEYQ42T9
Wiring connections - 50Hz	For power supply	Quantity	5G	
	For connection with indoor	Quantity	2	
		Remark	F1,F2	
Power supply intake			Both indoor and outdoor unit	

2

Notes

- (1) Cooling: indoor temp. 27°CDB, 19°CWB; Inlet water temperature: 30°C; equivalent refrigerant piping: 7.5m; level difference: 0m.
 - (2) Multi combination (10~54HP) data is corresponding with the standard multi combination
 - (3) Heating: indoor temp. 20°CDB; inlet water temperature: 20°C; equivalent piping length: 7.5m; level difference: 0m
 - (4) 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%)
 - (5) Water flow rate for performance testing according to standard rating conditions of EN 14511-2.
 - (6) Sound power level is an absolute value that a sound source generates.
 - (7) Sound pressure level is a relative value, depending on the distance and acoustic environment. For more details, please refer to the sound level drawings.
 - (8) In case of heat pump system, gas pipe is not used
 - (9) In case of heat recovery system
 - (10) In case of heat pump system
 - (11) Refer to refrigerant pipe selection or installation manual
 - (12) Cooling T3: Indoor temp 29°CDB/19°CWB Water inlet temp 30°C Nom. waterflow Equivalent piping length 7,6m Level difference piping 0m Power input indoors included According to teststandard ISO 13256: 1998
 - (13) Cooling T3: Indoor temp 29°CDB/19°CWB Water inlet temp 30°C Nom. waterflow Equivalent piping length 7,5m Level difference piping 0m Power input indoors included According to teststandard ISO 13256: 1998
 - (14) Cooling T1: Indoor temp 27°CDB/19°CWB Water inlet temp 30°C Nom. waterflow Equivalent piping length 7,6m Level difference piping 0m Power input indoors included According to teststandard AHRI 1230: 2010
 - (15) Cooling T1: Indoor temp 27°CDB/19°CWB Water inlet temp 30°C Nom. waterflow Equivalent piping length 15,5m Level difference piping 0m Power input indoors included According to teststandard AHRI 1230: 2010
 - (16) RLA is based on following conditions: indoor temp. 27°CDB, 19°CWB; inlet water temp. 30°C
 - (17) MSC means the maximum current during start up of the compressor. VRV IV uses only inverter compressors. Starting current is always ≤ max. running current.
 - (18) MCA must be used to select the correct field wiring size. The MCA can be regarded as the maximum running current.
 - (19) MFA is used to select the circuit breaker and the ground fault circuit interrupter (earth leakage circuit breaker).
 - (20) TOCA means the total value of each OC set.
- In accordance with EN/IEC 61000-3-12, it may be necessary to consult the distribution network operator to ensure that the equipment is connected only to a supply with Ssc ≥ minimum Ssc value
- Maximum allowable voltage range variation between phases is 2%.
- Voltage range: units are suitable for use on electrical systems where voltage supplied to unit terminal is not below or above listed range limits.
- 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 I > 16A and ≤ 75A per phase
- Ssc: Short-circuit power
- For detailed contents of standard accessories, see installation/operation manual

3 Options

3 - 1 Options

Item		Single unit				Multi 2 unit	Multi 3 unit
		RWEYQ8	RWEYQ10	RWEYQ12	RWEYQ14		
Cool/heat selector (PCB)	See note 1.					BRP2A81	
Cool/heat selector (switch)	See note 1.					KRC19-26A	
Cool/heat selector (fixing box)	See note 1.					KJB111A	
External control adapter	Outdoor unit					DTA104A62	
Refnet header	Heat pump					KHRQ22M29H	
						KHRQ22M64H	
	Heat recovery					KHRQ23M75H	
						KHRQ23M29H	
Refnet joint	Heat pump					KHRQ23M64H	
						KHRQ23M75H	
	Heat recovery					KHRQ22M20T	
						KHRQ22M64T	
	Heat pump					KHRQ22M75T	
						KHRQ23M20T	
Outdoor multi-connection kit	Heat pump	See note 3.				BHFQ22P1007	---
						BHFQ22P1517	---
	Heat recovery	See note 3.				BHFQ23P907	---
						BHFQ23P1517	---
Communication cable					EKPCCAB2		
Single BS unit						BS1Q10A7V1B	
						BS1Q16A7V1B	
						BS1Q25A7V1B	
Multi BS unit						BS4Q14AV1	
						BS6Q14AV1	
						BS8Q14AV1	
						BS10Q14AV1	
						BS12Q14AV1	
						BS16Q14AV1	
Notes							
1. In case of a heat recovery system, the cool/heat selector cannot be connected.							
2. It is not allowed to combine P-series BS units (single/multi) with A-series BS units (single/multi).							
3. For installations without special requirements towards fire regulations, the standard multi-connection kits can be used.							
For installations with special requirements towards fire regulations, the insulation material can be replaced by using kits EKHBFBQ1 and EKHBFBQ2.							
The 4 kits contain alternative insulation material that complies with EN13501-1:B-S3,dO and with BS476-7 (class 1).							
To replace the insulation material, determine the required number of EKHBFBQ kits according to the table below.							
							2D108935A

4 Combination table

4 - 1 Combination Table

4

RWEYQ-T9

VRV 4 Heat Pump RA DX indoor unit compability list

VRV 4 Heat Pump RA DX indoor unit compability list		
Wall mounted	<i>Emura</i>	FTXJ25M FTXJ35M FTXJ50M
Floor/Ceiling	<i>Flex</i>	FLXS25B FLXS35B FLXS50B FLXS60B
Floor standing	<i>FVXM</i>	FVXM25F FVXM35F FVXM50F
	<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.

3D082373A

RWEYQ-T9

VRV water-cooled heat pump Multi-unit standard combinations table

	8HP	10HP	12HP	14HP
RWEYQ8	1			
RWEYQ10		1		
RWEYQ12			1	
RWEYQ14				1
RWEYQ16	2			
RWEYQ18	1	1		
RWEYQ20		2		
RWEYQ22		1	1	
RWEYQ24			2	
RWEYQ26			1	1
RWEYQ28				2
RWEYQ30		3		
RWEYQ32		2	1	
RWEYQ34		1	2	
RWEYQ36			3	
RWEYQ38			2	1
RWEYQ40			1	2
RWEYQ42				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.

3D108944

5 Capacity tables

5 - 1 Capacity Table Legend

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

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

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

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



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



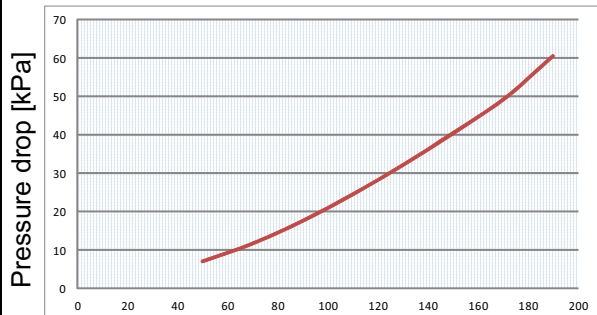
5 Capacity tables

5 - 2 Capacity Correction Factor

5

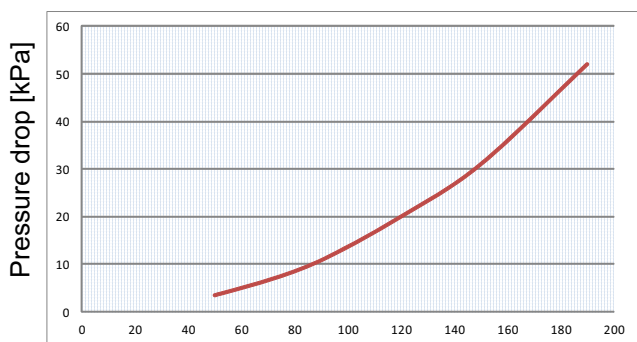
RWEYQ-T9

RWEYQ*T9 pressure drop



Water flow rate [l/min]

Accessory water filter pressure drop



Water flow rate [l/min]

Notes

The values were measured during nominal cooling operation with an inlet water temperature of 30°C.

EG: Ethylene glycol

PG: Propylene glycol

ACH73: plate heat exchanger (100 plates)

Influence on performance

EG 30%: +0.5K during the condensation process, and -0.5K during the evaporation process.

EG 40%: +0.7K during the condensation process, and -0.7K during the evaporation process.

PG 30%: +1.3K during the condensation process, and -1.3K during the evaporation process.

PG 40%: +1.5K during the condensation process, and -1.5K during the evaporation process.

l/min	ACH73 // Delta pressure [kPa]				
	Water	30% EG	40% EG	30% PG	40% PG
50	5.4	6.9	7.0	7.2	7.5
60	7.4	9.4	9.6	9.8	10.2
70	9.7	12.2	12.5	12.8	13.3
80	12.3	15.5	15.9	16.2	16.9
90	15.2	19.1	19.6	20.1	20.8
100	18.4	23.2	23.7	24.3	25.2
110	21.9	27.6	28.2	28.9	30.0
120	25.7	32.2	33.1	33.9	35.1
130	29.7	37.5	38.4	39.3	40.7
140	34.1	43.0	44.0	45.1	46.8
150	38.8	48.9	50.1	51.2	53.2
160	43.8	55.2	56.5	57.8	60.0
170	49.1	61.9	63.3	64.8	67.3
180	54.7	68.9	70.5	72.2	74.9
190	60.6	76.3	78.1	80.0	83.0

Water filter	Delta pressure [kPa]
Flow [l/min]	Water
50	3.5
60	5
80	8.5
96	12.5
120	20
150	31
190	52

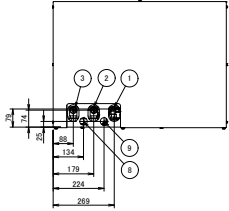
3D108933

6 Dimensional drawings

6 - 1 Dimensional Drawings

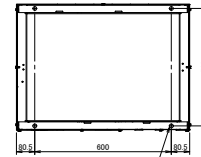
RWEYQ-T9

Top view



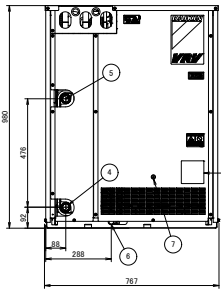
Item	Part name	Remark
1	Liquid pipe	See table 1.
2	Suction pipe	See table 2.
3	Gas pipe	See table 3.
4	Water IN connection	External pipe thread ISO 228-G1 1/4 B
5	Water OUT connection	External pipe thread ISO 228-G1 1/4 B
6	Drain outlet	Flexible hose (inside diameter: Ø 10mm)
7	Grounding terminal	M8
8	Power supply wiring intake	Ø 25
9	Cable inlet	Ø 25

Bottom view



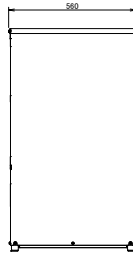
Foundation bolt type: 4x Ø17

Front view



Manufacturer label

Right-side view



Rear view

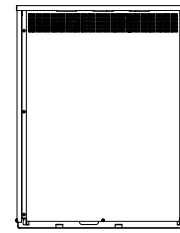


Table 1

Model	RWEYQ8T9		RWEYQ10T9		RWEYQ12T9		RWEYQ14T9	
	Heat pump	Heat recovery	Heat pump	Heat recovery	Heat pump	Heat recovery	Heat pump	Heat recovery
Liquid pipe		Ø 9.5		Ø 9.5		Ø 12.7		Ø 12.7
Suction pipe		Ø 19.1		Ø 22.2		Ø 28.6		Ø 28.6
Gas pipe (high/low pressure)	Ø 19.1	Ø 15.9	Ø 22.2	Ø 19.1	Ø 28.6	Ø 19.1	Ø 28.6	Ø 22.2

Notes

1. The grounding terminal is located in the switch box.
2. The pipe connections are brazed connections.
3. In case of a heat pump, the suction pipe is not used.

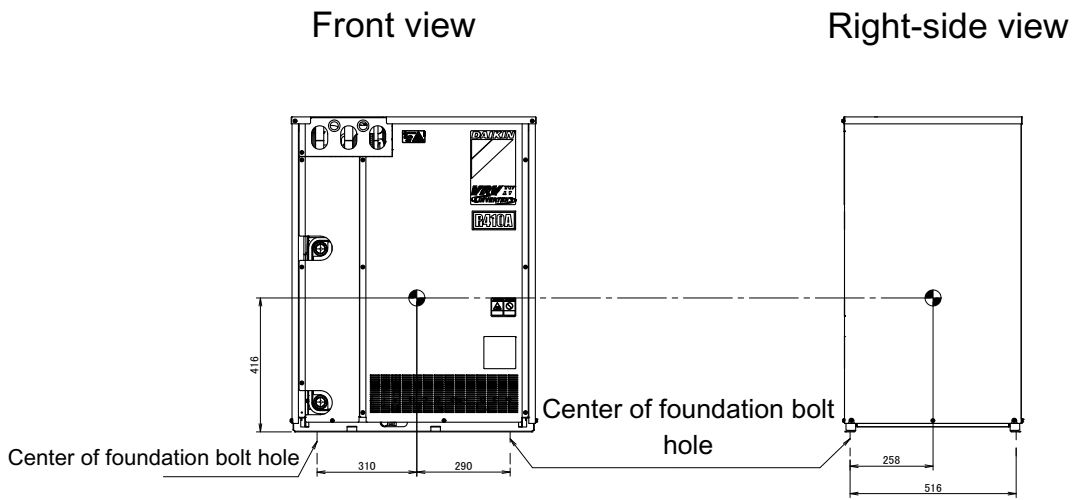
2D108932A

7 Centre of gravity

7 - 1 Centre of Gravity

7

RWEYQ-T9

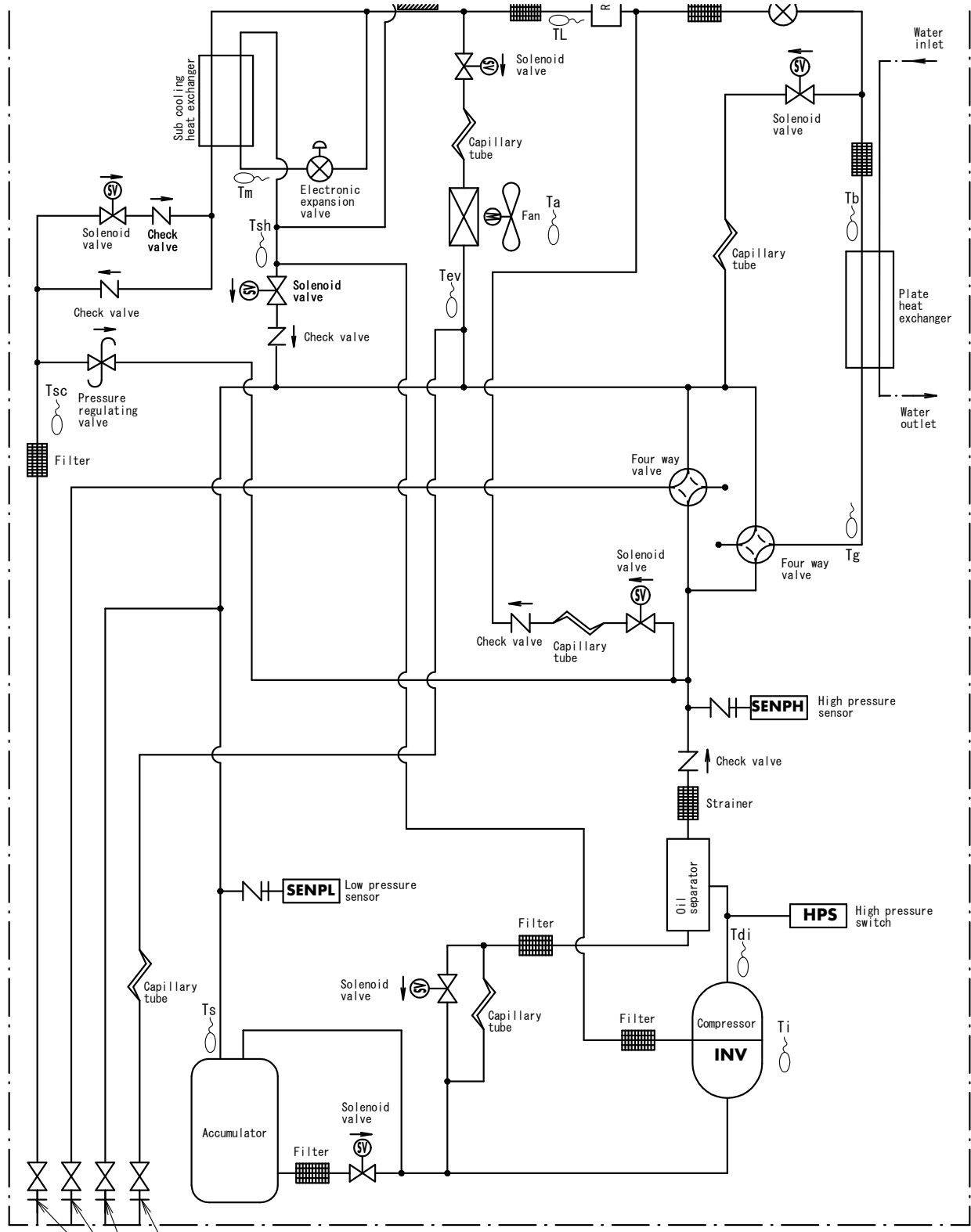


3D108934

8 Piping diagrams

8 - 1 Piping Diagrams

RWEYQ-T9



Charge port
Stop valve (with service port on on-site piping size $\varnothing 5/16''$ flare connection)

4D108945A






9 Wiring diagrams

9 - 1 Wiring Diagrams - Three Phase

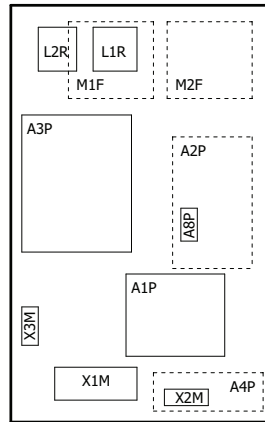
9

RWEYQ-T9

NOTES to go through before starting the unit

- Symbols:
- X1M : Main terminal
 - : Earth wiring
 - 15 : Wire number 15
 - : Field wire
 -  : Field cable
 - **/12.2 : Connection ** continues on page 12 column 2
 - ① : Several wiring possibilities
 -  : Option
 -  : Wiring depending on model
 -  : Not mounted in switch box
 -  : PCB

POSITION IN SWITCH BOX



1. Refer to the installation or service manual on how to use BS1 ~ BS3 push buttons and DS1 ~ DS2 DIP switches.
2. Do not operate the unit by short-circuiting protection device (S1PH).
3. For connection to indoor-outdoor transmission F1-F2 wiring, outdoor - outdoor transmission F1-F2, refer to "service manual".

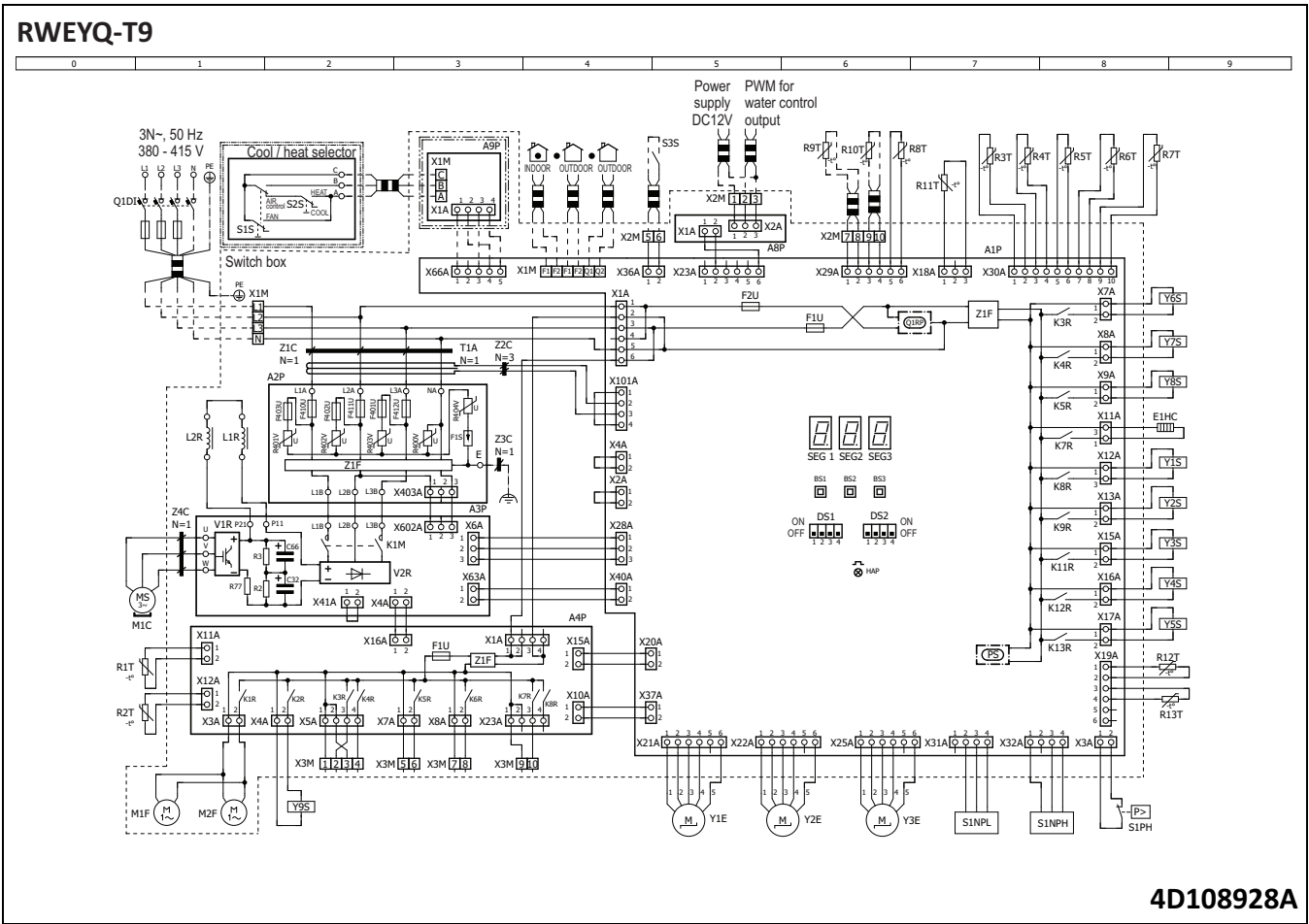
LEGEND

Part n°	Description	Part n°	Description
A1P	main PCB	R*V (A2P)	varistor
A2P	noise filter PCB	S1NPH	high pressure sensor
A3P	inverter PCB	S1NPL	low pressure sensor
A4P	SUB PCB	S1PH	high pressure switch (disch)
A8P	adapter PCB	S1S	air control switch
A9P	* cool/heat selector PCB	S2S	cool / heat switch
BS* (A1P)	push buttons (mode , set, return)	S3S	interlock switch
C* (A3P)	capacitor	SEG* (A1P)	7-segment display
DS* (A1P)	dipswitch	T1A	leakage current detection sensor
E1HC	crankcase heater	V1R (A3P)	IGBT power module
F1S (A2P)	surge arrester	V2R (A3P)	diode module
F1U (A4P)	fuse T 3,15 A 250 V	X66A	connector (remote switching cool/heat selector)
F401U (A2P)	fuse T 6,3 A 250 V	X*A	PCB connector
F402U (A2P)	fuse T 6,3 A 250 V	X*M	terminal strip
F403U (A2P)	fuse T 6,3 A 250 V	X*M (A*P)	terminal strip on PCB
F410U (A2P)	fuse T 63 A 600 V	X*Y	connector
F411U (A2P)	fuse T 63 A 600 V	Y*E	electronic expansion valve
F412U (A2P)	fuse T 63 A 600 V	Y*S	solenoid valve
F*U (A1P)	fuse T 3,15 A 250 V	Z*C	noise filter (ferrit core)
HAP (A1P)	running LED (service monitor-green)	Z*F	noise filter
K1M (A3P)	magnetic contactor		
K*R (A*P)	magnetic relay	* : optional	
L*R	reactor	# : field supply	
M1C	motor (compressor)		
M*F	motor (fan)		
PS (A1P)	power supply		
Q1DI	# earth leakage circuit breaker		
Q1RP (A1P)	phase reversal detect circuit		
R* (A3P)	resistor		
R*T	thermistor		

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9 Wiring diagrams

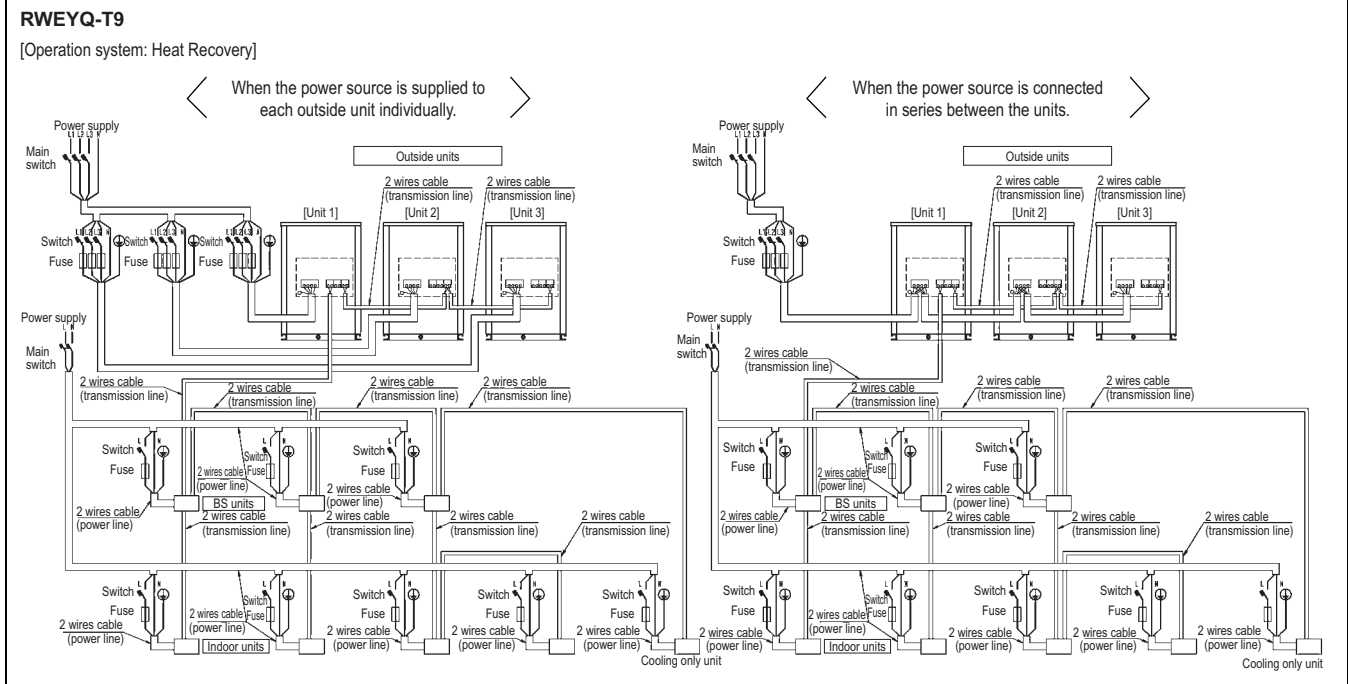
9 - 1 Wiring Diagrams - Three Phase



10 External connection diagrams

10 - 1 External Connection Diagrams

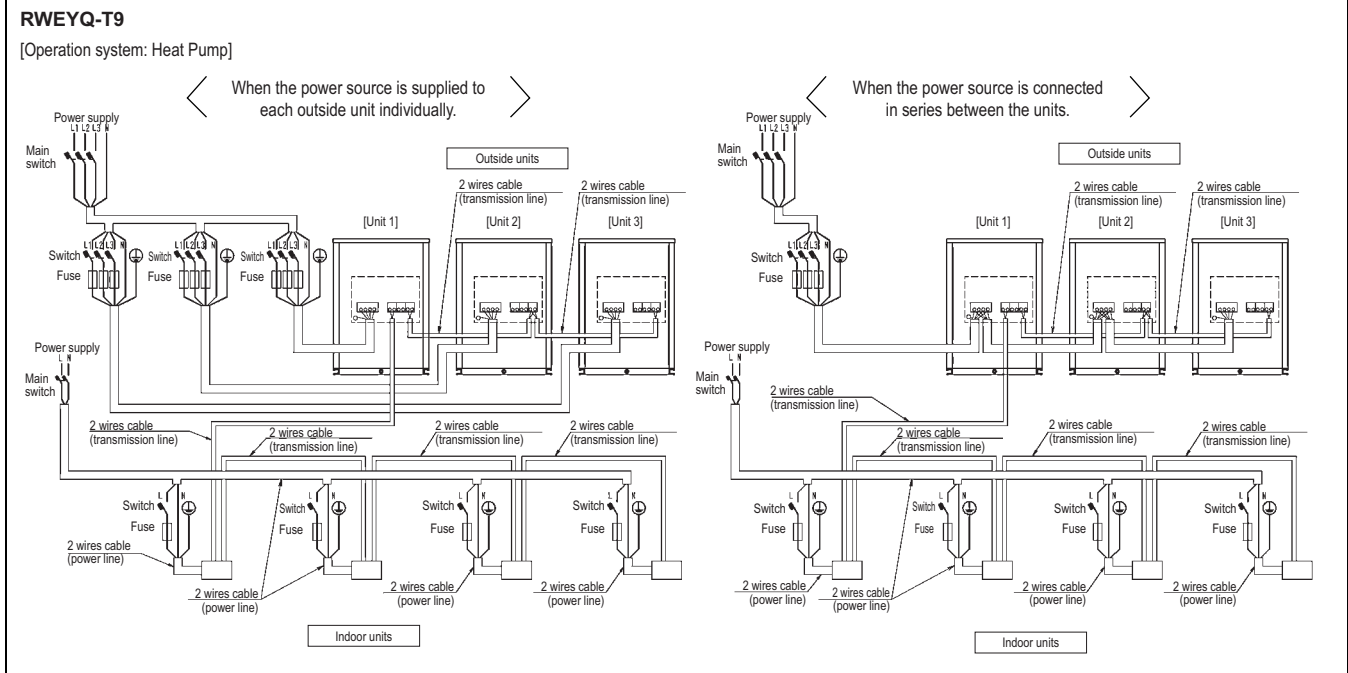
10



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 diagrams.
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 equipment.
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.

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NOTES

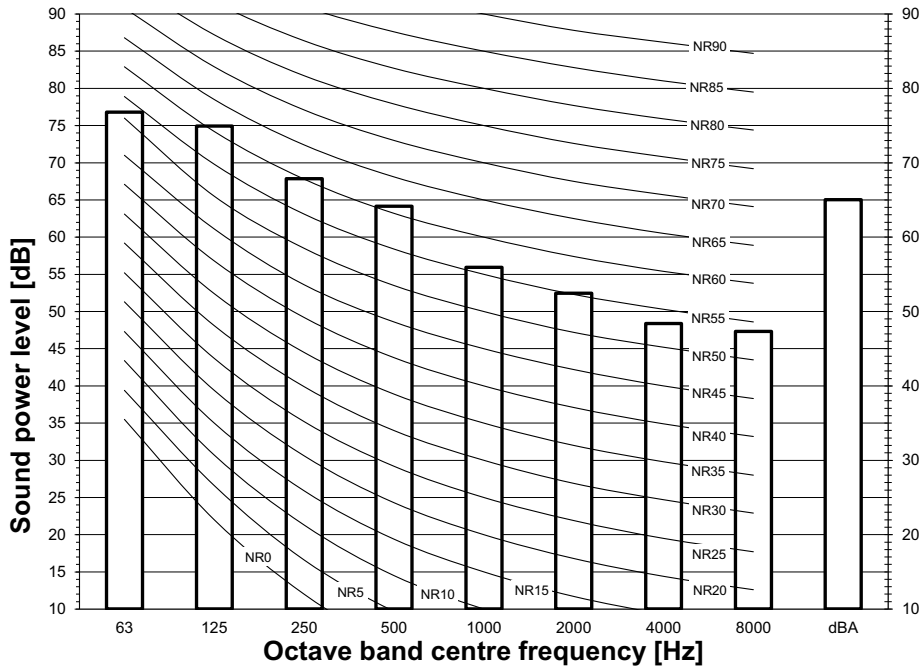
1. All wiring, components and materials to be procured on the site must comply with the applicable local and national codes.
2. Use copper conductors only.
3. As for details, see wiring diagrams.
4. Install circuit breaker for safety.
5. All field wiring and components must be provided by licensed electrician.
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Running the product in reversed phase may break the compressor and other parts.

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11 Sound data

11 - 1 Sound Power Spectrum

RWEYQ8T9

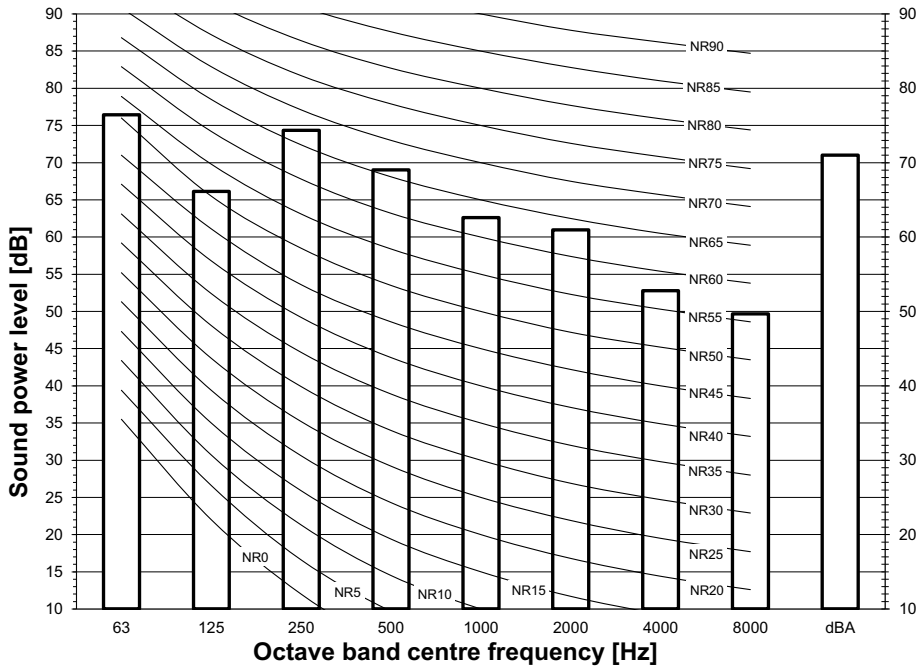


Notes

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

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RWEYQ10T9



Notes

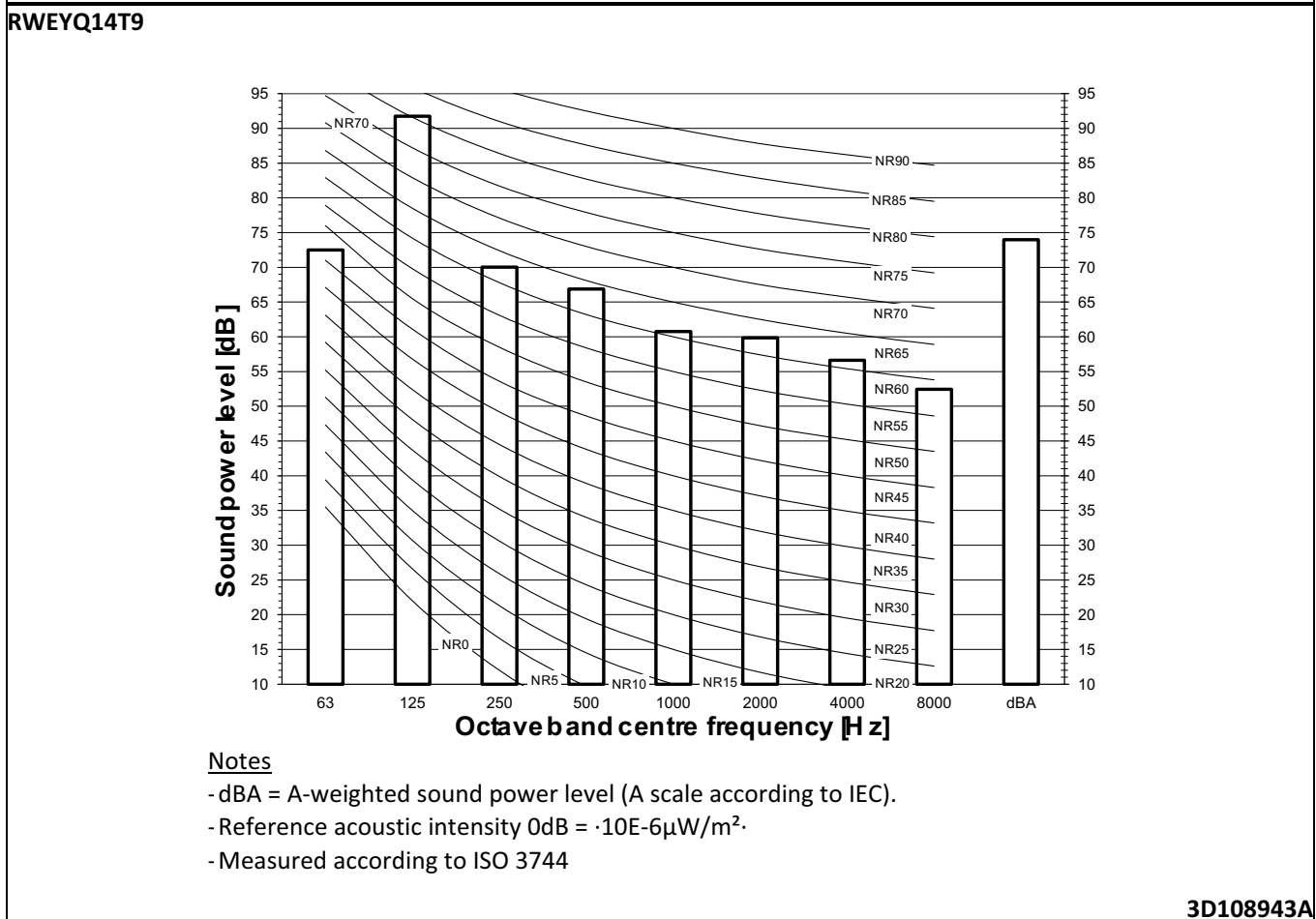
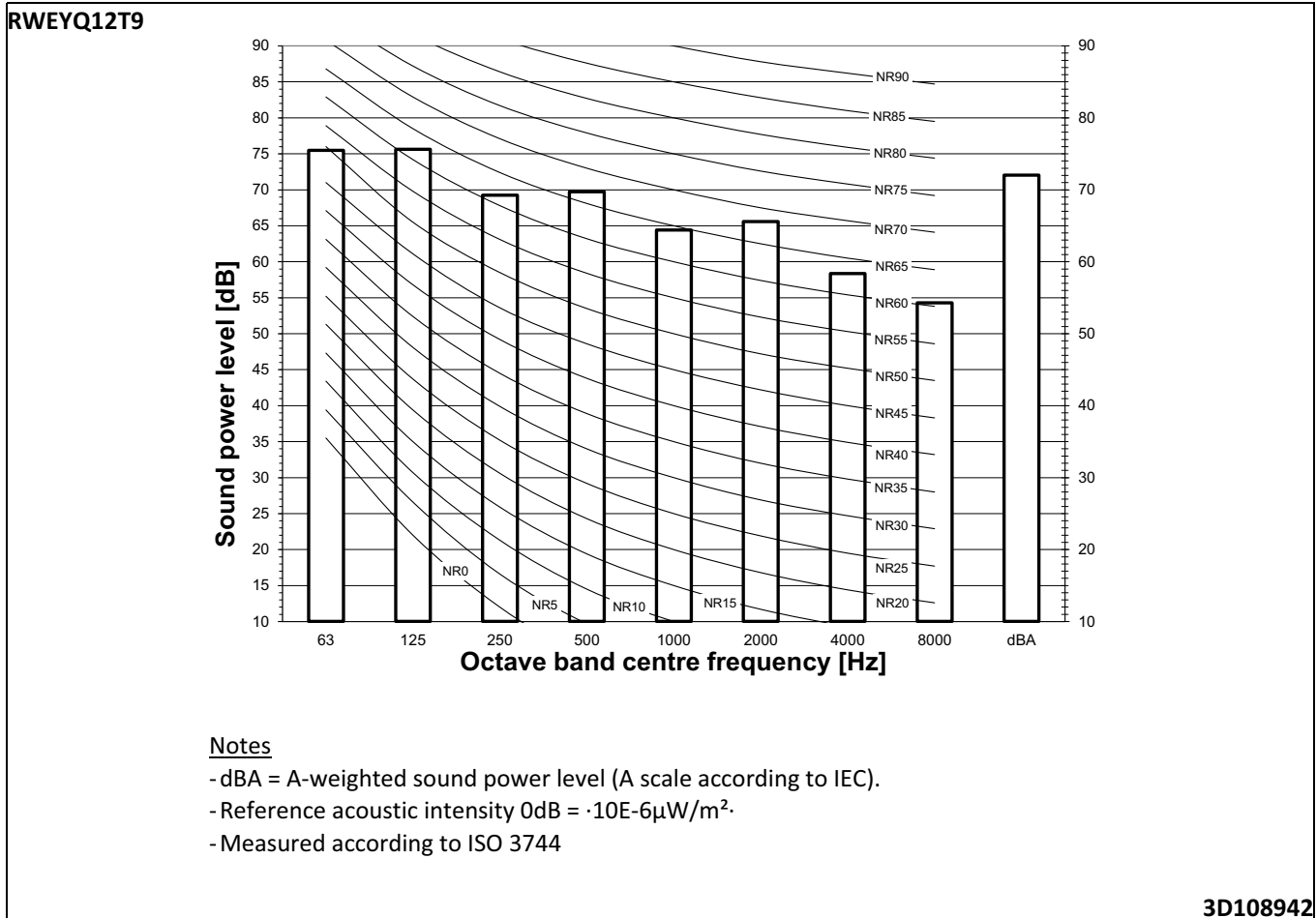
- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity 0dB = $\cdot 10E-6\mu W/m^2$.
- Measured according to ISO 3744

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11 Sound data

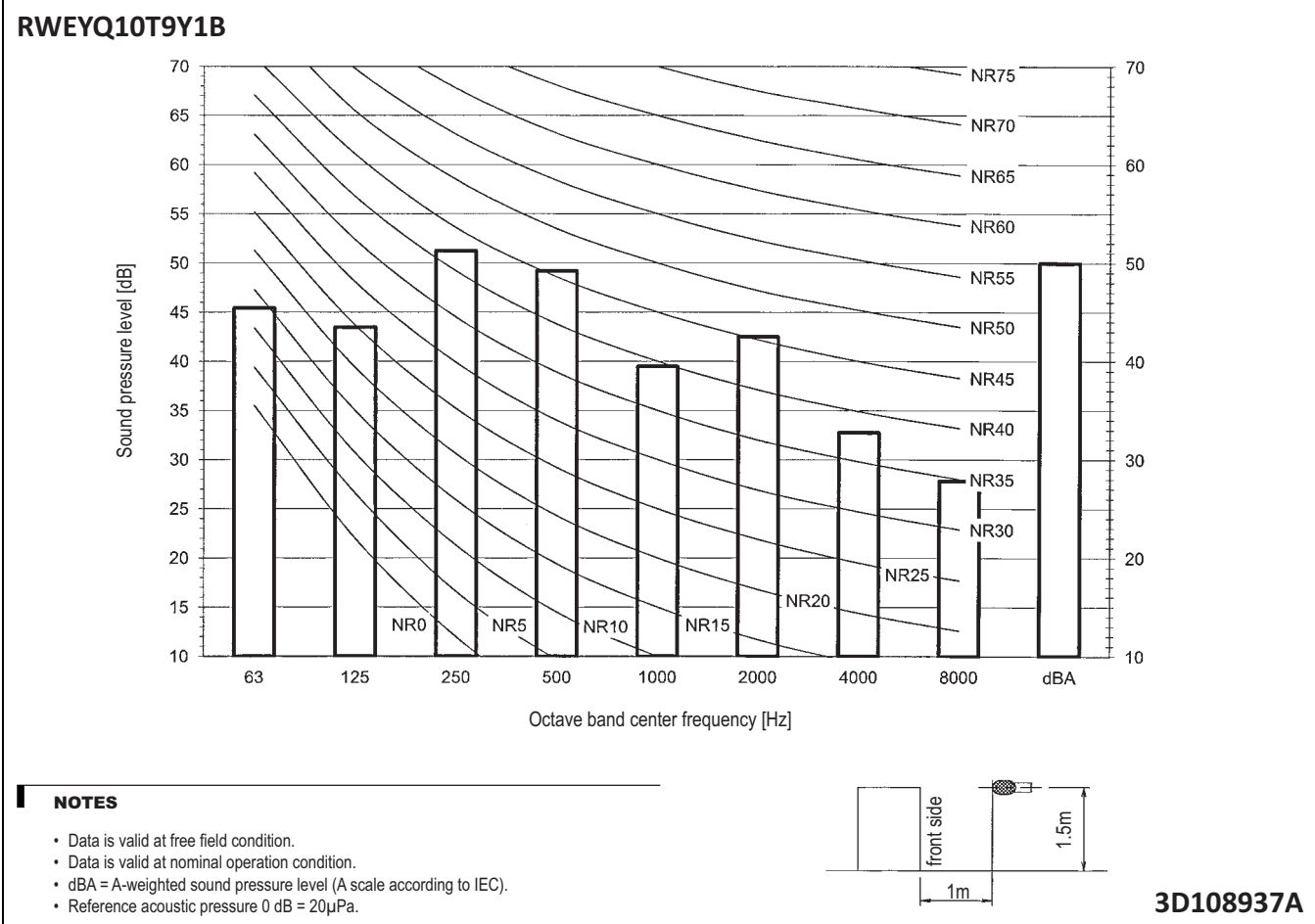
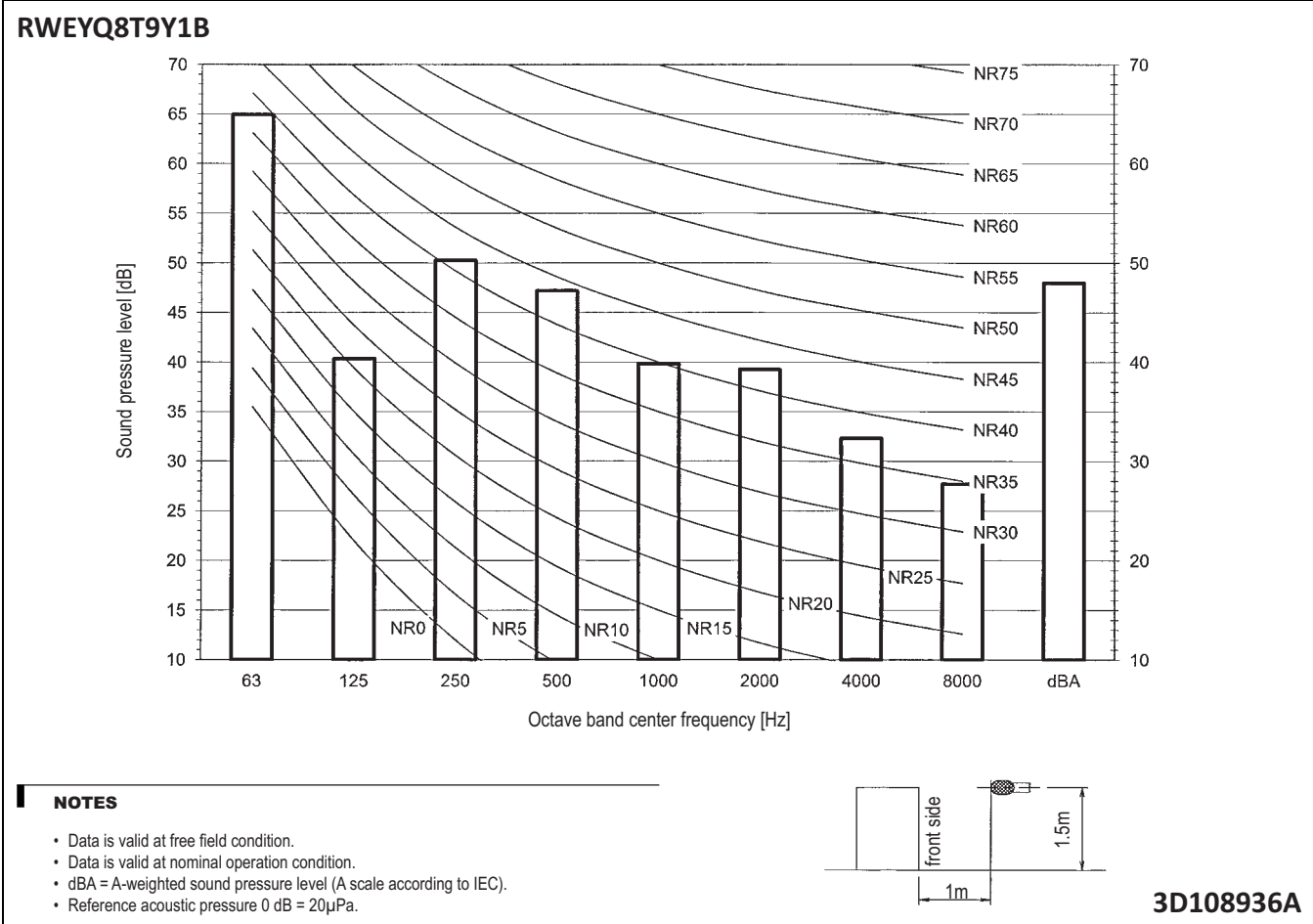
11 - 1 Sound Power Spectrum

11



11 Sound data

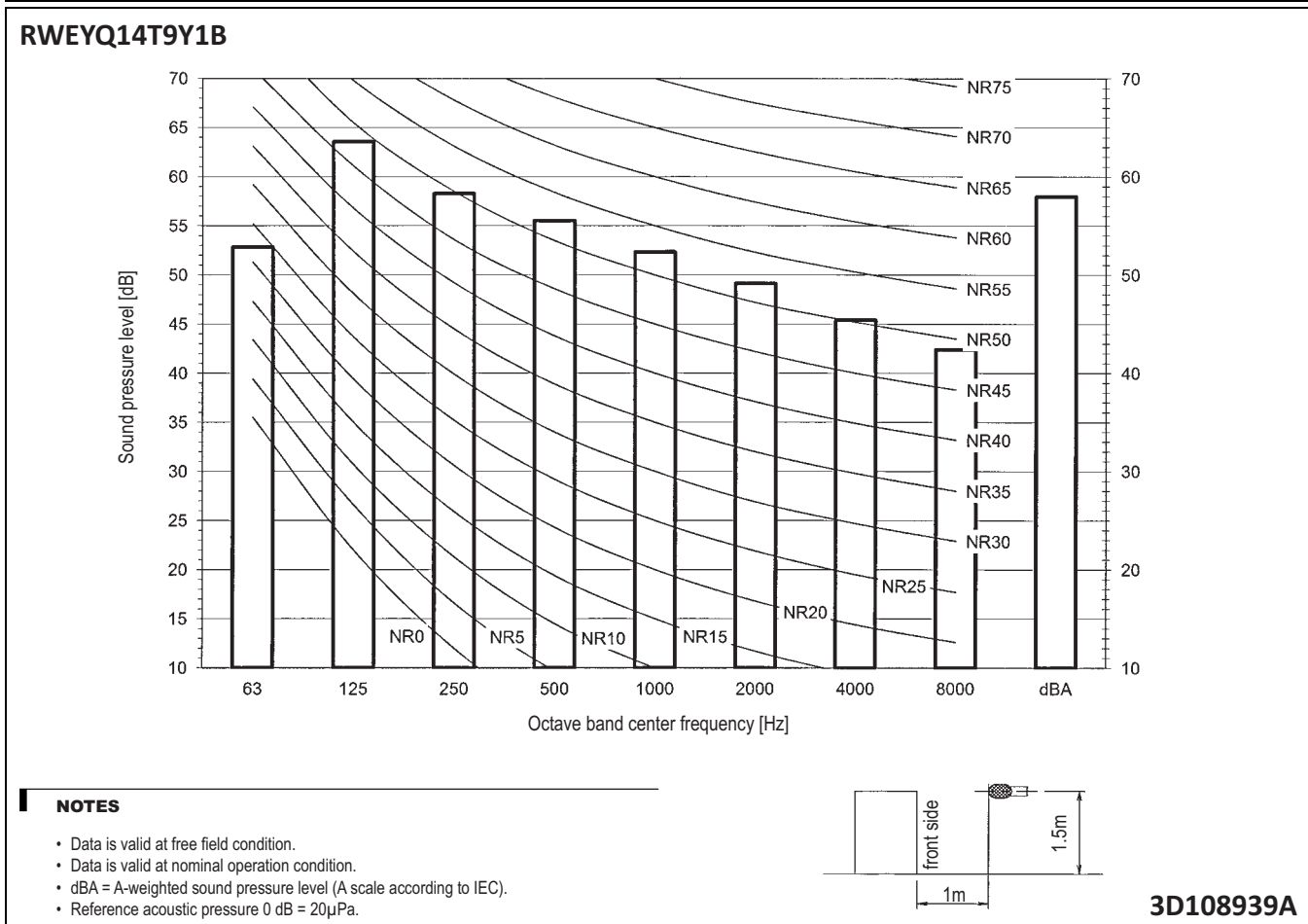
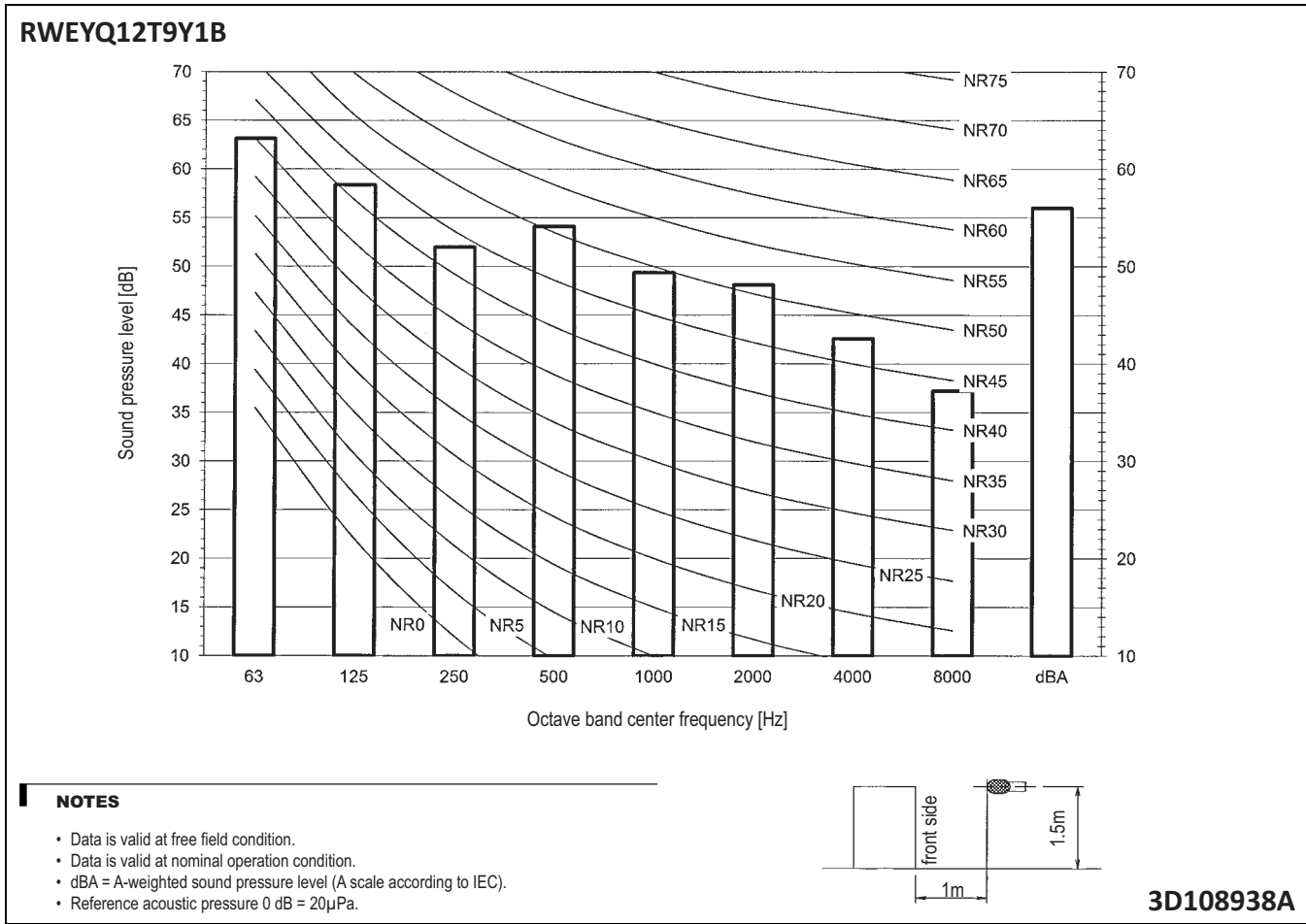
11 - 2 Sound Pressure Spectrum



11 Sound data

11 - 2 Sound Pressure Spectrum

11

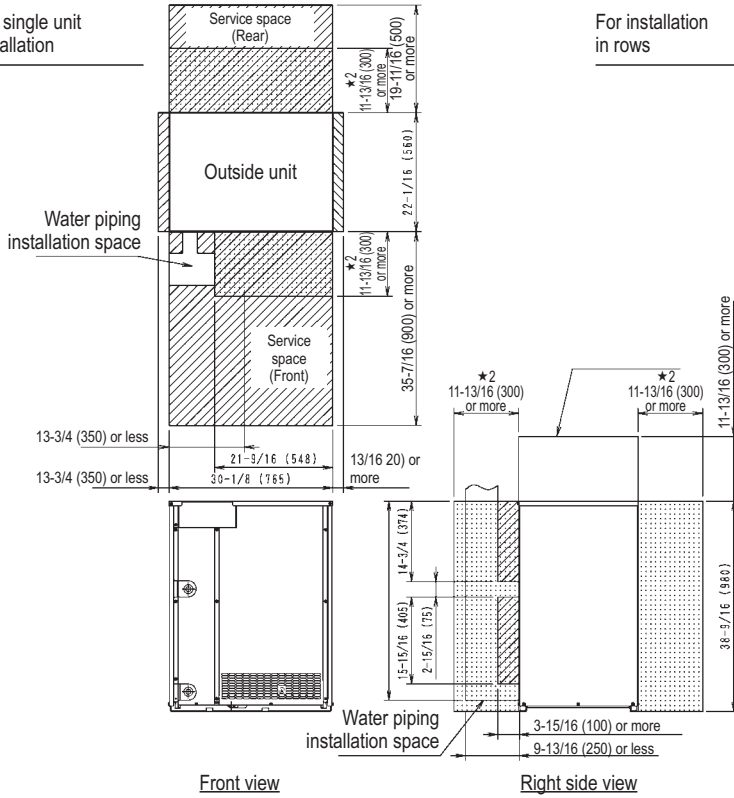


12 Installation

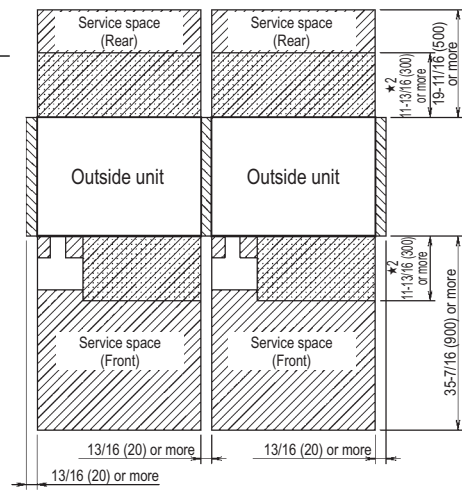
12 - 1 Installation Method

RWEYQ-T9

For single unit installation



For installation in rows



: Required Service Space
 : Ventilation Space

Front view

Right side view

Unit: in. (mm)

NOTES

- ★1. This space is necessary when refrigerant piping is connected to the top of the unit.
- ★2. This ventilation space is necessary when heat rejection cancellation (Zero energy sissipation) is not active.

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12 Installation

12 - 2 Refrigerant Pipe Selection

12

RWEYQ-T9

VRV4 Watercooled Field Piping Restrictions
Heat pump
Piping restrictions 1/3

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

Remark

Only available for single model configuration.

- (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. 40~60m 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) If the equivalent piping length between is > 90m, size up the main liquid and gas piping.
- (6) Multiple air handling units (AHU)(EKEXV + EKEQ kits).
- (7) Mix of AHU units and VRV DX indoor

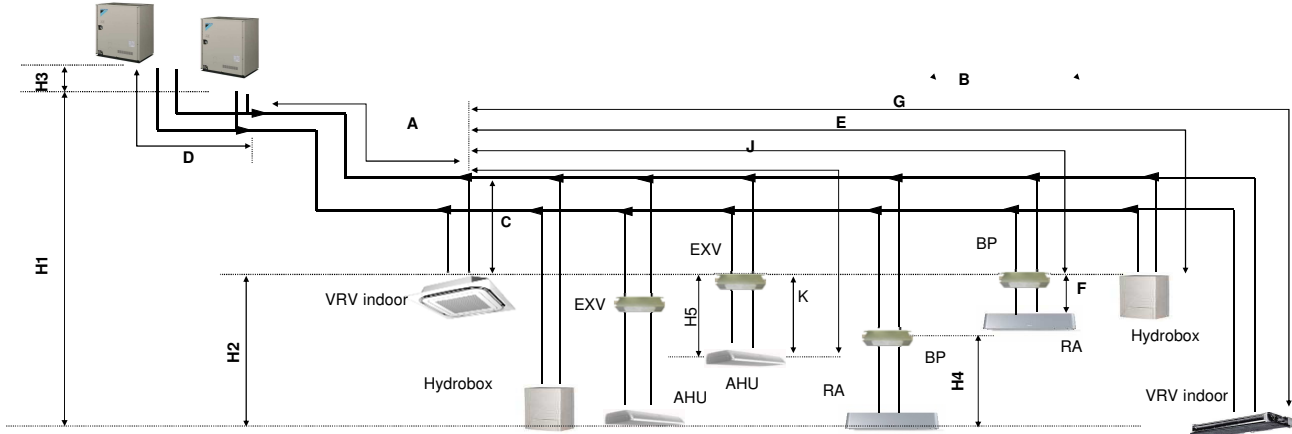
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12 Installation

12 - 2 Refrigerant Pipe Selection

RWEYQ-T9

VRV4 Watercooled Field Piping Restrictions
 Heat pump
 Piping restrictions 2/3
 Outdoor



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⁽¹⁾	-	≦5m	-	5m
	Multi	-	≦5m	-	5m
	Mix	-	≦5m	-	5m

Remark

- (1) Multiple air handling units (AHU)(EKEXV + EKEQ kits).
- (2) Mix of AHU units and VRV DX indoor

12 Installation

12 - 2 Refrigerant Pipe Selection

RWEYQ-T9

VRV4 Watercooled Field Piping Restrictions
Heat pump
Piping restrictions 3/3

System pattern		Total		Allowed capacity			
				Capacity	Indoor unit quantity (VRV, RA, AHU, Hydrobox)	VRV DX indoor unit	RA DX indoor unit
Allowed connection ratio (CR)		Other combinations are not allowed.					
VRV DX indoor units only	Including FXZQ15 or FXAQ15	50~125%	Max.64	50~125%	-	-	-
	Including FXFQ20 or FXFQ25	50~130%	Max.64	50~130%	-	-	-
	Only FXDQ, FXSQ and FXAQ20~63	50~150%	Max.64	50~150%	-	-	-
	All other models (single system)	50~150%	Max.64	50~150%			
	All other models (multi system)	50~130%	Max.64	50~130%	-	-	-
VRV DX indoor unit + RA DX		80~130%	Max.32 ⁽¹⁾	0~130%	0~130%	-	-
-RA DX- indoor units only		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		90~110% ⁽³⁾	Max.64 ⁽²⁾	-	-	-	90~110%
Pair + multi							

Remark

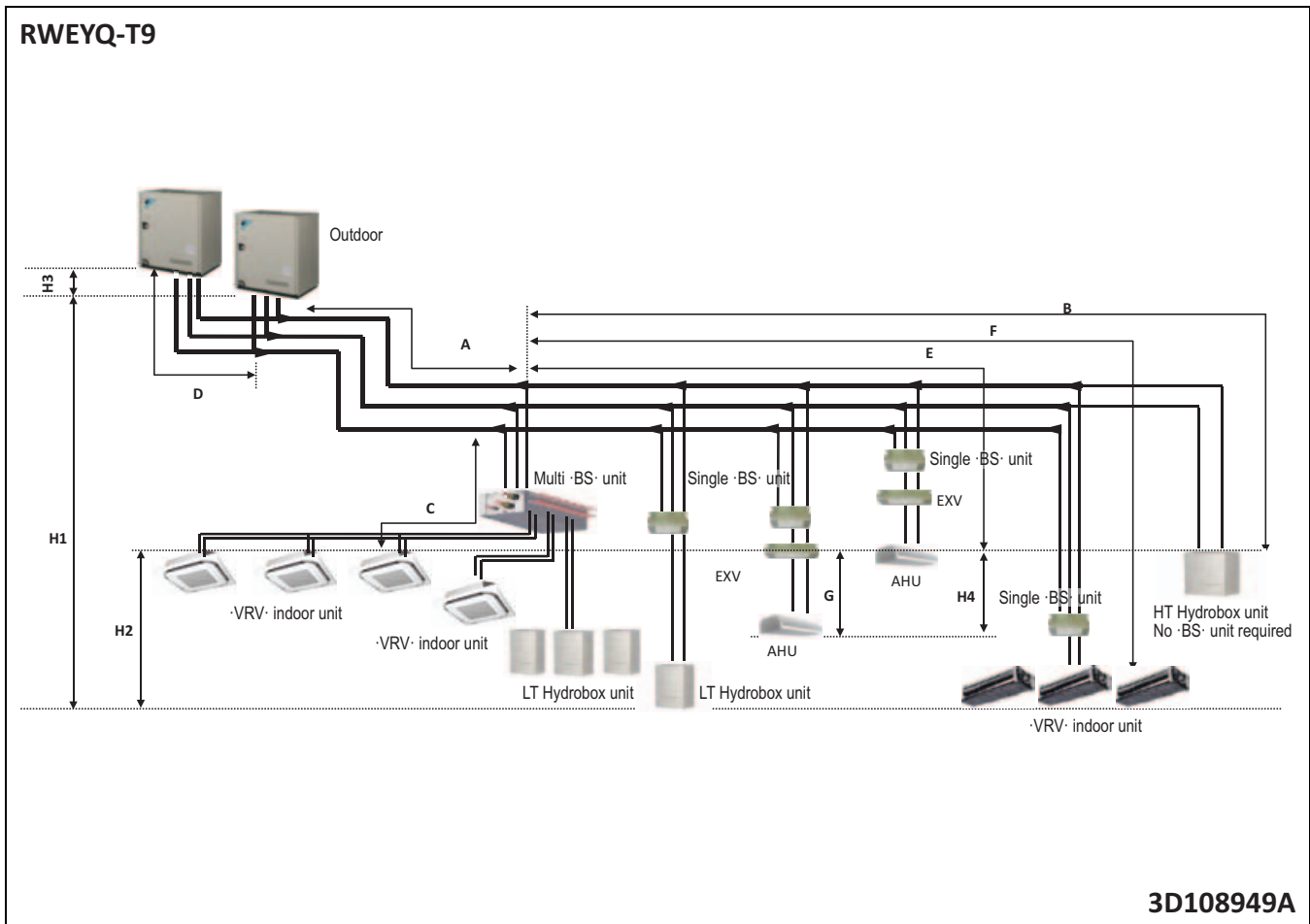
- (1) There is no restriction on the number of connectable BP boxes.
- (2) For connection with AHU
EKE XV kits are also considered indoor units.
- (3) Restrictions regarding the air handling unit capacity
- (4) Pair AHU = system with 1 air handling unit connected to one outdoor unit
Multi AHU = system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

12 Installation

12 - 2 Refrigerant Pipe Selection



12 Installation

12 - 2 Refrigerant Pipe Selection

12

RWEYQ-T9

VRV4 Watercooled Field Piping Restrictions

Heat recovery Piping restrictions

		Total		Allowed capacity				
		Capacity	Maximum indoor unit quantity (*1)	VRV indoor unit	·VRV· indoor unit without ·BS· unit Cooling only (*4)	HT Hydrobox unit	LT Hydrobox unit	Air handling unit (AHU)
·VRV· indoor units only	Including FXZQ15 or FXAQ15	50 ~ 125 %	64	50 ~ 125 %	0 ~ 50 %	Not allowed	Not allowed	Not allowed
	Including FXFQ20 or FXFQ25	50 ~ 130 %	64	50 ~ 130 %	0 ~ 50 %	Not allowed	Not allowed	Not allowed
	Only FXDQ, FXSQ and FXAQ20~63	50 ~ 150 %	64	50 ~ 150 %	0 ~ 50 %	Not allowed	Not allowed	Not allowed
	All other models (single system)	50 ~ 150 %	64	50 ~ 150 %	0 ~ 50 %	Not allowed	Not allowed	Not allowed
	All other models (multi system)	50 ~ 130 %	64	50 ~ 130 %	0 ~ 50 %	Not allowed	Not allowed	Not allowed
·VRV· indoor units + LT Hydrobox		50 ~ 130%	32	50 ~ 130 %	0 ~ 50 %	Not allowed	0 ~ 80%	Not allowed
·VRV· indoor units + HT Hydrobox		50 ~ 200%	32	50 ~ 110 %	Not allowed	0 ~ 100 %	Not allowed	Not allowed
"·VRV· indoor units + HT Hydrobox + LT Hydrobox Where (·VRV· indoor units + LT Hydrobox)"		"50 ~ 200% 50 ~ 130%"	32	50 ~ 110 %	Not allowed	"0 ~ 100 % -"	0 ~ 80%	Not allowed
AHU only Pair + Multi		Not allowed	Not allowed	Not allowed	Not allowed	Not allowed	Not allowed	Not allowed
·VRV· indoor unit + ·AHUs·		50 ~ 110 %	64	50 ~ 110 %	0 ~ 50 %	Not allowed		0 ~ 60 %

NOTES

1. Excluding ·BS· units and including ·EXV· kits.
2. 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
3. Other combinations than mentioned in this combination table are prohibited.
4. Cooling-only ·VRV· indoor units cannot be combined with HT Hydrobox units.
5. Restrictions regarding the air handling unit capacity

Amount of units connectable to a ·BS· unit

	BS1Q10 (*6)	BS1Q16 (*6)	BS1Q25 (*6)	Multi ·BS· per branch (*6)	Multi ·BS· when 2 branches are combined (*5) (*6)
·VRV· indoor unit	Maximum ·6· units	Maximum ·8· units	Maximum ·8· units	Maximum ·5· units	Maximum ·5· units
Air handling unit (AHU)	Maximum ·100· class	Maximum ·160· class	Maximum ·250· class	Maximum ·140· class	Maximum ·250· class
	Maximum ·100· class	Maximum ·160· class	Maximum ·250· class	Maximum ·140· class	Maximum ·250· class
LT Hydrobox unit	= 1 x HXY080	= Maximum ·2 x HXY080· Or maximum ·1 x HXY125·	= Maximum ·3 x HXY080· Or maximum ·2 x HXY125· Or ·HXY080 + HXY125·	= Maximum ·1 x HXY080· Or maximum ·1 x HXY125·	= Maximum ·3 x HXY080· Or maximum ·2 x HXY125· Or ·HXY080 + HXY125·

NOTES

1. When combining ·2· branches, the maximum piping length between the ·BS· unit and the indoor unit is ≤ 20m. If the length of this piping is > 20m, increase the size of the liquid pipe.
2. When using Hydrobox units, do not combine them with other types of units.

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12 Installation

12 - 2 Refrigerant Pipe Selection

RWEYQ-T9

VRV4 Watercooled Field Piping Restrictions

Heat recovery

Piping restrictions

	Maximum piping length			Maximum height difference			Total piping length
	Longest pipe from the outdoor unit or the last multi-outdoor piping branch Actual / Equivalent Maximum: (A+B, A+C, A+E, A+F)	Longest pipe after first branch Actual Maximum: (B,C,E,F)	Longest pipe from the outdoor unit to the last multi-outdoor piping branch Actual / Equivalent Maximum: (D)	Indoor-to-outdoor Outdoor unit higher than indoor unit / Indoor unit higher than outdoor unit Maximum: (H1)	Indoor-to-indoor Maximum: (H2)	Outdoor-to-outdoor Maximum: (H3)	Piping length
VRV indoor units only	165/190 m (*3)	40 m (*1)	10/13 m	50/40 m (*2)	30m	5 m	300 m
	120/140m (*3)	40 m (*1)		50/40 m (*2)	30m		500 m
Hydrobox unit	120/140m (*3)	40 m		50/40 m	15m		300 m
AHU (*4)	120/140m (*3)	40 m		50/40 m	15m		300 m

	Maximum piping length	Maximum height difference
	EXV --> AHU: G	EXV --> AHU: H4
AHU (*4)	5 m	5 m

NOTES

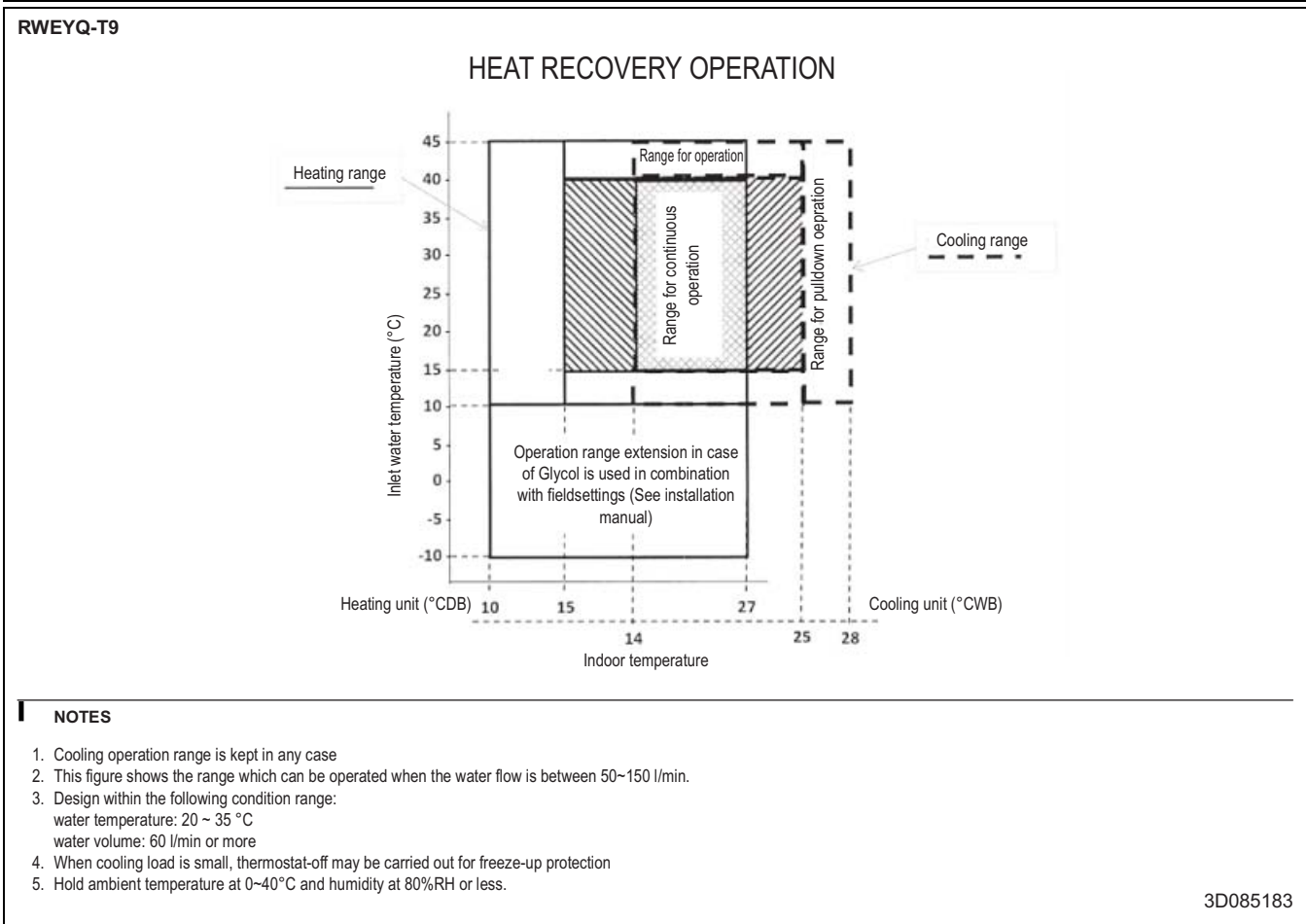
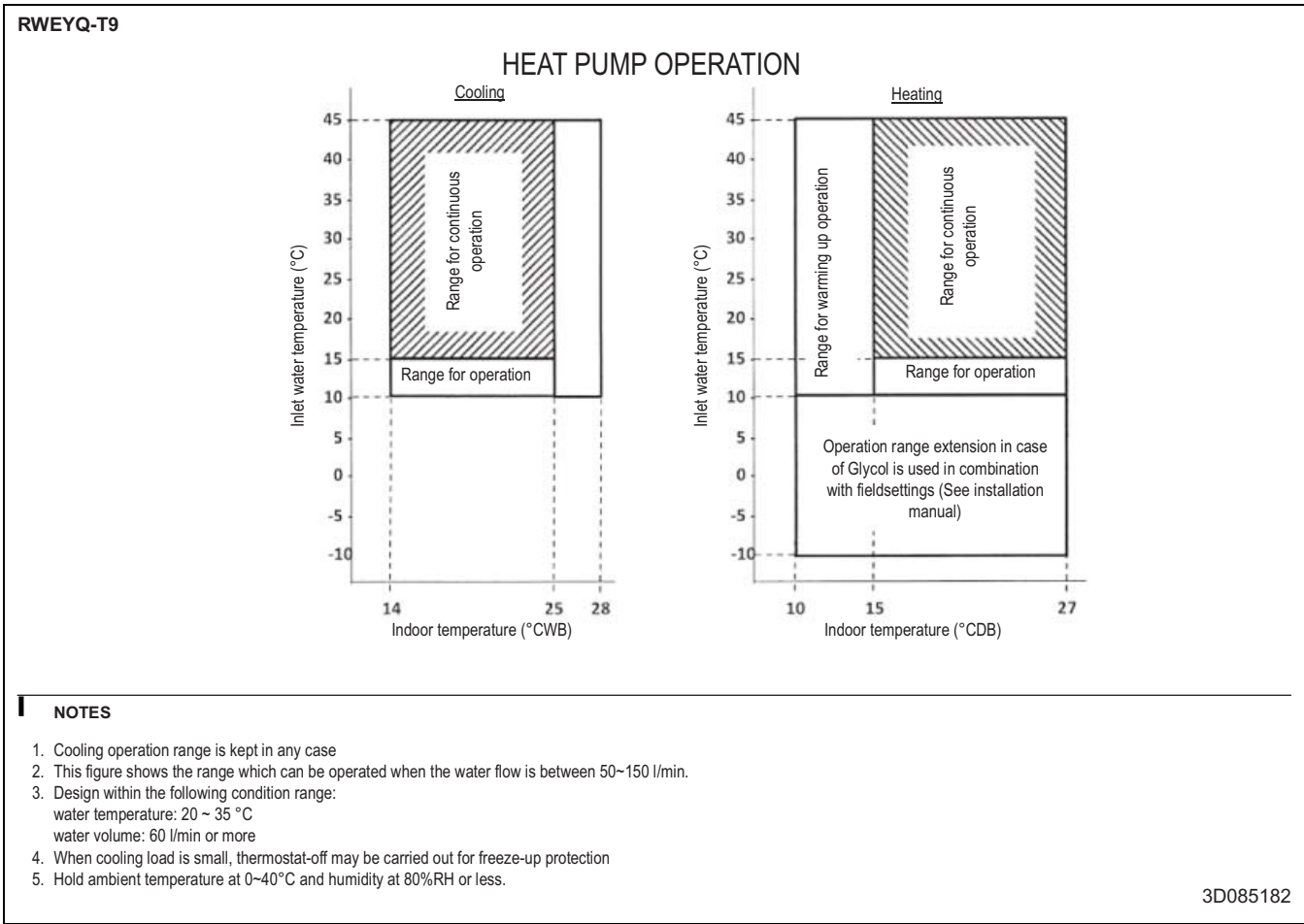
1. If all conditions below are met, the limitation can be extended up to 90 m
 - 1.1. In case of BS1Q units, the piping length between all indoor units and the nearest branch kit is ≤ 40 m.
 - 1.2. In case of multi BS units, the piping length between all indoor units and the multi BS unit is ≤ 40 m.
 - 1.3. It is required to size up the liquid piping between the first branch kit and the last.
In contrast to multi BS units, BS1Q units are not considered branch kits.
If the increased pipe size is larger than the pipe size of the main pipe, also increase the size of the main pipe.
 - 1.4. When the piping size is increased, the piping length has to be counted as double.
The total piping length has to be within limitations.
 - 1.5. The piping length difference between the nearest indoor unit to the outdoor unit and the farthest indoor unit to the outdoor unit is ≤ 40 m.
2. If all conditions below are met, the limitation can be extended up to 90 m
 - 2.1. If the outdoor units are positioned higher than the indoor units:
 - 2.1.1. Minimum connection ratio: 80%
 - 2.1.2. Size up the liquid piping
 - 2.1.3. Outdoor unit setting
For more information, refer to the service manual.
 - 2.2. If the outdoor units are positioned lower than the indoor units:
 - 2.2.1. No technical cooling
 - 2.2.2. Size up the liquid piping
 - 2.2.3. Outdoor unit setting
 - 2.2.4. Minimum connection ratio
 - 40~60m: Minimum connection ratio: 80%
 - 60~65m: Minimum connection ratio: 90%
 - 65~80m: Minimum connection ratio: 100%
 - 80~90m: Minimum connection ratio: 110%
3. If the equivalent piping is > 90 m, size up the main liquid piping.
4. Mix of DX units and AHU's
5. If there is no branch kit present in the system, the longest pipe after the multi BS unit has to be ≤ 40 m.

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13 Operation range

13 - 1 Operation Range

13



14 Appropriate Indoors

14 - 1 Appropriate Indoors

RWEYQ-T9

Recommended indoor units for RWEYQ*T* outdoor units

HP	8	10	12	14	16
	4xFXMQ50	4xFXMQ63	6xFXMQ50	1xFXMQ50 5xFXMQ63	4xFXMQ63 2xFXMQ80

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 RWEYQ*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
- FTXM20-25-35-42-50-60-71
- CTXM15
- FLXS25-35-50-60
- FVXM25-35-50
- FVXG25-35-50

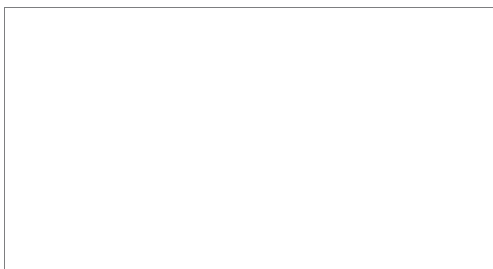
Outside the scope of ENER LOT21

- EKEXV50-63-80-100-125-140-200-250-400-500 + EKEQM / EKEQF
- HXY080-125
- HXHD125-200
- VKM50-80-100
- CYVS100-150-200-250
- CYVM100-150-200-250
- CYVL100-150-200-250

3D113979A



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