

technical data

Concealed Ceiling Unit (Large)
FXMQ-MAVE

air conditioning systems

VRV[®] III-S
VRV[®] III
VRV[®] -WII

R-410A

2e

TABLE OF CONTENTS

FXMQ-MAVE

1	Specifications	2
2	Safety device settings	4
3	Options	4
4	Control systems	5
5	Capacity tables	6
	Cooling capacity tables	6
	Heating capacity tables	7
6	Dimensional drawing & centre of gravity	8
	Dimensional drawing	8
	Centre of gravity	9
7	Piping diagram	10
8	Wiring diagram	11
	Wiring diagram	11
9	Sound data	12
	Sound level data	12
	Sound pressure spectrum	13
10	Fan characteristics	14
11	Installation	15
	Suspension bolt pitch position	15
	Service space	16

1 Specifications

1-1 TECHNICAL SPECIFICATIONS				FXMQ200MAVE		FXMQ250MAVE	
Nominal Capacity	Cooling	kW		22.40		28.00	
	Heating	kW		25.00		31.50	
Power input (Nominal)	Cooling	kW		1.294		1.465	
	Heating	kW		1.294		1.465	
Casing	Material			Galvanised steel			
Dimensions	Unit	Height	mm	470		470	
		Width	mm	1380		1380	
		Depth	mm	1100		1100	
Weight	Unit		kg	137		137	
Heat Exchanger	Dimensions	Nr of Rows		3		3	
		Fin Pitch	mm	2.00		2.00	
		Face Area	m ²	0.68		0.68	
		Nr of Stages		26		26	
Fan	Type			Sirocco fan			
	Quantity			2		2	
Air Flow Rate	Cooling	High	m ³ /min	58.00		72.00	
		Low	m ³ /min	50.00		62.00	
Fan	External static pressure	High	Pa	221		270	
		Standard	Pa	132		147	
	Motor	Quantity		2		2	
		Model		D13/4G2DA1		D13/4G2DA1	
		Output (high)	W	380		380	
		Drive		Direct drive			
Refrigerant	Name			R-410A			
Cooling	Sound Pressure	High	dBA	48.0		48.0	
		Low	dBA	45.0		45.0	
Piping connections	Liquid (OD)	Type		Flare connection			
		Diameter	mm	9.5		9.5	
	Gas	Type		Braze connection			
		Diameter	mm	19.1		22.2	
	Drain	Diameter	mm	PS1B		PS1B	
Heat Insulation			Glass fiber				
Refrigerant control				Electronic expansion valve			
Temperature control				Microprocessor thermostat for cooling and heating			
Safety devices				PC board fuse			
				Fan motor thermal protector			
Standard Accessories	Standard Accessories			Installation and operation manual			
				Connection pipes			
				Sealing Pads			
				Clamps			
				Screws			
Notes				Nominal cooling capacities are based on : indoor temperature : 27° CDB, 19° CWB, outdoor temperature : 35° CDB, equivalent refrigerant piping : 7,5m (horizontal)			
				Nominal heating capacities are based on : indoor temperature : 20° CDB, outdoor temperature : 7° CDB, 6° CWB, equivalent refrigerant piping : 7.5m (horizontal)			
				Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.			
				The external static pressure is changeable : change the connectors inside the electrical box, this pressure means : High static pressure -standard			
				Air filter is not standard accessory, but please mount it in the duct system of the suction side. Select its colorimetric method(gravity method) 50% or more.			
				Sound pressure levels are measured at 220V			
				FXMQ200,250MAVE cannot be connected to VRVIII-S			

1 Specifications

1-2 ELECTRICAL SPECIFICATIONS			FXMQ200MAVE	FXMQ250MAVE
Power Supply	Name		VE	
	Phase		1	1
	Frequency	Hz	50	50
	Voltage	V	220-240	
Current	Minimum circuit amps (MCA)	A	8.10	9.00
	Maximum fuse amps (MFA)	A	15.00	15.00
	Full load amps (FLA)	A	6.50	7.20
Voltage range	Minimum	V	-10%	
	Maximum	V	+10%	
Notes			Voltage range : units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above listed range limits.	
			Maximum allowable voltage range variation between phases is 2%.	
			MCA/MFA : MCA = 1.25 x FLA	
			MFA <= 4 x FLA	
			next lower standard fuse rating minimum 15A	
			select wire size based on the MCA	
			instead of a fuse, use a circuit breaker	
			For more details concerning conditional connections, see http://extranet.daikineurope.com , select "E-Data Books". Finally, click on the document title of your choice.	

2 Safety device settings

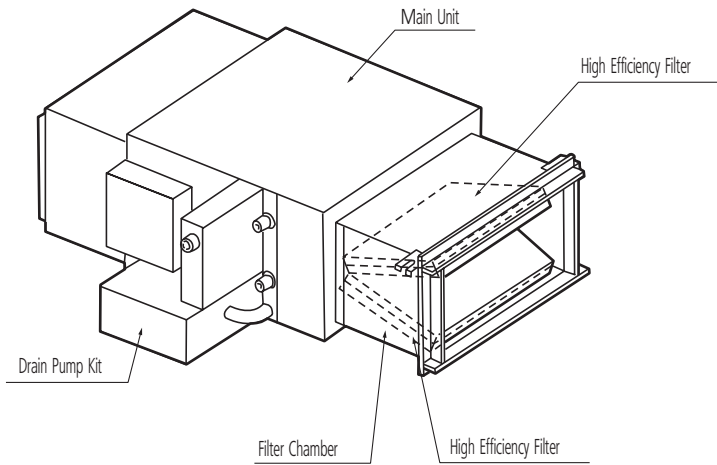
	FXMQ200MA	FXMQ250MA
PC BOARD FUSE	250V 10A	
FAN MOTOR THERMAL PROTECTOR	°C OFF: 135 \pm 8, ON: 87 \pm 15	

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2 Options

	FXMQ200MA	FXMQ250MA
DRAIN PUMP KIT		KDU30L250VE
HIGH EFFICIENCY FILTER 65%		KAFJ372L280
HIGH EFFICIENCY FILTER 90%		KAFJ373L280
FILTER CHAMBER		KDJ3705L280
REPLACEMENT LONG LIFE FILTER		KAFJ371L280

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The diagram shows an exploded view of the indoor unit components. The 'Main Unit' is the central rectangular component. To its left, the 'Drain Pump Kit' is shown with its mounting bracket. In front of the main unit, the 'Filter Chamber' is shown, which houses two 'High Efficiency Filter' units. Dashed lines indicate the assembly alignment of the filter chamber and filters into the main unit.

4 Control systems

Individual control systems

		FXMQ200MA	FXMQ250MA
WIRED REMOTE CONTROL			BRC1D52
INFRARED REMOTE CONTROL	Heat pump		BRC4C62
	Cooling only		BRC4C64
SIMPLIFIED REMOTE CONTROL			BRC2A51
REMOTE CONTROL FOR HOTEL USE			BRC3A61

Centralised control systems

		FXMQ200MA	FXMQ250MA
CENTRALISED REMOTE CONTROL			DCS302C51
UNIFIED ON/OFF CONTROL			DCS301B51
SCHEDULE TIMER			DST301B51

Others

		FXMQ200MA	FXMQ250MA
WIRING ADAPTER			KRP1B61
WIRING ADAPTER FOR ELECTRICAL APPENDICES (1)			KRP2A61
WIRING ADAPTER FOR ELECTRICAL APPENDICES (2)			KRP4A51
REMOTE SENSOR			KRCS01-1
ELECTRICAL BOX WITH EARTH TERMINAL (3 BLOCKS)			KJB311A
ELECTRICAL BOX WITH EARTH TERMINAL (2 BLOCKS)			KJB212A
NOISE FILTER (FOR ELECTROMAGNETIC INTERFACE USE ONLY)			KEK26-1A
EXTERNAL CONTROL ADAPTER FOR OUTDOOR UNITS (INSTALLATION ON INDOOR UNIT)			DTA104A61

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5 Capacity tables

5 - 1 Cooling capacity tables

FXMQ-MA																	
TC: Total capacitykW – SHC: Sensible capacitykW																	
Unit size	Nominal capacity	Outdoor air temp.	Indoor air temperature														
			14.OWB		16.OWB		18.OWB		19.OWB		20.OWB		22.OWB		24.OWB		
			20.ODB		23.ODB		26.ODB		27.ODB		28.ODB		30.ODB		32.ODB		
		°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	
200	22.4	10.0	15.1	13.4	18.0	14.9	21.0	16.3	22.4	16.8	23.8	17.0	26.8	17.6	29.4	17.8	
		12.0	15.1	13.4	18.0	14.9	21.0	16.3	22.4	16.8	23.8	17.0	26.8	17.6	29.0	17.6	
		14.0	15.1	13.4	18.0	14.9	21.0	16.3	22.4	16.8	23.8	17.0	26.8	17.6	28.7	17.4	
		16.0	15.1	13.4	18.0	14.9	21.0	16.3	22.4	16.8	23.8	17.0	26.8	17.6	28.3	17.2	
		18.0	15.1	13.4	18.0	14.9	21.0	16.3	22.4	16.8	23.8	17.0	26.8	17.6	27.9	16.9	
		20.0	15.1	13.4	18.0	14.9	21.0	16.3	22.4	16.8	23.8	17.0	26.8	17.6	27.5	16.7	
		21.0	15.1	13.4	18.0	14.9	21.0	16.3	22.4	16.8	23.8	17.0	26.8	17.6	27.4	16.6	
		23.0	15.1	13.4	18.0	14.9	21.0	16.3	22.4	16.8	23.8	17.0	26.4	17.3	27.0	16.4	
		25.0	15.1	13.4	18.0	14.9	21.0	16.3	22.4	16.8	23.8	17.0	26.1	17.1	26.6	16.2	
		27.0	15.1	13.4	18.0	14.9	21.0	16.3	22.4	16.8	23.8	17.0	25.7	16.8	26.2	16.1	
		29.0	15.1	13.4	18.0	14.9	21.0	16.3	22.4	16.8	23.8	17.0	25.3	16.6	25.8	15.9	
		31.0	15.1	13.4	18.0	14.9	21.0	16.3	22.4	16.8	23.8	17.0	24.9	16.4	25.4	15.7	
		33.0	15.1	13.4	18.0	14.9	21.0	16.3	22.4	16.8	23.8	17.0	24.5	16.3	25.0	15.6	
		35.0	15.1	13.4	18.0	14.9	21.0	16.3	22.4	16.8	23.6	17.0	24.2	16.1	24.6	15.4	
		37.0	15.1	13.4	18.0	14.9	21.0	16.3	22.4	16.8	23.2	16.8	23.8	16.0	24.3	15.3	
		39.0	15.1	13.4	18.0	14.9	21.0	16.3	22.4	16.8	22.8	16.6	23.4	15.8	23.9	15.1	
		250	28.0	10.0	18.9	16.9	22.5	18.5	26.2	20.4	28.0	20.9	29.8	21.2	33.5	22.1	36.8
12.0	18.9			16.9	22.5	18.5	26.2	20.4	28.0	20.9	29.8	21.2	33.5	22.1	36.3	21.8	
14.0	18.9			16.9	22.5	18.5	26.2	20.4	28.0	20.9	29.8	21.2	33.5	22.1	35.9	21.6	
16.0	18.9			16.9	22.5	18.5	26.2	20.4	28.0	20.9	29.8	21.2	33.5	22.1	35.4	21.3	
18.0	18.9			16.9	22.5	18.5	26.2	20.4	28.0	20.9	29.8	21.2	33.5	22.1	34.9	21.0	
20.0	18.9			16.9	22.5	18.5	26.2	20.4	28.0	20.9	29.8	21.2	33.5	22.1	34.4	20.7	
21.0	18.9			16.9	22.5	18.5	26.2	20.4	28.0	20.9	29.8	21.2	33.5	22.1	34.2	20.6	
23.0	18.9			16.9	22.5	18.5	26.2	20.4	28.0	20.9	29.8	21.2	33.0	21.7	33.7	20.3	
25.0	18.9			16.9	22.5	18.5	26.2	20.4	28.0	20.9	29.8	21.2	32.6	21.5	33.2	20.2	
27.0	18.9			16.9	22.5	18.5	26.2	20.4	28.0	20.9	29.8	21.2	32.1	21.2	32.8	20.0	
29.0	18.9			16.9	22.5	18.5	26.2	20.4	28.0	20.9	29.8	21.2	31.6	20.9	32.3	19.9	
31.0	18.9			16.9	22.5	18.5	26.2	20.4	28.0	20.9	29.8	21.2	31.1	20.6	31.8	19.7	
33.0	18.9			16.9	22.5	18.5	26.2	20.4	28.0	20.9	29.8	21.2	30.6	20.4	31.3	19.5	
35.0	18.9			16.9	22.5	18.5	26.2	20.4	28.0	20.9	29.5	21.1	30.2	20.2	30.8	19.4	
37.0	18.9			16.9	22.5	18.5	26.2	20.4	28.0	20.9	29.0	20.9	29.7	20.0	30.4	19.2	
39.0	18.9			16.9	22.5	18.5	26.2	20.4	28.0	21.0	28.5	20.6	29.2	19.8	29.9	19.0	

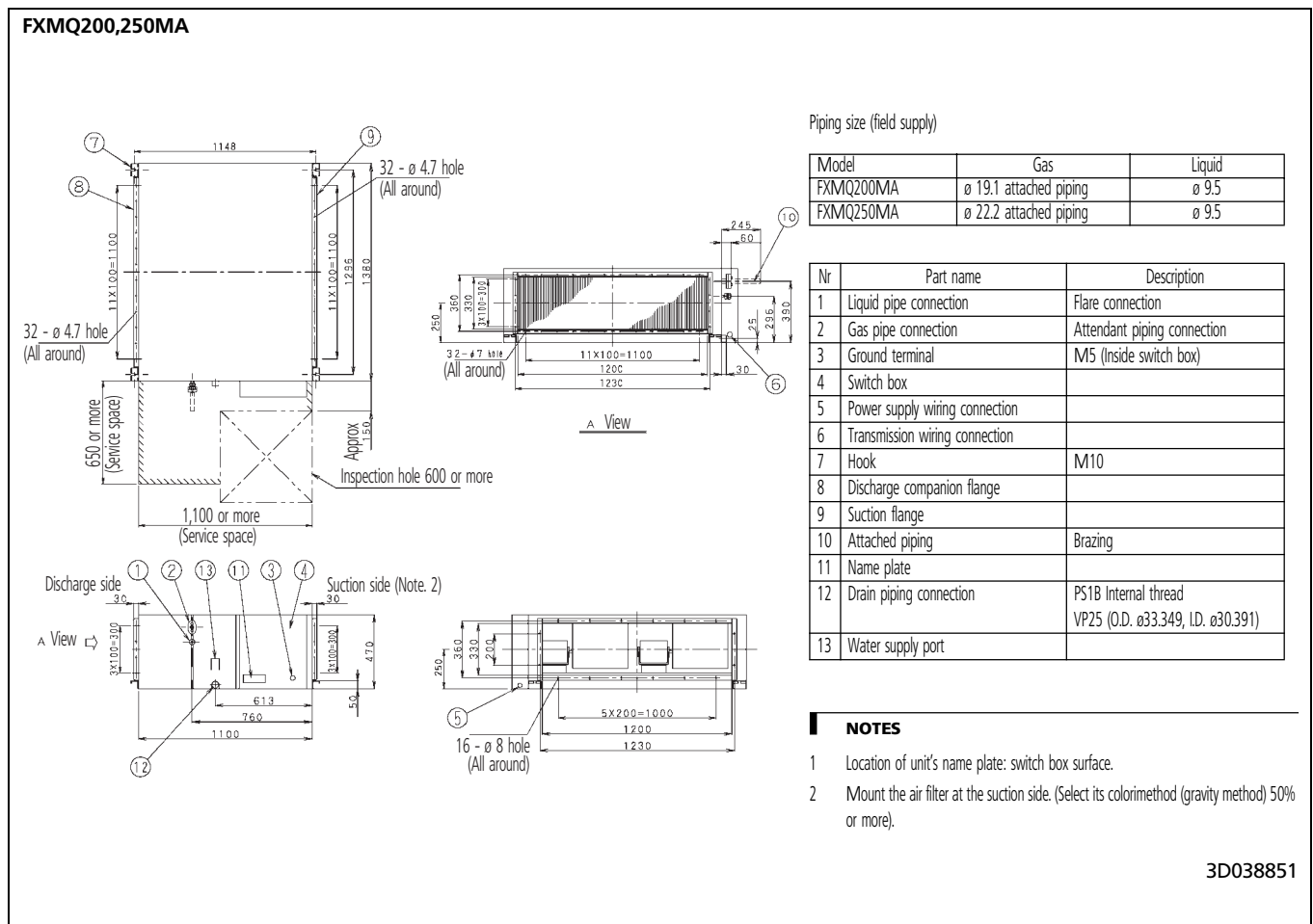
5 Capacity tables

5 - 2 Heating capacity tables

FXMQ-MA									
Unit Size	Nominal capacity	Outdoor air temperature		Indoor air temperature °CDB					
				16.0	18.0	20.0	21.0	22.0	24.0
		°CDB	°CWB	kW	kW	kW	kW	kW	kW
200	25.0	-19.8	-20.0	14.8	14.7	14.7	14.7	14.6	14.6
		-18.8	-19.0	15.2	15.2	15.1	15.1	15.1	15.0
		-16.7	-17.0	16.1	16.0	16.0	16.0	16.0	15.9
		-14.7	-15.0	17.0	16.9	16.9	16.9	16.8	16.8
		-12.6	-13.0	17.9	17.8	17.8	17.7	17.7	17.7
		-10.5	-11.0	18.7	18.7	18.6	18.6	18.6	18.6
		-9.5	-10.0	19.2	19.1	19.1	19.1	19.0	19.0
		-8.5	-9.1	19.6	19.5	19.5	19.5	19.4	19.4
		-7.0	-7.6	20.2	20.2	20.2	20.1	20.1	20.1
		-5.0	-5.6	21.1	21.1	21.0	21.0	21.0	20.9
		-3.0	-3.7	22.0	21.9	21.9	21.9	21.8	21.8
		0.0	-0.7	23.3	23.2	23.2	23.2	23.2	21.8
		3.0	2.2	24.6	24.5	24.5	24.2	23.4	21.8
		5.0	4.1	25.4	25.4	25.0	24.2	23.4	21.8
		7.0	6.0	26.2	26.2	25.0	24.2	23.4	21.8
		9.0	7.9	27.1	26.6	25.0	24.2	23.4	21.8
		11.0	9.8	27.9	26.6	25.0	24.2	23.4	21.8
13.0	11.8	28.2	26.6	25.0	24.2	23.4	21.8		
15.0	13.7	28.2	26.6	25.0	24.2	23.4	21.8		
250	31.5	-19.8	-20.0	18.6	18.5	18.5	18.5	18.4	18.4
		-18.8	-19.0	19.2	19.1	19.0	19.0	19.0	18.9
		-16.7	-17.0	20.3	20.2	20.2	20.1	20.1	20.0
		-14.7	-15.0	21.4	21.3	21.3	21.2	21.2	21.2
		-12.6	-13.0	22.5	22.4	22.4	22.4	22.3	22.3
		-10.5	-11.0	23.6	23.6	23.5	23.5	23.4	23.4
		-9.5	-10.0	24.2	24.1	24.1	24.0	24.0	23.9
		-8.5	-9.1	24.7	24.6	24.6	24.5	24.5	24.4
		-7.0	-7.6	25.5	25.4	25.4	25.4	25.3	25.3
		-5.0	-5.6	26.6	26.6	26.5	26.5	26.4	26.4
		-3.0	-3.7	27.7	27.6	27.6	27.5	27.5	27.5
		0.0	-0.7	29.3	29.3	29.2	29.2	29.2	27.5
		3.0	2.2	31.0	30.9	30.8	30.5	29.5	27.5
		5.0	4.1	32.0	32.0	31.5	30.5	29.5	27.5
		7.0	6.0	33.1	33.0	31.5	30.5	29.5	27.5
		9.0	7.9	34.1	33.5	31.5	30.5	29.5	27.5
		11.0	9.8	35.2	33.5	31.5	30.5	29.5	27.5
13.0	11.8	35.5	33.5	31.5	30.5	29.5	27.5		
15.0	13.7	35.5	33.5	31.5	30.5	29.5	27.5		

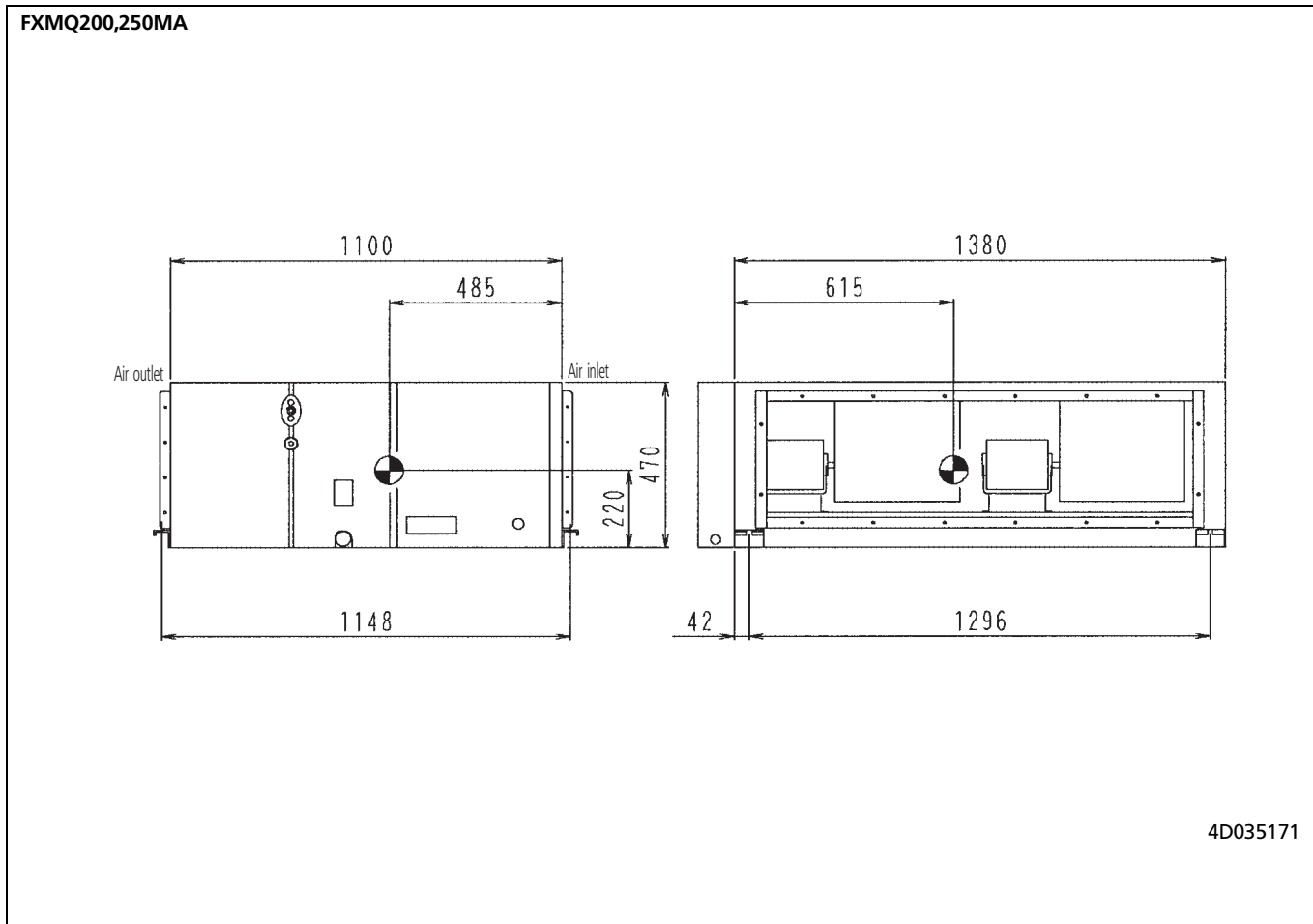
6 Dimensional drawing & centre of gravity

6 - 1 Dimensional drawing



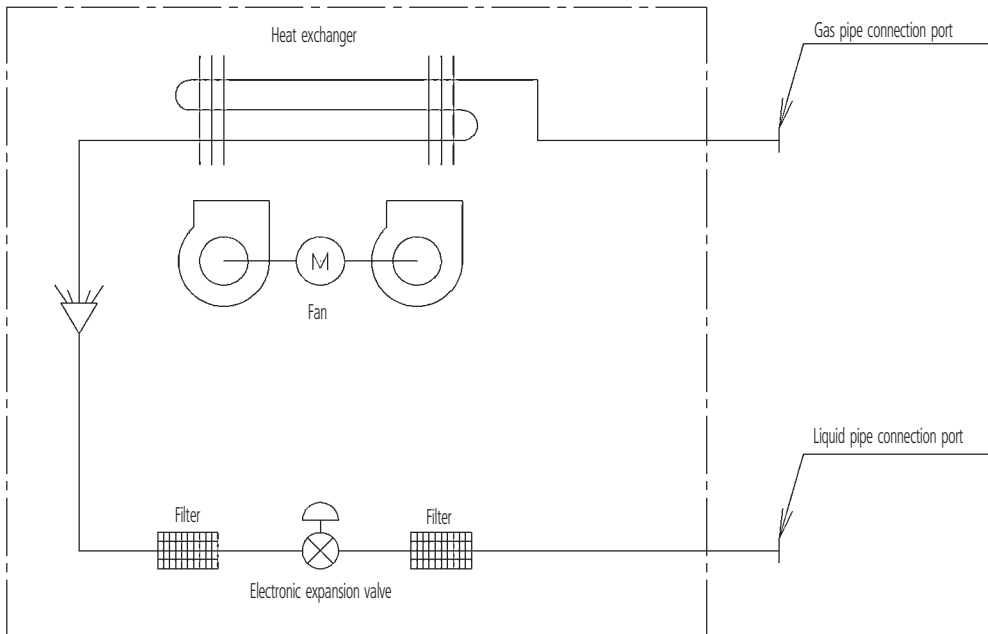
6 Dimensional drawing & centre of gravity

6 - 2 Centre of gravity



7 Piping diagram

FXMQ-MA



Piping connection diameters

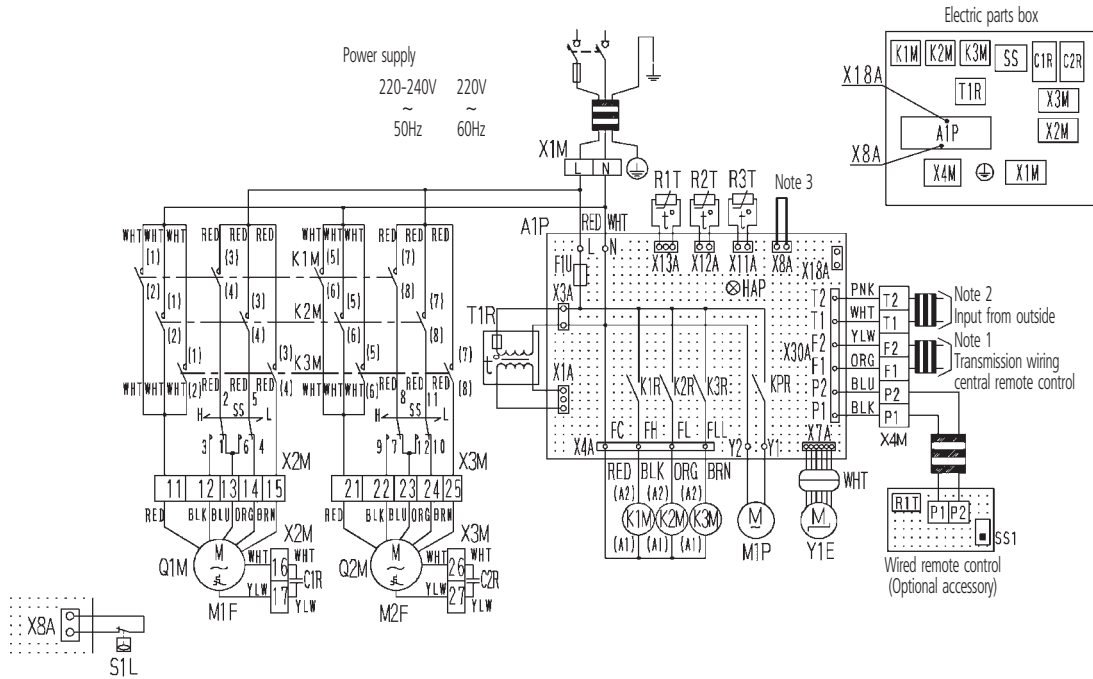
Model	Gas	Liquid
FXMQ200MA	ø19.1	ø9.5
FXMQ250MA	ø22.2	ø9.5

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8 Wiring diagram

8 - 1 Wiring diagram

FXMQ200,250MA



Indoor unit			Optional parts		
A1P	Printed circuit board	Q1M • Q2M	Thermo switch (M1F • 2F embedded)	M1P	Motor (drain pump)
C1R • C2R	Capacitor (M1F • 2F)	R1T	Thermistor (air)	Wired remote control	
F1U	Fuse (5A, 250V)	R2T • R3T	Thermistor (coil)	R1T	Thermistor (air)
HAP	Light emitting diode (service monitor-green)	SS	Selector switch (static pressure)	SS1	Selector switch (main/sub)
K1M	Magnetic contactor (M1F • 2F)	T1R	Transformer (220-240V/22V)	Connector for optional parts	
K2M	Magnetic contactor (M1F • 2F)	X1M	Terminal block (power)	X8A	Connector (float switch)
K3M	Magnetic contactor (M1F • 2F)	X2M-X3M	Terminal block	X18A	Connector (wiring adapter for electrical appendices)
K1R-K3R	Magnetic relay (M1F • 2F)	X4M	Terminal block (control)		
KPR	Magnetic relay (M1P)	Y1E	Electronic expansion valve		
M1F • M2F	Motor (indoor fan)				

- : Terminal block
 - , D- : Connector
 - : Short circuit connector
 - : Terminal
 - ≡≡≡ : Field wiring
- COLORS : BLK : Black PNK : Pink
 BLU : Blue RED : Red
 BRN : Brown WHT : White
 ORG : Orange YLW : Yellow

NOTES

- In case using central remote control, connect it to the unit in accordance with the attached instruction manual.
- When connecting the input wires from outside, forced off or on/off control operation can be selected by remote control. In details, refer to the installation manual attached the unit.
- In case installing the drain pump, remove the short circuit connector of X8A and execute the additional wiring for float switch and drain pump.
- Use copper conductors only.
- In case high E.S.P. operation, change the switch(ss) for "H".

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9 Sound data

9 - 1 Sound level data

FXMQ-MA

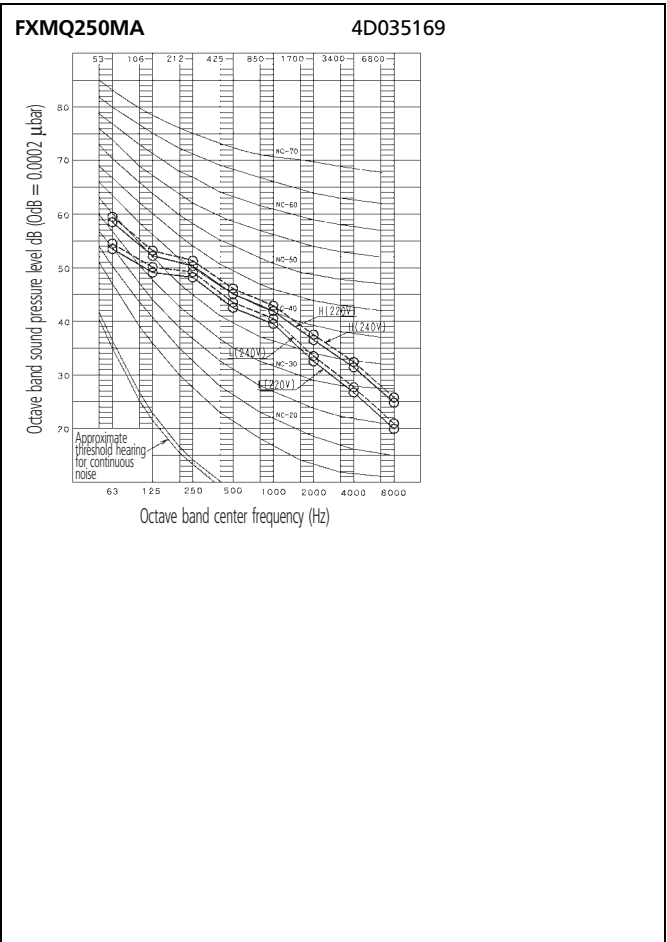
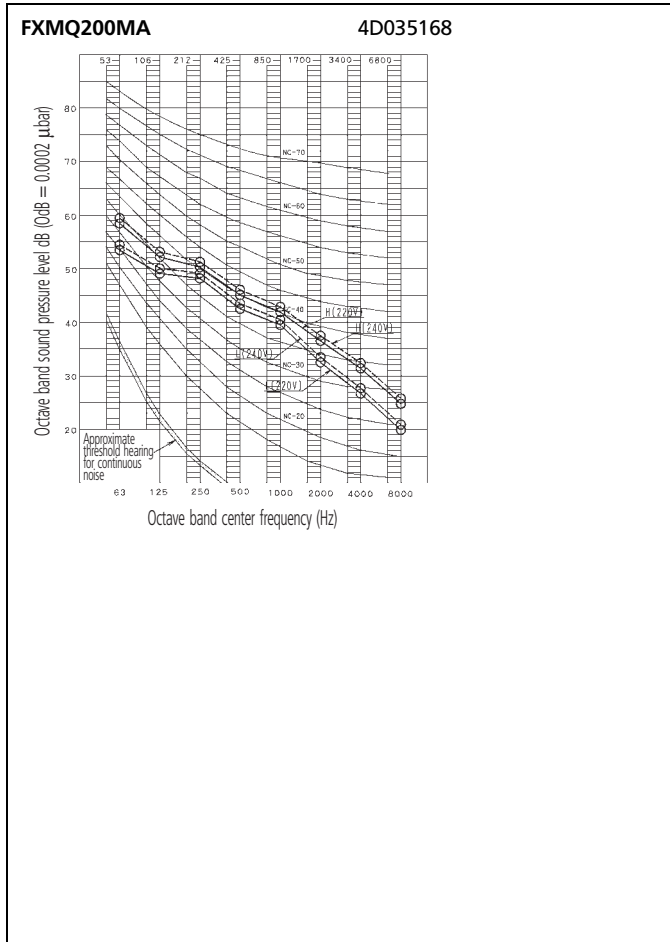
Model	Sound pressure level - 220V			Sound power level
	H	L	Measuring location	
FXMQ200MA	48	45		*
FXMQ250MA	48	45		*

NOTES

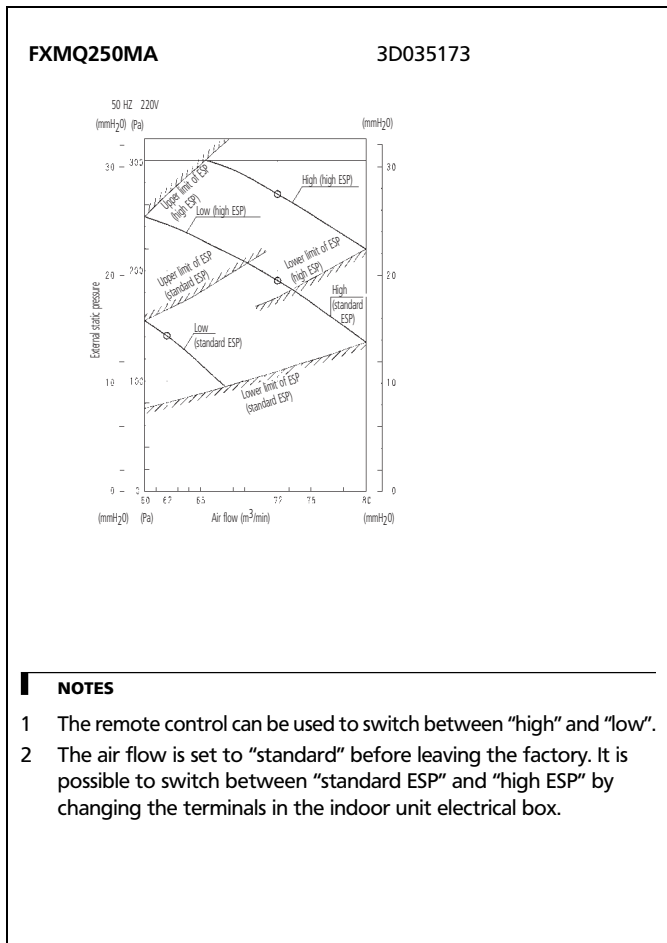
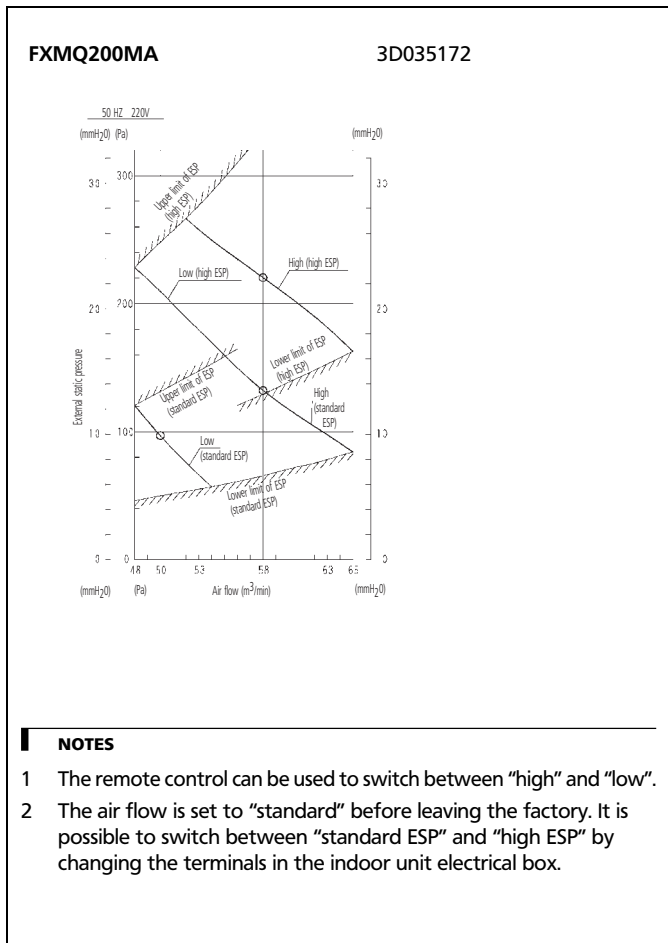
- 1 Reference acoustic pressure 0 dB = 20 Pa.
- 2 Measuring place: anechoic chamber
- 3 Operation noise differs with operation and ambient conditions.
*Data were not available at the time of publication

9 Sound data

9 - 2 Sound pressure spectrum



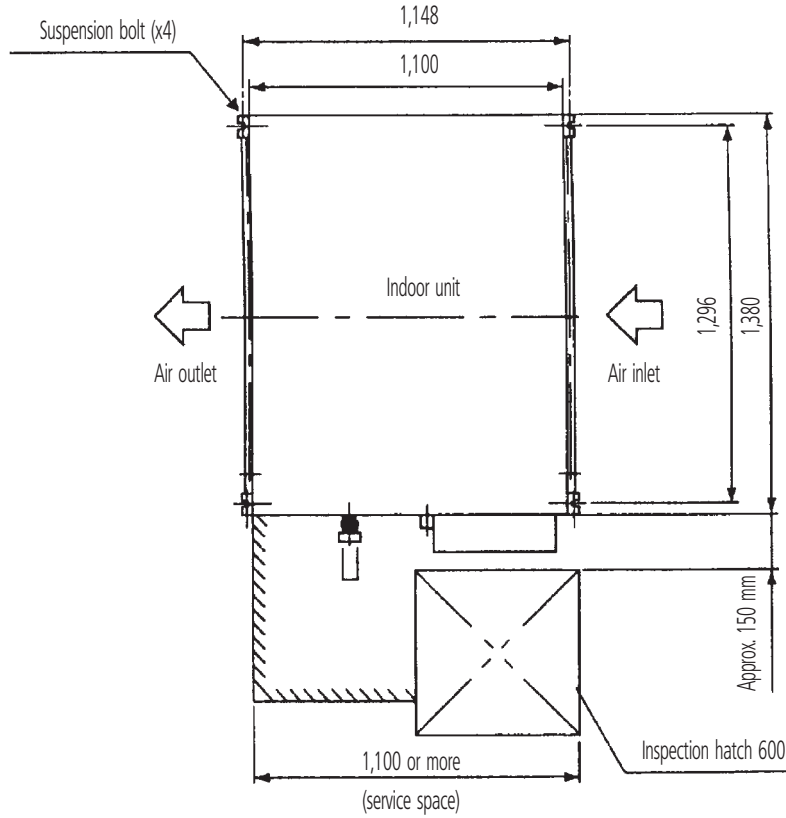
10 Fan characteristics



11 Installation

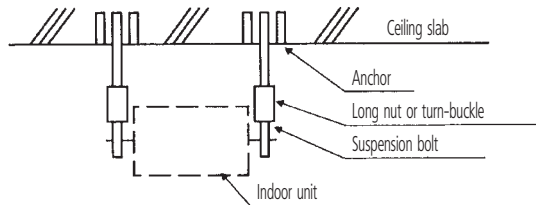
11 - 1 Suspension bolt pitch position

FXMQ200,250MA



NOTES

- 1 Install a canvas duct to the air discharge outlet and air inlet so that vibration from the machine body is not transmitted to the duct or ceiling. You should also apply acoustic (insulation material) to the inside of the duct, and vibration insulation rubber to the suspension bolts.
- 2 Install suspension bolts.
Use bolts of 10 mm diameter.
Install the equipment where supporting structures are strong enough to bear the equipment's weight. Use embedded inserts or anchor bolts with new buildings and hole-in-anchors with old buildings.



NOTE

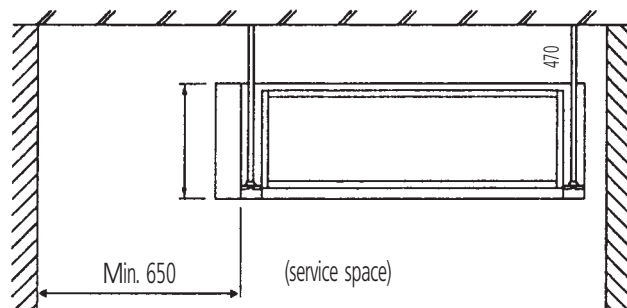
- 1 All the above parts are to be procured in the field.

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11 Installation

11 - 2 Service space

FXMQ200,250MA



NOTE

- 1 Above figures mean minimum values.

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2e

VRV III-S
VRV III
VRV VII



Daikin's unique position as a manufacturer of air conditioning equipment, compressors and refrigerants has led to its close involvement in environmental issues. For several years Daikin has had the intension to become a leader in the provision of products that have limited impact on the environment. This challenge demands the eco design and development of a wide range of products and an energy management system, resulting in energy conservation and a reduction of waste.



Daikin Europe N.V. is approved by LRQA for its Quality Management System in accordance with the ISO9001 standard. ISO9001 pertains to quality assurance regarding design, development, manufacturing as well as to services related to the product.



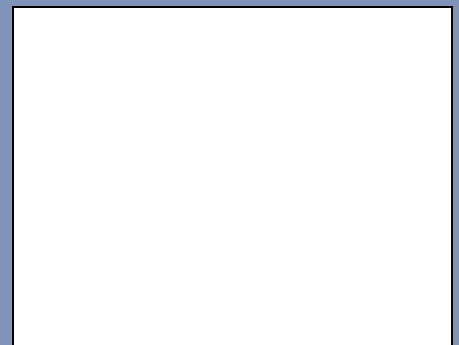
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The present publication supersedes EEDEN07-200
Prepared in Belgium by Lannoo (www.lannooprint.be), a company whose concern for the environment is set in the ENIAS and ISO 14001 systems.
Responsible Editor: Daikin Europe N.V., Zandvoordestraat 300, B- 8400 Oostende