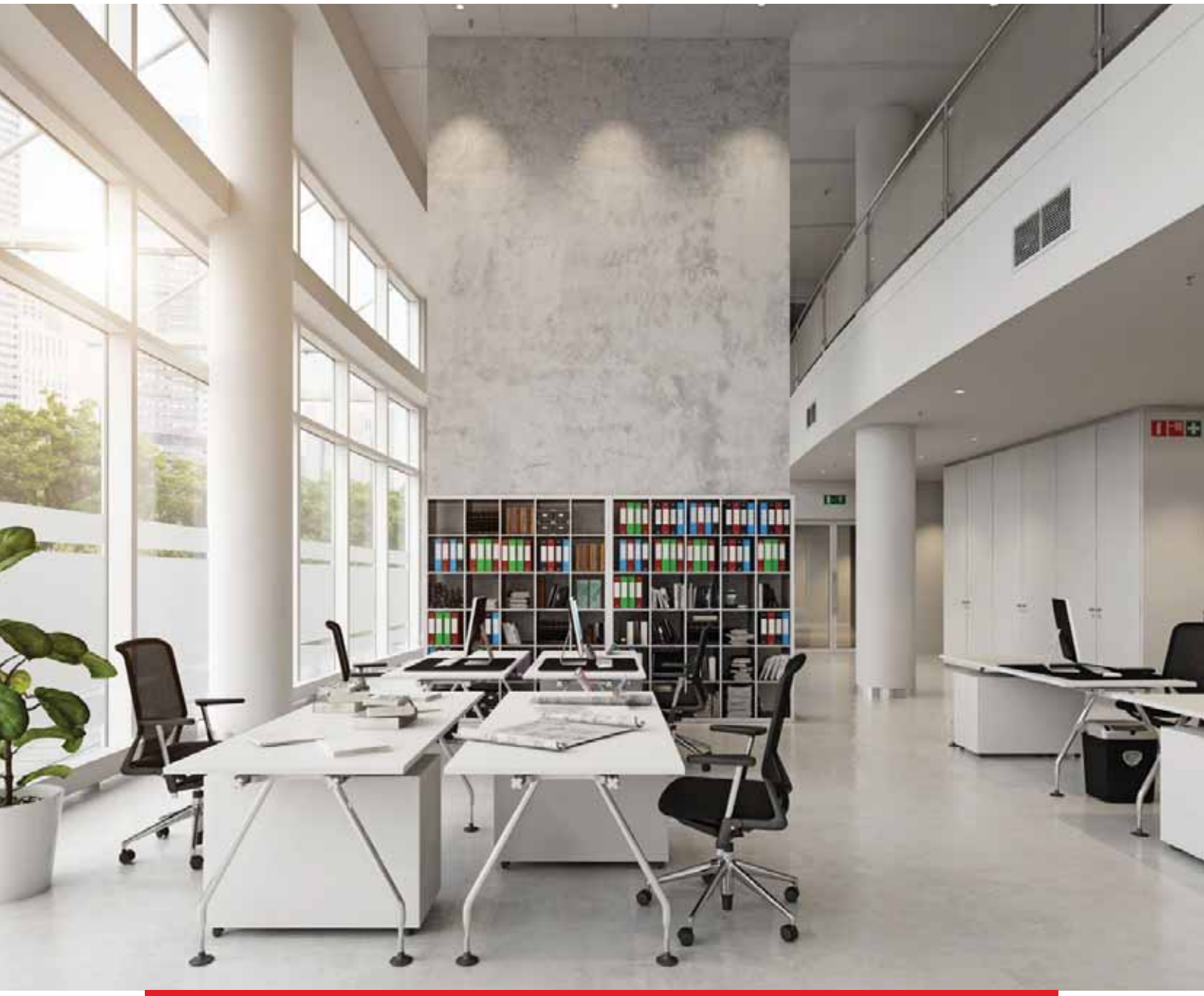
MITSUBISHI HEAVY INDUSTRIES

AIR CONDITIONING



HEATING AND COOLING SOLUTIONS

HIGH PERFORMANCE KX VRF SYSTEMS

CONTENTS

INTRODUCTION

KX MICRO Series

11.2kW	14kW	15.5kW
FDC112KXEN6	FDC140KXEN6	FDC155KXEN6
	FDC140KXES6	FDC155KXEN6

9kW	11.2kW	14kW	15.2kW
FDC90KXZEN1-W	FDC112KXZEN1-W	FDC140KXZEN1-W	FDCA155KXZEN1-W
	FDC112KXZES1-W	FDC140KXZES1-W	FDCA155KXZES1-W

KXE6 Series

22.4kW	28kW	33.5kW
FDC224KXE6	FDC280KXE6	FDC335KXE6

KXZP Series

22.4kW	28kW
FDC224KXZPE1	FDC280KXZPE1

KXZE1 Series

28kW	33.5kW	40kW	45kW
FDC280KXZE1	FDC335KXZE1	FDC400KXZE1	FDC450KXZE1

47.5kW	50kW	56kW
FDC475KXZE1	FDC500KXZE1	FDC560KXZE1

61.5kW	67kW	73.5kW	80kW	85kW
FDC615KXZE1	FDC670KXZE1	FDC735KXZE1	FDC800KXZE1	FDC850KXZE1
FDC280KXZE1	FDC335KXZE1	FDC335KXZE1	FDC400KXZE1	FDC400KXZE1
FDC335KXZE1	FDC335KXZE1	FDC400KXZE1	FDC400KXZE1	FDC450KXZE1

90kW	95kW	100kW	106kW	112kW
FDC900KXZE1	FDC950KXZE1	FDC1000KXZE1	FDC1060KXZE1	FDC1120KXZE1
FDC450KXZE1	FDC475KXZE1	FDC500KXZE1	FDC500KXZE1	FDC560KXZE1
FDC450KXZE1	FDC475KXZE1	FDC500KXZE1	FDC560KXZE1	FDC560KXZE1

120kW	125kW	130kW	135kW	142.5kW
FDC1200KXZE1	FDC1250KXZE1	FDC1300KXZE1	FDC1350KXZE1	FDC1425KXZE1
FDC400KXZE1	FDC400KXZE1	FDC400KXZE1	FDC450KXZE1	FDC475KXZE1
FDC400KXZE1	FDC400KXZE1	FDC450KXZE1	FDC450KXZE1	FDC475KXZE1
FDC400KXZE1	FDC450KXZE1	FDC450KXZE1	FDC450KXZE1	FDC475KXZE1

145kW	150kW	156kW	162kW	168kW
FDC1450KXZE1	FDC1500KXZE1	FDC1560KXZE1	FDC1620KXZE1	FDC1680KXZE1
FDC500KXZE1	FDC500KXZE1	FDC500KXZE1	FDC500KXZE1	FDC560KXZE1
FDC500KXZE1	FDC500KXZE1	FDC500KXZE1	FDC560KXZE1	FDC560KXZE1
FDC450KXZE1	FDC500KXZE1	FDC560KXZE1	FDC560KXZE1	FDC560KXZE1

KXZW Watercooled Series

22.4kW	28kW	33.5kW
FDC224KXZWE1	FDC280KXZWE1	FDC335KXZWE1

45kW	50kW	56kW	61.5kW	67kW
FDC450KXZWE1	FDC500KXZWE1	FDC560KXZWE1	FDC615KXZWE1	FDC670KXZWE1
FDC224KXZWE1	FDC224KXZWE1	FDC280KXZWE1	FDC280KXZWE1	FDC335KXZWE1
FDC224KXZWE1	FDC280KXZWE1	FDC280KXZWE1	FDC335KXZWE1	FDC335KXZWE1

73kW	77.5kW	85kW	90kW	95kW	100kW
FDC730KXZWE1	FDC775KXZWE1	FDC850KXZWE1	FDC900KXZWE1	FDC950KXZWE1	FDC1000KXZWE1
FDC224KXZWE1	FDC224KXZWE1	FDC280KXZWE1	FDC280KXZWE1	FDC280KXZWE1	FDC335KXZWE1
FDC224KXZWE1	FDC280KXZWE1	FDC280KXZWE1	FDC280KXZWE1	FDC335KXZWE1	FDC335KXZWE1
FDC280KXZWE1	FDC280KXZWE1	FDC280KXZWE1	FDC335KXZWE1	FDC335KXZWE1	FDC335KXZWE1

INTRODUCTION

KXZE2 Series NEW

28kW	33.5kW	40kW	45kW
FDC280KXZE2	FDC335KXZE2	FDC400KXZE2	FDC450KXZE2

47.5kW	50kW	56kW
FDC475KXZE2	FDC500KXZE2	FDC560KXZE2

61.5kW	67kW	73.5kW	80kW	85kW
FDC615KXZE2	FDC670KXZE2	FDC735KXZE2	FDC800KXZE2	FDC850KXZE2
FDC280KXZE2	FDC335KXZE2	FDC335KXZE2	FDC400KXZE2	FDC400KXZE2
FDC335KXZE2	FDC335KXZE2	FDC400KXZE2	FDC400KXZE2	FDC450KXZE2

90kW	95kW	100kW	106kW	112kW
FDC900KXZE2	FDC950KXZE2	FDC1000KXZE2	FDC1060KXZE2	FDC1120KXZE2
FDC450KXZE2	FDC475KXZE2	FDC500KXZE2	FDC500KXZE2	FDC560KXZE2
FDC450KXZE2	FDC475KXZE2	FDC500KXZE2	FDC560KXZE2	FDC560KXZE2

120kW	125kW	130kW	135kW	142.5kW
FDC1200KXZE2	FDC1250KXZE2	FDC1300KXZE2	FDC1350KXZE2	FDC1425KXZE2
FDC400KXZE2	FDC400KXZE2	FDC400KXZE2	FDC450KXZE2	FDC475KXZE2
FDC400KXZE2	FDC400KXZE2	FDC450KXZE2	FDC450KXZE2	FDC475KXZE2
FDC400KXZE2	FDC450KXZE2	FDC450KXZE2	FDC450KXZE2	FDC475KXZE2

145kW	150kW	156kW	162kW	168kW
FDC1450KXZE2	FDC1500KXZE2	FDC1560KXZE2	FDC1620KXZE2	FDC1680KXZE2
FDC475KXZE2	FDC500KXZE2	FDC500KXZE2	FDC500KXZE2	FDC560KXZE2
FDC475KXZE2	FDC500KXZE2	FDC500KXZE2	FDC560KXZE2	FDC560KXZE2
FDC500KXZE2	FDC500KXZE2	FDC560KXZE2	FDC560KXZE2	FDC560KXZE2

KXZXE2 Hi-COP Series NEW

56kW
FDC560KXZE2
FDC280KXZE2
FDC280KXZE2

85kW	90kW	95kW	100kW	106kW	112kW
FDC850KXZE2	FDC900KXZE2	FDC950KXZE2	FDC1000KXZE2	FDC1060KXZE2	FDC1120KXZE2
FDC280KXZE2	FDC280KXZE2	FDC280KXZE2	FDC335KXZE2	FDC335KXZE2	FDC335KXZE2
FDC280KXZE2	FDC280KXZE2	FDC335KXZE2	FDC335KXZE2	FDC335KXZE2	FDC400KXZE2
FDC280KXZE2	FDC335KXZE2	FDC335KXZE2	FDC335KXZE2	FDC400KXZE2	FDC400KXZE2

KXZRE2 Series NEW

22.4kW	28kW	33.5kW
FDC224KXZRE2	FDC280KXZRE2	FDC335KXZRE2

40kW	45kW	47.5kW	50kW
FDC400KXZRE2	FDC450KXZRE2	FDC475KXZRE2	FDC500KXZRE2

73.5kW	80kW	85kW	90kW
FDC735KXZRE2	FDC800KXZRE2	FDC850KXZRE2	FDC900KXZRE2
FDC335KXZRE2	FDC400KXZRE2	FDC400KXZRE2	FDC450KXZRE2
FDC400KXZRE2	FDC400KXZRE2	FDC450KXZRE2	FDC450KXZRE2

95kW	100kW
FDC950KXZRE2	FDC1000KXZRE2
FDC475KXZRE2	FDC500KXZRE2
FDC475KXZRE2	FDC500KXZRE2

120kW	125kW	130kW	135kW	142.5kW
FDC1200KXZRE2	FDC1250KXZRE2	FDC1300KXZRE2	FDC1350KXZRE2	FDC1425KXZRE2
FDC400KXZRE2	FDC400KXZRE2	FDC400KXZRE2	FDC450KXZRE2	FDC475KXZRE2
FDC400KXZRE2	FDC400KXZRE2	FDC450KXZRE2	FDC450KXZRE2	FDC475KXZRE2
FDC400KXZRE2	FDC450KXZRE2	FDC450KXZRE2	FDC450KXZRE2	FDC475KXZRE2

145kW	150kW
FDC1450KXZRE2	FDC1500KXZRE2
FDC475KXZRE2	FDC500KXZRE2
FDC475KXZRE2	FDC500KXZRE2
FDC500KXZRE2	FDC500KXZRE2

KXZRXE2 Series NEW

45kW	50kW	56kW	61.5kW	67kW
FDC450KXZRXE2	FDC500KXZRXE2	FDC560KXZRXE2	FDC615KXZREX2	FDC670KXZRXE2
FDC224KXZRE2	FDC224KXZRE2	FDC280KXZRE2	FDC280KXZRE2	FDC335KXZRE2
FDC224KXZRE2	FDC280KXZRE2	FDC280KXZRE2	FDC335KXZRE2	FDC335KXZRE2

73.5kW	80kW	85kW	90kW	95kW	100kW
FDC735KXZRXE2	FDC800KXZRXE2	FDC850KXZRXE2	FDC900KXZRXE2	FDC950KXZRXE2	FDC1000KXZRXE2
FDC224KXZRE2	FDC224KXZRE2	FDC280KXZRE2	FDC280KXZRE2	FDC280KXZRE2	FDC335KXZRE2
FDC224KXZRE2	FDC280KXZRE2	FDC280KXZRE2	FDC280KXZRE2	FDC335KXZRE2	FDC335KXZRE2
FDC280KXZRE2	FDC280KXZRE2	FDC280KXZRE2	FDC335KXZRE2	FDC335KXZRE2	FDC335KXZRE2

Indoor Unit Lineup

Range of 16 types of exposed or concealed indoor units are available in a wide range of capacities (total 87 indoor models). The best selection of indoor units for all applications is available from our full lineup.

Type		Model	Capacity: kW	1.5	2.2	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0	16.0	22.4	28.0
Ceiling Cassette	Four Way	FDT				■	■	■	■	■	■	■	■	■		
	Four Way Compact	FDTC		■	■	■	■	■	■							
	Two Way	FDTW				■		■	■	■	■	■	■			
	One Way	FDTS						■		■						
	One Way Compact	FDTQ			■	■	■									
Ducted	High Static	FDU						■	■	■	■	■	■	■	■	■
	Low/Middle Static	FDUM			■	■	■	■	■	■	■	■	■	■		
	Slim Profile Low Static	FDUT		■	■	■	■	■	■	■						
	Compact & Flexible	FDUH			■	■	■									
Wall Mounted		FDK		■	■	■	■	■	■	■	■					
Ceiling Suspended		FDE					■	■	■	■		■	■			
Floor Standing	Two Way	FDFW				■		■	■							
	With Casing	FDFL								■						
	Without Casing	FDFU				■		■	■	■						
Outside Air Processing Unit		FDU-F									■		■		■	■

Type	Model	L/sec	69	97	139	222	278
Fresh Air DX Assembly	SAF-DX		■	■	■	■	■

INTRODUCTION

Indoor Unit Capacity Connection

Series	Capacity: kW	Capacity Connection Range: %
KX Micro (R32)	9.0	100 - 150
	11.2 - 15.2	80 - 150
KX Micro (R410A)	11.2 - 15.5	80 - 150
KXE6	22.4 - 33.5	50 - 150
KXZP	22.4 - 28.0	50- 120
KXZE1	28 - 168.0	50 - 130
KXZE2	28 - 45	50 - 200
	47.5 - 95.0	50 - 160
	100.0 - 168.0	50 - 130

Series	Capacity: kW	Capacity Connection Range: %
KXZXE2	56.0 - 95.0	80 - 160
	100.5 -113.5	80 - 130
KXZRE2	22.4 - 45.0	50 - 200
	47.5 - 95.0	50 - 160
	100.0 - 150.0	50 - 130
KXZRXE2	45.0	80 - 200
	50.0 - 95.0	80 - 160
	100	80 - 130

Connectable Indoor Units

KX Micro (R410A)	Capacity: kW	11.2	14	15.5
	Max. Indoor Units	6	8	8

KX Micro (R32)	Capacity: kW	9.0	11.2	14	15.2
	Max. Indoor Units	8	8	10	10

KXZP	Capacity: kW	22.4	28
	Max. Indoor Units	8	8

KXE6	Capacity: kW	22.4	28	33.5
	Max. Indoor Units	22	24	24

KXZE1	Capacity: kW	28	33.5	40	45	47.5	50	56	61.5	67	73.5	80	85	90	95
	Max. Indoor Units	24	29	34	39	41	43	48	53	58	63	69	73	78	80
	Capacity: kW	100	106	112	120	125	130	135	142.5	145	150	156	162	168	
	Max. Indoor Units	80	80	80	80	80	80	80	80	80	80	80	80	80	

KXZE2	Capacity: kW	28	33.5	40	45	47.5	50	56	61.5	67	73.5	80	85	90	95
	Max. Indoor Units	37	44	53	60	50	53	59	65	71	78	80	80	80	80
	Capacity: kW	100	106	112	120	125	130	135	142.5	145	150	156	162	168	
	Max. Indoor Units	80	80	80	80	80	80	80	80	80	80	80	80	80	

KXZXE2	Capacity: kW	56	84	89.5	95	100.5	107	113.5
	Max. Indoor Units	59	80	80	80	80	80	80

KXZRE2	Capacity: kW	22.4	28	33.5	40	45	47.5	50	73.5	80	85	90	95
	Max. Indoor Units	29	37	44	53	60	50	53	78	80	80	80	80
	Capacity: kW	100	120	125	130	135	142.5	145	150				
	Max. Indoor Units	80	80	80	80	80	80	80	80				

KXZRXE2	Capacity: kW	45	50	56	61.5	67	73.5	80	85	90	95	100	
	Max. Indoor Units	60	53	59	65	71	78	80	80	80	80	80	

Control Systems

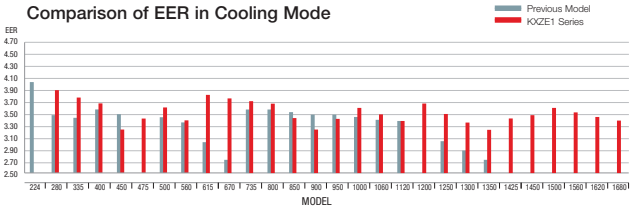
All series offer wide variation of control systems allowing for a suitable solution for a wide range of applications.

Type	Description		Model	Max. Connection Indoor Units	Electric Power Calculation
Individual Controller	Wired		RC-E5	16	-
			RC-EXZ3A	16	-
	Wireless		RCN Series	16	-
	Motion Sensor		LB Series	1	-
Central Controller	Simple Press Button		SC-SL1N-E	16	-
	LCD Screen		SC-SL2NA-E	64	-
	Touch Screen		SC-SL4-AE	128	-
			SC-SL4-BE	128	■
	BMS Interface Units	Web & BACnet	SC-WBGW256	256 (128 x 2)	■
		LonWorks	SC-LGWNB	96 (48 x 2)	-

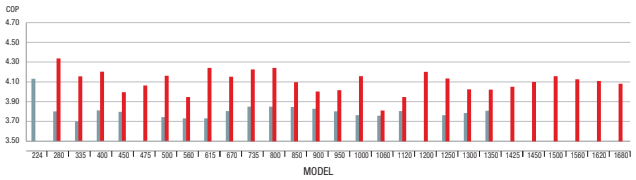
High Efficiency & Comfort (KXZE1)

The below graphs highlight the improved efficiencies between the previous models compared to the KXZ standard and Hi-COP models.

Comparison of EER in Cooling Mode

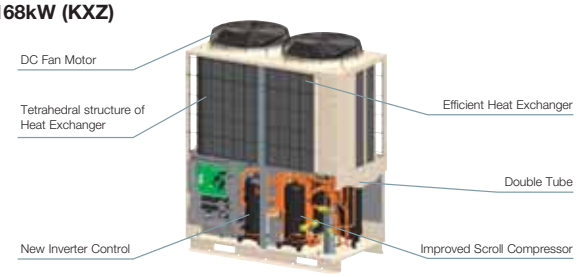


Comparison of COP in Heating Mode



Improved component design allows for high efficiency and compact design

28~168kW (KXZ)

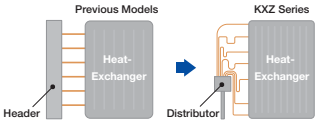


FEATURES AND BENEFITS

Improved Heat-exchanger

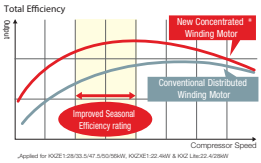
With a new piping layout between the header and the heat exchanger, refrigerant distribution flow has been greatly improved.

The new design also features a larger heat exchange area, boosting the unit's overall efficiency.



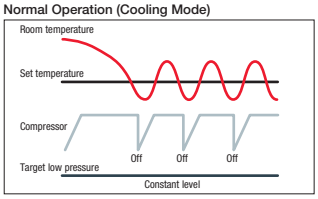
Efficient, High Output Winding Motor

The newly designed high performance CPU enables high precision optimisation for compressor speed, which leads to concentrated winding motor use.



VTCC : Variable Temperature and Capacity Control (KXZ)

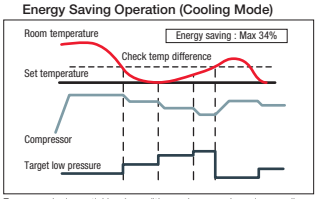
Normal Operation (Cooling Mode)



VTCC adjusts the target pressure of the refrigerant cycle in the outdoor unit automatically according to the demand of the indoor units in partial load conditions.

These smooth adjustments ensure an optimal capacity usage of the indoor units as well as maximised energy savings. Ultimately this also increases comfort for the user.

Energy Saving Operation (Cooling Mode)

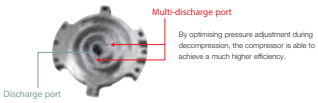


For example, in partial load conditions where you have low cooling and heating requirements, VTCC reduces the compressor frequency and controls the actuators in the outdoor unit.

Overall with the VTCC functionality you will always have an additional energy saving of up to 34% (depending on configuration and usage of system) in low cooling and heating load requirements.

Multiport Compressor

The new multiport discharge area in the compressor has optimised pressure control with improved better balancing. The performance improvement at medium Hz has resulted in higher annual efficiencies.

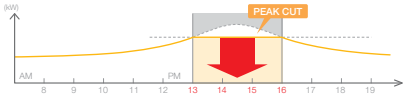


Oil Level Control

Our proprietary technology of adjusting oil level for combination of two or three outdoor units has created a leveled operation rate, keeping performance of the units and ensuring long life of the system.

Capacity Control (KXZ)

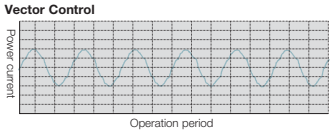
Capacity control can be set by peak cut function with RC-EXZ3A for better energy saving. Five-step capacity control is available. (100-80-60-40-0%)



Vector Control

New applied Vector control has a high efficiency and many new advanced features.

- Smooth operation from low speed to high speed
- Smooth Sine Voltage Wave form is attained
- Energy efficiency is further improved in low speed range

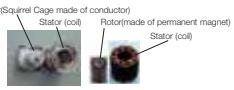


Long-Chorded 3 Propeller Fan With Serration

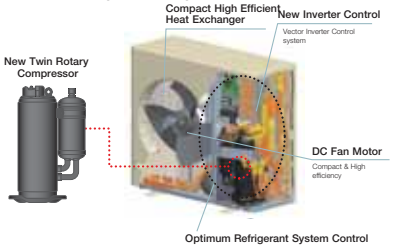
The fan blade design adapted from MHI's aerospace division - with serrated edges that deliver increased air volume with less power input.

DC Fan Motor

Use of a DC fan motor has enabled an excellent efficiency of approximate 60% higher than previous models.

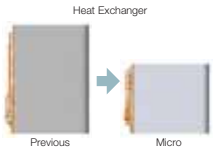


9.0-15.5kW (KX Micro)

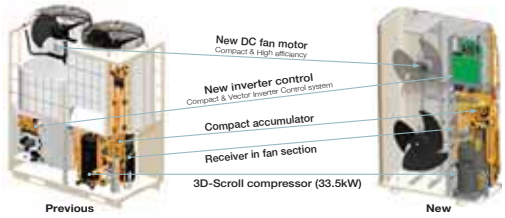


Compact High Efficiency Heat Exchanger

- Optimising relationship of the air flow velocity & fin pattern
- Improvement of air distribution Maximising efficiency of heat exchanger



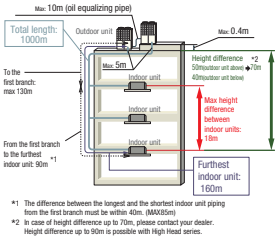
22.4-33.5kW (KXE6)



FEATURES AND BENEFITS

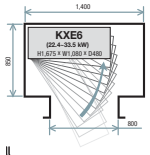
Long Pipe Length 28~168KW (KXZ)

Piping length limits have been improved and the maximum height difference between indoor units has been increased to 18m. This enables us to put indoor units on an extra three floors. The furthest indoor unit: 160m or total length: 1000m contributes to system design flexibility.

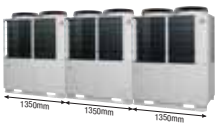


Easy Transportation & Installation

Due to a significant reduction in size and foot print which is one of the smallest in the industry, transportation in an elevator made for six persons (Width:1400mm, Depth:850, Open area:800mm) is possible, eliminating cost of a crane and reducing labour.



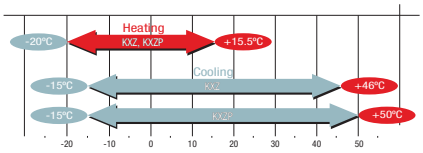
KXZ is portable and the uniform reduced footprint allows neat, continuous installation.



Wide Range of Operation (KXZ, KXZP)

KXZ series permits an extensible system design considering a heating range operation under a low temperature condition down to -20℃ and a cooling range operation up to 46℃ (previous model : 43℃)

Furthermore KXZP extends a cooling range operation up to 50℃.



Automatically Select Functions For Capacity Control (KXZP)

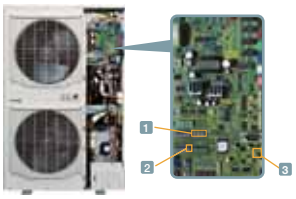
The following 3 items are available for capacity control function.
You can select one item individually or select 2 or 3 items at the same time.
In case of selecting 2 or 3 items, the unit will operate with the most effective function automatically.

1. Compressor Speed Control

You can set compressor speed at 100%-80%-60%-40% before starting operation with PWB in the outdoor unit or with a demand controller (procured locally).

How to set "Compressor speed"

- 1 Set the function of external input (CNS1) to "Capacity control input" using P07 of 7SEG setting.
- 2 Set the Demand rate using SW4-7, 4-8 according to the following chart.
- The input signal will be through 3 C NS1. ON/ connected, OFF/ not connected.



SW4-7	SW4-8	Compressor speed
OFF	OFF	80%
ON	OFF	60%
OFF	ON	40%
ON	ON	0%

2. Capacity Control Timer

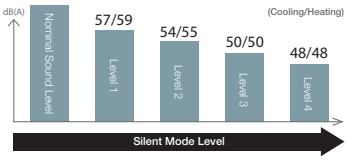
You can set capacity control with RC-EXZ3A up to 4 times per day.
The timer setting can be changed using 5 minute intervals.

3. Silent Mode

Considering noise regulations or surrounding circumstances, you can now select 4 levels of silent mode. [1] & [2]
Setting the combination of silent mode is available by using timer function of RC-EXZ3A.

- Silent mode [1] : Priority for capacity.
  This is an effective function during low load operation conditions.
  This setting may be cancelled in overload conditions.

- Silent mode [2] : Priority for silent mode.
  Regardless of operation conditions, the outdoor unit will keep the operation at the selected sound level.

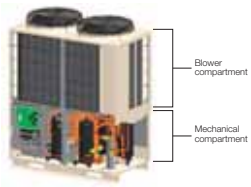


FEATURES AND BENEFITS

Serviceability

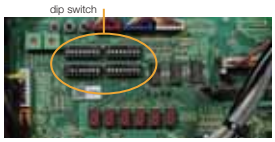
Easy Service

Quick and easy access to service parts by separating compartments.



Check Operation (28~168kW)

Closing of Service valve, crossing connection of refrigerant piping and electrical wiring, proper operation of EEV (Electrical Expansion Valve) can be checked automatically in cooling operation. This check operation can be done at 0~43°C outdoor temperature and 10~32°C indoor temperature by use of outdoor unit dip switch. The check should be done in one refrigerant system. It takes 15~30 minutes and avoids frequent failure by preventing careless mistakes during installation.



Monitoring Function

All series include new features to assist with servicing and trouble shooting.
Various data can be monitored through 3-digit or 6-digit display on the outdoor unit PCB.

Detailed fault diagnosis and operation history memory via 7-segment display.

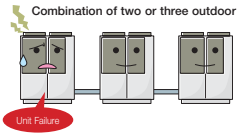

9.0~15.5kW
22.4~28kW(KXZP)


22.4~168kW

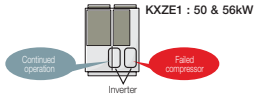
Equipped with RS232C for connection directly to your PC monitoring and service tasks made simple with our service software ("Merite PC").

Back-up Operation

In the event that one unit has a failure, the system will keep operating with the other good units.



In the unlikely event that one compressor fails, the unit's other compressor will continue to operate.



This operation is an emergency measure for a limited time and a necessary repair should be done as soon as possible.

3 Layer Construction

Thanks to the control box structure with 3 layer/2 layer construction using hinge connection, service and maintenance has been made much easier for inverter components.


KXZ
(3 layer)


KXZP
(2 layer)

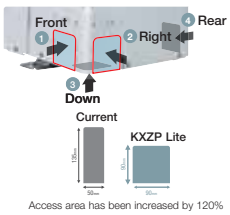
Blue Fin

Due to application of blue coated fins for the heat exchanger of new outdoor unit, corrosion resistance has been improved compared to current models.

FEATURES AND BENEFITS

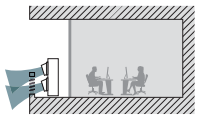
KXZP
Improved Features

Easy and Flexible Piping Installaton



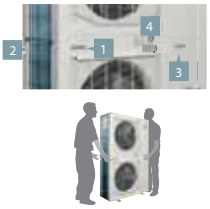
Access area has been increased by 120% for easy and flexible piping installation

External Static Pressure



External static pressure is available up to 35 Pa.

Four Handles For Easy Transport

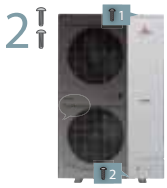


Located at the same level for easy transport and transfer.

Transparent Rain Cover

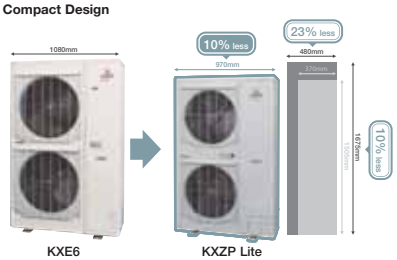
Attached as a standard for easy maintenance.

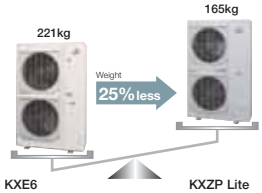
Two Screw Installation



Installation and service is quick and easy with the number of screws reduced to 2.

Compact Design





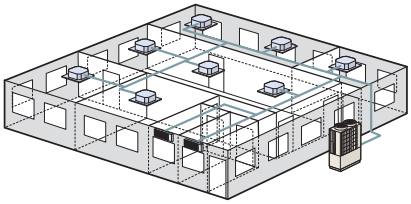
Heat Pump Systems

Heat pump systems operate with 2 inter-connecting pipes, thus commonly referred to as a '2-pipe system'.

These systems provide either a heating or cooling operation to all indoor units and are suitable for a wide range of applications from an individual apartment to an entire multi storey building, especially where there are significant open plan areas to be controlled.

The range starts with a 9.0kW cooling capacity, up to 56.0kW cooling capacity. Outdoor units can also be "twinned" or "tripled" providing up to 168.0kW on a single system.

The range has a total piping length of 1000m (KXZ) and the furthest indoor unit can be connected up to 160m (22.4kW+, KXZ, KXE6) from the outdoor unit.



Fixed Cooling mode/fixed heating mode (summer/winter switch):
It is possible to fix the operational mode of the system (either cooling or heating) using a switch (SW3-7) on the outdoor unit PC board - this enables the building user to decide the operation of the system (e.g. cooling only in summer/heating only in winter), to avoid unnecessary energy wastage.
It is also possible to wire the control switch to a remote location (inside the building) to a control room, or even linked to an ambient thermostat.

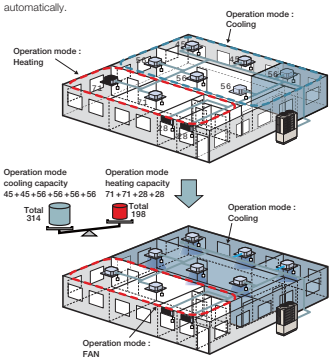
Priority Operation Mode Rule (KXZ, KXZP)

You can select the following priority operation mode. (for whole system)

1. First unit's operation mode (by default setting)
2. Last unit's operation mode
3. Majority operation mode (see below)
4. Master operation mode (see below)

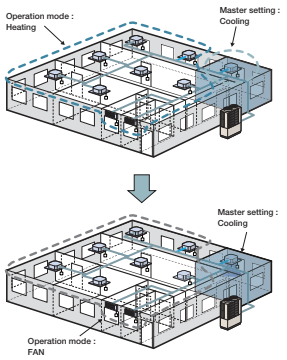
Majority Operation Mode

The system is operated according to the mode selected by the majority of units in operation (whichever greater capacity between the sums of cooling mode and heating mode).
The operation mode in minority is set to fan mode automatically.



Master Operation Mode

The system is operated according to master operation mode. When master operation mode is set at cooling mode, units selected as heating mode is set to fan mode automatically.

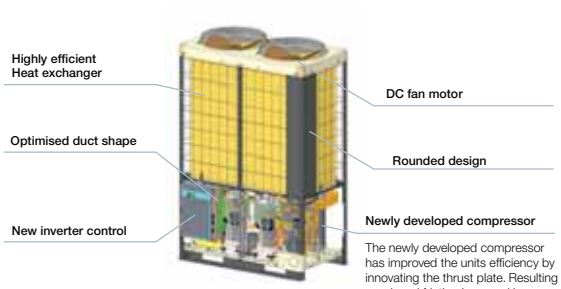


KXZ2

New Design

The new KXZ2 series has a layered design and a refined new form. The flexibility in design and ease of installation are further enhanced to provide optimum response to medium and large building air-conditioning systems. This new design also allows for:

- **Increased number of connectable units**
- **Increased max capacity connection (compared to KXZE1)**



The newly developed compressor has improved the units efficiency by innovating the thrust plate. Resulting a reduced friction loss, and increased realiability.

Indoor Capacity Connection

KXZE2	Capacity: kW	28	33.5	40	45	47.5	50	56	61.5	67
	Max. Indoor Units	37	44	53	60	50	53	59	65	71
	Capacity: kW	73.5	80	85	90	95	100	106	112	120
	Max. Indoor Units	78	80	80	80	80	80	80	80	80
	Capacity: kW	125	130	135	142.5	145	150	156	162	168
	Max. Indoor Units	80	80	80	80	80	80	80	80	80

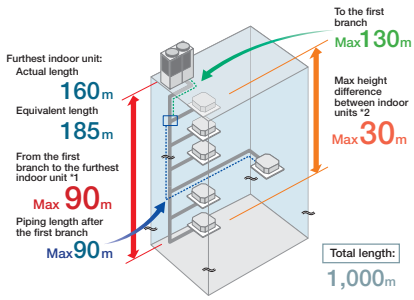
FEATURES AND BENEFITS

Long Pipe Length

The maximum height difference between indoor units has been increased to a maximum of 30m, and the maximum height difference between the outdoor unit and indoor unit has been expanded to 90m. For with few limitations, contributes to system design flexibility.

*1 The difference between the longest and the shortest indoor unit piping from the first branch must be within 40m. (MAX85m)

*2 It is necessary to change the setting corresponding to each height difference in installation. The range of use is also different.



Continuous Heating Capacity Control (CHCC)

Our CHCC defrosting control has been added to our KXZ2 system and allows to achieve greater capacities than that of our previous model in low ambient temperature conditions. CHCC controls the target pressure automatically before the capacity drops, which increases the period of heating operation and reduces the systems defrosting time.

Variable Temperature and Capacity Control

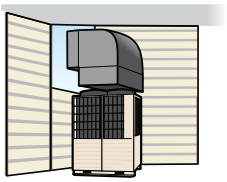
VTCC adjusts the target pressure of the refrigerant cycle in the outdoor unit automatically according to the demand of the indoor units in partial load conditions. These smooth adjustments ensure optimal usage of the indoor units as well as maximised energy savings. Ultimately this also increases comfort for the user.

VTCC

*34% energy savings are based on comparison with a KXZ standard model with VTCC vs. a KXZ standard model both under partial load condition.

Extended External Static Pressure from 50Pa to 85Pa

The KXZE2 series offering greater flexibility to meet installation location needs with an extended external static pressure now up to 85Pa.



FEATURES AND BENEFITS

KXZRE2

Heat Recovery Systems - for Simultaneous Cooling and Heating

The heat recovery systems operate with 3 inter-connecting pipes, commonly referred to as a '3-pipe system'. The systems provide both heating and cooling operations simultaneously to individual indoor units according to room conditions or user requirements. The systems incorporate highly sophisticated controls transferring heat load energy from the entire building to provide an efficient, comfortable heating and cooling environment.

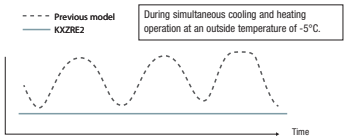
The system interconnecting pipework has a unique arrangement, with two of the interconnecting pipes routed through a PFD distribution controller and the third pipe connected directly to each indoor unit from the main pipe run. This reduces installation time, and the number of brazed connections on site. The PFD Distribution Controllers are available for single connection, or as a combined PFD 4-way connection, with each connected unit having independent cooling or heating operation.

In previous model, when high demand for heating and low cooling demand are required at the same time in low ambient temperature condition, pressure control is adjusted to keep more heating capacity than good enough cooling capacity.

New adopted heat exchanger and pressure control in KXZR series, has improved its capacity for both good enough heating and cooling capacity at the same time. (*)

(*) Refrigerant system will priorities required heating mode more than very low cooling demand, in case most of indoor units are operated in heating mode.

Blown air temperature in the cooled room



Reduced Noise

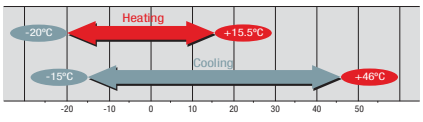
With improved acoustic insulation, the noise level of the PFD box has been greatly reduced.

Design Flexibility

Up to 91 indoor units can be connected to the largest capacity outdoor unit, with a range of 15 types of exposed or concealed indoor unit, in several capacities, a choice of 91 indoor units is available.

Wide Range of Operation

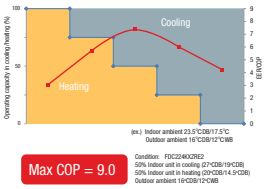
KXZR series permits an extensible system design considering a heating range operation under a low temperature condition down to -20℃ and a cooling range operation up to 46℃ (previous model : 43℃)

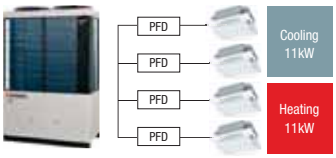


High Efficiency in Simultaneous Cooling and Heating Modes

Highly efficient operation mode is automatically determined inside the refrigerant system during simultaneous cooling and heating operation. Heat recovery efficiency is maximized by this control and Max COP 9.0 (*) is achieved during operation with simultaneous cooling and heating.
* Conditions for simultaneous cooling and heating (Our estimation in 22.4kW operation and the following conditions: Temperature outside the room DB16°C/WB12°C, temperature in the cooled room DB27°C/19°C, and temperature in the heated room DB20°C/WB14.5°C)

Energy Efficiency in Heat Recovery Mode

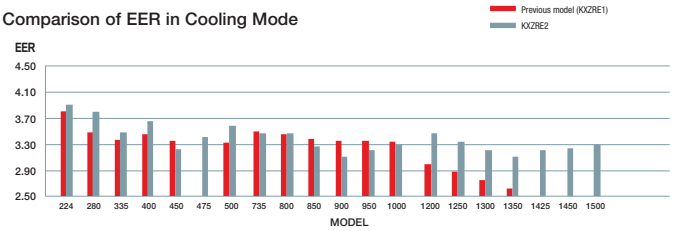




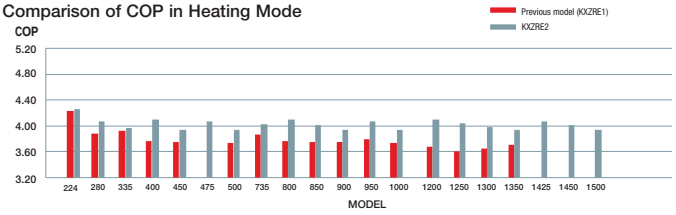
High Efficiency

The below graphs highlight the improved efficiencies between the previous models compared to the KXZR standard and Hi-COP models.

Comparison of EER in Cooling Mode



Comparison of COP in Heating Mode



E-Solution: Easy VRF Selection Tool

E-Solution is a design software tool which includes specification details of the latest KX VRF systems. By using E-Solution this simplifies the process and enables engineers to select the most cost-effective and energy efficient mix of indoor units, outdoor units, pipework and controls.

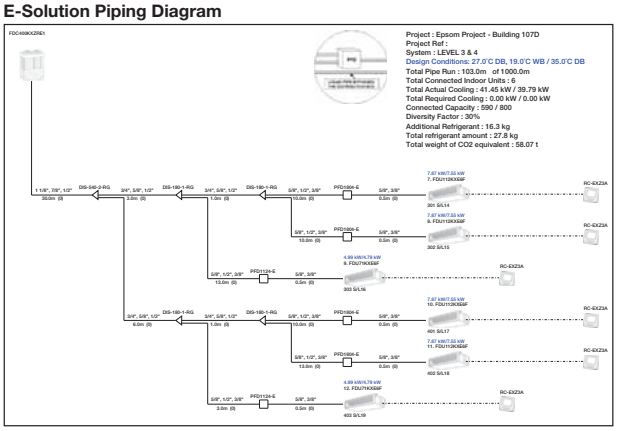
For more information on downloading and using E-Solution software please contact the technical sales manager in your state.

Furthermore it is also developed to cater for the design of two and three pipe systems and specifies appropriate models and sizes. It also generates wiring diagrams and engineering drawings which can be exported to AutoCAD or saved in PDF format.

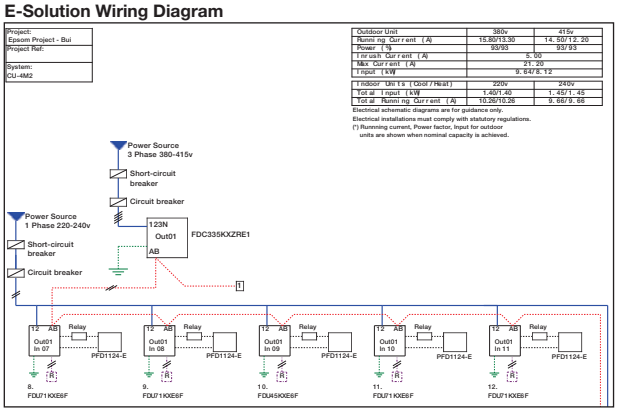
This flexibility enables engineers to print select design information and comprehensive operation and maintenance manuals for presentations to clients. Engineers can also incorporate design information into their own formats and documents for personalised proposals.

VRF SELECTION SOFTWARE

E-Solution Piping Diagram



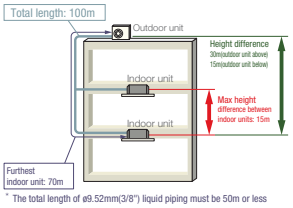
E-Solution Wiring Diagram



KX MICRO
Heat Pump Systems (11.2kW - 15.5kW)

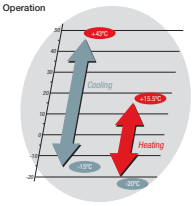
Model No.	Nominal Cooling Capacity
FDC112KXEN6	11.2kW (1Phase)
FDC140KXEN6	14.0kW (1Phase)
FDC155KXEN6	15.5kW (1Phase)
FDC140KXES6	14.0kW (3Phase)
FDC155KXES6	15.5kW (3Phase)

- These heat pump 2-pipe systems offer high performance VRF for applications that require either cooling only or heating only, ideal for open plan areas.
- Connect up to 8 indoor units/up to 150% capacity.
- High efficiency with COP (in cooling) up to 4.0.
- These units employ DC inverter compressors ONLY.
- Industry leading total piping length up to 100m and a maximum pipe run of 70m.



* The total length of ø9.52mm(3/8") liquid piping must be 50m or less

Range of Operation



Note:FDUT15KXE6F-E and FDTC15KXE6F can not be connected to the above systems.

Specifications

See page 81 for exterior dimensions

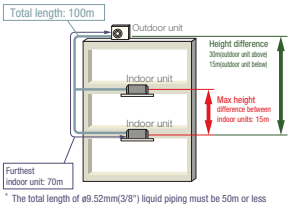
Item			Model	FDC112KXEN6	FDC140KXEN6	FDC155KXEN6	FDC140KXES6	FDC155KXES6
Power Source				1 Phase 220-240V, 50Hz			3 Phase 380-415V, 50Hz	
Nominal Capacity	Cooling		kW	11.2	14.0	15.5	14.0	15.5
	Heating			12.5	16.0	16.3	16.0	16.3
Electrical Characteristics	Starting Current		A	5				
	Max Current			28				
	Power Consumption	Cooling	kW	2.80	4.17	4.71	4.17	4.71
		Heating		2.89	4.31	4.38	4.31	4.38
	Running Current	Cooling	A	13.5	20.6	23.3	6.9	7.8
		Heating		14.1	21.5	21.9	7.2	7.3
Exterior Dimensions	H x W x D		mm	845x970x370				
Net Weight			kg	85			87	
Refrigerant Charge	R410A		kg	5.0				
Sound Pressure level	Cooling/Heating		dB(A)	52/54	53/55	53/56	53/55	53/56
Refrigerant Piping Size	Liquid Line		mm (in)	ø9.52(3/8")				
	Gas Line			ø15.88(5/8")				
Capacity Connection			%	80 - 150				
Max Connectable Indoor Units				6	8	8	8	8

1. The data is measured under the following conditions (AS / NZS 3823.2). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
2. The operation data indicate when the air-conditioner is operated at 230V 50Hz for 1 phase, 400V 50Hz for 3 phase.
3. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
4. Select the breaker size according to the own national standard.
5. Multi KX series air conditioners are VRF systems to which the indoor units of different capacities and different models can be connected, the operation characteristics of all combinations are different. MHIAA advise the use of Multi KX series design software for specifications on all individual combination types.

KX MICRO
Heat Pump Systems (9.0kW - 15.2kW)

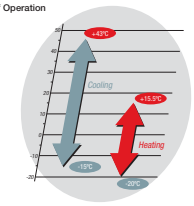
Model No.	Nominal Cooling Capacity
FDC90KXZEN1-W	9.0kW (1 Phase)
FDC112KXZEN1-W	11.2kW (1 Phase)
FDC140KXZEN1-W	14.0kW (1 Phase)
FDCA155KXZEN1-W	15.2kW (1 Phase)
FDC112KXZES1-W	11.2kW (3 Phase)
FDC140KXZES1-W	14.0kW (3 Phase)
FDCA155KXZES1-W	15.2kW (3 Phase

- These heat pump 2-pipe systems offer high performance VRF for applications that require either cooling only or heating only, ideal for open plan areas.
- Connect up to 10 indoor units/up to 150% capacity.
- High efficiency with COP (in cooling) up to 4.67.
- These units employ DC inverter compressors ONLY.
- Industry leading total piping length up to 100m and a maximum pipe run of 70m.



* The total length of ø9.52mm(3/8") liquid piping must be 50m or less

Range of Operation



Specifications

See page 58 for compatible indoor units
See page 82 for exterior dimensions

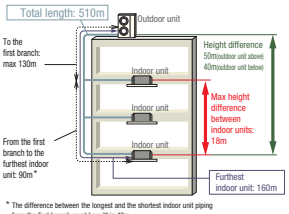
Item			Model	FDC90KXZEN1-W	FDC112KXZEN1-W	FDC140KXZEN1-W	FDCA155KXZEN1-W	FDC112KXZES1-W	FDC140KXZES1-W	FDCA155KXZES1-W
Power Source				1 Phase 220-240V, 50Hz				3 Phase 380-415V, 50Hz		
Nominal Capacity	Cooling		kW	9.0	11.2	14.0	15.2	11.2	14.0	15.2
	Heating			9.0	11.2	14.0	15.5	11.2	14.0	15.5
Electrical Characteristics	Starting Current		A	5						
	Max Current			23				13.5		
	Power Consumption	Cooling	kW	1.98	2.55	4.00	4.87	2.55	4.00	4.87
		Heating		1.93	2.53	3.52	4.06	2.53	3.52	4.06
	Running Current	Cooling	A	8.3	10.7	16.8	20.5	3.8	6.0	7.4
		Heating		8.1	10.6	14.8	17.1	3.8	5.4	6.2
Exterior Dimensions	H x W x D		mm	845x970x370						
Net Weight			kg	85				87		
Refrigerant Charge	R32		kg	4.2 (R32)						
Sound Pressure level	Cooling/Heating		dB(A)	53/54	53/55	54/58	54/58	53/55	54/58	54/58
Refrigerant Piping Size	Liquid Line		mm (in)	ø9.52 (3/8")						
	Gas Line			ø15.88 (5/8")						
Capacity Connection			%	100 - 150	80-150					
Max Connectable Indoor Units				8	8	10	10	8	10	10

1. The data is measured under the following conditions (AS / NZS 3823.2). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
2. The operation data indicate when the air-conditioner is operated at 230V 50Hz for 1 phase, 400V 50Hz for 3 phase.
3. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
4. Select the breaker size according to the own national standard.
5. Multi KX series air conditioners are VRF systems to which the indoor units of different capacities and different models can be connected, the operation characteristics of all combinations are different. MHIAA advise the use of Multi KX series design software for specifications on all individual combination types.

KXE6
Heat Pump Systems (22.4kW - 33.5kW)

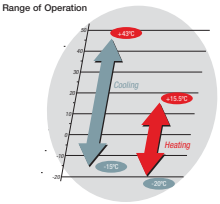
Model No.	Nominal Cooling Capacity
FDC224KXE6	22.4kW
FDC280KXE6	28.0kW
FDC335KXE6	33.5kW

- These heat pump 2-pipe systems offer high performance VRF for applications that require either cooling only or heating only, ideal for open plan areas.
- Connect up to 24 indoor units/up to 150% capacity.
- High efficiency with COP (in cooling) up to 4.0.
- These units employ DC inverter compressors ONLY.
- Industry leading total piping length up to 510m and a maximum pipe run of 160m.



* The difference between the longest and the shortest indoor unit piping from the first branch must be within 40m.

Range of Operation



Specifications

See page 83 for exterior dimensions

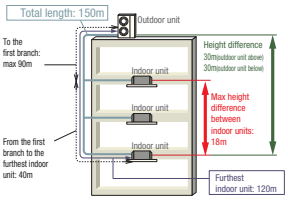
Item			Model	FDC224KXE6	FDC280KXE6	FDC335KXE6
Power Source				3 Phase 380-415V, 50Hz		
Nominal Capacity	Cooling		kW	22.4	28.0	33.5
	Heating			25.0	31.5	37.5
Electrical Characteristics	Starting Current		A	5		
	Max Current			20	20	23
	Power Consumption	Cooling	kW	5.60	8.09	9.82
		Heating		6.03	8.21	10.12
	Running Current	Cooling	A	9.25	13.22	15.87
		Heating		9.85	13.41	16.36
Exterior Dimensions	H x W x D		mm	1675x1080x480		
Net Weight			kg	221		224
Refrigerant Charge	R410A		kg	11.5		
Sound Pressure level	Cooling/Heating		dB(A)	58/58	59/60	61/61
Refrigerant Piping Size	Liquid Line		mm (in)	ø9.52(3/8")		ø12.7(1/2")
	Gas Line			ø19.05(3/4")	ø22.22(7/8")	ø25.4(1")
Capacity Connection			%	50 - 150		
Max Connectable Indoor Units				22	24	24

1. The data is measured under the following conditions (AS / NZS 3823.2). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
2. The operation data indicate when the air-conditioner is operated at 230V 50Hz for 1 phase, 400V 50Hz for 3 phase.
3. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
4. Select the breaker size according to the own national standard.
5. Multi KX series air conditioners are VRF systems to which the indoor units of different capacities and different models can be connected, the operation characteristics of all combinations are different. MHAA advise the use of Multi KX series design software for specifications on all individual combination types.

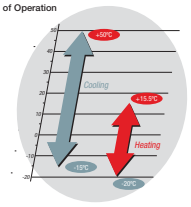
KXZP
Heat Pump Systems (22.4kW - 28.0kW)

Model No.	Nominal Cooling Capacity
FDC224KXZPE1	22.4kW
FDC280KXZPE1	28.0kW

- These heat pump 2-pipe systems offer high performance VRF for applications that require either cooling only or heating only, ideal for open plan areas.
- Connect up to 8 indoor units/up to 120% capacity.
- High efficiency with COP (in cooling) up to 4.0.
- These units employ DC inverter multiport compressors with concentrated winding motor.



Range of Operation



Specifications

See page 84 for exterior dimensions

Item			Model	FDC224KXZPE1	FDC280KXZPE1
Power Source				3 Phase 380-415V, 50Hz	
Nominal Capacity	Cooling		kW	22.4	28.0
	Heating			22.4	28.0
Electrical Characteristics	Starting Current		A	5	
	Max Current			21	22
	Power Consumption	Cooling	kW	5.6	7.87
		Heating		4.8	6.47
	Running Current	Cooling	A	9.2	12.9
		Heating		7.9	10.6
Exterior Dimensions	H x W x D		mm	1505x970x370	
Net Weight			kg	165	
Refrigerant Charge	R410A		kg	8.9	
Sound Pressure level	Cooling/Heating		dB(A)	59/60	60/63
Refrigerant Piping Size	Liquid Line		mm (in)	ø9.52(3/8")	
	Gas Line			ø19.05(3/4")	ø22.22(7/8")
Capacity Connection			%	50 - 120	
Max Connectable Indoor Units				8	8

1. The data is measured under the following conditions (AS / NZS 3823.2). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
2. The operation data indicate when the air-conditioner is operated at 230V 50Hz for 1 phase, 400V 50Hz for 3 phase.
3. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
4. Select the breaker size according to the own national standard.
5. Multi KX series air conditioners are VRF systems to which the indoor units of different capacities and different models can be connected, the operation characteristics of all combinations are different. MHAA advise the use of Multi KX series design software for specifications on all individual combination types.

OUTDOOR UNITS
KXZEI Heat Pump

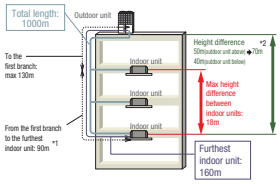
KXZEI

Heat Pump Combination Systems (28.0kW - 33.5kW)

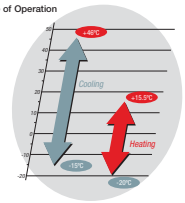
Model No.	Nominal Cooling Capacity
FDC280KXZE1	28.0kW
FDC335KXZE1	33.5kW

Uniform footprint of models (28,33.5kW) allows continuous side-by-side installation

- The KXZ heat pump 2-pipe systems offer high performance VRF for applications that require either cooling only or heating only, ideal for open plan areas.
- Connect up to 29 indoor units/up to 130% capacity.
- High efficiency with COP (in cooling) up to 3.9.
- KXZ employs DC inverter compressors ONLY.
- Industry leading total piping length up to 1000m and a maximum pipe run of 160m.



Range of Operation



*1 The difference between the longest and the shortest indoor unit piping from the first branch must be within 40m. (MAX85m)
*2 In case of height difference up to 70m, please contact your dealer. Height difference up to 90m is possible with High Head series.

Specifications

See page 85 for exterior dimensions

Item			Model	FDC280KXZE1	FDC335KXZE1
Power Source				3 Phase 380~415V, 50Hz	
Nominal Capacity	Cooling		kW	28.0	33.5
	Heating			31.5	37.5
Electrical Characteristics	Starting Current		A	8	
	Max Current			21.2	
	Power Consumption	Cooling	kW	7.24	8.96
		Heating		7.28	9.04
	Running Current	Cooling	A	11.9	14.6
		Heating		12.0	14.8
Exterior Dimensions	H x W x D		mm	1690x1350x720	
Net Weight			kg	272	
Refrigerant Charge	R410A		kg	11.0	
Sound Pressure level	Cooling/Heating		dB(A)	55/57	61/58
Refrigerant Piping Size	Liquid Line		mm (in)	ø9.52(3/8")	ø12.7(1/2")
	Gas Line			ø22.22(7/8")	ø25.4(1") [ø22.22(7/8")]
Capacity Connection			%	50 - 130	
Max Connectable Indoor Units				24	29

1. The data is measured under the following conditions (AS / NZS 3823.2). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
2. The operation data indicate when the air-conditioner is operated at 230V 50Hz for 1 phase, 400V 50Hz for 3 phase.
3. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
4. Select the breaker size according to the own national standard.
5. Multi KX series air conditioners are VRF systems to which the indoor units of different capacities and different models can be connected, the operation characteristics of all combinations are different. MHIAA advise the use of Multi KX series design software for specifications on all individual combination types.

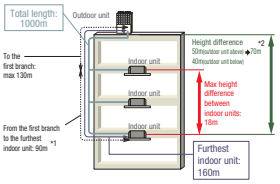
KXZEI

Heat Pump Systems (40.0kW - 56.0kW)

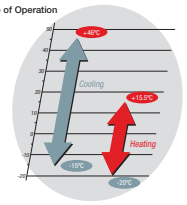
Model No.	Nominal Cooling Capacity
FDC400KXZE1	40.0kW
FDC450KXZE1	45.0kW
FDC475KXZE1	47.5kW
FDC500KXZE1	50.0kW
FDC560KXZE1	56.0kW

Uniform footprint of all models (from 40~56kW) allows continuous side-by-side installation

- The KXZ heat pump 2-pipe systems offer high performance VRF for applications that require either cooling only or heating only, ideal for open plan areas.
- Connect up to 48 indoor units/up to 130% capacity.
- High efficiency with COP (in cooling) up to 3.6.
- KXZ employs DC inverter compressors ONLY.
- Industry leading total piping length up to 1000m and a maximum pipe run of 160m.



Range of Operation



*1 The difference between the longest and the shortest indoor unit piping from the first branch must be within 40m. (MAX85m)
*2 In case of height difference up to 70m, please contact your dealer. Height difference up to 90m is possible with High Head series.

Specifications

See page 86 for exterior dimensions

Item			Model	FDC400KXZE1	FDC450KXZE1	FDC475KXZE1	FDC500KXZE1	FDC560KXZE1
Power Source				3 Phase 380~415V, 50Hz				
Nominal Capacity	Cooling		kW	40.0	45.0	47.5	50.0	56.0
	Heating			45.0	50.0	53.0	56.0	63.0
Electrical Characteristics	Starting Current		A	8				
	Max Current			32		42.4		
	Power Consumption	Cooling	kW	10.96	13.98	13.98	13.97	16.62
		Heating		10.69	12.50	13.00	13.49	15.95
	Running Current	Cooling	A	17.5	22.4	22.6	22.6	26.9
		Heating		17.5	20.4	21.0	21.8	25.8
Exterior Dimensions	H x W x D		mm	2048x1350x720				
Net Weight			kg	317		370		
Refrigerant Charge	R410A		kg	11.5				
Sound Pressure level	Cooling/Heating		dB(A)	60/62	61/62	61/61	61/62	64/66
Refrigerant Piping Size	Liquid Line		mm (in)	ø12.7(1/2")				
	Gas Line			ø25.4(1") [ø28.58(1 1/8")]		ø28.58 (1 1/8")		
Capacity Connection			%	50 - 130				
Max Connectable Indoor Units				34	39	41	43	48

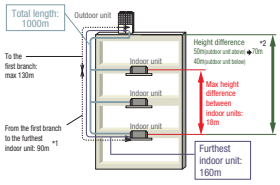
1. The data is measured under the following conditions (AS / NZS 3823.2). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
2. The operation data indicate when the air-conditioner is operated at 230V 50Hz for 1 phase, 400V 50Hz for 3 phase.
3. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
4. Select the breaker size according to the own national standard.
5. Multi KX series air conditioners are VRF systems to which the indoor units of different capacities and different models can be connected, the operation characteristics of all combinations are different. MHIAA advise the use of Multi KX series design software for specifications on all individual combination types.

KXZEI
Heat Pump Combination Systems (61.5kW - 67.0kW)

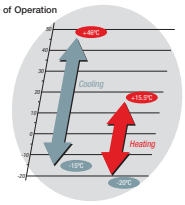
Model No.	Nominal Cooling Capacity
FDC615KXZE1 (FDC280+FDC335)	61.5kW
FDC670KXZE1 (FDC335+FDC335)	67.0kW

Uniform footprint of all models (from 61.5kW, 67kW) allows continuous side-by-side installation

- The KXZ heat pump 2-pipe systems offer high performance VRF for applications that require either cooling only or heating only, ideal for open plan areas.
- Connect up to 58 indoor units/up to 130% capacity.
- High efficiency with COP (in cooling) up to 3.8.
- KXZ employs DC inverter compressors ONLY.
- Industry leading total piping length up to 1000m and a maximum pipe run of 160m.



Range of Operation



*1 The difference between the longest and the shortest indoor unit piping from the first branch must be within 40m. (MAX85m)
*2 In case of height difference up to 70m, please contact your dealer. Height difference up to 90m is possible with High Head series.

Specifications

See page 85 for exterior dimensions

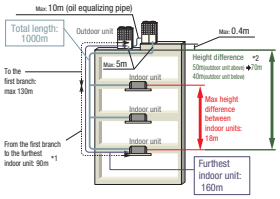
Item			Model	FDC615KXZE1	FDC670KXZE1
Combination (FDC)				280KXZE1	335KXZE1
				335KXZE1	335KXZE1
Power Source				3 Phase 380-415V, 50Hz	
Nominal Capacity	Cooling		kW	61.5	67.0
	Heating			69.0	75.0
Electrical Characteristics	Starting Current		A	16	
	Max Current			42.4	
	Power Consumption	Cooling	kW	16.20	17.92
		Heating		16.32	18.08
	Running Current	Cooling	A	26.5	29.2
		Heating		26.8	29.6
Exterior Dimensions	H x W x D		mm	1690x2700x720	
Net Weight			kg	544	
Refrigerant Charge	R410A		kg	11.0x2	
Refrigerant Piping Size	Liquid Line		mm (in)	ø12.7(1/2")	
	Gas Line			ø28.58(1 1/8")	
Capacity Connection			%	50 - 130	
Max Connectable Indoor Units				53	58

1. The data is measured under the following conditions (AS / NZS 3823.3). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
2. The operation data indicate when the air-conditioner is operated at 230V 50Hz for 1 phase, 400V 50Hz for 3 phase. 3. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
4. Select the breaker size according to the own national standard.
5. Multi KX series air conditioners are VRF systems to which the indoor units of different capacities and different models can be connected, the operation characteristics of all combinations are different. MHAA advise the use of Multi KX series design software for specifications on all individual combination types.

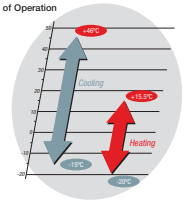
KXZEI
Heat Pump Combination Systems (73.5kW - 112.0kW)

Model No.		Nominal Cooling Capacity
FDC735KXZE1	(FDC335+FDC400)	73.5kW
FDC800KXZE1	(FDC400+FDC400)	80.0kW
FDC850KXZE1	(FDC400+FDC450)	85.0kW
FDC900KXZE1	(FDC450+FDC450)	90.0kW
FDC950KXZE1	(FDC475+FDC475)	95.0kW
FDC1000KXZE1	(FDC500+FDC500)	100.0kW
FDC1060KXZE1	(FDC500+FDC560)	106.0kW
FDC1120KXZE1	(FDC560+FDC560)	112.0kW

- The KXZ heat pump 2-pipe systems offer high performance VRF for applications that require either cooling only or heating only, ideal for open plan areas.
- Connect up to 80 indoor units/up to 130% capacity.
- High efficiency with COP (in cooling) up to 3.7.
- KXZ employs DC inverter compressors ONLY.
- Industry leading total piping length up to 1000m and a maximum pipe run of 160m.



Range of Operation



*1 The difference between the longest and the shortest indoor unit piping from the first branch must be within 40m. (MAX85m)
*2 In case of height difference up to 70m, please contact your dealer. Height difference up to 90m is possible with High Head series.

Specifications

See page 84-86 for exterior dimensions

Item			Model	FDC735KXZE1	FDC800KXZE1	FDC850KXZE1	FDC900KXZE1	FDC950KXZE1	FDC1000KXZE1	FDC1060KXZE1	FDC1120KXZE1
Combination (FDC)				335KXZE1	400KXZE1	400KXZE1	450KXZE1	475KXZE1	500KXZE1	500KXZE1	560KXZE1
				400KXZE1	400KXZE1	450KXZE1	450KXZE1	475KXZE1	500KXZE1	560KXZE1	560KXZE1
Power Source				3 Phase 380-415V, 50Hz							
Nominal Capacity	Cooling		kW	73.5	80.0	85.0	90.0	95.0	100.0	106.0	112.0
	Heating			82.5	90.0	95.0	100.0	106.0	112.0	119.0	126.0
Electrical Characteristics	Starting Current		A	16							
	Max Current			53.2	64			84.8			
	Power Consumption	Cooling	kW	19.92	21.92	24.94	27.96	27.96	27.94	30.59	33.24
		Heating		19.73	21.38	23.19	25.00	26.00	26.98	29.44	31.90
	Running Current	Cooling	A	32.1	35.0	39.9	44.8	45.2	45.2	49.5	53.8
		Heating		32.3	35.0	37.9	40.8	42.0	43.6	47.6	51.6
Exterior Dimensions	H x W x D		mm	2048x2700x720							
Net Weight			kg	589	634			740			
Refrigerant Charge	R410A		kg	11.0+11.5	11.5 x 2						
Refrigerant Piping Size	Liquid Line		mm (in)	ø15.88(5/8")						ø19.05(3/4")	
	Gas Line			ø31.75(1 1/4") [ø34.92(1 3/8")]						ø38.1(1 1/2") [ø34.92(1 3/8")]	
Capacity Connection			%	50 - 130							
Max Connectable Indoor Units				63	69	73	78	80			

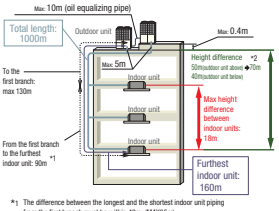
1. The data is measured under the following conditions (AS / NZS 3823.3). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
2. The operation data indicate when the air-conditioner is operated at 230V 50Hz for 1 phase, 400V 50Hz for 3 phase. 3. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
4. Select the breaker size according to the own national standard.
5. Multi KX series air conditioners are VRF systems to which the indoor units of different capacities and different models can be connected, the operation characteristics of all combinations are different. MHAA advise the use of Multi KX series design software for specifications on all individual combination types.

KXZE1

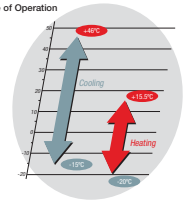
Heat Pump Combination Systems (120.0kW - 168.0kW)

Model No.	Nominal Cooling Capacity
FDC1200KXZE1 (FDC400+FDC400+FDC400)	120.0kW
FDC1250KXZE1 (FDC400+FDC400+FDC450)	125.0kW
FDC1300KXZE1 (FDC400+FDC450+FDC450)	130.0kW
FDC1350KXZE1 (FDC450+FDC450+FDC450)	135.0kW
FDC1425KXZE1 (FDC475+FDC475+FDC475)	142.5kW
FDC1450KXZE1 (FDC475+FDC475+FDC500)	145.0kW
FDC1500KXZE1 (FDC500+FDC500+FDC500)	150.0kW
FDC1560KXZE1 (FDC500+FDC500+FDC560)	156.0kW
FDC1620KXZE1 (FDC500+FDC560+FDC560)	162.0kW
FDC1680KXZE1 (FDC560+FDC560+FDC560)	168.0kW

- The KXZ heat pump 2-pipe systems offer high performance VRF for applications that require either cooling only or heating only, ideal for open plan areas.
- Connect up to 80 indoor units/up to 130% capacity.
- High efficiency with COP (in cooling) up to 3.6.
- KXZ employs DC inverter compressors ONLY.
- Industry leading total piping length up to 1000m and a maximum pipe run of 160m.



Range of Operation



*1 The difference between the longest and the shortest indoor unit piping from the first branch must be within 40m. (MAX85m)
*2 In case of height difference up to 70m, please contact your dealer. Height difference up to 90m is possible with High Head series.

Specifications

See page 86 for exterior dimensions

Item			Model	FDC1200KXZE1	FDC1250KXZE1	FDC1300KXZE1	FDC1350KXZE1	FDC1425KXZE1	FDC1450KXZE1	FDC1500KXZE1	FDC1560KXZE1	FDC1620KXZE1	FDC1680KXZE1
Combination (FDC)				400KXZE1	400KXZE1	400KXZE1	450KXZE1	475KXZE1	475KXZE1	500KXZE1	500KXZE1	500KXZE1	560KXZE1
				400KXZE1	400KXZE1	450KXZE1	450KXZE1	475KXZE1	475KXZE1	500KXZE1	500KXZE1	560KXZE1	560KXZE1
				400KXZE1	450KXZE1	450KXZE1	450KXZE1	475KXZE1	500KXZE1	500KXZE1	560KXZE1	560KXZE1	560KXZE1
Power Source				3 Phase 380-415V, 50Hz									
Nominal Capacity	Cooling		kW	120.0	125.0	130.0	135.0	142.5	145.0	150.0	156.0	162.0	168.0
	Heating			135.0	140.0	145.0	150.0	159.0	162.0	168.0	175.0	182.0	189.0
Electrical Characteristics	Starting Current		A	15				24					
	Max Current			96									
	Power Consumption	Cooling	kW	32.88	35.90	38.92	41.90	41.94	41.93	41.91	44.56	47.21	49.86
		Heating		32.07	33.88	35.69	37.50	39.00	39.49	40.47	42.93	45.39	47.85
	Running Current	Cooling	A	52.5	57.4	62.3	67.2	67.8	67.8	67.8	72.1	76.4	80.7
		Heating		52.5	55.4	58.3	61.2	63.0	63.8	65.4	69.4	73.4	77.4
Exterior Dimensions	H x W x D		mm	2048x4050x720									
Net Weight			kg	951				1110					
Refrigerant Charge	R410A		kg	11.5 x 3									
Refrigerant Piping Size	Liquid Line		mm (in)	ø19.05(3/4")									
	Gas Line			ø38.1(1 1/2") [ø34.92(1 3/8")]									
Capacity Connection			%	50 - 130									
Max Connectable Indoor Units				80									

1. The data is measured under the following conditions (AS / NZS 3823.2). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
2. The operation data indicate when the air-conditioner is operated at 230V 50Hz for 1 phase, 400V 50Hz for 3 phases. 3. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
4. Select the breaker size according to the own national standard. 5. Multi KX series air conditioners are VRF systems to which the indoor units of different capacities and different models can be connected, the operation characteristics of all combinations are different. MHIAA advise the use of Multi KX series design software for specifications on all individual combination types.

KXZE2

Heat Pump Systems (28.0kW - 33.5kW)

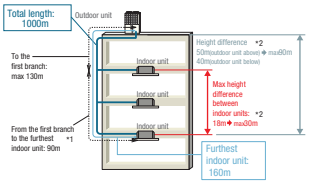
Model No.	Nominal Cooling Capacity
FDC280KXZE2	28.0kW
FDC335KXZE2	33.5kW

Uniform footprint of models (28,33.5kW) allows continuous side-by-side installation

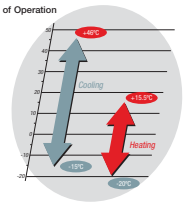
- The new KXZE2 heat pump 2-pipe systems offer high performance VRF in a new modern design.
- Connect up to 44 indoor units/up to 200% capacity.
- High efficiency with EER up to 3.86
- New Heating Solution-Continuous Heating Capacity Control (CHCC).

Increased Number of Connectable Units		
Model	KXZE1	KXZE2
280	1-24	1-37
335	1-29	1-44

Increased Connection Capacity		
Model	KXZE1	KXZE2
280	50-130%	50-200%
335	50-130%	50-200%



Range of Operation



*1 The difference between the longest and the shortest indoor unit piping from the first branch must be within 40m. (MAX85m)
*2 It is necessary to change the setting corresponding to each height difference in installation. The range of use is also defferent.

Specifications

See page 87 for exterior dimensions

Item			Model	FDC280KXZE2	FDC335KXZE2
Power Source				3 Phase 380-415V, 50Hz	
Nominal Capacity	Cooling		kW	28.0	33.5
	Heating			31.5	37.5
Electrical Characteristics	Starting Current		A	5	
	Max Current			20.1	
	Power Consumption	Cooling	kW	7.25	8.98
		Heating		7.41	9.03
	Running Current	Cooling	A	12.0	14.7
		Heating		12.2	14.8
Exterior Dimensions	H x W x D		mm	1697x1350x720	
Net Weight			kg	288	
Refrigerant Charge	R410A		kg	11.0	
Sound Pressure level	Cooling/Heating		dB(A)	56/57	63/62
Refrigerant Piping Size	Liquid Line		mm (in)	ø9.52(3/8")	ø12.7(1/2")
	Gas Line			ø22.22(7/8")	ø25.4(1") [ø22.22(7/8")]
Capacity Connection			%	50 - 200	
Max Connectable Indoor Units				37	44

1. The data is measured under the following conditions (AS / NZS 3823.2). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
2. The operation data indicate when the air-conditioner is operated at 230V 50Hz for 1 phase, 400V 50Hz for 3 phase.
3. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
4. Select the breaker size according to the own national standard.
5. Multi KX series air conditioners are VRF systems to which the indoor units of different capacities and different models can be connected, the operation characteristics of all combinations are different. MHIAA advise the use of Multi KX series design software for specifications on all individual combination types.

KXZE2
Heat Pump Systems (40.0kW - 56.0kW)

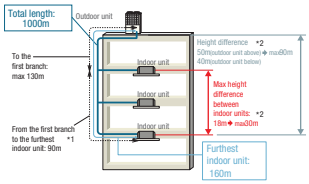
Model No.	Nominal Cooling Capacity
FDC400KXZE2	40.0kW
FDC450KXZE2	45.0kW
FDC475KXZE2	47.5kW
FDC500KXZE2	50.0kW
FDC560KXZE2	56.0kW

Uniform footprint of all models (from 40~56kW) allows continuous side-by-side installation

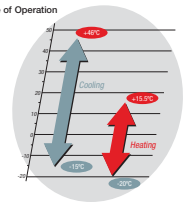
- The new KXZE2 heat pump 2-pipe systems offer high performance VRF in a new modern design.
- Connect up to 59 indoor units/up to 160% capacity.
- High efficiency with EER up to 3.64.
- Extended external static pressure 50Pa to Max 85Pa

Increased Number of Connectable Units		
Model	KXZE1	KXZE2
400	1-34	1-53
450	1-39	1-60
475	1-41	1-50
500	1-43	1-53
560	1-48	1-59

Increased Connection Capacity		
Model	KXZE1	KXZE2
400	50-130%	50-200%
450	50-130%	50-200%
475	50-130%	50-160%
500	50-130%	50-160%
560	50-130%	50-160%



Range of Operation



*1 The difference between the longest and the shortest indoor unit piping from the first branch must be within 40m. (MAX85m)
*2 It is necessary to change the setting corresponding to each height difference in installation. The range of use is also defferent.

Specifications

See page 88 for exterior dimensions

Item			Model	FDC400KXZE2	FDC450KXZE2	FDC475KXZE2	FDC500KXZE2	FDC560KXZE2
Power Source				3 Phase 380-415V, 50Hz				
Nominal Capacity	Cooling		kW	40.0	45.0	47.5	50.0	56.0
	Heating			45.0	50.0	53.0	56.0	63.0
Electrical Characteristics	Starting Current		A	5		8		
	Max Current			32		40.2		
	Power Consumption	Cooling	kW	10.98	13.98	13.97	14.01	17.50
		Heating		10.23	12.50	12.99	13.56	16.15
	Running Current	Cooling	A	17.6	22.4	22.6	22.6	26.9
		Heating		16.7	20.4	21.0	21.9	26.1
Exterior Dimensions	H x W x D		mm	2052×1350×720				
Net Weight			kg	332		378		
Refrigerant Charge	R410A		kg	11.5				
Sound Pressure level	Cooling/Heating		dB(A)	60/62	61/62	61/61	61/62	63/64
Refrigerant Piping Size	Liquid Line		mm (in)	ø12.7(1/2")				
	Gas Line			ø25.4(1") [ø28.58(1 1/8")]		ø28.58 (1 1/8")		
Capacity Connection			%	50 - 200		50 - 160		
Max Connectable Indoor Units				53	60	50	53	59

1. The data is measured under the following conditions (AS / NZS 3823.2). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
2. The operation data indicate when the air-conditioner is operated at 230V 50Hz for 1 phase, 400V 50Hz for 3 phase.
3. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
4. Select the breaker size according to the own national standard.
5. Multi KX series air conditioners are VRF systems to which the indoor units of different capacities and different models can be connected, the operation characteristics of all combinations are different. MHIAA advise the use of Multi KX series design software for specifications on all individual combination types.

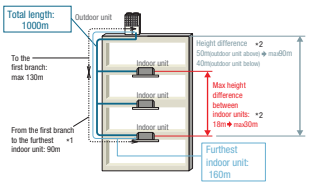
KXZE2
Heat Pump Combination Systems (61.5kW - 67.0kW)

Model No.	Nominal Cooling Capacity
FDC615KXZE2	61.5kW
FDC670KXZE2	67.0kW

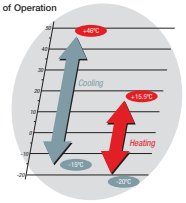
- The new KXZE2 heat pump 2-pipe systems offer high performance VRF in a new modern design.
- Connect up to 71 indoor units/up to 160% capacity.
- High efficiency with EER up to 3.78
- New Heating Solution-Continuous Heating Capacity Control (CHCC).

Increased Number of Connectable Units		
Model	KXZE1	KXZE2
615	2-53	2-65
670	2-58	2-71

Increased Connection Capacity		
Model	KXZE1	KXZE2
615	50-130%	50-160%
670	50-130%	50-160%



Range of Operation



*1 The difference between the longest and the shortest indoor unit piping from the first branch must be within 40m. (MAX85m)
*2 It is necessary to change the setting corresponding to each height difference in installation. The range of use is also defferent.

Specifications

See page 90 for exterior dimensions

Item			Model	FDC615KXZE2	FDC670KXZE2
Combination (FDC)				280KXZE2	335KXZE2
				335KXZE2	335KXZE2
Power Source				3 Phase 380-415V, 50Hz	
Nominal Capacity	Cooling		kW	61.5	67.0
	Heating			69.0	75.0
Electrical Characteristics	Starting Current		A	10	
	Max Current			40.2	
	Power Consumption	Cooling	kW	16.24	17.96
		Heating		16.44	18.06
	Running Current	Cooling	A	26.7	29.4
		Heating		27.0	29.6
Exterior Dimensions	H x W x D		mm	1697x2700x720	
Net Weight			kg	576	
Refrigerant Charge	R410A		kg	11.0x2	
Refrigerant Piping Size	Liquid Line		mm (in)	ø12.7(1/2")	
	Gas Line			ø28.58(1 1/8")	
Capacity Connection			%	50 - 160	
Max Connectable Indoor Units				65	71

1. The data is measured under the following conditions (AS / NZS 3823.2). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
2. The operation data indicate when the air-conditioner is operated at 230V 50Hz for 1 phase, 400V 50Hz for 3 phase. 3. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
4. Select the breaker size according to the own national standard.
5. Multi KX series air conditioners are VRF systems to which the indoor units of different capacities and different models can be connected, the operation characteristics of all combinations are different. MHIAA advise the use of Multi KX series design software for specifications on all individual combination types.

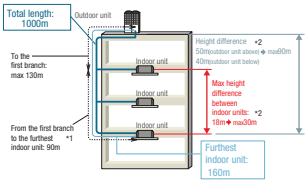
KXZE2
Heat Pump Combination Systems (73.5kW - 112.0kW)

Model No.	Nominal Cooling Capacity
FDC735KXZE2 (FDC335+FDC400)	73.5kW
FDC800KXZE2 (FDC400+FDC400)	80.0kW
FDC850KXZE2 (FDC400+FDC450)	85.0kW
FDC900KXZE2 (FDC450+FDC450)	90.0kW
FDC950KXZE2 (FDC475+FDC475)	95.0kW
FDC1000KXZE2 (FDC500+FDC500)	100.0kW
FDC1060KXZE2 (FDC500+FDC560)	106.0kW
FDC1120KXZE2 (FDC560+FDC560)	112.0kW

- The new KXZE2 heat pump 2-pipe systems offer high performance VRF in a new modern design.
- Connect up to 80 indoor units/up to 160% capacity.
- High efficiency with EER up to 3.68.
- Industry leading total piping length up to 1000m and a maximum height difference between indoor units has been increased to 30m.

Increased Connection Capacity		
Model	KXZE1	KXZE2
735	50-130%	50-160%
800	50-130%	50-160%
850	50-130%	50-160%
900	50-130%	50-160%
950	50-130%	50-160%

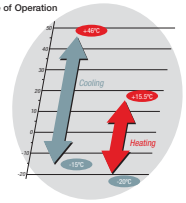
Increased Number of Connectable Units		
Model	KXZE1	KXZE2
735	2-63	2-78
800	2-69	2-80
850	2-78	2-80



*1 The difference between the longest and the shortest indoor unit piping from the first branch must be within 40m. (MAX85m)

*2 It is necessary to change the setting corresponding to each height difference in installation. The range of use is also defferent.

Range of Operation



Specifications

See page 87-88 for exterior dimensions

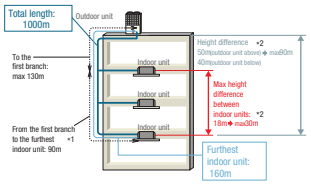
Item			Model	FDC735KXZE2	FDC800KXZE2	FDC850KXZE2	FDC900KXZE2	FDC950KXZE2	FDC1000KXZE2	FDC1060KXZE2	FDC1120KXZE2
Combination (FDC)				335KXZE2	400KXZE2	400KXZE2	450KXZE2	475KXZE2	500KXZE2	500KXZE2	560KXZE2
				400KXZE2	400KXZE2	450KXZE2	450KXZE2	475KXZE2	500KXZE2	560KXZE2	560KXZE2
Power Source				3 Phase 380-415V, 50Hz							
Nominal Capacity	Cooling		kW	73.5	80.0	85.0	90.0	95.0	100.0	106.0	112.0
	Heating			82.5	90.0	95.0	100.0	106.0	112.0	119.0	126.0
Electrical Characteristics	Starting Current		A	10				16			
	Max Current			52.1	64			80.4			
	Power Consumption	Cooling	kW	19.96	21.96	24.96	27.95	27.94	28.02	31.51	35.00
		Heating		19.26	20.45	22.73	25.00	25.98	27.12	29.71	32.31
	Running Current	Cooling	A	32.3	35.2	40.0	44.8	45.2	45.2	49.5	53.8
		Heating		31.5	33.4	37.1	40.8	42.0	43.8	48.0	52.2
Exterior Dimensions	H x W x D		mm	2052x2700x720							
Net Weight			kg	620	664			756			
Refrigerant Charge	R410A		kg	11.0+11.5	11.5 x 2						
Refrigerant Piping Size	Liquid Line		mm (in)	ø15.88(5/8")						ø19.05(3/4")	
	Gas Line			ø31.75(1 1/4") [ø34.92(1 3/8")]						ø38.1(1 1/2") [ø34.92(1 3/8")]	
Capacity Connection			%	50 - 160					50 - 130		
Max Connectable Indoor Units				78	80						

1. The data is measured under the following conditions (AS / NZS 3823.2). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
2. The operation data indicate when the air-conditioner is operated at 230V 50Hz for 1 phase, 400V 50Hz for 3 phase. 3. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
4. Select the breaker size according to the own national standard.
5. Multi KX series air conditioners are VRF systems to which the indoor units of different capacities and different models can be connected, the operation characteristics of all combinations are different. MHAA advise the use of Multi KX series design software for specifications on all individual combination types.

KXZE2
Heat Pump Combination Systems (120.0kW - 135.0kW)

Model No.	Nominal Cooling Capacity
FDC1200KXZE2 (FDC400+FDC400+FDC400)	120.0kW
FDC1250KXZE2 (FDC400+FDC400+FDC450)	125.0kW
FDC1300KXZE2 (FDC400+FDC450+FDC450)	130.0kW
FDC1350KXZE2 (FDC450+FDC450+FDC450)	135.0kW

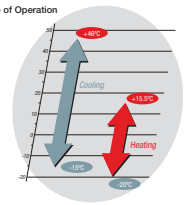
- The new KXZE2 heat pump 2-pipe systems offer high performance VRF in a new modern design.
- Connect up to 80 indoor units/up to 130% capacity.
- High efficiency with EER up to 3.64
- Extended external static pressure 50Pa to Max 85Pa.



*1 The difference between the longest and the shortest indoor unit piping from the first branch must be within 40m. (MAX85m)

*2 It is necessary to change the setting corresponding to each height difference in installation. The range of use is also defferent.

Range of Operation



Specifications

See page 88 for exterior dimensions

Item			Model	FDC1200KXZE2	FDC1250KXZE2	FDC1300KXZE2	FDC1350KXZE2
Combination (FDC)				400KXZE2	400KXZE2	400KXZE2	450KXZE2
				400KXZE2	400KXZE2	450KXZE2	450KXZE2
				400KXZE2	450KXZE2	450KXZE2	450KXZE2
Power Source				3 Phase 380-415V, 50Hz			
Nominal Capacity	Cooling		kW	120.0	125.0	130.0	135.0
	Heating			135.0	140.0	145.0	150.0
Electrical Characteristics	Starting Current		A	15			
	Max Current			96			
	Power Consumption	Cooling	kW	32.94	35.94	38.93	41.93
		Heating		30.68	32.95	35.23	37.50
	Running Current	Cooling	A	52.8	57.6	62.4	67.2
		Heating		50.1	53.8	57.5	61.2
Exterior Dimensions	H x W x D		mm	2052x4050x720			
Net Weight			kg	996			
Refrigerant Charge	R410A		kg	11.5 x 3			
Refrigerant Piping Size	Liquid Line		mm (in)	ø19.05(3/4")			
	Gas Line			ø38.1(1 1/2") [ø34.92(1 3/8")]			
Capacity Connection			%	50 - 130			
Max Connectable Indoor Units				80			

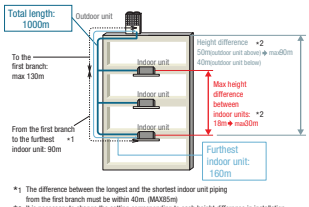
1. The data is measured under the following conditions (AS / NZS 3823.2). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
2. The operation data indicate when the air-conditioner is operated at 230V 50Hz for 1 phase, 400V 50Hz for 3 phase. 3. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
4. Select the breaker size according to the own national standard. 5. Multi KX series air conditioners are VRF systems to which the indoor units of different capacities and different models can be connected, the operation characteristics of all combinations are different. MHAA advise the use of Multi KX series design software for specifications on all individual combination types.

KXZE2

Heat Pump Combination Systems (142.5kW - 168.0kW)

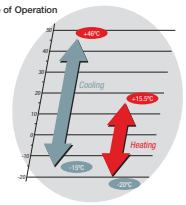
Model No.	Nominal Cooling Capacity
FDC1425KXZE2 (FDC475+FDC475+FDC475)	142.5kW
FDC1450KXZE2 (FDC475+FDC475+FDC500)	145.0kW
FDC1500KXZE2 (FDC500+FDC500+FDC500)	150.0kW
FDC1560KXZE2 (FDC500+FDC500+FDC560)	156.0kW
FDC1620KXZE2 (FDC500+FDC560+FDC560)	162.0kW
FDC1680KXZE2 (FDC560+FDC560+FDC560)	168.0kW

- The new KXZE2 heat pump 2-pipe systems offer high performance VRF in a new modern design.
- Connect up to 80 indoor units/up to 130% capacity.
- High efficiency with EER up to 3.40
- Extended external static pressure 50Pa to Max 85Pa.



*1 The difference between the longest and the shortest indoor unit piping from the first branch must be within 40m. (MAX85m)
*2 It is necessary to change the setting corresponding to each height difference in installation. The range of use is also defferent.

Range of Operation



See page 88 for exterior dimensions

Item			Model	FDC1425KXZE2	FDC1450KXZE2	FDC1500KXZE2	FDC1560KXZE2	FDC1620KXZE2	FDC1680KXZE2
Combination (FDC)				475KXZE2	475KXZE2	500KXZE2	500KXZE2	500KXZE2	560KXZE2
				475KXZE2	475KXZE2	500KXZE2	500KXZE2	560KXZE2	560KXZE2
				475KXZE2	500KXZE2	500KXZE2	560KXZE2	560KXZE2	560KXZE2
Power Source				3 Phase 380-415V, 50Hz					
Nominal Capacity	Cooling		kW	142.5	145.0	150.0	156.0	162.0	168.0
	Heating			159.0	162.0	168.0	175.0	182.0	189.0
Electrical Characteristics	Starting Current		A	24					
	Max Current			120.6					
	Power Consumption	Cooling	kW	41.91	41.95	42.03	45.52	49.01	52.50
		Heating		38.97	39.54	40.68	43.27	45.87	48.46
	Running Current	Cooling	A	67.8	67.8	67.8	72.1	76.4	80.7
		Heating		63.0	63.9	65.7	69.9	74.1	78.3
Exterior Dimensions	H x W x D		mm	2052x4050x720					
Net Weight			kg	1134					
Refrigerant Charge	R410A		kg	11.5 x 3					
Refrigerant Piping Size	Liquid Line		mm (in)	ø19.05(3/4")					
	Gas Line			ø38.1(1 1/2") [ø34.92(1 3/8")]					
Capacity Connection			%	50 - 130					
Max Connectable Indoor Units				80					

1. The data is measured under the following conditions (AS / NZS 3823.3). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
2. The operation data indicate when the air-conditioner is operated at 230V 50Hz for 1 phase, 400V 50Hz for 3 phase. 3. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
4. Select the breaker size according to the own national standard. 5. Multi KX series air conditioners are VRF systems to which the indoor units of different capacities and different models can be connected, the operation characteristics of all combinations are different. MHIAA advise the use of Multi KX series design software for specifications on all individual combination types.

KXZXE2

Hi-COP Heat Pump Systems (56.0kW - 113.5kW)

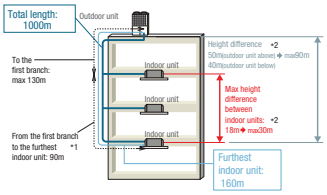
Model No.	Nominal Cooling Capacity
FDC560KXZXE2 (FDC280+FDC280)	56.0kW
FDC850KXZXE2 (FDC280+FDC280+FDC280)	84.0kW
FDC900KXZXE2 (FDC280+FDC280+FDC335)	89.5kW
FDC950KXZXE2 (FDC280+FDC335+FDC335)	95.0kW
FDC1000KXZXE2 (FDC335+FDC335+FDC335)	100.5kW
FDC1060KXZXE2 (FDC280+FDC335+FDC400)	107.0kW
FDC1120KXZXE2 (FDC335+FDC400+FDC400)	113.5kW


56.0kW


85.0kW - 100.0kW

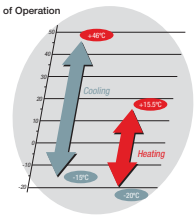

107kW - 113.5kW

- The KXZXE2 2-pipe, heat pump systems offer high performance and highly energy efficient VRF solution for applications that require either cooling only or heating only, ideal for open plan areas.
- High efficiency with EER up to 3.86
- These units employ DC inverter multiport compressors with concentrated winding motor.
- Extended external static pressure 50Pa to Max 85Pa.
- Industry leading total piping length up to 1000m and a maximum pipe run of 160m.



*1 The difference between the longest and the shortest indoor unit piping from the first branch must be within 40m. (MAX85m)
*2 It is necessary to change the setting corresponding to each height difference in installation. The range of use is also defferent.

Range of Operation



KXZXE2
Hi-COP Heat Pump Systems (56.0kW - 113.5kW)

Specifications

See page 87 for exterior dimensions

Item			Model	FDC560KXZXE2	FDC850KXZXE2	FDC900KXZXE2
Combination (FDC)				280KXZE2	280KXZE2	335KXZE2
				280KXZE2	280KXZE2	280KXZE2
					280KXZE2	280KXZE2
Power Source				3Phase 380-415V, 50Hz		
Nominal Capacity	Cooling		kW	56.0	84.0	89.5
	Heating			63.0	94.5	100.5
Electrical Characteristics	Starting Current		A	10	15	
	Max Current			40.2	60.3	
	Power Consumption	Cooling	kW	14.51	21.76	23.49
		Heating		14.82	22.23	23.85
	Running Current	Cooling	A	24.0	36.0	38.7
		Heating		24.4	36.6	39.2
Exterior Dimensions	H x W x D		mm	1697x2700x720	1697x4050x720	
Net Weight			kg	576	864	
Refrigerant Charge	R410A		kg	11.0 x 2	11.0 x 3	
Refrigerant Piping Size	Liquid Line		mm (in)	ø12.7(1/2")	ø15.88 (5/8")	
	Gas Line			ø28.58(1 1/8")	ø31.75(1 1/4") [ø34.92(1 3/8")]	
Capacity Connection			%	80 - 160		
Max Connectable Indoor Units				59	80	

See page 87-88 for exterior dimensions

Item			Model	FDC950KXZXE2	FDC1000KXZXE2	FDC1060KXZXE2	FDC1120KXZXE2
Combination (FDC)				335KXZE2	335KXZE2	335KXZE2	335KXZE2
				335KXZE2	335KXZE2	335KXZE2	400KXZE2
				280KXZE2	335KXZE2	400KXZE2	400KXZE2
Power Source				3Phase 380-415V, 50Hz			
Nominal Capacity	Cooling		kW	95.0	100.5	107.0	113.5
	Heating			106.5	112.0	12.0	127.5
Electrical Characteristics	Starting Current		A	15			
	Max Current			60.3		72.2	84.1
	Power Consumption	Cooling	kW	25.22	26.94	28.94	30.94
		Heating		25.47	27.09	28.29	29.48
	Running Current	Cooling	A	41.4	41.1	47.0	49.9
		Heating		41.8	44.4	46.3	48.2
Exterior Dimensions	H x W x D		mm	1697x4050x720		2052x4050x720	
Net Weight			kg	864		908	952
Refrigerant Charge	R410A		kg	11.0 x 3		11.0 x 2+11.5	11.0 +11.5 x 2
Refrigerant Piping Size	Liquid Line		mm (in)	ø15.88 (5/8")		ø19.05(3/4")	
	Gas Line			ø31.75(1 1/4") [ø34.92(1 3/8")]	ø38.1(1 1/2") [ø34.92(1 3/8")]	ø31.75(1 1/4") [ø34.92(1 3/8")]	
Capacity Connection			%	80 - 160	80 - 130		
Max Connectable Indoor Units				80			

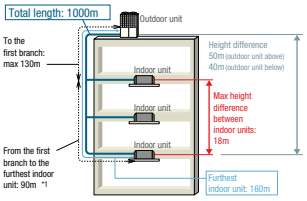
1. The data is measured under the following conditions (AS / NZS 3823.2). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
2. The operation data indicate when the air-conditioner is operated at 230V 50Hz for 1 phase, 400V 50Hz for 3 phase. 3. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
4. Select the breaker size according to the own national standard. 5. Multi KX series air conditioners are VRF systems to which the indoor units of different capacities and different models can be connected, the operation characteristics of all combinations are different. MHAA advise the use of Multi KX series design software for specifications on all individual combination types.

KXZRE2
Heat Recovery Systems (22.4kW - 33.5kW)

Model No.	Nominal Cooling Capacity
FDC224KXZRE2	22.4kW
FDC280KXZRE2	28.0kW
FDC335KXZRE2	33.5kW

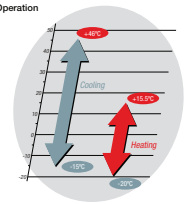
Uniform footprint of all models (from 22.4kW–50kW) allows continuous side-by-side installation

- The new KXZ2 series has a layered design and a refined new form.
- Connect up to 44 indoor units / up to 200% capacity.
- High efficiency with EER up to 3.89
- These units employ DC inverter multiport compressors with concentrated winding motor.
- Industry leading total piping length up to 1000m and a maximum pipe run of 160m.



*1 The difference between the longest and the shortest indoor unit piping from the first branch must be within 40m.

Range of Operation



Specifications

See page 89 for exterior dimensions

Item			Model	FDC224KXZRE2	FDC280KXZRE2	FDC335KXZRE2
Power Source				3 Phase 380-415V, 50Hz		
Nominal Capacity	Cooling		kW	22.4	28.0	33.5
	Heating			22.4	28.0	33.5
Electrical Characteristics	Starting Current		A	5		
	Max Current			16	20	21.2
	Power Consumption	Cooling	kW	5.76	7.39	9.65
		Heating		5.27	6.86	8.44
	Running Current	Cooling	A	10.1	12.2	15.8
		Heating		9.1	11.3	13.8
Exterior Dimensions	H x W x D		mm	1697×1350×720		
Net Weight			kg	305		
Refrigerant Charge	R410A		kg	11.5		
Sound Pressure level	Cooling/Heating		dB(A)	56/58	55/57	63/63
Refrigerant Piping Size	Liquid Line		mm (in)	ø9.52(3/8")		ø12.7(1/2")
	Suction Gas Line			ø19.05(3/4")	ø22.22(7/8")	ø25.4(1") [ø22.22(7/8")]
	Discharge Gas Line			ø15.88(5/8")	ø19.05(3/4")	
Capacity Connection			%	50 - 200		
Max Connectable Indoor Units				29	37	44

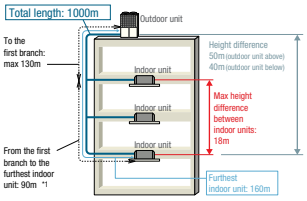
1. The data is measured under the following conditions (AS / NZS 3823.2). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
2. The operation data indicate when the air-conditioner is operated at 230V 50Hz for 1 phase, 400V 50Hz for 3 phase. 3. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
4. Select the breaker size according to the own national standard.
5. Multi KX series air conditioners are VRF systems to which the indoor units of different capacities and different models can be connected, the operation characteristics of all combinations are different. MHAA advise the use of Multi KX series design software for specifications on all individual combination types.

KXZRE2
Heat Recovery Systems (40.0kW - 50.0kW)

Model No.	Nominal Cooling Capacity
FDC400KXZRE2	40.0kW
FDC450KXZRE2	45.0kW
FDC475KXZRE2	47.5kW
FDC500KXZRE2	50.0kW

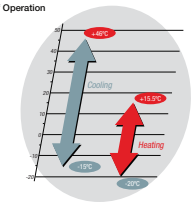
- The new KXZ2 series has a layered design and a refined new form.
- Connect up to 60 indoor units / up to 160% Capacity. (400-450KXZRE2:200%)
- High efficiency with a EER up to 3.46
- These units employ DC inverter multiport compressors with concentrated winding motor.
- Industry leading total piping length up to 1000m and a maximum pipe run of 160m.

Uniform footprint of all models (from 22.4kW~50kW) allows continuous side-by-side installation



*1 The difference between the longest and the shortest indoor unit piping from the first branch must be within 40m.

Range of Operation



Specifications

See page 88 for exterior dimensions

Item			Model	FDC400KXZRE2	FDC450KXZRE2	FDC475KXZRE2	FDC500KXZRE2
Power Source				3 Phase 380~415V, 50Hz			
Nominal Capacity	Cooling		kW	40.0	45.0	47.5	50.0
	Heating			40.0	45.0	47.5	50.0
Electrical Characteristics	Starting Current		A	5		8	
	Max Current			30	32	40.4	41
	Power Consumption	Cooling	kW	11.56	14.47	14.84	15.20
		Heating		9.76	11.39	11.67	12.69
	Running Current	Cooling	A	18.5	23.1	24.0	24.6
		Heating		15.9	18.6	18.9	20.5
Exterior Dimensions	H x W x D		mm	2052x1350x720			
Net Weight			kg	372		420	
Refrigerant Charge	R410A		kg	11.5			
Sound Pressure level	Cooling/Heating		dB(A)	61/62	61/62		
Refrigerant Piping Size	Liquid Line		mm (in)	ø12.7(1/2")			
	Suction Gas Line			ø25.4(1")[ø28.58(1 1/8")]	ø28.58(1 1/8")		
	Discharge Gas Line			ø22.22(7/8")			
Capacity Connection			%	50 - 200		50 - 160	
Max Connectable Indoor Units				53	60	50	53

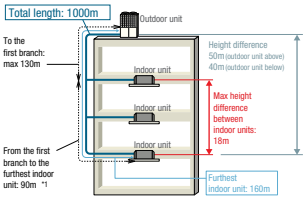
1. The data is measured under the following conditions (AS / NZS 3823.2). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
2. The operation data indicate when the air-conditioner is operated at 230V 50Hz for 1 phase, 400V 50Hz for 3 phase. 3. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
4. Select the breaker size according to the own national standard.
5. Multi KX series air conditioners are VRF systems to which the indoor units of different capacities and different models can be connected, the operation characteristics of all combinations are different. MHIAA advise the use of Multi KX series design software for specifications on all individual combination types.

KXZRE2
Heat Recovery Combination Systems (73.5kW-90.0kW)

Model No.	Nominal Cooling Capacity
FDC735KXZRE2 (FDC335+FDC400)	73.5kW
FDC800KXZRE2 (FDC400+FDC400)	80.0kW
FDC850KXZRE2 (FDC400+FDC450)	85.0kW
FDC900KXZRE2 (FDC450+FDC450)	90.0kW

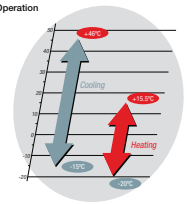
- Connect up to 80 indoor units / up to 160% capacity.
- High efficiency with EER up to 3.47
- These units employ DC inverter multiport compressors with concentrated winding motor.
- Industry leading total piping length up to 1000m and a maximum pipe run of 160m.

73.5kW | 80.0kW - 90.0kW



*1 The difference between the longest and the shortest indoor unit piping from the first branch must be within 40m.

Range of Operation



Specifications

See page 89-90 for exterior dimensions

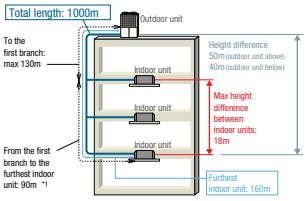
Item			Model	FDC735KXZRE2	FDC800KXZRE2	FDC850KXZRE2	FDC900KXZRE2
Combination (FDC)				400KXZRE2	400KXZRE2	450KXZRE2	450KXZRE2
				335KXZRE2	400KXZRE2	400KXZRE2	450KXZRE2
Power Source				3 Phase 380~415V, 50Hz			
Nominal Capacity	Cooling		kW	73.5	80.0	85.0	90.0
	Heating			73.5	80.0	85.0	90.0
Electrical Characteristics	Starting Current		A	10			
	Max Current			51.2	60	62	64
	Power Consumption	Cooling	kW	21.21	23.12	26.03	28.94
		Heating		18.20	19.52	21.15	22.78
	Running Current	Cooling	A	34.3	37.0	41.6	46.3
		Heating		29.7	31.9	34.6	37.2
Exterior Dimensions	H x W x D		mm	2052x2700x720			
Net Weight			kg	677	744		
Refrigerant Charge	R410A		kg	11.5 x 2			
Refrigerant Piping Size	Liquid Line		mm (in)	ø15.88(5/8")			
	Suction Gas Line			ø31.75(1 1/4")[ø34.92(1 3/8")]			
	Discharge Gas Line			ø25.4(1")[ø28.58(1 1/8")]	ø28.58 (1 1/8")		
Capacity Connection			%	50 - 160			
Max Connectable Indoor Units				78	80		

1. The data is measured under the following conditions (AS / NZS 3823.2). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
2. The operation data indicate when the air-conditioner is operated at 230V 50Hz for 1 phase, 400V 50Hz for 3 phase. 3. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
4. Select the breaker size according to the own national standard.
5. Multi KX series air conditioners are VRF systems to which the indoor units of different capacities and different models can be connected, the operation characteristics of all combinations are different. MHIAA advise the use of Multi KX series design software for specifications on all individual combination types.

KXZRE2
Heat Recovery Combination Systems (95.0kW - 100.0kW)

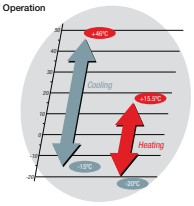
Model No.	Nominal Cooling Capacity
FDC950KXZRE2 (FDC475+FDC475)	95.0kW
FDC1000KXZRE2 (FDC500+FDC500)	100.0kW

- The new KXZ2 series has a layered design and a refined new form.
- Connect up to 80 indoor units / up to 130% capacity.(950KXZRE2:160%)
- High efficiency with EER up to 3.47.
- These units employ DC inverter multiport compressors with concentrated winding motor.
- Industry leading total piping length up to 1000m and a maximum pipe run of 160m.



*1 The difference between the longest and the shortest indoor unit piping from the first branch must be within 40m.

Range of Operation



Specifications

See page 90 for exterior dimensions

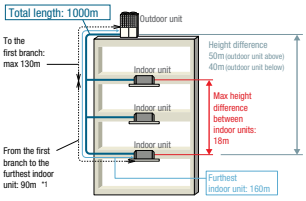
Item			Model	FDC950KXZRE2	FDC1000KXZRE2
Combination (FDC)				475KXZRE2	500KXZRE2
				475KXZRE2	500KXZRE2
Power Source				3 Phase 380-415V, 50Hz	
Nominal Capacity	Cooling		kW	95.0	100.0
	Heating			95.0	100.0
Electrical Characteristics	Starting Current		A	16	
	Max Current			80.8	82.0
	Power Consumption	Cooling	kW	29.68	30.40
		Heating		23.34	25.38
	Running Current	Cooling	A	48.0	49.1
		Heating		37.7	41.0
Exterior Dimensions	H x W x D		mm	2052x2700x720	
Net Weight			kg	840	
Refrigerant Charge	R410A		kg	11.5 x 2	
Refrigerant Piping Size	Liquid Line		mm (in)	ø15.88(5/8")	
	Suction Gas Line			ø31.75(1 1/4")[ø34.92(1 3/8")]	ø38.1(1 1/2")[ø34.92(1 3/8")]
	Discharge Gas Line			ø28.58(1 1/8")	
Capacity Connection			%	50 - 160	50 - 130
Max Connectable Indoor Units				80	

1. The data is measured under the following conditions (AS / NZS 3823.2). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
2. The operation data indicate when the air-conditioner is operated at 230V 50Hz for 1 phase, 400V 50Hz for 3 phase. 3. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
4. Select the breaker size according to the own national standard. 5. Multi KX series air conditioners are VRF systems to which the indoor units of different capacities and different models can be connected, the operation characteristics of all combinations are different. MHIAA advise the use of Multi KX series design software for specifications on all individual combination types.

KXZRE2
Heat Recovery Combination Systems (120.0kW-142.5kW)

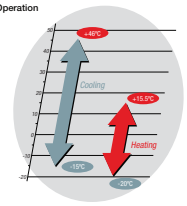
Model No.	Nominal Cooling Capacity
FDC1200KXZRE1 (FDC400+FDC400+FDC400)	120.0kW
FDC1250KXZRE1 (FDC400+FDC400+FDC450)	125.0kW
FDC1300KXZRE1 (FDC400+FDC450+FDC450)	130.0kW
FDC1350KXZRE1 (FDC450+FDC450+FDC450)	135.0kW
FDC1425KXZRE1 (FDC475+FDC475+FDC475)	142.5kW

- The new KXZ2 series has a layered design and a refined new form.
- Connect up to 80 indoor units / up to 130% capacity.
- High efficiency with EER up to 3.46
- These units employ DC inverter multiport compressors with concentrated winding motor.
- Industry leading total piping length up to 1000m and a maximum pipe run of 160m



*1 The difference between the longest and the shortest indoor unit piping from the first branch must be within 40m.

Range of Operation



Specifications

See page 90 for exterior dimensions

Item			Model	FDC1200KXZRE2	FDC1250KXZRE2	FDC1300KXZRE2	FDC1350KXZRE2	FDC1425KXZRE2
Combination (FDC)				400KXZRE2	400KXZRE2	450KXZRE2	450KXZRE2	475KXZRE2
				400KXZRE2	400KXZRE2	400KXZRE2	450KXZRE2	475KXZRE2
				400KXZRE2	450KXZRE2	450KXZRE2	450KXZRE2	475KXZRE2
Power Source				3 Phase 380-415V, 50Hz				
Nominal Capacity	Cooling		kW	120	125	130	135	142.5
	Heating			120	125	130	135	142.5
Electrical Characteristics	Starting Current		A	15				24
	Max Current			90.0	92.0	94.0	96.0	121.2
	Power Consumption	Cooling	kW	34.68	37.59	40.50	43.41	44.52
		Heating		29.28	30.91	32.54	34.17	35.01
	Running Current	Cooling	A	55.5	60.1	64.8	69.4	72.0
		Heating		47.8	50.5	53.2	55.8	56.6
Exterior Dimensions	H x W x D		mm	2052x4050x720				
Net Weight			kg	1116				1260
Refrigerant Charge	R410A		kg	11.5 x 3				
Refrigerant Piping Size	Liquid Line		mm (in)	ø19.05(3/4")				
	Suction Gas Line			ø38.1(1 1/2")[ø34.92(1 3/8")]				
	Discharge Gas Line			ø31.75(1 1/4")[ø28.58(1 1/8")]				
Capacity Connection			%	50 - 130				
Max Connectable Indoor Units				80				

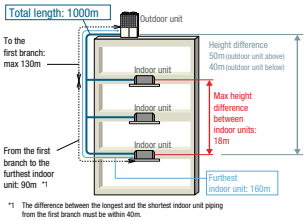
1. The data is measured under the following conditions (AS / NZS 3823.2). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
2. The operation data indicate when the air-conditioner is operated at 230V 50Hz for 1 phase, 400V 50Hz for 3 phase. 3. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
4. Select the breaker size according to the own national standard. 5. Multi KX series air conditioners are VRF systems to which the indoor units of different capacities and different models can be connected, the operation characteristics of all combinations are different. MHIAA advise the use of Multi KX series design software for specifications on all individual combination types.

KXZRE2

Heat Recovery Combination Systems (145.0kW -150.0kW)

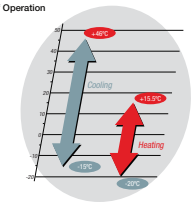
Model No.	Nominal Cooling Capacity
FDC1450KXZRE2 (FDC475+FDC475+FDC500)	145.0kW
FDC1500KXZRE2 (FDC500+FDC500+FDC500)	150.0kW

- The new KXZ2 series has a layered design and a refined new form.
- Connect up to 80 indoor units / up to 130% capacity.
- High efficiency with EER up to 3.46.
- These units employ DC inverter multiport compressors with concentrated winding motor.
- Industry leading total piping length up to 1000m and a maximum pipe run of 160m.



*1 The difference between the longest and the shortest indoor unit piping from the first branch must be within 40m.

Range of Operation



Specifications

See page 90 for exterior dimensions

Item			Model	FDC1450KXZRE2	FDC1500KXZRE2
Combination (FDC)				475KXZRE2	500KXZRE2
				475KXZRE2	500KXZRE2
				500KXZRE2	500KXZRE2
Power Source				3 Phase 380~415V, 50Hz	
Nominal Capacity	Cooling		kW	145.0	150.0
	Heating			145.0	150.0
Electrical Characteristics	Starting Current		A	24	
	Max Current			121.8	123.0
	Power Consumption	Cooling	kW	44.88	45.60
		Heating		36.03	38.07
	Running Current	Cooling	A	72.5	73.7
		Heating		58.2	61.5
Exterior Dimensions	H x W x D		mm	2052x2700x720	
Net Weight			kg	1260	
Refrigerant Charge	R410A		kg	11.5 x 3	
Refrigerant Piping Size	Liquid Line		mm (in)	ø19.05(3/4")	
	Suction Gas Line			ø38.1(1 1/2")[ø34.92(1 3/8")]	
	Discharge Gas Line			ø31.75(1 1/4")[ø28.58(1 1/8")]	
Capacity Connection			%	50 - 130	
Max Connectable Indoor Units				80	

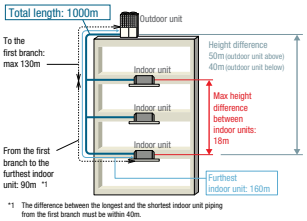
1. The data is measured under the following conditions (AS / NZS 3823.3). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
2. The operation data indicate when the air-conditioner is operated at 230V 50Hz for 1 phase, 400V 50Hz for 3 phase. 3. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
4. Select the breaker size according to the own national standard. 5. Multi KX series air conditioners are VRF systems to which the indoor units of different capacities and different models can be connected, the operation characteristics of all combinations are different. MHIAA advise the use of Multi KX series design software for specifications on all individual combination types.

KXZRXE2

Hi-COP Heat Recovery Combination Systems (45.0kW-67.0kW)

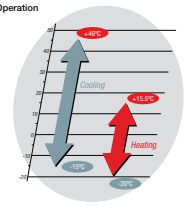
Model No.	Nominal Cooling Capacity
FDC450KXZRXE2 (FDC224+FDC224)	45.0kW
FDC500KXZRXE2 (FDC224+FDC280)	50.0kW
FDC560KXZRXE2 (FDC280+FDC280)	56.0kW
FDC615KXZRXE2 (FDC280+FDC335)	61.5kW
FDC670KXZRXE2 (FDC335+FDC335)	67.0kW

- Connect up to 71 indoor units / up to 160% capacity. (450KXZRXE2:200%)
- High efficiency with EER up to 3.91.
- These units employ DC inverter multiport compressors with concentrated winding motor.
- Industry leading total piping length up to 1000m and a maximum pipe run of 160m.



*1 The difference between the longest and the shortest indoor unit piping from the first branch must be within 40m.

Range of Operation



Specifications

See page 89 for exterior dimensions

Item			Model	FDC450KXZRXE2	FDC500KXZRXE2	FDC560KXZRXE2	FDC615KXZRXE2	FDC670KXZRXE2
Combination (FDC)				FDC224KXZRE2	FDC224KXZRE2	FDC280KXZRE2	FDC280KXZRE2	FDC335KXZRE2
				FDC224KXZRE2	FDC280KXZRE2	FDC280KXZRE2	FDC335KXZRE2	FDC335KXZRE2
Power Source				3 Phase 380~415V, 50Hz				
Nominal Capacity	Cooling		kW	45.0	50.0	56.0	61.5	67.0
	Heating			45.0	50.0	56.0	61.5	67.0
Electrical Characteristics	Starting Current		A	10				
	Max Current			32.0	26.0	40.0	41.2	42.4
	Power Consumption	Cooling	kW	11.52	13.15	14.78	17.04	19.30
		Heating		10.54	12.13	13.72	15.30	16.88
	Running Current	Cooling	A	20.2	22.3	24.4	28.0	31.5
		Heating		18.2	20.4	22.7	25.1	27.6
Exterior Dimensions	H x W x D		mm	1697x2700x720				
Net Weight			kg	610				
Refrigerant Charge	R410A		kg	11.5 x 2				
Refrigerant Piping Size	Liquid Line		mm (in)	ø12.7 (1/2")				
	Suction Gas Line			ø28.58 (1 1/8")				
	Discharge Gas Line			ø22.22 (7/8")			ø25.4(1")[ø22.22(7/8")]	
	Oil Equalization			ø9.52 (3/8")				
Capacity Connection			%	80-200	80 - 160			
Max Connectable Indoor Units				60	53	59	65	71

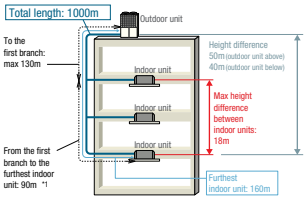
1. The data is measured under the following conditions (AS / NZS 3823.3). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
2. The operation data indicate when the air-conditioner is operated at 230V 50Hz for 1 phase, 400V 50Hz for 3 phase. 3. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
4. Select the breaker size according to the own national standard. 5. Multi KX series air conditioners are VRF systems to which the indoor units of different capacities and different models can be connected, the operation characteristics of all combinations are different. MHIAA advise the use of Multi KX series design software for specifications on all individual combination types.

KXZRXE2

Hi-COP Heat Recovery Combination Systems (75.0kW -100.0kW)

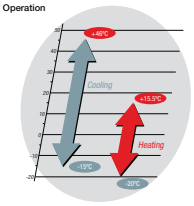
Model No.	Nominal Cooling Capacity
FDC735KXZRXE2 (FDC224+FDC224+FDC280)	73.5kW
FDC800KXZRXE2 (FDC224+FDC280+FDC280)	80.0kW
FDC850KXZRXE2 (FDC280+FDC280+FDC280)	85.0kW
FDC900KXZRXE2 (FDC280+FDC280+FDC335)	90.0kW
FDC950KXZRXE2 (FDC280+FDC335+FDC335)	95.0kW
FDC1000KXZRXE2(FDC335+FDC335+FDC335)	100.0kW

- Connect up to 80 indoor units / up to 160% capacity. (1000KXZRXE2:130%)
- High efficiency with EER up to 3.89.
- These units employ DC inverter multiport compressors with concentrated winding motor.
- Industry leading total piping length up to 1000m and a maximum pipe run of 160m.



*1 The difference between the longest and the shortest indoor unit piping from the first branch must be within 40m.

Range of Operation



Specifications

See page 89 for exterior dimensions

Item			Model	FDC735KXZRXE2	FDC800KXZRXE2	FDC850KXZRXE2	FDC900KXZRXE2	FDC950KXZRXE2	FDC1000KXZRXE2
Combination (FDC)				FDC224KXZRE2	FDC224KXZRE2	FDC280KXZRE2	FDC280KXZRE2	FDC280KXZRE2	FDC335KXZRE2
				FDC224KXZRE2	FDC280KXZRE2	FDC280KXZRE2	FDC280KXZRE2	FDC335KXZRE2	FDC335KXZRE2
				FDC280KXZRE2	FDC280KXZRE2	FDC280KXZRE2	FDC335KXZRE2	FDC335KXZRE2	FDC335KXZRE2
Power Source				3 Phase 380-415V, 50Hz					
Nominal Capacity	Cooling		kW	73.5	80.0	85.0	90.0	95.0	100.0
	Heating			73.5	80.0	85.0	90.0	95.0	100.0
Electrical Characteristics	Starting Current		A	15					
	Max Current			52.0	56.0	60.0	61.2	62.4	63.6
	Power Consumption	Cooling	kW	18.91	20.54	22.17	24.43	26.69	28.95
		Heating		17.40	18.99	20.58	22.16	23.74	25.32
	Running Current	Cooling	A	32.4	34.5	36.6	40.2	43.7	47.3
		Heating		29.5	31.8	34.0	36.4	38.9	41.4
Exterior Dimensions	H x W x D		mm	1690x4050x720					
Net Weight			kg	915					
Refrigerant Charge	R410A		kg	11.5 x 3					
Refrigerant Piping Size	Liquid Line		mm (in)	ø15.88(5/8")					
	Suction Gas Line			ø31.75(1 1/4") [ø34.92(1 3/8")]					ø38.1(1 1/2") [ø34.92(1 3/8")]
	Discharge Gas Line			ø25.4(1") [ø28.58(1 1/8")]		ø28.58 (1 1/8")			
	Oil Equalization			ø9.52 (3/8")					
Capacity Connection			%	80 - 160					80 - 130
Max Connectable Indoor Units				78	80				

1. The data is measured under the following conditions (AS / NZS 3823.3). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
2. The operation data indicate when the air-conditioner is operated at 230V 50Hz for 1 phase, 400V 50Hz for 3 phase. 3. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
4. Select the breaker size according to the own national standard. 5. Multi KX series air conditioners are VRF systems to which the indoor units of different capacities and different models can be connected, the operation characteristics of all combinations are different. MHIAA advise the use of Multi KX series design software for specifications on all individual combination types.

KXZW

Watercooled Heat Pump Systems (22.4kW - 100.0kW)

Model No.	Nominal Cooling Capacity
FDC224KXZWE1	22.4kW
FDC280KXZWE1	28.0kW
FDC335KXZWE1	33.5kW
FDC450KXZWE1(FDC224×2)	45.0kW
FDC500KXZWE1(FDC224+FDC280)	50.0kW
FDC560KXZWE1(FDC280×2)	56.0kW
FDC615KXZWE1(FDC280+FDC335)	61.5kW
FDC670KXZWE1(FDC335×2)	67.0kW
FDC730KXZWE1(FDC224×2+FDC280)	73.0kW
FDC775KXZWE1(FDC224+FDC280×2)	77.5kW
FDC850KXZWE1(FDC280×3)	85.0kW
FDC900KXZWE1(FDC280×2+FDC335)	90.0kW
FDC950KXZWE1(FDC280+FDC335×2)	95.0kW
FDC1000KXZWE1(FDC335×3)	100.0kW

22.4kW, 28kW, 33.5kW

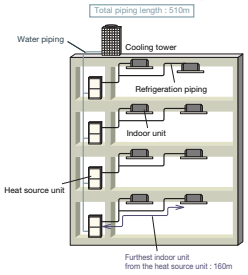
45kW, 50kW, 56kW, 61.5kW, 67kW

73kW, 77.5kW, 85kW, 90kW, 95kW, 100kW

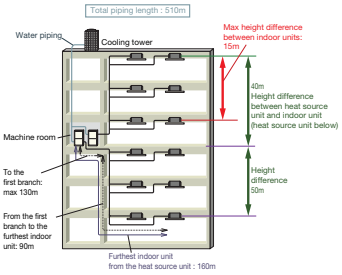
Designed for large commercial buildings, MHIAA's new series of 2 pipe, water cooled VRF systems offer an efficient and flexible solution for a range of applications. The system's design allows the condenser to be installed within the building, which allows for greater flexibility. Depending on system capacity, up to 33 indoor units can be connected to a single condensing unit with individualized and/or centralized control.

- Higher EER/COP compared to air-cooled systems.
- Huge energy savings and reduced operating costs.
- Compact design allowing for easy installation.
- Connect up to 80 units (3 x KXZW units)
- Utilises same BMS as air-cooled KX.
- Compatible with a range of systems.
- All components and connections accessible from one side for easy installation and maintenance.

New Developments
Heat source units on every floor



Refurbishments
Heat source units installed in machine room



Lineup (Outdoor Unit Combinations)

System Model no.	Capacity	Modules			Indoor Units	
		FDC224KXZWE1	FDC280KXZWE1	FDC335KXZWE1	Connectable Capacity (1)	No. of Connectable Units
FDC224KXZWE1	22.4kW	1			11.2 – 33.6	1 to 22
FDC280KXZWE1	28.0kW		1		14.0 – 42.0	1 to 28
FDC335KXZWE1	33.5kW			1	16.7 – 50.3	1 to 33
FDC450KXZWE1	45.0kW	2			22.4 – 67.2	1 to 44
FDC500KXZWE1	50.0kW	1	1		25.2 – 75.6	1 to 50
FDC560KXZWE1	56.0kW		2		28.0 – 84.0	1 to 56
FDC615KXZWE1	61.5kW		1	1	30.7 – 92.3	2 to 61
FDC670KXZWE1	67.0kW			2	33.5 – 100.5	2 to 67
FDC730KXZWE1	73.0kW	2	1		36.4 – 109.2	2 to 72
FDC775KXZWE1	77.5kW	1	2		39.2 – 117.6	2 to 78
FDC850KXZWE1	85.0kW		3		42.0 – 127.5	2 to 80
FDC900KXZWE1	90.0kW		2	1	44.7 – 134.3	2 to 80
FDC950KXZWE1	95.0kW		1	2	47.5 – 142.5	2 to 80
FDC1000KXZWE1	100kW			3	50.2 – 150.8	2 to 80

Specifications

See page 91 for exterior dimensions

Item			Model	FDC224KXZWE1	FDC280KXZWE1	FDC335KXZWE1	FDC450KXZWE1	FDC500KXZWE1	FDC560KXZWE1	FDC615KXZWE1
Combination (FDC)				-	-	-	224KXZWE1	224KXZWE1	280KXZWE1	280KXZWE1
				-	-	-	224KXZWE1	280KXZWE1	280KXZWE1	335KXZWE1
Power Source				3 Phase 380-415V, 50Hz						
Nominal Capacity	Cooling		kW	22.4	28.0	33.5	45.0	50.0	56.0	61.5
	Heating			25.0	31.5	37.5	50.0	56.0	63.0	69.0
Electrical Characteristics	Running Current	Cooling	A	7.14	9.64	13.4	14.3	16.5	19.3	22.7
		Heating		7.13	8.59	10.5	14.3	15.6	17.2	19.1
	Power Consumption	Cooling	kW	4.23	5.75	8.13	8.49	9.83	11.5	13.7
		Heating		4.24	5.10	6.30	8.47	9.27	10.2	11.4
EER		Cooling		5.3	4.9	4.1	5.3	5.1	4.9	4.5
COP		Heating		5.9	6.2	6.0	5.9	6.0	6.2	6.1
Exterior Dimensions	H x W x D		mm	1100 × 780 × 550			(1100 × 780 × 550) × 2			
Net Weight			kg	185			185 x 2			
Refrigerant Charge	R410A		kg	9.9			9.9 × 2			
Sound Pressure Level			dB (A)	48	50	52	50	52	53	54

See page 91 for exterior dimensions

Item			Model	FDC670KXZWE1	FDC730KXZWE1	FDC775KXZWE1	FDC850KXZWE1	FDC900KXZWE1	FDC950KXZWE1	FDC1000KXZWE1
Combination (FDC)				335KXZWE1	224KXZWE1	224KXZWE1	280KXZWE1	280KXZWE1	280KXZWE1	335KXZWE1
				335KXZWE1	224KXZWE1	280KXZWE1	280KXZWE1	280KXZWE1	335KXZWE1	335KXZWE1
					280KXZWE1	280KXZWE1	280KXZWE1	335KXZWE1	335KXZWE1	335KXZWE1
Power Source				3 Phase 380-415V, 50Hz						
Nominal Capacity	Cooling		kW	67.0	73.0	77.5	85.0	90.0	95.0	100
	Heating			75.0	82.5	90.0	95.0	100	106	112
Electrical Characteristics	Running Current	Cooling	A	26.8	23.8	26.0	29.3	32.5	36.0	40.0
		Heating		21.0	23.2	24.9	25.9	27.5	29.4	31.4
	Power Consumption	Cooling	kW	16.3	14.2	15.5	17.5	19.5	21.7	24.3
		Heating		12.6	13.8	14.8	15.4	16.4	17.6	18.8
EER		Cooling		4.1	5.1	5.0	4.9	4.6	4.4	4.1
COP		Heating		6.0	6.0	6.1	6.2	6.1	6.0	6.0
Exterior Dimensions	H x W x D		mm	(1100 × 780 × 550) × 2	(1100 × 780 × 550) × 3					
Net Weight			kg	185 x 2	185 x 3					
Refrigerant Charge	R410A		kg	9.9 × 2	9.9×3					
Sound Pressure Level			dB (A)	55	54	54	55	56	56	57

1. The data is measured under the following conditions (AS / NZS 3823.2). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
2. The operation data indicate when the air-conditioner is operated at 230V 50Hz for 1 phase, 400V 50Hz for 3 phase. 3. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
4. Select the breaker size according to the own national standard. 5. Multi KX series air conditioners are VRF systems to which the indoor units of different capacities and different models can be connected, the operation characteristics of all combinations are different. MHIAA advise the use of Multi KX series design software for specifications on all individual combination types.

PFD Refrigerant Flow Branch Control

Branch Control	Total Downstream Indoor Unit Capacity
PFD1124-E	less than 11.2kW
PFD1804-E	less than 18.0kW
PFD2804-E	28.0kW or less
PFD1124X4-E	less than 44.8kW(less than 11.2kWx4 branches)

Relay kit (2M)
(Comes attached to the branch control)

4-Way PFD box

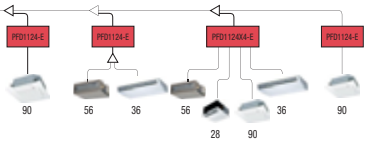
Design Flexibility

Groups of indoor units can be connected up to a total capacity 28.0kW to a single PFD with branch piping and all units in that group will operate in the same mode only (cooling or heating).

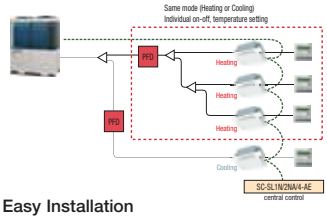
We also have introduced the 4-way PFD control PFD1124X4-E which can connect up to four indoor units with individual control - simultaneous cooling or heating.

Branch Control	Total Downstream Capacity	* Connectable Indoor Units
PFD1124-E	less than 112	1-5
PFD1804-E	112 or more but less than 180	1-8
PFD2804-E	180 or more but less than 280	1-10
PFD1124X4-E	less than 371(less than 112 per branch)	Up to 16

*Refer to Data Book for details



- The remote control setting (as individual indoor unit on-off, temperature setting other than cooling/heating mode control) is possible with one remote control connected to each indoor unit, while at the same time, Center Control (SC-SL1N/2NA/4-AE) can be used together with the individual remote control.
- It is necessary to set the central control to use this function. Please refer to the Installation Manual for details.

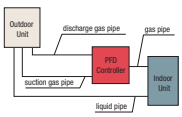


- In case of the mode changeover from cooling to heating and from cooling to heating, by the use of only the indoor units and PFD box combination, the mode changeover sound was reduced. All this made possible without turning off the compressor and at the same time without the reduction of capacity.
- The risk of refrigerant leakage was reduced by changing piping connection at the PFD box to brazing method.
- By the use of optional PFD box extension cable that has a connector at ends, makes it possible to further separate the indoor unit and PFD box. This will enable the PFD box to be located away from the indoor unit and help reduce the influence of sound caused by PFD box and refrigerant flow.

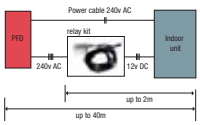
PFD4-15WR-E (option)
15m Extension cable

Easy Installation

New PFD design means the connection of the indoor unit liquid pipe is made directly to the liquid line - bypassing the PFD. This means (x2) less pipe connections per indoor unit, reducing installation time and cost.



The PFD is connected to the indoor unit by 3 core signal wire via a relay kit (supplied) to be located within 2m of each other.
The indoor unit however can be up to 40m away. Power to the PFD can be connected from the indoor unit or other supply.



Refrigerant Piping

The KXZ systems are manufactured to the highest standards of quality and reliability. It is imperative the method of installation and the materials used are also to high standards, to ensure trouble free operation and long term reliability.

The interconnecting pipework must be installed by a competent and trained engineer. Refrigeration quality copper tube must be used, soft copper coils or half-hard straight lengths. The refrigeration quality tube must be soft drawn seamless high grade copper pipe. The copper tube must be selected taking into account the higher operating pressures of R410A refrigerant, and that high pressures will occur throughout the system because of the reverse cycle operation.

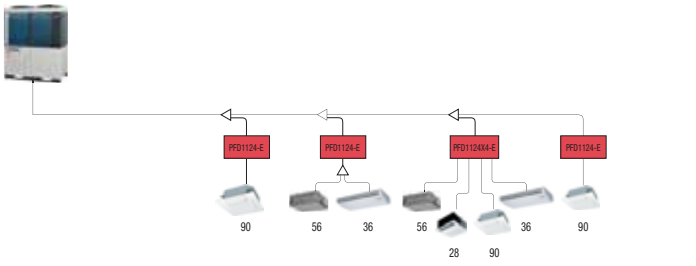
The supplied branch pipe kits, must be used to make connections to indoor units, and the supplied manifold kits must be used to make connections between outdoor units (where applicable); it is not permitted to use standard fittings such as elbows, tees etc. The branch pipes shall be installed in accordance with the manufacturer's instructions, allowing unrestricted flow of refrigerant.

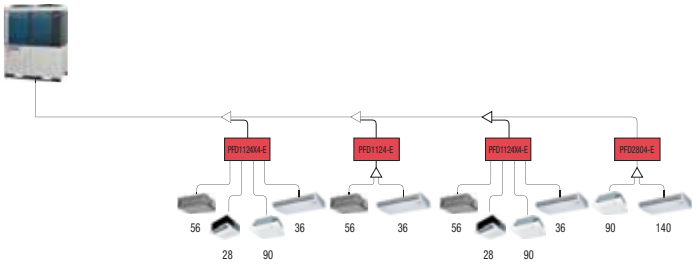
All brazed joints shall be made with dry nitrogen purge to ensure the prevention of oxidisation to the internal surface of the copper pipes.
The ingress of moisture, dirt and any other contaminants to the interior of the copper pipes, and air conditioning units, must be prevented during the installation procedure.

After the installation of pipework, prior to the connection of the outdoor units, and sealing of insulation joints, the pipework must be pressure tested for leakage, using dry nitrogen.
Additional Refrigerant
Only R410A refrigerant can be used, and must be charged by weight only, using electronic scales. The amount of additional refrigerant must be accurately calculated from the manufacturer's data, based on the length and diameter of each section of the liquid refrigerant pipework of the system.

The products contains fluorinated greenhouse gases covered by Kyoto protocol.

Single Outdoor Unit Piping Example





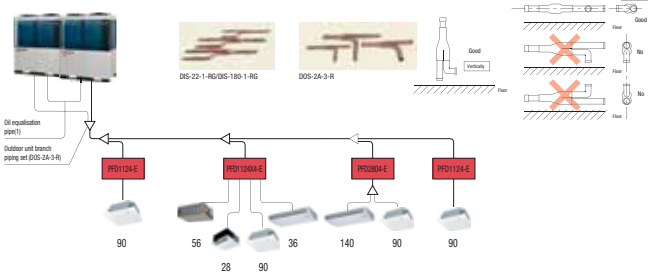
Refrigerant Piping (Heat Recovery)

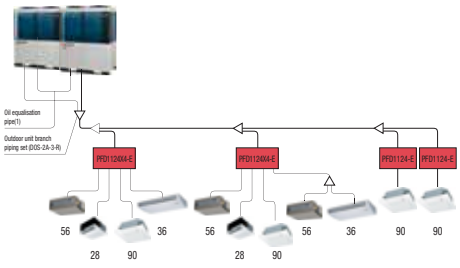
Outdoor Unit	Main Pipe Size (Normal)			Pipe Size for an Actual Length of 90m or Longer		
	Suction Gas Pipe	Discharge Gas Pipe	Liquid Pipe	Suction Gas Pipe	Discharge Gas Pipe	Liquid Pipe
224	ø19.05 x t.0	ø15.88 x t1.0	ø9.52×t0.8	ø22.22×t1.0	ø15.88×t1.0	ø12.7×t0.8
280	ø22.22×t1.0	ø19.05 x t.0		ø25.4 (ø22.22)×t1.0	ø19.05×t1.0	
335	ø25.4 (ø22.22)×t1.0		ø12.7×t0.8			
400	ø25.4 (ø28.58)×t1.0	ø22.22×t1.0		ø28.58×t1.0	ø22.22×t1.0	
450	ø28.58×t1.0			ø31.8×t1.1 (ø28.58×t1.0)		ø15.88×t1.0
475						
500						
735	ø31.8×t1.1 (ø34.92×t1.2)	ø28.58 (ø25.4)×t1.0	ø15.88×t1.0	ø38.1×t1.35 (ø34.92×t1.2)	ø28.58×t1.0	ø19.05×t1.0
800						
850		ø28.58×t1.0				
900						
950						
1000	ø38.1×t1.35 (ø34.92×t1.2)	ø31.8×t1.1 (ø28.58×t1.0)	ø19.05×t1.0		ø31.8×t1.1 (ø28.58×t1.0)	ø22.22×t1.0
1200						
1350						
1425						
1450						
1500						

mm	Inch
ø9.52	3/8"
ø12.7	1/2"
ø15.88	5/8"
ø19.05	3/4"
ø22.22	7/8"
ø25.4	1"

mm	Inch
ø28.58	1 1/8"
ø31.8	1 1/4"
ø34.92	1 3/8"
ø38.1	1 1/2"
ø44.5	1 3/4"
ø50.8	2"

Combination Outdoor Unit Piping Example





Outdoor unit's branch piping set

Outdoor unit	Branch piping set
2 units (for 735~1000)	DOS-2A-3-R
3 units (for 1200~1500)	DOS-3A-3-R

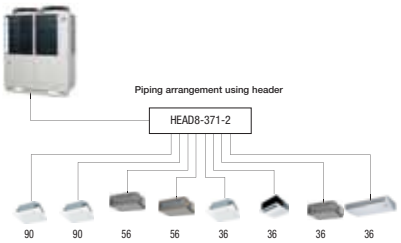
Indoor unit's first branch piping set

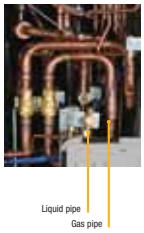
Total capacity of indoor units	Branch piping set
~179	DIS-22-1-RG
180~370	DIS-180-1-RG
371~539	DIS-371-2-RG
540~	DIS-540-2-RG

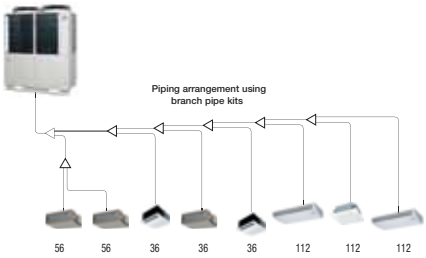
For Down Stream of PFD box

Total capacity of indoor units	Branch piping set
~179	DIS-22-1G
180~370	DIS-180-1G
371~539	DIS-371-1G
540~	DIS-540-3

Single Outdoor Unit Piping Examples







PIPING & ELECTRICAL

Refrigerant Piping (Heat Pump)

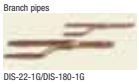
Main (Outdoor unit side branching pipe – Indoor unit side first branching pipe). If the longest distance (measured between the outdoor unit and the farthest indoor unit) is 90m or longer (actual length), please change the main pipe size according to the table below.

Outdoor Unit	Main Pipe Size (Normal)		Pipe Size For An Actual Length of 90m or Longer	
	Gas Pipe	Liquid Pipe	Gas Pipe	Liquid Pipe
280	ø22.22 × t 1.0	ø9.52 × t 0.8	ø25.4 (ø22.22) × t 1.0	ø12.7 × t 0.8
335	ø25.4 (ø28.58) × t 1.0	ø12.7 × t 0.8	ø28.58 × t 1.0	
400	ø25.4 (ø22.22) × t 1.0		ø31.8 × t 1.1 (ø28.58 × t 1.0)	ø15.88 × t 1.0
450	ø28.58 × t 1.0			
475				
500				
560				
615				
670		ø15.88 × t 1.0	ø38.1 × t 1.35 (ø34.92 × t 1.2)	ø19.05 × t 1.0
735				
800	ø31.8 × t 1.1 (ø34.92 × t 1.2)			
850				
900				
950				
1000	ø38.1 × t 1.35 (ø34.92 × t 1.2)	ø19.05 × t 1.0		ø22.22 × t 1.0
1060				
1080				
1120				
1200				
1250				
1300				
1350				
1425				
1450				
1500				
1560				
1620				
1680				

mm	Inch
ø9.52	3/8"
ø12.7	1/2"
ø15.88	5/8"
ø19.05	3/4"
ø22.22	7/8"
ø25.4	1"

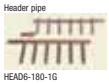
mm	Inch
ø28.58	1 1/8"
ø31.8	1 1/4"
ø34.92	1 3/8"
ø38.1	1 1/2"
ø44.5	1 3/4"
ø50.8	2"

Branch pipes



DIS-22-1G/DIS-180-1G

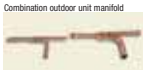
Header pipe



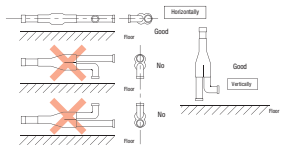
HEAD6-180-1G

DIS-371-1G/DIS-540-3

Combination outdoor unit manifold

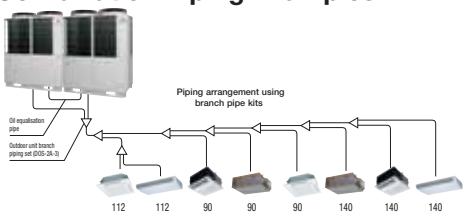


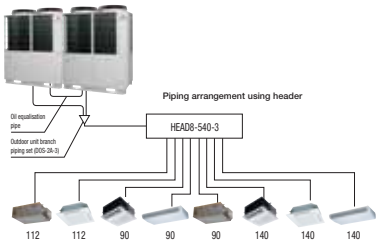
DOS-2A-3
DOS-3A-3



Please use C1220T-1/2H for ø19.05 or larger pipes. Pipe sizes applicable to European installations are shown in parentheses.

Combination Piping Examples





Outdoor unit's branch piping set

Outdoor unit	Branch piping set
For two units (for 615~1120)	DOS-2A-3
For three units (for 1200~1680)	DOS-3A-3

Indoor unit's first branch piping set

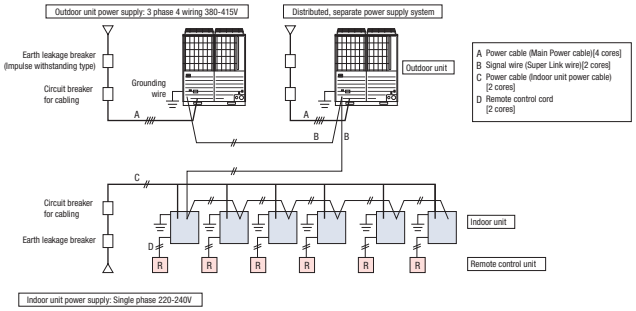
Total capacity of indoor units	Branch piping set	Header set	
		Model	Branches
~179	DIS-22-1G	HEAD4-22-1G	Max 4 branches
180~370	DIS-180-1G	HEAD6-180-1G	Max 6 branches
371~539	DIS-371-1G	HEAD8-371-2	Max 8 branches
540~	DIS-540-3	HEAD8-540-3	Max 8 branches

Electrical Wiring for Power Supply

KXZ new design includes greatly simplified wiring requirements utilising a 'polarity-free' two wire control loop connecting the indoor units.

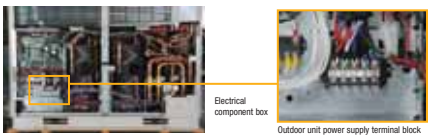
Power Wiring

Cables can be laid through the front, right, left or bottom of the outdoor unit casing.
Separate power supplies should be used for the outdoor unit (3phase) and the indoor units (1phase).
Only control wiring is connected from outdoor to indoor unit



CAUTION
If the earth leakage breaker is exclusively for ground fault protection, then you will need to install a circuit breaker for wiring work.

KXZ outdoor unit mechanical compartment



Electrical Wiring for Controls

1. The control wiring is 5 Volt DC, non-polarised, two wire connection notated as 'A1' and 'B1'. This 'AB' wiring connects outdoor unit to indoor unit and indoor unit to indoor unit.

2. This wiring must be a 2-core shielded cable size 0.75mm² or 1.25mm².

	0.75mm²	1.25mm²
~1000m	YES	YES
1000~1500m	YES	NO

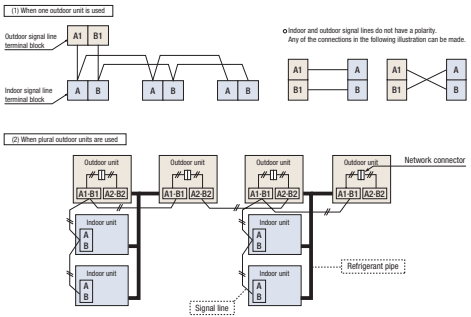
3. We recommend the both ends of the shield of the cable are connected to ground (earth) at all the indoor units and outdoor units.

4. When plural outdoor units are used:

■ Connect the signal cable between indoor and outdoor units and the signal cable between outdoor units belonging to the same refrigerant line to A1 and B1.

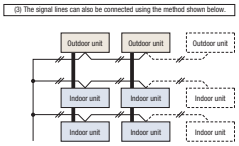
■ Connect the signal line between outdoor units on different refrigerant lines to A2 and B2.

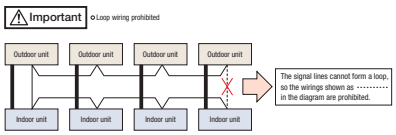
5. For current specification of 2-core (AB) wiring, please consult your MHI dealer.



(a) The maximum number of indoor units that can be connected in a system is 128 and it is possible to configure outdoor units and/or indoor units as an outdoor or indoor unit group connected with each other with two wires.

(b) The signal wires can also be connected using the method shown below.

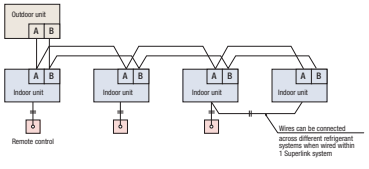




Remote Control Wiring Specifications

For interconnecting wiring between the remote control and indoor units (XY wiring) use 2-core cable size 0.3mm². The maximum length of 2-core cable is 600 metres. Where the 2-core wiring exceeds 100m, use the wire size detailed on the table below.

Length (m)	Wire size
100 to 200	0.5mm² x 2 core
To 300	0.75mm² x 2 core
To 400	1.25mm² x 2 core
To 600	2.0mm² x 2 core



FDT Series: Four Way Ceiling Cassette

Model			FDT28KXZE1-W	FDT36KXZE1-W	FDT45KXZE1-W	FDT56KXZE1-W	FDT71KXZE1-W	FDT90KXZE1-W	FDT112KXZE1-W	FDT140KXZE1-W	FDT160KXZE1-W
Nominal cooling capacity		kW	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0	16.0
Nominal heating capacity		kW	3.2	4.0	5.0	6.3	8.0	10.0	12.5	16.0	18.0
Power source			1 Phase 220 - 240V, 50Hz								
Power consumption		kW	0.04	0.04	0.04	0.07	0.08	0.13	0.14	0.14	0.14
Sound power level		dB(A)	55	55	55	60	62	65	65	66	66
Sound pressure level (JIS B 8616)	Cooling	dB(A)	P-Hi:40 Hi:32 Me:30 Lo:28		P-Hi:40 Hi:32 Me:30 Lo:28	P-Hi:44 Hi:34 Me:31 Lo:28	P-Hi:47 Hi:35 Me:32 Lo:28	P-Hi:49 Hi:38 Me:36 Lo:31	P-Hi:49 Hi:39 Me:37 Lo:31	P-Hi:49 Hi:42 Me:39 Lo:32	
	Heating										
Exterior dimensions (HxWxD)	Unit	mm	236x840x840			298x840x840					
	Panel		35x950x950 T-PSAE-SBW-E (Fine Snow) / T-PSAE-SBB-E (Shadow Black)								
Net weight		kg	Unit: 20 Panel: 5			Unit: 21.5 Panel: 5			Unit: 25 Panel: 5		
Air flow	Cooling	l/s	P-Hi:333 Hi:233 Me:200 Lo:167	P-Hi:333 Hi:250 Me:200 Lo:167	P-Hi:333 Hi:250 Me:217 Lo:167	P-Hi:433 Hi:267 Me:217 Lo:183	P-Hi:467 Hi:283 Me:133 Lo:200	P-Hi:617 Hi:417 Me:367 Lo:250	P-Hi:633 Hi:433 Me:383 Lo:283	P-Hi:633 Hi:467 Me:416 Lo:300	P-Hi:633 Hi:483 Me:433 Lo:317
	Heating										
Outside air intake			Possible								
Air filter			Pocket Plastic net x1 (Washable)								
Remote Control			wired:RC-EXZ3A, RC-E5, RCH-E3 wireless: RCN-T-5BW-E2 (Fine Snow) / RCN-T-5BB-E2 (Shadow Black)								
Installation data	Liquid	mm	ø6.35	ø6.35	ø6.35	ø6.35	ø9.52	ø9.52	ø9.52	ø9.52	ø9.52
Refrigerant piping size	Gas		ø9.52	ø12.7	ø12.7	ø12.7	ø15.88	ø15.88	ø15.88	ø15.88	ø15.88

See page 62 for further product information and testing conditions. See page 93 for exterior dimensions.

FDTC Series: Compact Four Way Ceiling Cassette

Model			FDTC15KXZE1-W	FDTC22KXZE1-W	FDTC28KXZE1-W	FDTC36KXZE1-W	FDTC45KXZE1-W	FDTC56KXZE1-W
Nominal cooling capacity		kW	1.5	2.2	2.8	3.6	4.5	5.6
Nominal heating capacity		kW	1.7	2.5	3.2	4.0	5.0	6.3
Power source			1 Phase 220 - 240V, 50Hz					
Power consumption		kW	0.03	0.03	0.03	0.04	0.05	0.06
Sound power level (JIS B 8616)	Cooling	dB(A)	47	49	49	54	58	60
	Heating		46	49	49	53	57	60
Sound pressure level (JIS B 8616)	Cooling	dB(A)	P-Hi:33 Hi:30 Me:28 Lo:25	P-Hi:35 Hi:32 Me:29 Lo:25	P-Hi:35 Hi:32 Me:29 Lo:25	P-Hi:39 Hi:36 Me:31 Lo:26	P-Hi:43 Hi:39 Me:36 Lo:28	P-Hi:47 Hi:43 Me:39 Lo:31
	Heating							
Exterior dimensions (HxWxD)	Unit	mm	248x570x570					
	Panel		10x620x620 TC-PSAE-5AW-E (Honeycomb) / TC-PSAGE-5AW-E (Grid)					
Net weight		kg	Unit: 12.5 Panel: 2.5	Unit: 13 Panel: 2.5		Unit: 14 Panel: 2.5		
Air flow	Cooling	l/s	P-Hi:133 Hi:117 Me:100 Lo:83	P-Hi:150 Hi:133 Me:117 Lo:100	P-Hi:150 Hi:133 Me:117 Lo:100	P-Hi:167 Hi:150 Me:133 Lo:100	P-Hi:200 Hi:167 Me:150 Lo:117	P-Hi:233 Hi:200 Me:167 Lo:133
	Heating							
Outside air intake			Possible					
Air filter			Pocket Plastic net x1 (Washable)					
Remote Control			wired:RC-EXZ3A, RC-E5, RCH-E3 wireless:RCN-TC-5AW-E3					
Installation data	Liquid	mm	ø6.35	ø6.35	ø6.35	ø6.35	ø6.35	ø6.35
Refrigerant piping size	Gas		ø9.52	ø9.52	ø9.52	ø12.7	ø12.7	ø12.7

See page 64 for further product information and testing conditions. See page 94 for exterior dimensions.

FDU Series: High-Static Pressure Ducted

Model			FDU45KXE6F-W	FDU56KXE6F-W	FDU71KXE6F-W	FDU90KXE6F-W	FDU112KXE6F-W	FDU140KXE6F-W	FDU160KXE6F-W
Nominal cooling capacity		kW	4.5	5.6	7.1	9.0	11.2	14.0	16.0
Nominal heating capacity		kW	5.0	6.3	8.0	10.0	12.5	16.0	18.0
Power source			1 Phase 220 - 240V, 50Hz						
Power consumption		kW	0.1	0.1	0.25	0.25	0.32	0.36	0.43
Sound power level (JIS B 8616)		dB(A)	58		63		68		72
			60		65		69		72
Sound pressure level (JIS B 8616)	Cooling	dB(A)	P-Hi:34 Hi:29 Me:27 Lo:25		P-Hi:37 Hi:31 Me:27 Lo:22		P-Hi:40 Hi:36 Me:34 Lo:28	P-Hi:41 Hi:37 Me:34 Lo:28	P-Hi:45 Hi:38 Me:34 Lo:29
	Heating		P-Hi:35 Hi:30 Me:29 Lo:25		P-Hi:39 Hi:33 Me:28 Lo:23		P-Hi:41 Hi:36 Me:34 Lo:28	P-Hi:41 Hi:37 Me:34 Lo:28	P-Hi:45 Hi:38 Me:34 Lo:29
Exterior dimensions (HxWxD)		mm	280x750x635		280x950x635		280x1368x740		
Net weight		kg	29		34		54		
Air flow	Cooling	l/s	P-Hi:217 Hi:167 Me:150 Lo:133	P-Hi:217 Hi:167 Me:150 Lo:133	P-Hi:400 Hi:317 Me:250 Lo:167	P-Hi:400 Hi:317 Me:250 Lo:167	P-Hi:600 Hi:467 Me:417 Lo:317	P-Hi:650 Hi:533 Me:433 Lo:333	P-Hi:800 Hi:583 Me:467 Lo:367
	Heating								
External Static Pressure			Max: 200						
Outside air intake			Possible						
Air filter			Procure Locally						
Remote Control			wired:RC-EXZ3A, RC-E5, RCH-E3 wireless:RCN-KIT4-E2						
Installation data	Liquid	mm	ø6.35	ø6.35	ø9.52	ø9.52	ø9.52	ø9.52	ø9.52
Refrigerant piping size	Gas		ø12.7	ø12.7	ø15.88	ø15.88	ø15.88	ø15.88	ø15.88

See page 67 for further product information and testing conditions. See page 97 for exterior dimensions

INDOOR UNITS

FDT, FDTC, FDU, FDUM, FDUT & FDK Series
Compatible With KXZEN/S1-W Outdoor **(R32 Only)**

FDUM Series: Low/Medium-Static Pressure Ducted

Model			FDUM22KXE6F-W	FDUM28KXE6F-W	FDUM36KXE6F-W	FDUM45KXE6F-W	FDUM56KXE6F-W	FDUM71KXE6F-W	FDUM90KXE6F-W	FDUM112KXE6F-W	FDUM140KXE6F-W	FDUM160KXE6F-W
Nominal cooling capacity		kW	2.2	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0	16.0
Nominal heating capacity		kW	2.5	3.2	4.0	5.0	6.3	8.0	10.0	12.5	16.0	18.0
Power source			1 Phase 220 - 240V, 50Hz									
Power consumption		kW	0.08	0.08	0.08	0.08	0.08	0.16	0.25	0.25	0.26	0.38
Sound power level (JIS B 8616)		dB(A)	57		58			63	63	68	68	72
			60		60			65	65	69	69	72
Sound pressure level (JIS B 8616)	Cooling	dB(A)	P-Hi:33 Hi:27 Me:25 Lo:23		P-Hi:34 Hi:29 Me:27 Lo:25			P-Hi:37 Hi:31 Me:27 Lo:22	P-Hi:40 Hi:36 Me:34 Lo:28	P-Hi:40 Hi:36 Me:34 Lo:28	P-Hi:40 Hi:37 Me:34 Lo:28	P-Hi:45 Hi:38 Me:34 Lo:29
	Heating		P-Hi:36 Hi:30 Me:29 Lo:25		P-Hi:35 Hi:30 Me:29 Lo:25			P-Hi:39 Hi:33 Me:28 Lo:23	P-Hi:41 Hi:36 Me:34 Lo:28	P-Hi:41 Hi:36 Me:34 Lo:28	P-Hi:41 Hi:37 Me:34 Lo:28	
Exterior dimensions (HxWxD)		mm	280x750x635					280x950x635		280x1368x740		
Net weight		kg	29					34		54		
Air flow	Cooling	l/s	P-Hi:217 Hi:167 Me:150 Lo:133	P-Hi:217 Hi:167 Me:150 Lo:133	P-Hi:217 Hi:167 Me:150 Lo:133	P-Hi:217 Hi:167 Me:150 Lo:133	P-Hi:217 Hi:167 Me:150 Lo:133	P-Hi:400 Hi:317 Me:250 Lo:167	P-Hi:400 Hi:317 Me:250 Lo:167	P-Hi:600 Hi:467 Me:417 Lo:317	P-Hi:650 Hi:533 Me:433 Lo:333	P-Hi:800 Hi:583 Me:467 Lo:367
	Heating											
External Static Pressure			Max: 100									
Outside air intake			Possible									
Air filter			Filter kit:UM-FL1EF/UM-FL2EF/UM-FL3EF(option)									
Remote Control			wired:RC-EXZ3A, RC-E5, RCH-E3 wireless:RCN-KIT4-E2									
Installation data	Liquid	mm	ø6.35	ø6.35	ø6.35	ø6.35	ø6.35	ø9.52	ø9.52	ø9.52	ø9.52	ø9.52
Refrigerant piping size	Gas		ø9.52	ø9.52	ø12.7	ø12.7	ø12.7	ø15.88	ø15.88	ø15.88	ø15.88	ø15.88

See page 69 for further product information and testing conditions. See page 99 for exterior dimensions.

FDUT Series: Low Profile, Medium-Static Pressure Ducted

Model			FDUT15KXE6F-W	FDUT22KXE6F-W	FDUT28KXE6F-W	FDUT36KXE6F-W	FDUT45KXE6F-W	FDUT56KXE6F-W	FDUT71KXE6F-W
Nominal cooling capacity		kW	1.5	2.2	2.8	3.6	4.5	5.6	7.1
Nominal heating capacity		kW	1.7	2.5	3.2	4.0	5.0	6.0	8.0
Power source			1 Phase 220 - 240V, 50Hz						
Power consumption		kW	0.058	0.067	0.066	0.07	0.078	0.08	0.08
Sound power level (JIS B 8616)		dB(A)	52	52	52	54	54	55	56
			51	52	52	55	54	55	57
Sound pressure level (JIS B 8616)	Cooling	dB(A)	Hi:32 Me:29 Lo:25			Hi:37 Me:34 Lo:28	Hi:36 Me:33 Lo:27	Hi:38 Me:33 Lo:29	Hi:41 Me:37 Lo:32
	Heating								
Exterior dimensions (HxWxD)		mm	200x750x500				200x950x500		220x1150x565
Net weight		kg	22	21	21	22	25		31
Air flow	Cooling	l/s	Hi:100 Me:83 Lo:67	Hi:125 Me:100 Lo:83	Hi:125 Me:100 Lo:83	Hi:142 Me:117 Lo:92	Hi:192 Me:150 Lo:117	Hi:208 Me:150 Lo:120	Hi:267 Me:217 Lo:158
	Heating								
External Static Pressure			Max: 35				Max: 50		
Outside air intake			Possible from return duct						
Air filter			Filter set: UT-FL1EF/UT-FL2EF/UT-FL3EF(option)						
Remote Control			wired:RC-EXZ3A, RC-E5, RCH-E3 wireless:RCN-KIT4-E2						
Installation data	Liquid	mm	ø6.35	ø6.35	ø6.35	ø6.35	ø6.35	ø6.35	ø9.52
Refrigerant piping size	Gas		ø9.52	ø9.52	ø9.52	ø12.7	ø12.7	ø12.7	ø15.88

See page 70 for further product information and testing conditions. See page 100 for exterior dimensions.

FDK Series: Wall Mounted

Model			FDK15KXZE1-W	FDK22KXZE1-W	FDK28KXZE1-W	FDK36KXZE1-W	FDK45KXZE1-W	FDK56KXZE1-W	FDK71KXZE1-W	FDK90KXZE1-W
Nominal cooling capacity		kW	1.5	2.2	2.8	3.6	4.5	5.6	7.1	9.0
Nominal heating capacity		kW	1.7	2.5	3.2	4.0	5.0	6.3	8.0	10.0
Power source			1 Phase 220 - 240V, 50Hz							
Power consumption		kW	0.02	0.02	0.02	0.03	0.03	0.03	0.04	0.05
Sound power level (JIS B 8616)		dB(A)	54	55	55	58	58	58	59	61
			54	55	55	58	58	61	59	61
Sound pressure level (JIS B 8616)	Cooling	dB(A)	P-Hi:38 Hi:34 Me:31 Lo:28	P-Hi:38 Hi:36 Me:32 Lo:27	P-Hi:38 Hi:36 Me:32 Lo:28	P-Hi:40 Hi:38 Me:33 Lo:28	P-Hi:43 Hi:41 Me:36 Lo:33	P-Hi:43 Hi:41 Me:36 Lo:33	P-Hi:42 Hi:40 Me:37 Lo:35	P-Hi:44 Hi:42 Me:39 Lo:35
	Heating									
Exterior dimensions (HxWxD)		mm	290x870x230						339x1197x262	
Net weight		kg	11.5	11			11.5		17	
Air flow	Cooling	l/s	P-Hi:95 Hi:83 Me:75 Lo:60	P-Hi:142 Hi:133 Me:100 Lo:83	P-Hi:142 Hi:133 Me:100 Lo:83	P-Hi:183 Hi:167 Me:133 Lo:117	P-Hi:200 Hi:183 Me:150 Lo:133	P-Hi:200 Hi:183 Me:150 Lo:133	P-Hi:350 Hi:317 Me:267 Lo:233	P-Hi:383 Hi:350 Me:317 Lo:267
	Heating							P-Hi:217 Hi:200 Me:167 Lo:133		
Outside air intake			Not Possible							
Air filter			Polypropylene net x2 (Washable)							
Remote Control			wired:RC-EXZ3A, RC-E5, RCH-E3 wireless:RCN-K-E2, RCN-K71-E2							
Installation data	Liquid	mm	ø6.35	ø6.35	ø6.35	ø6.35	ø6.35	ø6.35	ø9.52	ø9.52
Refrigerant piping size	Gas		ø9.52	ø9.52	ø9.52	ø12.7	ø12.7	ø12.7	ø15.88	ø15.88

See page 72 for further product information and testing conditions. See page 102 for exterior dimensions.

One Way Compact Ceiling Cassette
FDTQ Series

Model No.
FDTQ22KXE6F
FDTQ28KXE6F
FDTQ36KXE6F

Fits into standard 600 x 600 ceiling

Remote Control (option)

Wired

RC-EXZ3A RC-E5 RCH-E3

Wireless

RCN-KIT4-E2

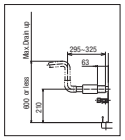
Wi-Fi

MH-RC-WIFI-1B

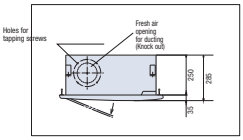
Compact Design

■ Comfortable effective cooling for small rooms, with low fan speed air flow at just 5.4m³/min.

Optional wide panel shown for solid ceiling



Condensate drain pump included as standard



Ultra slim design at just 250mm above the ceiling

Specifications

See page 92 for exterior dimensions

Item		Model	FDTQ22KXE6F				FDTQ28KXE6F				FDTQ36KXE6F			
Panel Name			Direct blow panel		Duct panel		Direct blow panel		Duct panel		Direct blow panel		Duct panel	
Panel mode (Option)			TQ-PSA-15W-E	TQ-PSB-15W-E	QR-PNA-14W-ER	QR-PNB-14W-ER	TQ-PSA-15W-E	TQ-PSB-15W-E	QR-PNA-14W-ER	QR-PNB-14W-ER	TQ-PSA-15W-E	TQ-PSB-15W-E	QR-PNA-14W-ER	QR-PNB-14W-ER
Nominal cooling capacity		kW	2.2				2.8				3.6			
Nominal heating capacity		kW	2.5				3.2				4.0			
Power source			1 Phase 220-240V, 50Hz											
Power consumption	Cooling	kW	0.07				0.07				0.07			
	Heating		0.07				0.07				0.07			
Sound power level		dB(A)	60											
Sound pressure level	※	dB(A)	Hi:41 Me:38 Lo:33		Hi:41 Me:38 Lo:33		Hi:41 Me:38 Lo:33		Hi:41 Me:38 Lo:33		Hi:41 Me:38 Lo:33		Hi:41 Me:38 Lo:33	
Exterior dimensions H x W x D	Unit	mm	250x570x570				250x570x570				250x570x570			
	Panel		35x625x650	35x780x650	35x625x650	35x780x650	35x625x650	35x780x650	35x625x650	35x780x650	35x625x650	35x780x650	35x625x650	35x780x650
Net weight		kg	Unit:23 Panel:2.5	Unit:23 Panel:3	Unit:23 Panel:2.5	Unit:23 Panel:3	Unit:23 Panel:2.5	Unit:23 Panel:3	Unit:23 Panel:2.5	Unit:23 Panel:3	Unit:23 Panel:2.5	Unit:23 Panel:3	Unit:23 Panel:2.5	Unit:23 Panel:3
Airflow range		l/s	84 - 133											
Outside air intake			Possible											
Air filter, Q'ty			Pocket Plastic net x1 (Washable)											
Remote control(option)			wired:RC-EXZ3A, RC-E5, RCH-E3 wireless:RCN-KIT4-E2											
Installation data Refrigerant piping size		mm(in)	Liquid line:ø6.35(1/4") Gas line:ø9.52(3/8")								Liquid line:ø6.35(1/4") Gas line:ø12.7(1/2")			

1.The data is measured under the following conditions (AS / NZS 3823.2), Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
2.Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
3.Motor input kW and Current please refer to Esolution VRF Selection Data
4.The operation data indicate when the air-conditioner is operated at 240V 50Hz for 1 phase.
※ Powerful-Hi can be selected. Sound pressure level: FDTQ22/28/36: 45dB(A).

Four Way Ceiling Cassette
FDT Series

Model No.
FDT28KXZE1
FDT36KXZE1
FDT45KXZE1
FDT56KXZE1
FDT71KXZE1
FDT90KXZE1
FDT112KXZE1
FDT140KXZE1
FDT160KXZE1

T-PSAE-5BW-E (FINE SNOW)

T-PSAE-5BB-E (SHADOW BLACK)

Remote Control (option)

Wired

RC-EXZ3A RC-E5 RCH-E3

Wireless

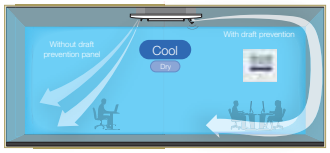
RCN-T-5BW-E2 (FINE SNOW)
RCN-T-5BB-E2 (SHADOW BLACK)

Wi-Fi

MH-RC-WIFI-1B

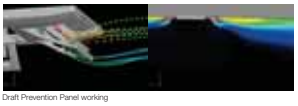
Draft Prevention Panel

The Draft Prevention Panel utilises 4 specially designed louvres to direct airflow horizontally along the ceiling, allowing it to evenly disperse. This eliminates uncomfortable and annoying draughts.

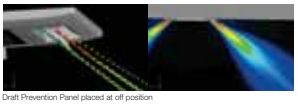


User can position Draft Prevention Panel panels by using the remote controller only (RC-EXZ3A, RCN-T-5BW-E2).

Advanced airflow control technology cultivated through aircraft development.



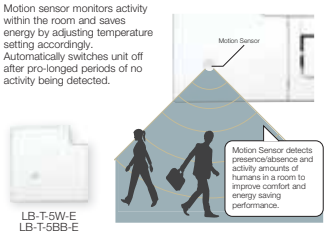
Draft Prevention Panel working



Draft Prevention Panel placed at off position

Motion Sensor (Option)

Motion sensor monitors activity within the room and saves energy by adjusting temperature setting accordingly. Automatically switches unit off after pro-longed periods of no activity being detected.

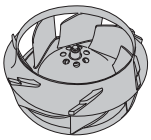


LB-T-5W-E
LB-T-5BB-E

Improved Aerodynamic Performance

New designed component can have better aerodynamic perfromance and achieve lower noise.

■ Improved turbo fan



■ Fan guard

Individual Louvre Control

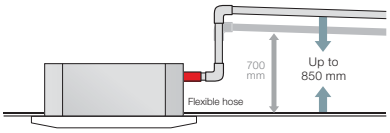
According to room conditions, four directions of air flow can be controlled individually by utilizing the louvre control system.
Individual flap control is available even after installation.

Set the louvres to swing between the maximum upper and lower louvre positions via the wired remote control.

*The wireless remote control is not applicable to the Individual louvre control system.

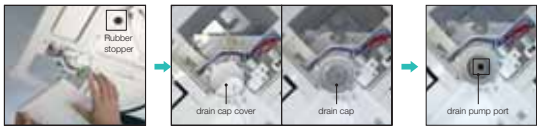
850mm Drain Pump

Drain can be discharged upwards by 850mm from the ceiling surface. It allows a piping layout with a high degree of freedom. Depending on the installation location and 185mm flexible hose as a standard equipment supports easy workability.



Easy Maintenance

Easily check the drain pan by simply removing the corner panel.



Remove corner lid.

Remove drain cap cover and check the condition. It is necessary to clean-up, firstly remove the rubber stopper to drain water out and secondly remove the drain cap.

Clean up the area around the drain pump port.

Specifications

See page 93 for exterior dimensions

Item		Model	FDT28KXZE1	FDT36KXZE1	FDT45KXZE1	FDT56KXZE1	FDT71KXZE1	FDT90KXZE1	FDT112KXZE1	FDT140KXZE1	FDT160KXZE1
Nominal cooling capacity		kW	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0	16.0
Nominal heating capacity		kW	3.2	4.0	5.0	6.3	8.0	10.0	12.5	16.0	18.0
Power source			1 Phase 220-240V, 50Hz								
Power consumption	Cooling	kW	0.02	0.03		0.04	0.08	0.13	0.14		
	Heating		0.02	0.03		0.04	0.08	0.13	0.14		
Sound power level		dB(A)	49		50	55	62	65	66		
Sound pressure level *		dB(A)	Hi:33 Me:30 Lo:28		Hi:33 Me:31 Lo:29		Hi:35 Me:32 Lo:28	Hi:38 Me:36 Lo:31	Hi:39 Me:37 Lo:31	Hi:42 Me:39 Lo:32	Hi:42 Me:39 Lo:33
Exterior dimensions H x W x D		mm	Unit:236x840x840 Panel:35x950x950					Unit:298x840x840 Panel:35x950x950			
Net weight		kg	Unit:20 Standard Panel:5			Unit:21.5 Standard Panel:5		Unit:25 Standard Panel:5			
Airflow Range		L/s	166 - 250		166 - 283	183 - 333	200 - 466	250 - 616	283 - 433	300 - 633	316 - 633
Outside air intake			Possible								
Panel			T-PSAE-5BW-E (Fine Snow) / T-PSAE-5BB-E (Shadow Black)								
Air filter, Q'ty			Pocket Plastic net x1 (Washable)								
Remote control(option)			wired:RC-EXZ3A, RC-E5, RCH-E3 wireless:RCN-T-5BW-E2 (Fine Snow) / RCN-T-5BB-E2 (Shadow Black)								
Installation data Refrigerant piping size		mm(in)	Liquid line:ø6.35(1/4") Gas line:ø9.52(3/8")	Liquid line:ø6.35(1/4") Gas line:ø12.7(1/2")			Liquid line:ø9.52(3/8") Gas line:ø15.88(5/8")				

1. The data is measured under the following conditions (AS / NZS 3823.3). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
3. Motor input kW and Current please refer to Ecolution VRF Selection Data
4. The operation data indicate when the air-conditioner is operated at 240V 50Hz for 1 phase.
e Powerful-H can be selected. Sound pressure level: FDT28/36 37dB(A), FDT45/56 38dB(A), FDT71 47dB(A), FDT90/112/140/160 49dB(A). Air flow: FDT28 15m3/min, FDT36 16m3/min, FDT45 17m3/min, FDT56 20m3/min, FDT71 28m3/min, FDT90 37m3/min,, FDT112/140/160 38m3/min.

Compact Four Way Ceiling Cassette FDTC Series

Model No.
FDTC15KXZE1
FDTC22KXZE1
FDTC28KXZE1
FDTC36KXZE1
FDTC45KXZE1
FDTC56KXZE1

TC-PSAE-5AW-E (HONEYCOMB)

TC-PSAGE-5AW-E (GRID)

Remote Control (option)

Wired

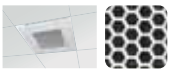
RC-EXZ3A RC-E5 RCH-E3

Wireless Wi-Fi

RCN-TC-5AW-E3 MH-RC-WIFI-1B

Modern Design With Flat Panel

Integrated Ceiling System Design (600x600)



The new grill boasts a unique structure and a clean white panel. This design was invented by zweigrad GmbH & Co. KG in Germany.

Taking OA (Outside Air) into inside

Fresh air can be taken in without option parts. When it is insufficient, existing option parts also can be used.

OA Spacer TC-OAS-E2(option)
Joint Duct TC-OAD-E(option)

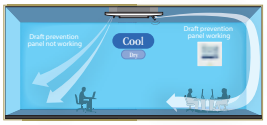
Light and Compact Design

□700 mm → □620 mm

Weighing only 14kgs and with the main body height of only 248mm, the new FDTC series can be easily installed in a huge range of applications where space may be limited.

Draft Prevention Panel

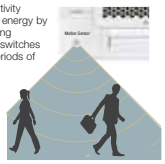
The Draft Prevention Panel utilises 4 specially designed louvres to direct airflow horizontally along the ceiling, allowing it to evenly disperse. This eliminates uncomfortable and annoying draughts.



User can position Draft Prevention Panel panels by using the remote controller only (RC-EXZ3A, RCN-TC-5AW-E3).

Motion Sensor (Option)

Motion sensor monitors activity within the room and saves energy by adjusting temperature setting accordingly. Automatically switches unit off after pro-longed periods of no activity being detected.

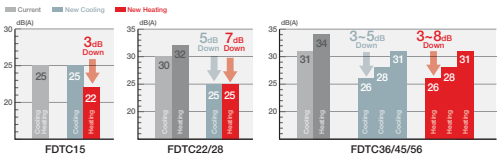


LB-TC-5W-E

Quieter Operation

By adopting a new turbo fan and an improved heat exchanger the FDTC series has reduced operation noise compared to previous models.

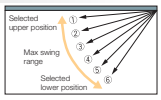
(Sound pressure level in the Lo mode.)

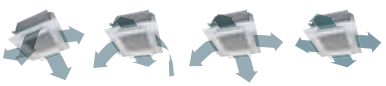


Individual Louvre Control

Set the louvres to swing between the maximum upper and lower louvre positions or individually set the fixed position of each louvre via the wired remote control.

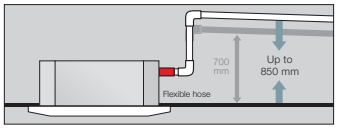
*The wireless remote control is not applicable to the individual flap control system.





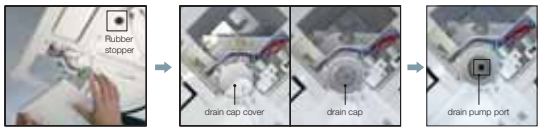
850mm Drain Pump

Drain can be discharged upwards by 850mm from the ceiling surface. It allows a piping layout with a high degree of freedom. Depending on the installation location and 185mm flexible hose as a standard equipment supports easy workability.



Easy Maintenance

Easily check the drain pan by simply removing the corner panel.



Remove corner lid.

Remove drain cap cover and check the condition. It is necessary to clean-up, firstly remove the rubber stopper to drain water out and secondly remove the drain cap.

Clean up the area around the drain pump port.

Specifications

See page 94 for exterior dimensions

Item		Model	FDTC15KXZE1	FDTC22KXZE1	FDTC28KXZE1	FDTC36KXZE1	FDTC45KXZE1	FDTC56KXZE1
Nominal cooling capacity		kW	1.5	2.2	2.8	3.6	4.5	5.6
Nominal heating capacity		kW	1.7	2.5	3.2	4.0	5.0	6.3
Power source			1 Phase 220-240V, 50Hz					
Power consumption	Cooling	kW	0.03			0.04	0.05	0.06
	Heating		0.03			0.04	0.05	0.06
Sound power level		dB(A)	47	49		54	58	60
Sound pressure level	Cooling	dB(A)	P-Hi:33 Hi:30 Me:28 Lo:25	P-Hi:35 Hi:32 Me:29 Lo:25		P-Hi:39 Hi:36 Me:31 Lo:26	P-Hi:43 Hi:39 Me:36 Lo:28	P-Hi:47 Hi:43 Me:39 Lo:31
	Heating		P-Hi:33 Hi:30 Me:26 Lo:22	P-Hi:35 Hi:32 Me:29 Lo:25		P-Hi:39 Hi:36 Me:31 Lo:26	P-Hi:43 Hi:39 Me:36 Lo:28	P-Hi:47 Hi:43 Me:39 Lo:31
Exterior dimensions H x W x D		mm	Unit:248x570x570 Panel:10x620x620					
Net weight		kg	Unit:12.5 Standard Panel:2.5	Unit:13 Standard Panel:2.5		Unit:14 Standard Panel:2.5		
Airflow range	Cooling	L/s	83 - 133	100 - 150		100 - 166	116 - 200	133 - 233
	Heating		83 - 133	100 - 150		100 - 166	116 - 200	133 - 233
Outside air intake			Possible					
Panel			TC-PSAE-5AW-E (Honeycomb) / TC-PSAGE-5AW-E (Grid)					
Air filter, Q'ty			Pocket Plastic net x1 (Washable)					
Remote control(option)			wired:RC-EXZ3A, RC-E5, RCH-E3 wireless:RCN-TC-5AW-E3					
Installation data Refrigerant piping size		mm(in)	Liquid line:ø6.35(1/4") Gas line:ø9.52(3/8")			Liquid line:ø6.35(1/4") Gas line:ø12.7(1/2")		

1. The data is measured under the following conditions (AS / NZS 3823.2). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
3. Motor input kW and Current please refer to Ecolution VRF Selection Data
4. The operation data indicate when the air-conditioner is operated at 240V 50Hz for 1 phase.

Two Way Ceiling Cassette FDTW Series

Model No.
FDTW28KXE6F
FDTW45KXE6F
FDTW56KXE6F
FDTW71KXE6F
FDTW90KXE6F
FDTW112KXE6F
FDTW140KXE6F

FDTW28–71

FDTW90–140

Remote Control (option)

Wired

RC-EXZ3A RC-E5 RCH-E3

Wireless Wi-Fi

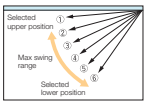
RCN-TW-E2 MH-RC-WIFI-1B

Individual Louvre Control

With the ability to individually control each louvre's position and with an improved outlet design, you can deliver powerful airflow in four different directions, allowing for even air distribution.

Louvre Swing System

The louvre can swing within the range of upper and lower louvre position selected with wired remote control.



*Wireless remote control and RCH-E3 is not applicable to the individual flap control system and the flap control system.

Installation Workability

Drainage spout

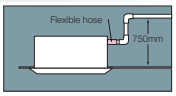
Drainage flow test can be done easily by use of this drainage spout.

Transparent access hole to drain pan

Dirt condition of the bottom of a drain pan can be checked through this transparent access hole without removing drain pan.

750mm Drain Pump

Drain can be discharged upward by 750mm from the ceiling surface close to the indoor unit.
It allows a piping layout with a high degree of freedom depending on the installation location.



Specifications

See page 95 for exterior dimensions

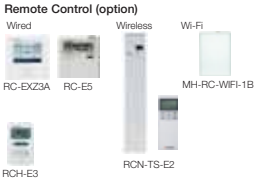
Item		Model	FDTW28KXE6F	FDTW45KXE6F	FDTW56KXE6F	FDTW71KXE6F	FDTW90KXE6F	FDTW112KXE6F	FDTW140KXE6F
Nominal cooling capacity		kW	2.8	4.5	5.6	7.1	9.0	11.2	14.0
Nominal heating capacity		kW	3.2	5.0	6.3	8.0	10.0	12.5	16.0
Power source			1 Phase 220-240V, 50Hz						
Power consumption	Cooling	kW	0.09	0.10		0.14	0.19		
	Heating		0.09	0.10		0.14	0.19		
Sound power level		dB(A)	58				65	—	
Sound pressure level ※		dB(A)	Hi:38 Me:34 Lo:31				Hi:45 Me:41 Lo:37		
Exterior dimensions H x W x D		mm	Unit:325x820x620 Panel:20x1120x680				Unit:325x1535x620 Panel:20x1835x680		
Net weight		kg	Unit:20 Panel:8.5	Unit:21 Panel:8.5		Unit:23 Panel:8.5	Unit:35 Panel:13		
Airflow range		l/s	150 - 242				334 - 517		
Outside air intake			Possible						
Panel			TW-PSA-26W-E				TW-PSA-46W-E		
Air filter, Q'ty			Pocket Plastic net x2 (Washable)				Pocket Plastic net x3 (Washable)		
Remote control(option)			wired:RC-EXZ3A, RC-E5, RCH-E3 wireless:RCN-TW-E2						
Installation data Refrigerant piping size		mm(in)	Liquid line:ø6.35(1/4") Gas line:ø9.52(3/8")	Liquid line:ø6.35(1/4") Gas line:ø12.7(1/2")		Liquid line:ø9.52(3/8") Gas line:ø15.88(5/8")			

1. The data is measured under the following conditions (AS / NZS 3823.2). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
3. Motor input kW and Current please refer to Ecolution VRF Selection Data
4. The operation data indicate when the air-conditioner is operated at 240V 50Hz for 1 phase.
※ Powerful-Hi can be selected. Sound pressure level: FDTW28/45/56/71 42dB(A), FDTW90/112/140 48dB(A).

One Way Ceiling Cassette FDTS Series

Model No.
FDTS45KXE6F
FDTS71KXE6F

Remote Control (option)

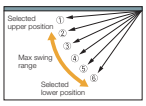


Individual Louvre Control

With the ability to individually control each louvre's position, you can deliver airflow in two different directions, allowing for even air distribution.

Louvre Swing System

Set the louvres to swing between the maximum upper and lower louvre positions via the wired remote control.



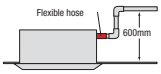
•Wireless remote control and RCH-E3 is not applicable to the individual louvre control system and the louvre control system.

Compact Design

Indoor unit size (W:1,150 x D:565) brings easy installation for 1,200 x 600 ceiling and Panel size (1,250 x 650) is suitable for 1,200 x 600 ceiling. Height is the industry's lowest height level 220mm and weight is 27/28kg only.

600mm Drain Pump

Drain can be discharged upward by 600mm from the ceiling surface close to the indoor unit.
It allows a piping layout with a high degree of freedom depending on the installation location.



Wireless Remote Control

For wireless remote control simply attach an additional panel with infrared receiver on the right side of the main decorative panel.

Specifications

See page 96 for exterior dimensions

Item		Model	FDTS45KXE6F	FDTS71KXE6F
Nominal cooling capacity		kW	4.5	7.1
Nominal heating capacity		kW	5.0	8.0
Power source			1 Phase 220-240V, 50Hz	
Power consumption	Cooling	kW	0.04	0.09
	Heating		0.04	0.09
Sound power level		dB(A)	60	61
Sound pressure level ※		dB(A)	Hi:40 Me:38 Lo:35	Hi:46 Me:41 Lo:36
Exterior dimensions H x W x D		mm	Unit:220x1150x565 Panel:35x1250x650	
Net weight		kg	Unit:27 Panel:5	Unit:28 Panel:5
Airflow range		l/s	159 - 217	159 - 283
Outside air intake			Possible	
Panel			TS-PSA-3AW-E	
Air filter, Q'ty			Pocket Plastic net x2 (Washable)	
Remote control(option)			wired:RC-EXZ3A, RC-E5, RCH-E3 wireless:RCN-TS-E2	
Installation data Refrigerant piping size		mm(in)	Liquid line:ø6.35(1/4") Gas line:ø12.7(1/2")	Liquid line:ø9.52(3/8") Gas line:ø15.88(5/8")

1. The data is measured under the following conditions (AS / NZS 3823.3). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
3. Motor input kW and Current please refer to Esolution VRF Selection Data
4. The operation data indicate when the air conditioner is operated at 240V 50Hz for 1 phase.
※ Powerful-Hi can be selected. Sound pressure level: FDTS45 42dB(A), FDTS71 49dB(A).

High Static Pressure Ducted FDU Series

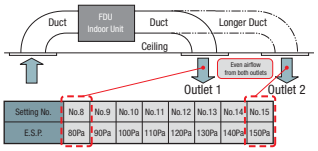
Model No.
FDU45KXE6F
FDU56KXE6F
FDU71KXE6F
FDU90KXE6F
FDU112KXE6F
FDU140KXE6F
FDU160KXE6F

Remote Control (option)

External Static Pressure (E.S.P) Control

By manually setting the external static pressure during installation, the indoor unit will control the fan-speed to ensure rated air flow volume at each fan speed setting. Using the set air flow rate and pressure loss of the ducts connected you can set the required E.S.P. using the wired remote control.

External Static Pressure (E.S.P.) can be set by E.S.P. button.



Setting No.	No.8	No.9	No.10	No.11	No.12	No.13	No.14	No.15
E.S.P.	80Pa	90Pa	100Pa	110Pa	120Pa	130Pa	140Pa	150Pa

*Range of 80~150 Pa is set at ex-factory default.
Range of 10~200 Pa is available by setting SW8-4 switch on at site.

Expansion of external static pressure range

Previous		Current
10~130Pa	➡	10~200Pa

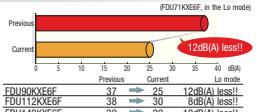
Slim Profile

	Previous		Current	
FDU71KXE6F	297	➡	280	17mm less!!
FDU112/140KXE6F	350	➡	280	70mm less!!

Lighter Design

	Previous		Current	
FDU71KXE6F	40	➡	34	6kg less!!
FDU90KXE6F	63	➡	34	29kg less!!
FDU112/140KXE6F	63	➡	54	9kg less!!

Quiet Operation



	Previous		Current	Lo mode
FDU90KXE6F	37	➡	25	12dB(A) less!!
FDU112KXE6F	38	➡	30	8dB(A) less!!
FDU140KXE6F	39	➡	29	10dB(A) less!!

Transparent Inspection Window

Transparent window allows for the drain pan to be checked for dirt without removing it from the unit.

Specifications

See page 97 for exterior dimensions

Item	Model	FDU45KXE6F	FDU56KXE6F	FDU71KXE6F	FDU90KXE6F	FDU112KXE6F	FDU140KXE6F	FDU160KXE6F
Nominal cooling capacity	kW	4.5	5.6	7.1	9.0	11.2	14.0	16.0
Nominal heating capacity	kW	5.0	6.3	8.0	10.0	12.5	16.0	18.0
Power source		1 Phase 220-240V, 50Hz						
Power consumption Cooling	kW	0.10		0.25		0.32	0.36	0.43
Power consumption Heating	kW	0.10		0.25		0.32	0.36	0.43
Sound power level	dB(A)	60		65			—	
Sound pressure level ※	dB(A)	Hi:32 Me:29 Lo:26		Hi:33 Me:29 Lo:25		Hi:38 Me:36 Lo:30	Hi:40 Me:34 Lo:29	Hi:40 Me:35 Lo:30
Exterior dimensions H x W x D	mm	280x750x635		280x950x635		280x1370x740		
Net weight	kg	29		34		54		
Airflow range	l/s	134 - 217		167 - 400		317 - 600	334 - 650	367 - 800
Maximum external static pressure	Pa	200						
Outside air intake		Possible						
Air filter		Procure locally						
Remote control(option)		wired:RC-EXZ3A, RC-E5, RCH-E3 wireless:RCN-KIT4-E2						
Installation data Refrigerant piping size	mm(in)	Liquid line:ø6.35(1/4") Gas line:ø12.7(1/2")		Liquid line:ø9.52(3/8") Gas line:ø15.88(5/8")				

1. The data are measured under the following conditions (AS / NZS 3823.3). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. External static pressure of indoor unit is 60Pa.
2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
3. Motor input kW and Current please refer to Esolution VRF Selection Data
4. The operation data indicate when the air conditioner is operated at 240V 50Hz for 1 phase.
※ Powerful-Hi can be selected. Sound pressure level: FDU45/56 37dB(A), FDU71/90 39dB(A), FDU112 44dB(A), FDU140 45dB(A),FDU160 47dB(A).

High Static Pressure Ducted FDU Series

Model No.
FDU224KXZE1
FDU280KXZE1

Remote Control (option)

Wired

RC-EXZ3A RC-E5 RCH-E3

Wireless Wi-Fi

RCN-KIT4-E2 MH-RC-WIFI-1B

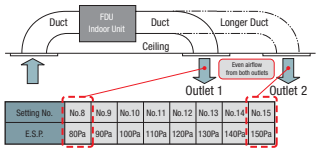
External Static Pressure (E.S.P) Control

By manually setting the external static pressure during installation, the indoor unit will control the fan-speed to ensure rated air flow volume at each fan speed setting. Using the set air flow rate and pressure loss of the ducts connected you can set the required E.S.P. using the wired remote control.

RC-E5

E.S.P. button

External Static Pressure (E.S.P.) can be set by E.S.P. button.



Setting No.	No.8	No.9	No.10	No.11	No.12	No.13	No.14	No.15
E.S.P.	80Pa	90Pa	100Pa	110Pa	120Pa	130Pa	140Pa	150Pa

*Range of 80~150 Pa is set at ex-factory default.
Range of 10~200 Pa is available by setting SW8-4 switch on at site.

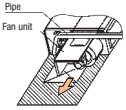
Quiet Operation: 45dB(A)

Thanks to our highly efficient DC fan motor the FDU series boasts quiet operation levels
(Sound pressure level 45dB(A) in Lo mode)

Improved Serviceability

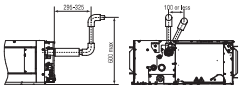
The fan unit (comprised of impeller and motor) is easily accessible from either the side or bottom of the unit and can be pulled out for easy maintenance.

(Common for FDUM22~160KXE6F & FDU45~160KXE6F)



Optional Drain Pump

Drain Pump PJG451A004 (available as a Spare Part) provides 600mm upwards discharge measured from base of indoor unit.



Specifications

See page 98 for exterior dimensions

Item		Model	FDU224KXZE1	FDU280KXZE1
Nominal cooling capacity		kW	22.4	28.0
Nominal heating capacity		kW	25.0	31.5
Power source			1 Phase 220-240V, 50Hz	
Power consumption	Cooling	kW	1.20	1.20
	Heating		1.20	1.20
Sound power level		dB(A)	—	
Sound pressure level		dB(A)	Hi:50 / Me:47 / Lo:45	
Exterior dimensions H x W x D		mm	379x1600x893	
Net weight		kg	89	
Airflow range		l/s	933 - 1333	
Maximum external static pressure		Pa	200	
Outside air intake			Possible(on return duct)	
Air filter			Procure locally	
Remote control(option)			wired:RC-EXZ3A, RC-E5, RCH-E3 wireless:RCN-KIT4-E2	
Installation data Refrigerant piping size		mm(in)	Liquid line:ø9.52(3/8") Gas line:ø19.05(3/4")	Liquid line:ø9.52(3/8") Gas line:ø22.22(7/8")

1. The data are measured under the following conditions (AS / NZS 3823.2). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. External static pressure of indoor unit is 75Pa.
2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
3. Motor input kW and Current please refer to Esolution VRF Selection Data
4. The operation data indicate when the air-conditioner is operated at 240V 50Hz for 1 phase.
※ Powerful-Hi can be selected. Sound pressure level: FDU224/280 52dB(A).

Low/Medium Static Pressure Ducted FDUM Series

Model No.

FDUM22KXE6F	FDUM71KXE6F
FDUM28KXE6F	FDUM90KXE6F
FDUM36KXE6F	FDUM112KXE6F
FDUM45KXE6F	FDUM140KXE6F
FDUM56KXE6F	FDUM160KXE6F

Filter Kit (option)
UM-FL1EF : for 22~56
UM-FL2EF : for 71, 90
UM-FL3EF : for 112, 140, 160

※Filter pressure loss:5pa

Remote Control (option)

Wired

RC-EXZ3A RC-E5 RCH-E3

Wireless Wi-Fi

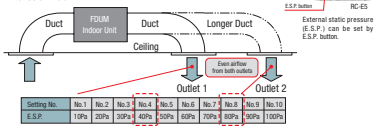
RCN-KIT4-E2 MH-RC-WIFI-1B

Automatic External Static Pressure (E.S.P.) Control

The automatic external static pressure can be set during installation.
The FDUM indoor unit will adjust the fan speed as required to maintain the set ESP in ducts and deliver even and optimal airflow to each room.

E.S.P button RC-E5

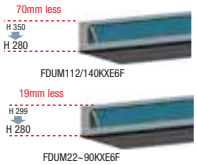
External static pressure (E.S.P.) can be set by E.S.P. button.



Setting No.	No.1	No.2	No.3	No.4	No.5	No.6	No.7	No.8	No.9	No.10
E.S.P.	10Pa	20Pa	30Pa	40Pa	50Pa	60Pa	70Pa	80Pa	90Pa	100Pa

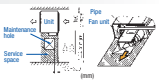
Slim Profile

The height of all FDUM models is only 280mm.



Improved Serviceability

The fan unit (comprised of impeller and motor) is easily accessible from either the side or bottom of the unit and can be pulled out for easy maintenance.



Transparent Inspection Window

Transparent window allows for the drain pan to be checked for dirt without removing it from the unit.

Specifications

See page 99 for exterior dimensions

Item		Model	FDUM22KXE6F	FDUM28KXE6F	FDUM36KXE6F	FDUM45KXE6F	FDUM56KXE6F	FDUM71KXE6F	FDUM90KXE6F	FDUM112KXE6F	FDUM140KXE6F	FDUM160KXE6F
Nominal cooling capacity		kW	2.2	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0	16.0
Nominal heating capacity		kW	2.5	3.2	4.0	5.0	6.3	8.0	10.0	12.5	16.0	18.0
Power source			1 Phase 220-240V, 50Hz									
Power consumption	Cooling	kW	0.10					0.20		0.29	0.33	0.45
	Heating		0.10					0.20		0.29	0.33	0.45
Sound power level		dB(A)	60					65		—		
Sound pressure level ※		dB(A)	Hi:32 Me:29 Lo:26					Hi:33 Me:29 Lo:25		Hi:38 Me:36 Lo:30	Hi:40 Me:34 Lo:29	Hi:40 Me:35 Lo:30
Exterior dimensions H x W x D		mm	280 x 750 x 635					280 x 950 x 635		280 x 1370 x 740		
Net weight		kg	29					34		54		
Airflow range		l/s	134 - 217					167 - 400		317 - 600	334 - 650	367 - 800
Maximum external static pressure		Pa	100									
Outside air intake			Possible									
Air filter			Filter kit:UM-FL1EF/UM-FL2EF/UM-FL3EF(option)									
Remote control(option)			wired:RC-EXZ3A, RC-E5, RCH-E3 wireless:RCN-KIT4-E2									
Installation data Refrigerant piping size		mm(in)	Liquid line:ø6.35(1/4") Gas line:ø9.52(3/8")		Liquid line:ø6.35(1/4") Gas line:ø12.7(1/2")			Liquid line:ø9.52(3/8") Gas line:ø15.88(5/8")				

1. The data is measured under the following conditions (AS / NZS 3823.2). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. External static pressure of indoor unit is 35Pa(22/28/36/45/56/71/90), 60Pa(112/140/160).
2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
3. Motor input kW and Current please refer to Esolution VRF Selection Data
4. The operation data indicate when the air-conditioner is operated at 240V 50Hz for 1 phase.
※ Powerful-Hi can be selected. FDUM22/28/36/45/56 37dB(A), FDUM71/90 38dB(A), FDUM112 44dB(A), FDUM140 45dB(A), FDUM160 47dB(A).

Slim Profile, Low Static Pressure Ducted
FDUT Series

Model No.
FDUT15KXE6F-E
FDUT22KXE6F-E
FDUT28KXE6F-E
FDUT36KXE6F-E
FDUT45KXE6F-E
FDUT56KXE6F-E
FDUT71KXE6F-E

Remote Control (option)

Wired

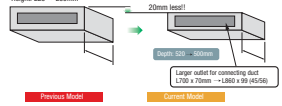
RC-EXZ3A RC-E5 RCH-E3

Wireless Wi-Fi

RCN-KIT4-E2 MH-RC-WIFI-1B

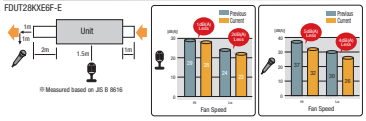
Compact design

FDUT15~56KXE6F-E

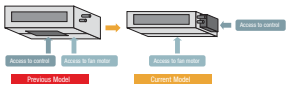


Reduced Operational Noise

FDUT28KXE6F-E



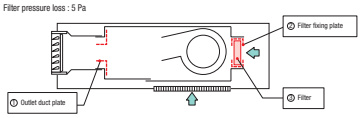
Serviceability



Duct Kit and Filter Options

Item	Contents	for FDUT15/22/28/36KXE6F-E	for FDUT45/56KXE6F-E	for FDUT71KXE6F-E
Outlet duct plate	①	UT-SAT1EF	UT-SAT2EF	UT-SAT3EF
Filter set	②,③	UT-FL1EF	UT-FL2EF	UT-FL3EF

Filter pressure loss : 5 Pa



Specifications

See page 100 for exterior dimensions

Item	Model	FDUT15KXE6F-E	FDUT22KXE6F-E	FDUT28KXE6F-E	FDUT36KXE6F-E	FDUT45KXE6F-E	FDUT56KXE6F-E	FDUT71KXE6F-E
Nominal cooling capacity	kW	1.5	2.2	2.8	3.6	4.5	5.6	7.1
Nominal heating capacity	kW	1.7	2.5	3.2	4.0	5.0	6.0	8.0
Power source		1 Phase 220-240V, 50Hz						
Power consumption	Cooling / kW	0.06	0.07			0.08		0.08
	Heating / kW	0.06	0.07			0.08		0.07
Sound power level	dB(A)	52			57	58	59	
Sound pressure level ①	dB(A)	Hi:28 Me:26 Lo:22	Hi:28 Me:26 Lo:22		Hi:33 Me:30 Lo:26	Hi:34 Me:32 Lo:28	Hi:35 Me:33 Lo:30	Hi:35 Me:31 Lo:28
Sound pressure level ②	dB(A)	Hi:32 Me:29 Lo:25	Hi:32 Me:29 Lo:26		Hi:37 Me:34 Lo:28	Hi:36 Me:33 Lo:27	Hi:38 Me:33 Lo:29	Hi:41 Me:37 Lo:32
Exterior dimensions H x W x D	mm	200x750x500				200x950x500		220x1150x565
Net weight	kg	21			22	25		31
Airflow range	l/s	67 - 100	84 - 117		92 - 142	117 - 192	120 - 209	159 - 267
External Static pressure	Pa	Standard:10, Max:35				Standard:10, Max:50		
Outside air intake		Possible from return duct						
Air filter		Filter set:UT-FL1EF/UT-FL2EF/UT-FL3EF(option)						
Remote control(option)		wired:RC-EXZ3A, RC-E5, RCH-E3 wireless:RCN-KIT4-E2						
Installation data Refrigerant piping size	mm(in)	Liquid line:ø6.35(1/4") Gas line:ø9.52(3/8")			Liquid line:ø6.35(1/4") Gas line:ø12.7(1/2")			Liquid line:ø9.52(3/8") Gas line:ø15.88(5/8")

1. The data is measured under the following conditions (AS / NZS 3823.2). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. External static pressure of indoor unit is 10Pa
2. The data of nominal cooling and heating capacity and sound pressure level are measured with 10Pa of external static pressure.
3. The sound level indicates the value of rear-intake type with duct in anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
4. The operation data indicate when the air-conditioner is operated at 240V 50Hz for 1 phase.
5. Motor input kW and Current please refer to Esolution VRF Selection Data
6. Sound pressure levels are values when 2m supply duct and 1m return duct are connected. ○Mic position is 1.5m below unit, ○Mic position is 1m in front and 1m below the air supply duct.

Duct Connected (Compact & Flexible)
FDUH Series

Model No.
FDUH22KXE6F
FDUH28KXE6F
FDUH36KXE6F

Drain up kit (option)
(600mm)
UH-DU-E

Remote Control (option)

Wired

RC-EXZ3A RC-E5 RCH-E3

Wireless Wi-Fi

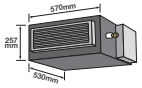
RCN-KIT4-E2 MH-RC-WIFI-1B

Filter kit (option)
UH-FL1E

+Filter pressure loss:5pa

Compact, Lightweight Design

Our leading high technology has realized the best solution for air conditioning in hotels with compact and thin size units and high energy efficiency. In addition, weight is only 20kg.

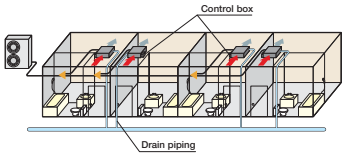


Quiet Operation

The lowest sound level in the industry can ensure comfortable stay and rest in hotels.

Installation Flexibility

Control box and drain piping can be installed on both side of the unit and air intake to the unit is available from bottom or back side. Our highest technology can satisfy diverse installation requirements.



Wired remote control

RCH-E3 (option)

Simple remote control

Considering specialized usage in hotel rooms, control buttons are limited only to minimum required functions such as ON/OFF, mode, temperature setting and fan speed. It is really simple and easy to use.

Specifications

See page 101 for exterior dimensions

Item	Model	FDUH22KXE6F	FDUH28KXE6F	FDUH36KXE6F
Nominal cooling capacity	kW	2.2	2.8	3.6
Nominal heating capacity	kW	2.5	3.2	4.0
Power source		1 Phase 220-240V, 50Hz		
Power consumption	Cooling / kW	0.07		
	Heating / kW	0.07		
Sound power level	dB(A)	60		
Sound pressure level	dB(A)	P-Hi:39 Hi: 33 Me: 30 Lo: 27		
Exterior dimensions H×W×D	mm	257x570x530		
Net weight	kg	22		
Air flow	m³/min	P-Hi:8.5 Hi: 7 Me: 6.5 Lo: 6		
External static pressure	Pa	30		
Outside air intake		Possible from return duct		
Air filter		Filter kit:UH-FL1E(option)		
Remote control(option)		wired:RC-EXZ3A, RC-E5, RCH-E3 wireless:RCN-KIT4-E2		
Installation data Refrigerant piping size	mm(in)	Liquid line:ø6.35(1/4") Gas line:ø9.52(3/8")		Liquid line:ø6.35(1/4") Gas line:ø12.7(1/2")

1. The data is measured under the following conditions (AS / NZS 3823.2). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
3. Motor input kW and Current please refer to Esolution VRF Selection Data
4. The operation data indicate when the air-conditioner is operated at 240V 50Hz for 1 phase.

Wall Mounted FDK Series

Model No.
FDK15KXZE1
FDK22KXZE1
FDK28KXZE1
FDK36KXZE1
FDK45KXZE1
FDK56KXZE1
FDK71KXZE1
FDK90KXZE1

FDK15~56


FDK71~90

Remote Control (option)

Wired


RC-EXZ3A


RC-E5


RCH-E3

Wireless


RCN-K-E2: FDK15~56


RCN-K71-E2: FDK71,90

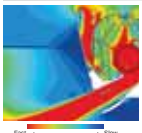
Wi-Fi

MH-RC-WIFI-1B

Elegant and Timeless Design

Developed by award winning Italian designers TENSA, the FDK series (15-56KXZE1) features a sleek and stylish design that allows it to effortlessly integrate into any residential or commercial interior.

Jet Air Technology

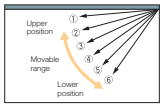


CFD (computational fluid dynamics), used by jet engine manufacturers, has been applied to the fan blade design in our split systems, allowing them to deliver the most powerful and even air distribution whilst remaining economical to run.

Louvre Control

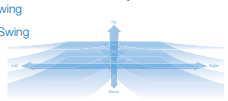
Set the louvres to swing between the maximum upper and lower louvre positions or set the louvres at a fixed position.

•The wireless remote control is not applicable to the flap control system.



Horizontal Swing ▶ Lourves swings from right to left automatically

Vertical Swing + Horizontal Swing



Specifications

See page 102 for exterior dimensions

Item		Model	FDK15KXZE1	FDK22KXZE1	FDK28KXZE1	FDK36KXZE1	FDK45KXZE1	FDK56KXZE1	FDK71KXZE1	FDK90KXZE1
Nominal cooling capacity		kW	1.5	2.2	2.8	3.6	4.5	5.6	7.1	9.0
Nominal heating capacity		kW	1.7	2.5	3.2	4.0	5.0	6.3	8.0	10.0
Power source			1 Phase 220-240V, 50Hz							
Power consumption	Cooling	kW	0.02			0.03			0.04	0.05
	Heating		0.02			0.03			0.04	0.05
Sound power level		dB(A)	54	55		58		Cooling:58 Heating:61	59	61
Sound pressure level ※	Cooling	dB(A)	Hi:34 Me:31 Lo:28	Hi:36 Me:32 Lo:28		Hi:38 Me:33 Lo:28	Hi:41 Me:36 Lo:33	Hi:41 Me:36 Lo:33	Hi:40 Me:37 Lo:35	Hi:42 Me:39 Lo:35
	Heating		Hi:34 Me:31 Lo:28	Hi:36 Me:32 Lo:28		Hi:38 Me:33 Lo:28	Hi:41 Me:36 Lo:33	Hi:42 Me:37 Lo:33	Hi:40 Me:37 Lo:35	Hi:42 Me:39 Lo:35
Exterior dimensions H x W x D		mm	290 x 870 x 230						339 x 1197 x 262	
Net weight		kg	11.5	11		11.5			17	
Airflow range		l/s	60 - 95	83 - 141		116 - 183	133 - 200	133 - 200	233 - 366	266 - 383
Outside air intake			Not possible							
Air filter, Q'ty			Polypropylene net x2 (Washable)							
Remote control(option)			wired:RC-EXZ3A, RC-E5, RCH-E3 wireless:RCN-K-E2, RCN-K71-E2							
Installation data Refrigerant piping size		mm(in)	Liquid line:ø6.35(1/4") Gas line:ø9.52(3/8")			Liquid line:ø6.35(1/4") Gas line:ø12.7(1/2")			Liquid line:ø9.52(3/8") Gas line:ø15.88(5/8")	

1. The data is measured under the following conditions (AS / NZS 3823.2). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
3. The operation data indicate when the air-conditioner is operated at 240V 50Hz for 1 phase.
4. Motor input kW and Current please refer to Ecolution VRF Selection Data
※ Powerful-Hi can be selected. Sound pressure level: FDK15/22/28 39dB(A), FDK36 40dB(A), FDK45 43dB(A), FDK56 43dB(A)(Cooling)&44dB(A)(Heating), FDK71 42dB(A), FDK90 44dB(A).
Air flow: FDK15 5.7m3/min, FDK22/28 8.5m3/min, FDK36 11m3/min, FDK45 12m3/min, FDK56 12m3/min(Cooling)&13m3/min(Heating), FDK71 21m3/min, FDK90 23m3/min.

Ceiling Suspended FDE Series

Model No.
FDE36KXZE1
FDE45KXZE1
FDE56KXZE1
FDE71KXZE1
FDE112KXZE1
FDE140KXZE1

Remote Control (option)

Wired


RC-EXZ3A


RC-E5


RCH-E3

Wireless

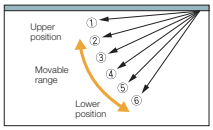

RCN-E-E3

Wi-Fi

MH-RC-WIFI-1B

Individual Louvre Control

Set the louvres in a number of fixed positions for effective air distribution.



•RCH-E3 is not applicable to the flap control system.

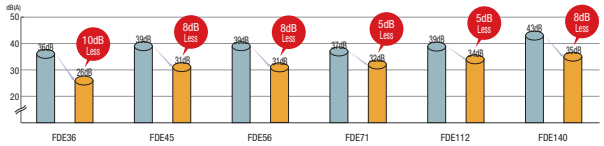
New Slim Design

By reducing the number of fan motors, the weight of the FDE has been reduced

	Previous		Current	
FDE71	37	⇒	33	4kg less!!
FDE112	49	⇒	43	6kg less!!
FDE140	49	⇒	43	6kg less!!

Reduced Operation Noise

The industry's lowest sound pressure levels were achieved by decreasing air flow volume, decreasing pressure loss with employment of one fan motor and optimizing casing and distributor shape.



Specifications

See page 103 for exterior dimensions

Item		Model	FDE36KXZE1	FDE45KXZE1	FDE56KXZE1	FDE71KXZE1	FDE112KXZE1	FDE140KXZE1
Nominal cooling capacity		kW	3.6	4.5	5.6	7.1	11.2	14.0
Nominal heating capacity		kW	4.0	5.0	6.3	8.0	12.5	16.0
Power source			1 Phase 220-240V, 50Hz					
Power consumption	Cooling	kW	0.05			0.07	0.10	0.13
	Heating		0.05			0.07	0.10	0.13
Sound power level		dB(A)	60			62	—	
Sound pressure level ※		dB(A)	Hi:38 Me:31 Lo:26	Hi:38 Me:36 Lo:31	Hi:38 Me:36 Lo:31	Hi:39 Me:37 Lo:32	Hi:42 Me:38 Lo:34	Hi:43 Me:40 Lo:35
Exterior dimensions H x W x D		mm	210 x 1070 x 690			210 x 1320 x 690	250 x 1620 x 690	
Net weight		kg	28			33	43	
Airflow range		l/s	91 - 216	116 - 216		166 - 333	275 - 466	283 - 533
Outside air intake			Not possible					
Air filter, Q'ty			Pocket Plastic net x2 (Washable)					
Remote control(option)			wired:RC-EXZ3A, RC-E5, RCH-E3 wireless:RCN-E-E2					
Installation data Refrigerant piping size		mm(in)	Liquid line:ø6.35(1/4") Gas line:ø12.7(1/2")			Liquid line:ø9.52(3/8") Gas line:ø15.88(5/8")		

1. The data is measured under the following conditions (AS / NZS 3823.2). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
3. The operation data indicate when the air-conditioner is operated at 240V 50Hz for 1 phase.
4. Motor input kW and Current please refer to Ecolution VRF Selection Data
※ Powerful-Hi can be selected. Sound pressure level: FDE36/45/56 13m3/min, FDE71 20m3/min, FDE112 28m3/min, FDE140 32m3/min.

Two Way Floor Standing
FDFW Series

Model No.
FDFW28KXE6F
FDFW45KXE6F
FDFW56KXE6F

Remote Control (option)

Wired | Wireless | Wi-Fi

RC-EXZ3A RC-E5 RCH-E3 RCN-FW-E2 MH-RC-WIFI-1B

Sophisticated Design

With classy semi flat front panel in chic white, the new series is suitable for a variety of applications and can be installed as a floor standing unit, as a wall hung unit or even within a fireplace.

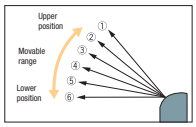
Quiet Operation

Thanks to optimum balance of air outlet direction and sufficient air flow volume, the sound level has been minimised. The level of FDFW28KXE6F in cooling mode is 30dB(A) only (lo fan speed)

Louvre Control

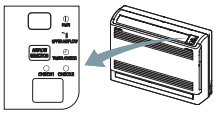
Set the louvres in a number of fixed positions for effective air distribution.

*RCH-E3 is not applicable to the louvre control system.



Easy to Use Operations

Use the airflow button to activate airflow from both the lower and upper air outlets or just the upper outlet. More options are available by using the remote control



(In case of use of wireless remote control)

Specifications

See page 104 for exterior dimensions

Item		Model	FDFW28KXE6F	FDFW45KXE6F	FDFW56KXE6F
Nominal cooling capacity		kW	2.8	4.5	5.6
Nominal heating capacity		kW	3.2	5.0	6.3
Power source			1 Phase 220-240V, 50Hz		
Power consumption	Cooling	kW	0.02	0.02	0.03
	Heating		0.02	0.02	0.03
Sound power level		dB(A)	55	57	60
Sound pressure level		dB(A)	Hi:36 Me:34 Lo:30	Hi:38 Me:36 Lo:33	Hi:44 Me:37 Lo:33
Exterior dimensions H x W x D		mm	600x860x238		
Net weight		kg	19	20	
Airflow range		l/s	117 - 150		134 - 184
Air filter, Q'ty			Polypropylene net x1 (Washable)		
Remote control(option)			wired:RC-EXZ3A, RC-E5, RCH-E3 wireless:RCN-FW-E2		
Installation data Refrigerant piping size		mm(in)	Liquid line:ø6.35(1/4") Gas line:ø9.52(3/8")	Liquid line:ø6.35(1/4") Gas line:ø12.7(1/2")	

1. The data is measured under the following conditions (AS / NZS 3823.3). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
3. The operation data indicate when the air-conditioner is operated at 240V 50Hz for 1 phase.
4. Motor input kW and Current please refer to Esolution VRF Selection Data

Floor Standing (with casing)
FDFL Series
Floor Standing (without casing)
FDFU Series

Model No.
FDFL71KXE6F

FDFU28KXE6F
FDFU45KXE6F
FDFU56KXE6F
FDFU71KXE6F

Remote Control (option)

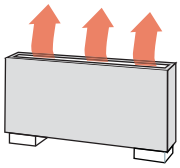
Wired | Wireless | Wi-Fi

RC-EXZ3A RC-E5 RCH-E3 RCN-KIT4-E2 MH-RC-WIFI-1B

FDFL

FDFU (concealed type)

Compact design at 630mm height



Wider airflow for optimum comfort

Specifications

See page 105 for exterior dimensions

Item		Model	FDFL71KXE6F	FDFU28KXE6F	FDFU45KXE6F	FDFU56KXE6F	FDFU71KXE6F
Nominal cooling capacity		kW	7.1	2.8	4.5	5.6	7.1
Nominal heating capacity		kW	8.0	3.2	5.0	6.3	8.0
Power source			1 Phase 220-240V, 50Hz				
Power consumption	Cooling	kW	0.10	0.10			
	Heating		0.10	0.10			
Sound power level		dB(A)	62	58	60		
Sound pressure level		dB(A)	Hi:43 Me:41 Lo:40	Hi:41 Me:38 Lo:36	Hi:43 Me:41 Lo:40		
Exterior dimensions H x W x D		mm	630x1481x225	630x1087x225			630x1372x225
Net weight		kg	40	25			32
Airflow range		l/s	200 - 300	167 - 200	167 - 234		200 - 300
Air filter, Q'ty			Polypropylene net x1 (Washable)				
Remote control(option)			wired:RC-EXZ3A, RC-E5, RCH-E3 wireless:RCN-KIT4-E2				
Installation data Refrigerant piping size		mm(in)	Liquid line:ø9.52(3/8") Gas line:ø15.88(5/8")	Liquid line:ø6.35(1/4") Gas line:ø9.52(3/8")	Liquid line:ø6.35(1/4") Gas line:ø12.7(1/2")		Liquid line:ø9.52(3/8") Gas line:ø15.88(5/8")

1. The data is measured under the following conditions (AS / NZS 3823.2). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
3. The operation data indicate when the air-conditioner is operated at 240V 50Hz for 1 phase.
4. Motor input kW and Current please refer to Esolution VRF Selection Data

Outdoor Air Processing unit FDU-F Series

Model No.
FDU650FKXZE1
FDU1100FKXZE1
FDU1800FKXZE1
FDU2400FKXZE1

Remote Control (option)

Wired

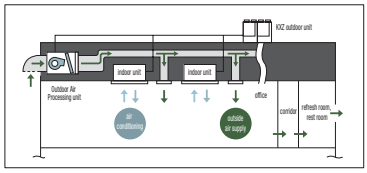
RC-EXZ3A RC-E5 RCH-E3

Wireless Wi-Fi

RCN-KIT4-E2 MH-RC-WIFI-1B

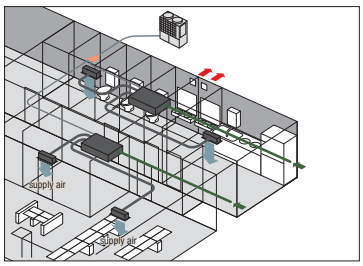
Contained External Air Intake

Outdoor Air processing unit can be connected in a KXZ system as one of indoor unit series and can create fresh and comfortable air supply together from our high advanced technology.



Compact Design

Compact design at just 280(650, 1100), 379(1800, 2400)mm in height, high static pressure of 200Pa and the industry's lowest noise level can meet various kind of installation location for office, refresh room, restroom and kitchen of restaurant etc.



(1) This unit is the specific unit for processing the outdoor air temperature closer to the room temperature. For conditioning the room temperature a dedicated air-conditioner is required additionally.
(2) This unit monitors the outdoor air temperature and controls thermostat ON/OFF at the setting temperature by the remote controller, which indicates the outdoor air temperature for controlling thermostat ON/OFF. When thermostat is turned OFF, the operation is changed to the fan mode so that unprocessed outdoor air will be blown into the room directly. Therefore place the air outlet port or orient the air outlet direction not to blow air directly to persons in the room, especially in the small room such as a restroom and/or sanitary hot water supplying room.
(3) It is strictly prohibited to monitor the room temperature by switching to the thermistor at remote controller side and/or the optional remote thermistor. Otherwise dew formation at air outlet port and/or dew dripping may occur during cooling operation due to the lower outdoor air temperature. Therefore keep the remote controller of this unit in place closer to the administrator so as not to be touched it freely by the end user.
(4) Dehumidifying operation with this unit is prohibited.
(5) When handing over this unit to the end user, make sure to explain sufficiently about the foregoing cautions, the installation place and usage of remote control for this unit and the location of the air outlet.

INDOOR UNITS

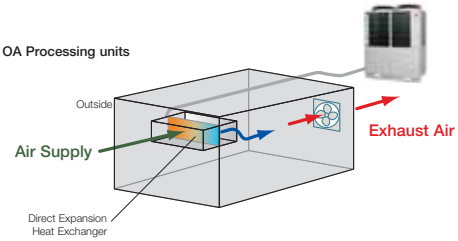
Connectivity with Outdoor units

FDU-F series are connectable to 22.4~168kW outdoor units, **not connectable to 11.2~15.5kW, KXZP Lite.**

Combination with Outdoor units

	Case	Combination
A	In case OA processing units only are connected with outdoor units.	The total capacity of FDU-F is 50~100% of outdoor capacity and max quantity of FDU-F is 2 units.
B	In case both of OA processing units and dedicated air-conditioner are connected with outdoor units.	The total capacity of FDU-F and dedicated air-conditioners is 50~100% of outdoor capacity and max quantity of FDU-F should be below 30% of outdoor unit capacity.

FDU-F OA Processing units



Specifications

See page 106-107 for exterior dimensions

Item		Model	FDU650FKXZE1	FDU1100FKXZE1	FDU1800FKXZE1	FDU2400FKXZE1
Nominal cooling capacity		kW	9.0	14.0	22.4	28.0
Nominal heating capacity		kW	6.5	10.5	16.0	21.5
Power source			1 Phase 220-240V, 50Hz			
Power consumption	Cooling	kW	0.25	0.36	1.20	1.20
	Heating		0.25	0.36	1.20	1.20
Sound pressure level		dB(A)	Hi:31	Hi:37	Hi:42	Hi:45
Exterior dimension HxWxD		mm	280x950x635	280x1370x740	379x1600x893	
Net weight		kg	34	54	89	89
Airflow (Standard)		l/s	Hi:184	Hi:300	Hi:500	Hi:667
External static pressure		Pa	200 (at Hi Air flow)			
Air filter, Q'ty			Procure locally			
Remote control(option)			wired:RC-EXZ3A, RC-E5, RCH-E3 wireless:RCN-KIT4-E2			
Installation data Refrigerating piping size		mm (in)	Liquid line:ø9.52(3/8") Gas line:ø15.88(5/8")		Liquid line:ø9.52(3/8") Gas line:ø19.05(3/4")	Liquid line:ø9.52(3/8") Gas line:ø22.22(7/8")

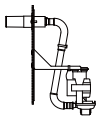
1. The data is measured under the following conditions (AS / NZS 3823.2). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
3. Temperature range of outdoor air must be 20~40°CDB (32°CWB) during cooling and 0~24°CDB during heating.
4. The factory E.S.P. setting is set within the range of 10 - 120Pa.If SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 - 200 Pa. (with RC-EXZ3A and RC-E5 only)
5. Motor input kW and Current please refer to Evolution VRF Selection Data
6. The operation data indicate when the air-conditioner is operated at 240V 50Hz for 1 phase.

Fresh Air DX Assembly

Model No.
SAF-DX250E6
SAF-DX350E6
SAF-DX500E6
SAF-DX800E6
SAF-DX1000E6

Drain up kit (option, built-in type) (600mm)

DXA-DU-E



Remote Control (option)

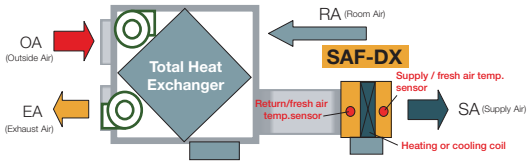
Wired

RC-E5 RCH-E3

Wireless Wi-Fi

RCN-KIT4-E2 MH-RC-WIFI-1B

- SAF-DX is a heating or cooling coil incorporating KXZ series controls. It can be used in combination with our SAF series of total heat exchanger.
- Combination of SAF-DX together with other indoor units is possible. The capacity code index of each model is shown below and must be used when making the system selection. Total capacity code index must be within 100% of outdoor unit capacity code index.
- Remote control option is the same as with other indoor units (see above). Connection to all Superlink controls is also possible.
- Optional condensate lift mechanism is also available (600mm height).
- Return air temp. control or supply air temp. control can be selectable.



SAF-DX can provide heating or cooling to the fresh air supplied through a 3rd party air handling unit or total heat exchanger such as our SAF series.

Specifications

See page 108 for exterior dimensions

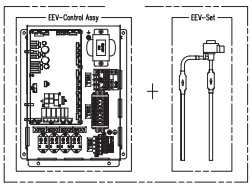
Item		Model	SAF-DX250E6	SAF-DX350E6	SAF-DX500E6	SAF-DX800E6	SAF-DX1000E6
Nominal cooling capacity *1		kW	2.0	2.8	3.6	5.6	6.3
Nominal heating capacity *2		kW	1.8	2.2	2.8	4.5	5.6
Capacity code			22	28	36	56	71
Power source			1 Phase 220-240V, 50Hz				
Power consumption	Cooling	W	7.2				
	Heating	W	7.2				
Exterior dimensions H x W x D		mm	315 x 452 x 422		315 x 537 x 422	315 x 682 x 422	315 x 822 x 422
Net weight		kg	12.3		13.6	16.1	18.4
Airflow (Standard)		l/s	69	97	139	222	278
Internal resistance		Pa	38	66			
Remote control(option)			wired: RC-E5, RCH-E3 wireless: RCN-KIT4-E2				
Installation data Refrigerant piping size		mm(in)	Liquid line:ø6.35(1/4") Gas line:ø9.52(3/8")		Liquid line:ø6.35(1/4") Gas line:ø12.7(1/2")		Liquid line:ø9.52(3/8") Gas line:ø15.88(5/8")

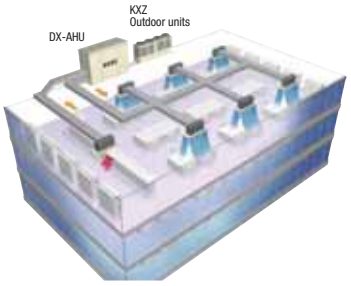
1. The data is measured under the following conditions (AS / NZS 3823.3). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
2. Motor input kW and Current please refer to Evolution VRF Selection Data
3. The operation data indicate when the air-conditioner is operated at 240V 50Hz for 1 phase.

EEV-KIT

- EEV-KIT is the control kit for operating the locally provided AHU or FCU with direct expansion heat exchanger coils in connection with the KXZ / KXE6 system.
  (AHU : Air Handling Unit, FCU : Fan Coil Unit)
- EEV-KIT is composed of one EEV-Control ASSY and one EEV-Set.

EEV-KIT





DX : Direct expansion coil

Features

EEV-Control Assy has 2 types.

Refrigeration system	EEV-Control Assy	
	EEVKIT6-E-M	EEVKIT6-E-C
Single	Not Use	1 box-Many boxes
Multiple	1 box (for master)	Many boxes(for slave)

EEV-Set Select from following 3 types according to the coil capacity.

Type	EEV6-71-E	EEV6-160-E	EEV6-280-E
Capacity (kW)	2.2-7.1	9.0-16.0	22.4-28.0

System Configuration

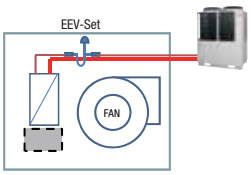
- Single refrigeration system EEVKIT6-E-C ··· Possible with multiple
- Multiple refrigeration system EEVKIT6-E-M (1) + EEVKIT6-E-C, etc possible with multiple (Max32)
- EEVKIT6-E-C is common for both single and multiple refrigeration systems

Single Refrigerant System

- Single refrigeration system is one that can have multiple outdoor units on one refrigerant pipe work circuit.
- There are 2 types of EEV-KIT systems that can be built into the single refrigeration system.
- System A : one EEV-KIT,
- System B : multiple EEV-KIT's.

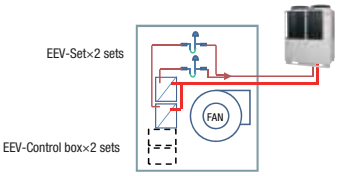
System A

- This system has only one set of EEV-KIT built into one indoor unit with only one heat exchanger. This system can be applied to an indoor unit whose capacity is up to 28.0kW



System B

- System B is a system that has multiple EEV-KIT's built into one indoor unit with multiple heat exchangers on one refrigerant circuit.
- This system can be applied up to 168kW (for KXZ)



Multiple Refrigerant System

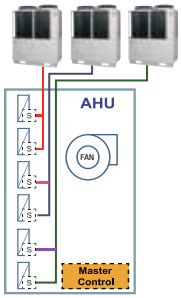
Multiple refrigeration system is an AHU system with
1) Multiple independent refrigerant circuits
2) One master control to control the whole system.

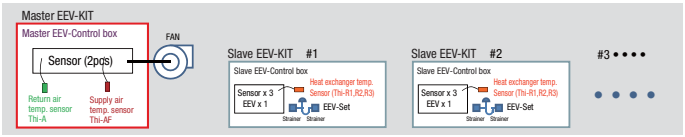
Advantages

- Large systems are possible with max capacity 896kW.
  (Indoor unit : 28kW x 32)
- External control
- Capacity step control

Additional parts over a single refrigeration system

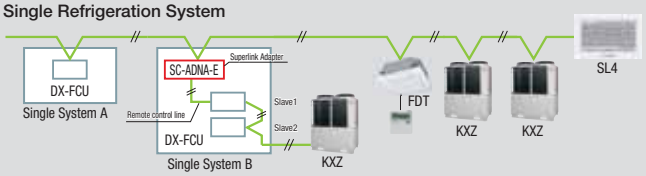
- One master control
- The slave EEV control and EEV set are the same as a single refrigeration system.



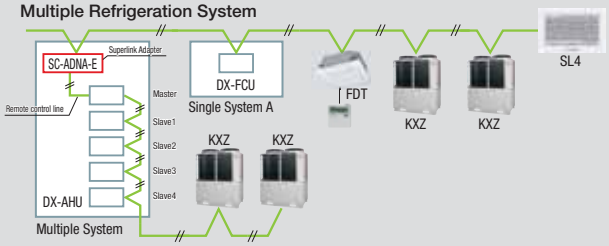


Connection to SUPERLINK-II

Single Refrigeration System



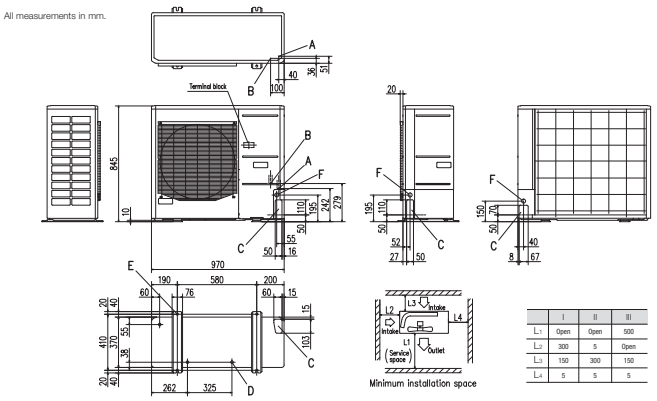
Multiple Refrigeration System



KX MICRO

FDC112 - 155KXEN6, FDC140 - 155KXES6

All measurements in mm.



	I	II	III
L1	Open	Open	500
L2	300	5	Open
L3	150	300	150
L4	5	5	5

Mark	Content	
A	Service valve connection (gas side)	ø15.88 (5/8") (Flare)
B	Service valve connection (liquid side)	ø9.52 (3/8") (Flare)
C	Pipe/cable draw-out hole	4 places
D	Drain discharge hole	ø20 x 3 places
E	Anchor bolt hole	M10 x 4 places
F	Cable draw-out hole	ø30 x 3 places

Notes:
(1) It must not be surrounded by walls on the four sides.
(2) The unit must be fixed with anchor bolts. An anchor bolt must not protrude more than 15mm.
(3) Where the unit is subject to strong winds, lay it in such a direction that the blower outlet faces perpendicularly to the dominant wind direction.
(4) Leave 1m or more space above the unit.
(5) A wall in front of the blower outlet must not exceed the units height.
(6) The model name label is attached on the lower right corner of the front panel.

Refrigerant piping

Outdoor unit (KW)		11.2	14	15.5
Gas pipe	Furthest indoor unit =<70m	ø15.88		
Liquid pipe		ø9.52		

Branch pipes

DIS-22-1G
DIS-180-1G

Header pipe

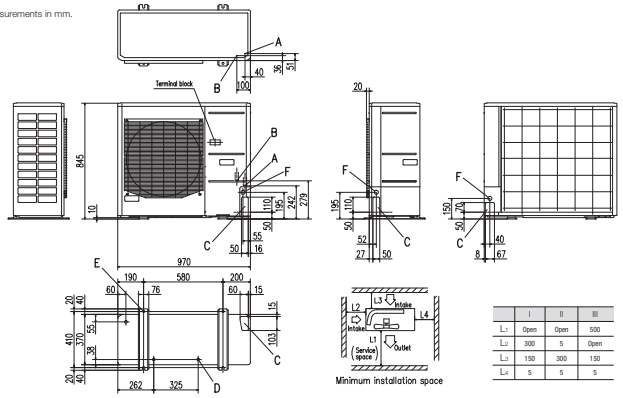
HEAD4-22-1G
HEAD6-180-1G

DIMENSIONS - OUTDOOR UNITS

KX MICRO

FDC90-140KXZEN1-W, FDCA155KXZEN1-W / FDC112-140KXZES1-W, FDCA155KXZES1-W

All measurements in mm.



	I	II	III
L1	Open	Open	500
L2	300	5	Open
L3	150	300	150
L4	5	5	5

Mark	Content	
A	Service valve connection (gas side)	ø15.88 (5/8") (Flare)
B	Service valve connection (liquid side)	ø9.52 (3/8") (Flare)
C	Pipe/cable draw-out hole	
D	Drain discharge hole	ø20 x 3 places
E	Anchor bolt hole	M10 x 4 places
F	Cable draw-out hole	ø30 x 3 places

Notes:
(1) It must not be surrounded by walls on the four sides.
(2) The unit must be fixed with anchor bolts. An anchor bolt must not protrude more than 15mm.
(3) Where the unit is subject to strong winds, lay it in such a direction that the blower outlet faces perpendicularly to the dominant wind direction.
(4) Leave 1m or more space above the unit.
(5) A wall in front of the blower outlet must not exceed the units height.
(6) The model name label is attached on the lower right corner of the front panel.

Refrigerant piping

Outdoor unit (kW)		9.0	11.2	14.0	15.2
Gas pipe	Furthest indoor unit =<70m	ø15.88			
Liquid pipe		ø9.52			

Branch pipes

DIS-22-1G
DIS-180-1G

Header pipe

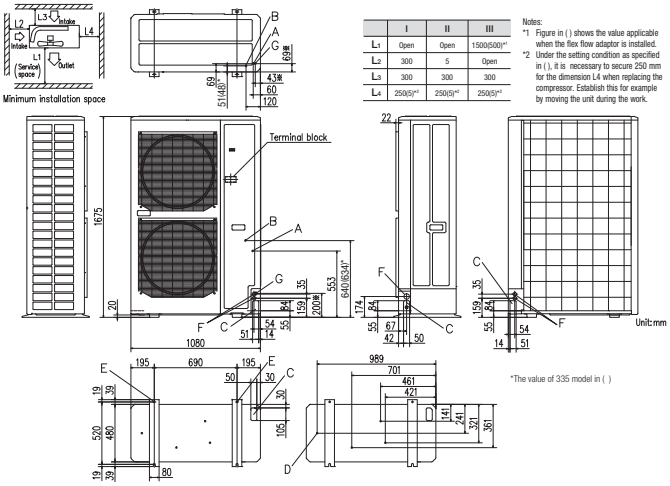
HEAD4-22-1G
HEAD6-180-1G

DIMENSIONS - OUTDOOR UNITS

KXE6

FDC224 - 335KXEN6

All measurements in mm.



	I	II	III
L1	Open	Open	1500(500)*1
L2	300	5	Open
L3	300	300	300
L4	250(5)*2	250(5)*2	250(5)*2

Notes:
*1 Figure in ( ) shows the value applicable when the flex flow adaptor is installed.
*2 Under the setting condition as specified in ( ), it is necessary to secure 250 mm for the dimension L4 when replacing the compressor. Establish this for example by moving the unit during the work.

Mark	Item	224	280	335
A	Service valve connection of the attached connecting pipe (gas side)	ø19.05 (3/4") (Flare)	ø19.05 (3/4") (Flare)	ø19.05 (3/4") (Flare)
B	Service valve connection (liquid side)	ø9.52 (3/8") (Flare)	ø9.52 (3/8") (Flare)	ø12.7 (1/2") (Flare)
C	Pipe/cable draw-out hole	4places	4places	4places
D	Drain discharge hole	ø20 x 4places	ø20 x 4places	ø20 x 4places
E	Anchor bolt hole	M10 x 4places	M10 x 4places	M10 x 4places
F	Cable draw-out hole	ø30 x 2places (front) ø45 (side) ø30 x 2places (back)	ø30 x 2places (front) ø45 (side) ø30 x 2places (back)	ø30 x 2places (front) ø45 (side) ø30 x 2places (back)
G	Connecting position of the local pipe. (gas side)	ø19.05 (3/4")(Brazing)	ø22.22 (7/8")(Brazing)	ø25.4 (1")(Brazing)

Notes:
(1) It must not be surrounded by walls on the four sides.
(2) The unit must be fixed with anchor bolts. An anchor bolt must not protrude more than 15mm.
(3) Where the unit is subject to strong winds, the blower outlet shoud face perpendicularly to the dominant wind direction.
(4) Leave a 1m or more space above the unit.
(5) A wall in front of the blower outlet must not exceed the units height.
(6) The model name label is attached on the lower right corner of the front.
(7) Connect the Service valve with local pipe by using the pipe of the attachment.(Gas side only)
(8) Mark ※ shows the connecting position of the local pipe.(Gas side only)

Refrigerant Piping

Outdoor unit (kW)		22.4	28	33.5
Gas pipe	Furthest indoor unit =<90m	ø19.05	ø22.22	ø28.58
Liquid pipe		ø9.52		ø12.7
Gas pipe	Furthest indoor unit =<90m	ø22.22	ø28.58	
Liquid pipe		ø12.7		

Branch pipes

DIS-22-1G
DIS-180-1G

DIS-371-1G

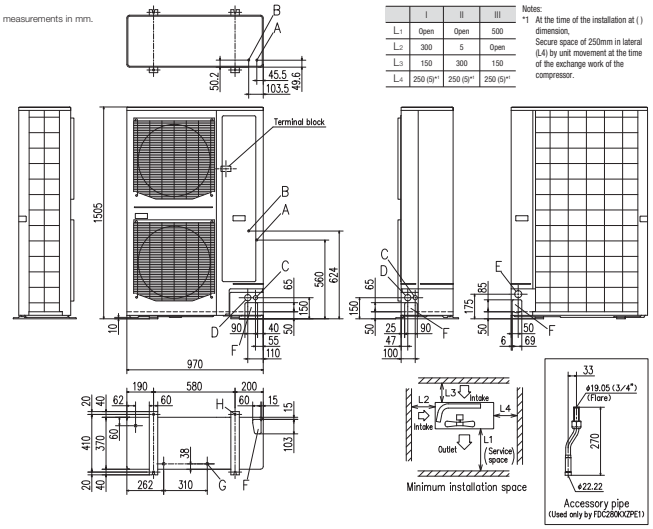
Header pipe

HEAD4-22-1G
HEAD6-180-1G
HEAD8-371-2

KXZP

FDC224 - 280KXZPE1

All measurements in mm.



	I	II	III
L_1	Open	Open	500
L_2	300	5	Open
L_3	150	300	150
L_4	250 (S)*1	250 (S)*1	250 (S)*1

Notes:
*1 At the time of the installation at ( ) dimension,
Secure space of 250mm in lateral (L4) by unit movement at the time of the exchange work of the compressor.

Mark	Item	
A	Service valve connection of the attached connecting pipe (gas side)	ø19.05 (3/4") (Flare)
B	Service valve connection (liquid side)	ø9.52 (3/8") (Flare)
C	Cable draw-out hole (front · side)	ø30 x 2places
D	Cable draw-out hole (front · side)	ø45 x 2places
E	Cable draw-out hole (back)	ø50
F	Pipe/cable draw-out hole	4places
G	Drain discharge hole	ø20 x 3places
H	Anchor bolt hole	M10 x 4places

Notes:
(1) It must not be surrounded by walls on the four sides.
(2) The unit must be fixed with anchor bolts.
An anchor bolt must not protrude more than 15mm.
(3) Where the unit is subject to strong winds, lay it in such a direction that the blower outlet faces perpendicularly to the dominant wind direction.
(4) Leave 1m or more space above the unit.
(5) A wall in front of the blower outlet must not exceed the units height.
(6) The model name label is attached on the lower right corner of the front panel.
(7) Connect the Service valve with local pipe by using the pipe of the attachment.
(Gas side only) (Accessory pipe is used only by FDC280KXZPE1)
(8) Regarding attaching the pipe of accessories, refer to an attached installation manual.

Refrigerant Piping

Outdoor unit (kW)		22.4	28
Gas pipe	Furthest indoor unit =<90m	ø19.05	ø22.22
Liquid pipe		ø9.52	
Gas pipe	Furthest indoor unit =<90m	ø22.22	ø25.4/ø28.58
Liquid pipe		ø12.7	

Branch pipes

DIS-22-1G
DIS-180-1G

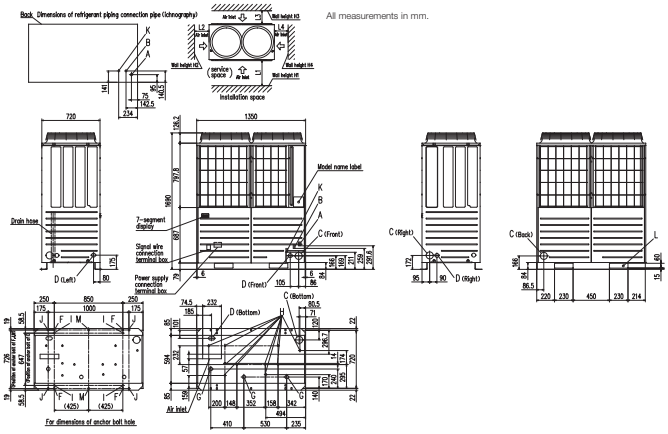
Header pipe

HEAD4-22-1G
HEAD6-180-1G

KXZE1

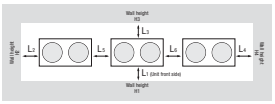
FDC280 - 335KXZE1

All measurements in mm.



Mark	Content	280	335
A	Refrigerant gas piping connection pipe	ø22.22(Brazing)	ø25.4(Brazing)
B	Refrigerant liquid piping connection pipe	ø9.52(Flare)	ø12.7(Flare)
C	Refrigerant piping exit hole	ø88(or ø100)	
D	Power supply entry hole	ø50 (right · left · front), long hole 40 x 80 (bottom)	
F	Anchor bolt hole	M10 x 4 places	
G	Drain waste water hose hole	ø45 x 3 places	
H	Drain hole	ø20 x 10 places	
K	Refrigerant oil equalisation piping connection pipe	ø9.52(Flare)	
L	Carrying in or hole for hanging	230 x 60	

When more than one unit is installed



Installation example		
Dimensions	1	2
L_1	500	Open
L_2	10(30)	10(30)
L_3	100	100
L_4	10(30)	Open
H_1	1500	Open
H_2	No limit	No limit
H_3	1000	No limit
H_4	No limit	Open

In case the ambient temperature becomes 43°C or higher during cooling operation

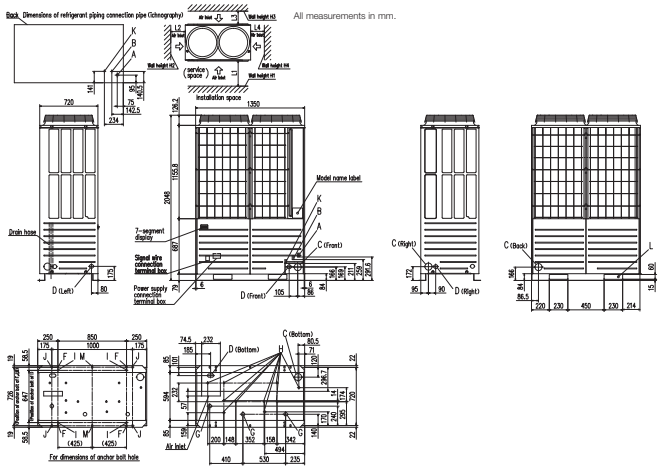
Installation example		
Dimensions	1	2
L_1	500	Open
L_2	10(30)	200
L_3	100	300
L_4	10(30)	Open
L_5	10(30)	400
L_6	10(30)	400
H_1	1500	Open
H_2	No limit	No limit
H_3	1000	No limit
H_4	No limit	Open

In case the ambient temperature becomes 43°C or higher during cooling operation

KXZE1

FDC400 - 560KXZE1

All measurements in mm.



Mark	Content	400	450, 475, 500, 560
A	Refrigerant gas piping connection pipe	ø25.4(Brazing)	ø28.58(Brazing)
B	Refrigerant liquid piping connection pipe	ø12.7(Flare)	
C	Refrigerant piping exit hole	ø88(or ø100)	
D	Power supply entry hole	ø50 (right · left · front), long hole 40 x 80 (bottom)	
F	Anchor bolt hole	M10 x 4 places	
G	Drain waste water hose hole	ø45 x 3 places	
H	Drain hole	ø20 x 10 places	
K	Refrigerant oil equalization piping connection pipe	ø9.52(Flare)	
L	Carrying in or hole for hanging	230 x 60	

Installation example		
Dimensions	1	2
L_1	500	Open
L_2	10(30)	10(30)
L_3	100	100
L_4	10(30)	Open
H_1	1500	Open
H_2	No limit	No limit
H_3	1000	No limit
H_4	No limit	Open

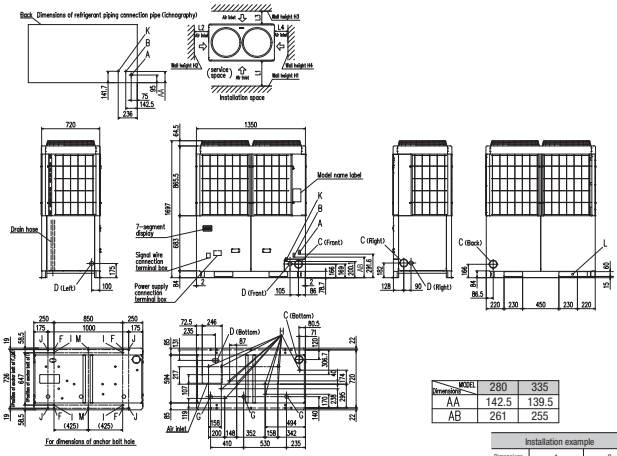
() :In case it is the promised installation location that the outdoor unit is used on conditions with the ambient temperature of 43°C or more.

DIMENSIONS - OUTDOOR UNITS

KXZE2

FDC280 - 335KXZE2

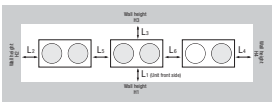
All measurements in mm.



MODEL / Dimensions	280	335
AA	142.5	139.5
AB	261	255

Mark	Content	280	335
A	Refrigerant gas piping connection pipe	ø22.22(Brazing)	ø25.4(Brazing)
B	Refrigerant liquid piping connection pipe	ø9.52(Flare)	ø12.7(Flare)
C	Refrigerant piping exit hole	ø88(or ø100)	
D	Power supply entry hole	ø50 (righ t · left · front), long hole 40 x 80 (bottom)	
F	Anchor bolt hole	M10 x 4 places	
G	Drain waste water hose hole	ø45 x 3 places	
H	Drain hole	ø20 x 11 places	
K	Refrigerant oil equalization piping connection pipe	ø9.52(Flare)	
L	Carrying in or hole for hanging	230 x 60	

When more than one unit is installed



Installation example		
Dimensions	1	2
L_1	500	Open
L_2	10(30)	10(30)
L_3	100	100
L_4	10(30)	Open
H_1	1500	Open
H_2	No limit	No limit
H_3	1000	No limit
H_4	No limit	Open

() :In case it is the promised installation location that the outdoor unit is used on conditions with the ambient temperature of 43°C or more.

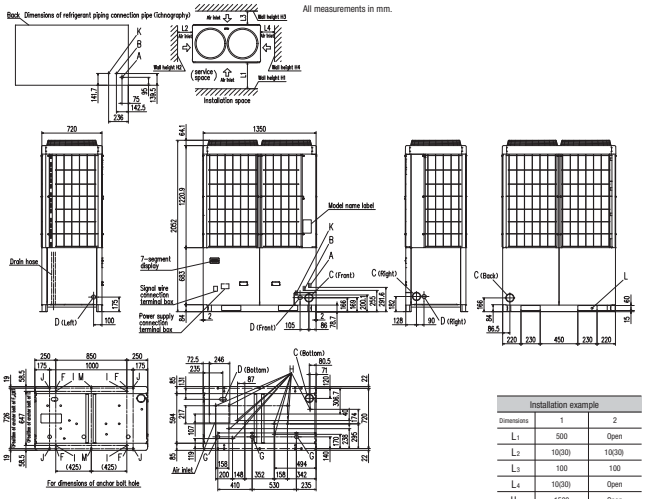
Installation example		
Dimensions	1	2
L_1	500	Open
L_2	10(30)	200
L_3	100	300
L_4	10(30)	Open
L_5	10(30)	400
L_6	10(30)	400
H_1	1500	Open
H_2	No limit	No limit
H_3	1000	No limit
H_4	No limit	Open

DIMENSIONS - OUTDOOR UNITS

KXZE2

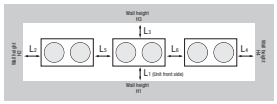
FDC400 - 560KXZE2

All measurements in mm.



Mark	Content	400	450, 475, 500, 560
A	Refrigerant gas piping connection pipe	ø25.4(Brazing)	ø28.58(Brazing)
B	Refrigerant liquid piping connection pipe	ø12.7(Flare)	
C	Refrigerant piping exit hole	ø88(or ø100)	
D	Power supply entry hole	ø50 (righ t · left · front), long hole 40 x 80 (bottom)	
F	Anchor bolt hole	M10 x 4 places	
G	Drain waste water hose hole	ø45 x 3 places	
H	Drain hole	ø20 x 11 places	
K	Refrigerant oil equalization piping connection pipe	ø9.52(Flare)	
L	Carrying in or hole for hanging	230 x 60	

When more than one unit is installed



Installation example		
Dimensions	1	2
L_1	500	Open
L_2	10(30)	10(30)
L_3	100	100
L_4	10(30)	Open
H_1	1500	Open
H_2	No limit	No limit
H_3	1000	No limit
H_4	No limit	Open

() :In case it is the promised installation location that the outdoor unit is used on conditions with the ambient temperature of 43°C or more.

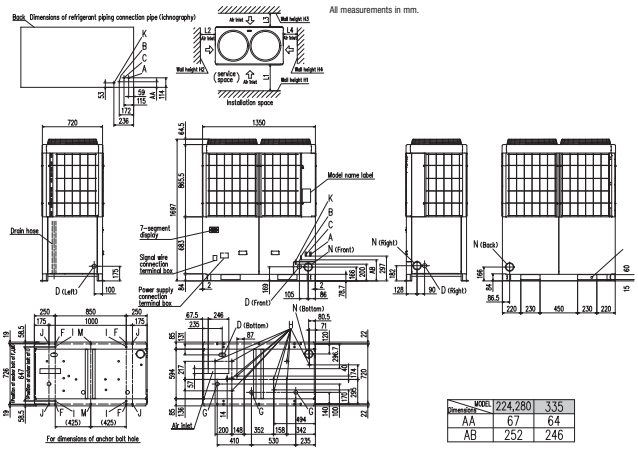
Installation example		
Dimensions	1	2
L_1	500	Open
L_2	10(30)	200
L_3	100	300
L_4	10(30)	Open
L_5	10(30)	400
L_6	10(30)	400
H_1	1500	Open
H_2	No limit	No limit
H_3	1000	No limit
H_4	No limit	Open

DIMENSIONS - OUTDOOR UNITS

KXZRE2

FDC224 - 335KXZRE2

All measurements in mm.



MODEL / Dimensions	224,280	335
AA	67	64
AB	252	246

Mark	Content	224	280	335
A	Refrigerant suction gas piping connection entrance	ø19.05(Brazing)	ø22.22(Brazing)	ø25.4(Brazing)
B	Refrigerant liquid piping connection entrance	ø9.52(Flare)		ø12.7(Flare)
C	Refrigerant discharge gas piping connection entrance	ø15.88(Brazing)	ø19.05(Brazing)	
D	Power supply entry hole	ø50(right · left · front),long hole 40x80(Bottom)		
F	Anchor bolt hole	M10 x 4 places		
G	Drain waste water hose hole	ø45 x 3 places		
H	Drain hole	ø20 x 11 places		
K	Refrigerant oil equalization piping connection entrance	ø9.52(Flare)		
L	Carrying in or hole for hanging	230x60		
N	Refrigerant piping exit hole	ø88(or ø100)		

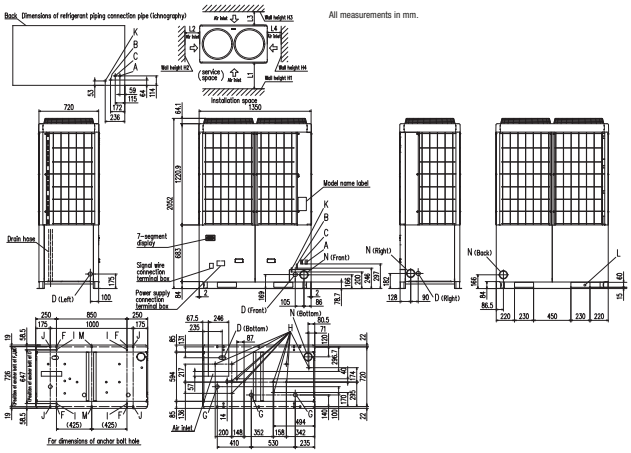
Installation example		
Dimensions	1	2
L_1	500	Open
L_2	10(30)	10(30)
L_3	100	100
L_4	10(30)	Open
H_1	1500	Open
H_2	No limit	No limit
H_3	1000	No limit
H_4	No limit	Open

() :In case it is the promised installation location that the outdoor unit is used on conditions with the ambient temperature of 4°C or more.

KXZRE2

FDC400 - 500KXZRE2

All measurements in mm.



Mark	Content	400	450	475	500
A	Refrigerant suction gas piping connection entrance	ø25.4 (Brazing)	ø28.58(Brazing)		
B	Refrigerant liquid piping connection entrance	ø12.7(Flare)			
C	Refrigerant discharge gas piping connection entrance	ø22.22(Brazing)			
D	Power supply entry hole	ø50(right · left · front),long hole 40x80(Bottom)			
F	Anchor bolt hole	M10 x 4 places			
G	Drain waste water hose hole	ø45 x 3 places			
H	Drain hole	ø20 x 11 places			
K	Refrigerant oil equalization piping connection pipe	ø9.52(Flare)			
L	Carrying in or hole for hanging	230x60			
N	Refrigerant piping exit hole	ø88(or ø100)			

Installation example		
Dimensions	1	2
L_1	500	Open
L_2	10(30)	10(30)
L_3	100	100
L_4	10(30)	Open
H_1	1500	Open
H_2	No limit	No limit
H_3	1000	No limit
H_4	No limit	Open

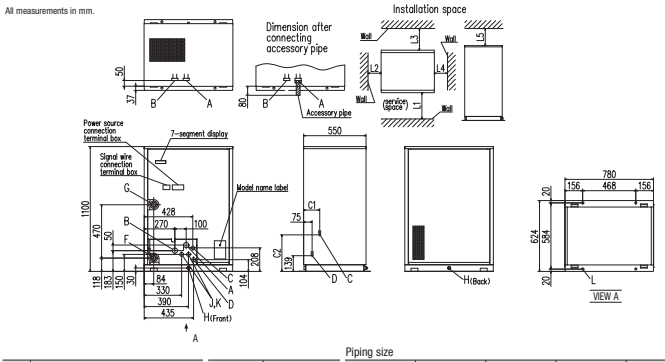
( ) :In case it is the promised installation location that the outdoor unit is used on conditions with the ambient temperature of 8°C or more.

DIMENSIONS - OUTDOOR UNITS

KXZW

FDC224 - 335KXZWE1

All measurements in mm.



Mark	Content		Dimension	FDC-KXZWE1	
A	High/low gas line	Refer to piping size	C1	142	139
B	–	Not to use.	C2	322	316
C	Liquid line	Refer to piping size			
D	Oil equalization line				
F	Water inlet	R1 1/4			
G	Water outlet	R1 1/4			
H	Drain outlet	Rp 1/2,2places			
J	Power source intake	ø35			
K	Signal wiring intake	ø35			
L	Anchor bolt hole	ø18,4places			

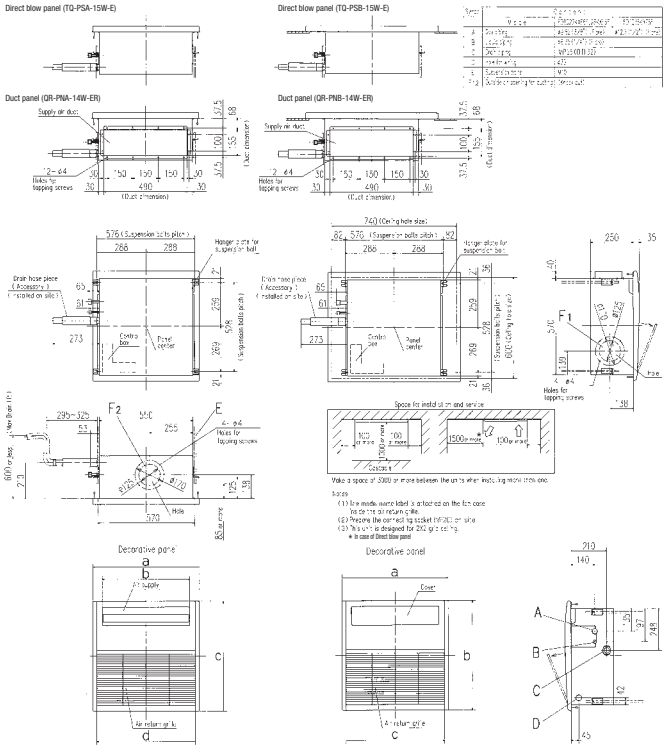
Dimension / Installation example	1
L1	600 or more
L2	20 or more
L3	500 or more
L4	20 or more
L5	300 or more

Piping size

	FDC224KXZWE1	FDC280KXZWE1	FDC335KXZWE1	Connection method
High/low gas line	ø19.05	ø22.22	ø25.4	Flange
Liquid line	ø9.52	ø9.52	ø12.7	Flare
Oil equalization line	ø9.52	ø9.52	ø9.52	

One Way Compact Ceiling Cassette
FDTQ22-36KXE6F

All measurements in mm.



Dimension Table Unit:mm

model	a	b	c	d
TQ-PSA-15W-E	625	514	650	580
TQ-PSB-15W-E	780	514	650	580

Dimension Table Unit:mm

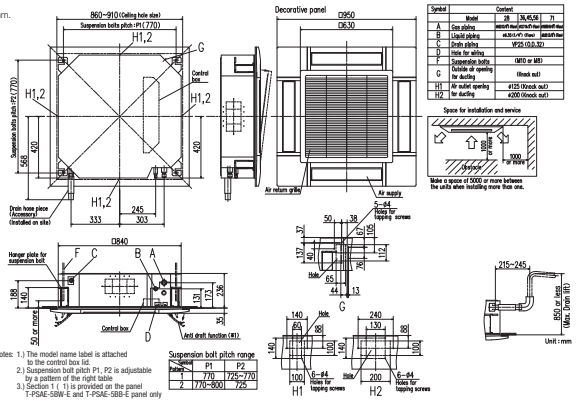
model	a	b	c
QR-PNA-14W-ER	625	650	580
QR-PNB-14W-ER	780	650	580

Four-Way Ceiling Cassette
FDT28-160KXZE1, KXZE1-W

All measurements in mm.

FDT28KXZE1
36KXZE1
45KXZE1
56KXZE1
71KXZE1

FDT28KXZE1-W
36KXZE1-W
45KXZE1-W
56KXZE1-W
71KXZE1-W



Symbol		Content
	Model	28 36,45,56 71
A	Gas piping	ø9.52 (3/8") (Flare) ø12.7 (1/2") (Flare)
B	Liquid piping	ø6.35 (1/4") (Flare) ø9.52 (3/8") (Flare)
C	Drain piping	VP25 (I.D.32)
D	Hole for wiring	
F	Suspension bolts	(M10 or M8)
G	Outside air opening for ducting	(Knock out)
H1	Air outlet opening for ducting	ø125 (Knock out) ø200 (Knock out)
H2		

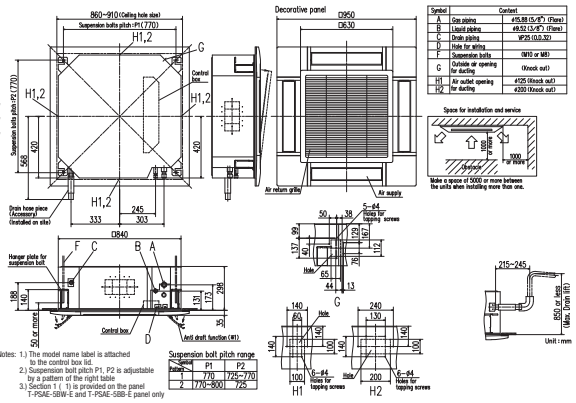
Notes: 1.) The model name label is attached to the control box lid.
2.) Suspension bolt pitch P1, P2 is adjustable by a pattern of the right table
3.) Section 1 (1) is provided on the panel T-PSAE-SBW-E and T-PSAE-SBB-E panel only

Suspension bolt pitch range

Select Pattern	P1	P2
1	770	725~770
2	770~800	725

FDT90KXZE1
112KXZE1
140KXZE1
160KXZE1

FDT90KXZE1-W
112KXZE1-W
140KXZE1-W
160KXZE1-W



Symbol		Content
A	Gas piping	ø15.88 (5/8") (Flare)
B	Liquid piping	ø9.52 (3/8") (Flare)
C	Drain piping	VP25 (I.D.32)
D	Hole for wiring	
F	Suspension bolts	(M10 or M8)
G	Outside air opening for ducting	(Knock out)
H1	Air outlet opening for ducting	ø125 (Knock out) ø200 (Knock out)
H2		

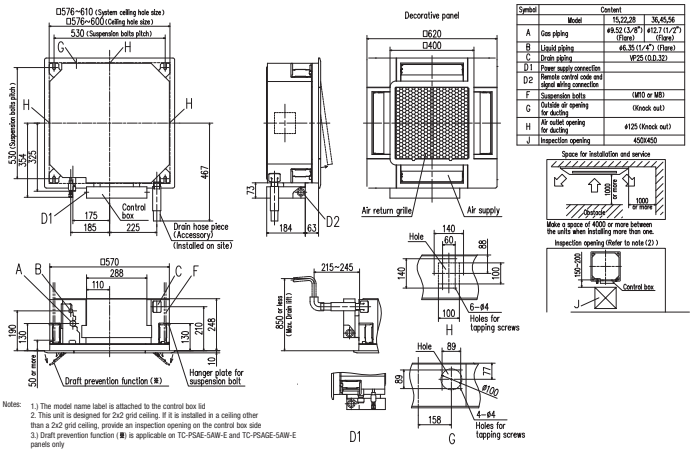
Notes: 1.) The model name label is attached to the control box lid.
2.) Suspension bolt pitch P1, P2 is adjustable by a pattern of the right table
3.) Section 1 (1) is provided on the panel T-PSAE-SBW-E and T-PSAE-SBB-E panel only

Suspension bolt pitch range

Select Pattern	P1	P2
1	770	725~770
2	770~800	725

Compact Four-Way Ceiling Cassette
FDTC15-56KXZE1, KXZE1-W

FDTC15KXZE1, 22KXZE1, 28KXZE1, 36KXZE1, 45KXZE1, 56KXZE1
FDTC15KXZE1-W, 22KXZE1-W, 28KXZE1-W, 36KXZE1-W, 45KXZE1-W, 56KXZE1-W



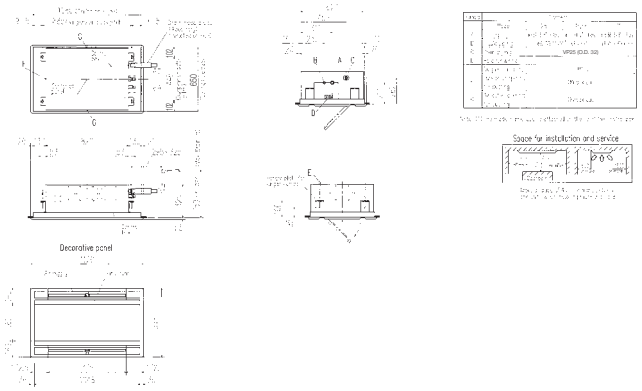
Symbol	Content		
	Model	15,22,28	36,45,56
A	Gas piping	ø9.52 (3/8") (Flare)	ø12.7 (1/2") (Flare)
B	Liquid piping	ø6.35 (1/4") (Flare)	
C	Drain piping	VP25 (O.D.32)	
D1	Power supply connection		
D2	Remote control code and signal wiring connection		
F	Suspension bolts	(M10 or M8)	
G	Outside air opening for ducting	(Knock out)	
H	Air outlet opening for ducting	ø125 (Knock out)	
J	Inspection opening	450X450	

Notes:
1.) The model name label is attached to the control box lid
2. This unit is designed for 2x2 grid ceiling. If it is installed in a ceiling other than a 2x2 grid ceiling, provide an inspection opening on the control box side
3.) Draft prevention function (※) is applicable on TC-PSAE-5AW-E and TC-PSAGE-5AW-E panels only

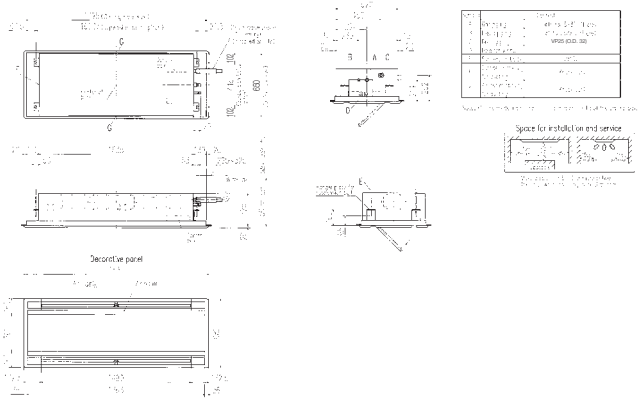
DIMENSIONS - INDOOR UNITS

Two Way Ceiling Cassette
FDTW28-140KXE6F

FDTW28KXE6F, 45KXE6F, 56KXE6F, 71KXE6F All measurements in mm.

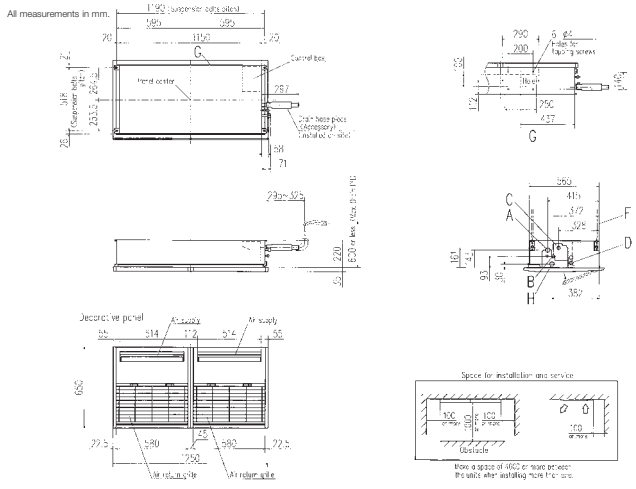


FDTW90KXE6F, 112KXE6F, 140KXE6F



One Way Ceiling Cassette
FDTS45-71KXE6F

All measurements in mm.



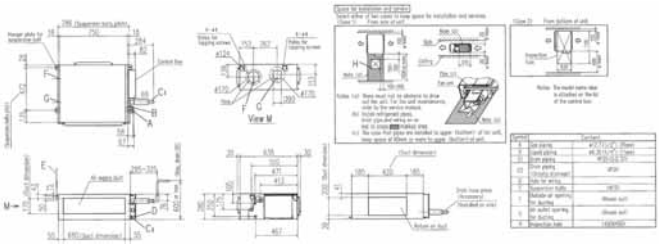
Symbol	Name	Content
	Model	45 / 71
A	Gas piping	ø12.7 (1/2") (Flare) / ø15.88 (5/8") (Flare)
B	Liquid piping	ø6.35 (1/4") (Flare) / ø9.52 (3/8") (Flare)
C	Drain piping	VP25 (I.D.25, O.D.32) Note (2)
D	Hole for anchoring	M10
-	Suspension bolts	M10
G	Outside air opening for ducting	ø100 (Knock out)
-	Drain piping (Gravity discharge)	VP25 (I.D.25, O.D.32)

DIMENSIONS - INDOOR UNITS

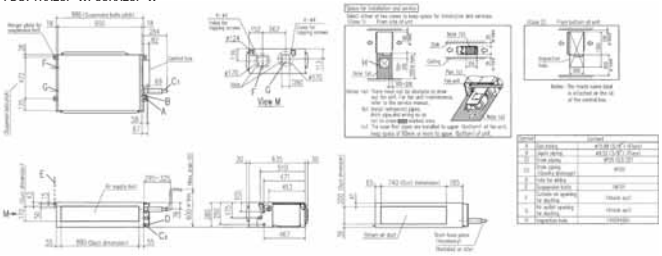
High Static Pressure Ducted
FDU45-160KXE6F, KXE6F-W

FDU45KXE6F, 56KXE6F
FDU45KXE6F-W, 56KXE6F-W

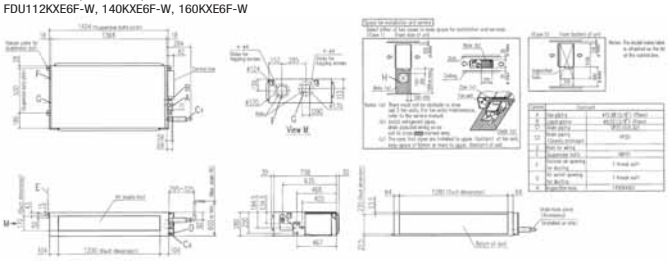
All measurements in mm.



FDU71KXE6F, 90KXE6F
FDU71KXE6F-W. 90KXE6F-W



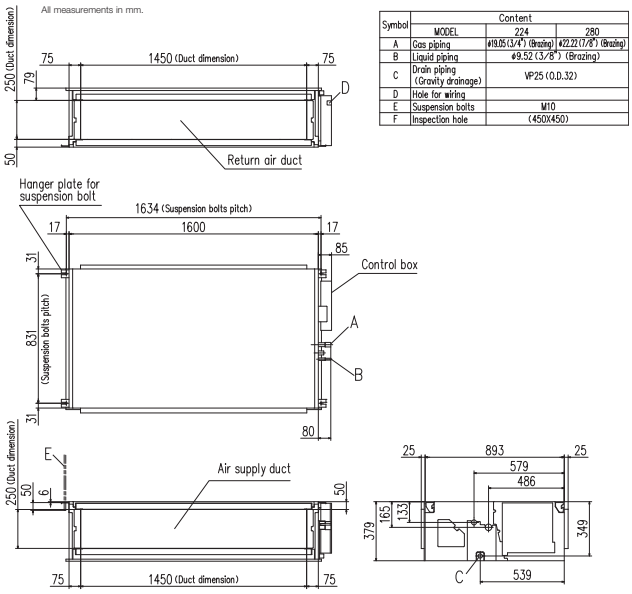
FDU112KXE6F, 140KXE6F, 160KXE6F
FDU112KXE6F-W, 140KXE6F-W, 160KXE6F-W



High Static Pressure Ducted
FDU224-280KXZE1

Models FDU224KXZE1, FDU280KXZE1

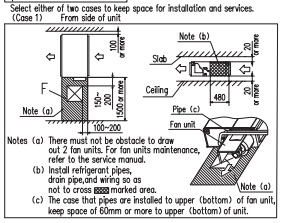
All measurements in mm.

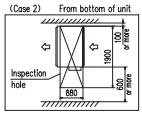


Symbol	Content		
	MODEL	224	280
A	Gas piping	ø19.05 (3/4") (Brazing)	ø22.22 (7/8") (Brazing)
B	Liquid piping	ø9.52 (3/8") (Brazing)	
C	Drain piping (Gravity drainage)	VP25 (O.D.32)	
D	Hole for wiring		
E	Suspension bolts	M10	
F	Inspection hole	(450X450)	

Space for installation and service

Select either of two cases to keep space for installation and services.





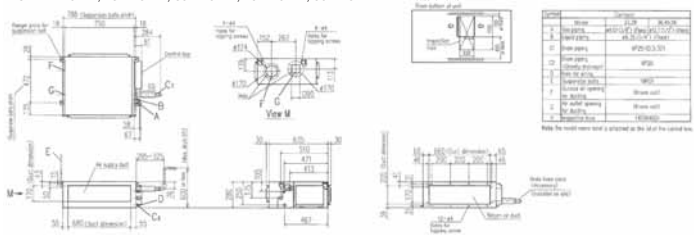
Notes (a) There must not be obstacle to draw out 2 fan units. For fan units maintenance, refer to the service manual.
(b) Install refrigerant pipes, drain pipe,and wiring so as not to cross marked area.
(c) The case that pipes are installed to upper (bottom) of fan unit, keep space of 60mm or more to upper (bottom) of unit.

Notes (1) The model name label is attached on the lid of the control box.

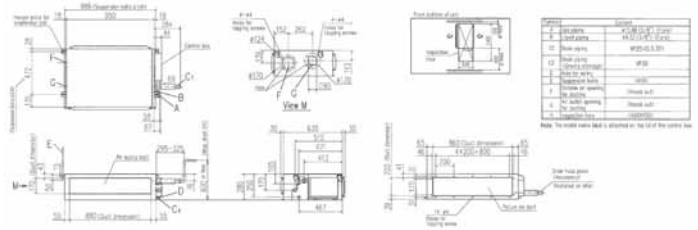
Low/Medium Static Pressure Ducted
FDUM22-160KXE6F, KXE6F-W

FDUM22KXE6F, 28KXE6F, 36KXE6F, 45KXE6F, 56KXE6F
FDUM22KXE6F-W, 28KXE6F-W, 36KXE6F-W, 45KXE6F-W, 56KXE6F-W

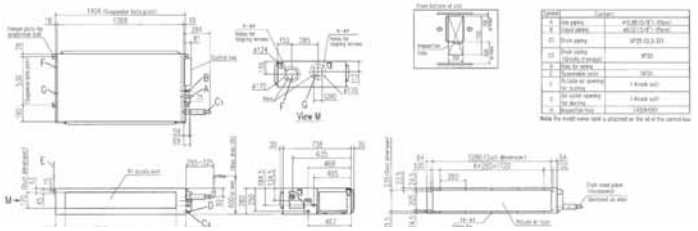
All measurements in mm.



FDUM71KXE6F, 90KXE6F
FDUM71KXE6F-W, 90KXE6F-W



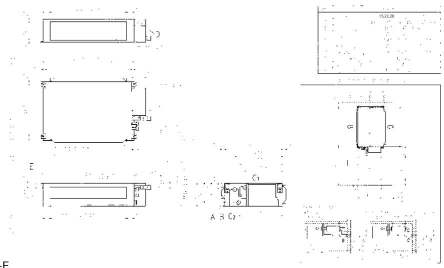
FDUM112KXE6F, 140KXE6F, 160KXE6F
FDUM112KXE6F-W, 140KXE6F-W, 160KXE6F-W



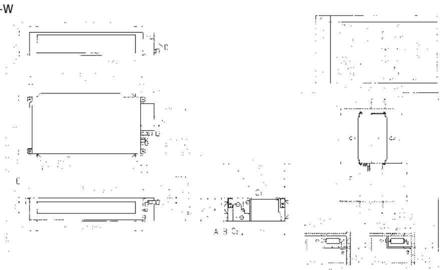
Low Profile, Low Static Pressure Ducted
FDUT15-71KXE6-E, KXE6F-W

FDUT15KXE6F-E, 22KXE6F-E, 28KXE6F-E, 36KXE6F-E
FDUT15KXE6F-W, 22KXE6F-W, 28KXE6F-W, 36KXE6F-W

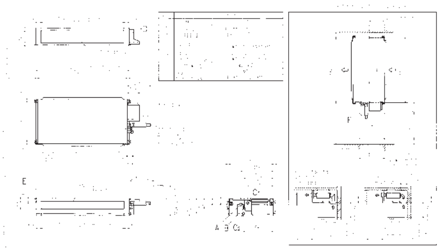
All measurements in mm.



FDUT45KXE6F-E, 56KXE6F-E
FDUT45KXE6F-W, 56KXE6F-W



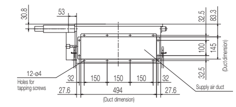
FDUT71KXE6F-E
FDUT71KXE6F-W



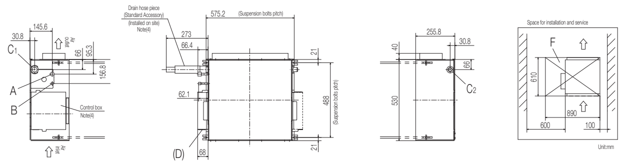
DIMENSIONS - INDOOR UNITS

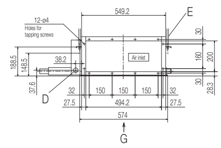
Compact & Flexible Ducted
FDUH22-36KXE6F

All measurements in mm.

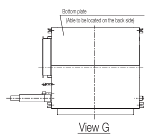


Symbol	Content		
	Model	FDUH22KXE6F,28KXE6F	FDUH36KXE6F
A	Gas piping	ø9.52 (3/8") (Flare)	ø12.7 (1/2") (Flare)
B	Liquid piping	ø6.35 (1/4") (Flare)	
C_1,C_2	Drain piping	VP20(I.D.20, O.D.26) Note (2)	
D	Hole for wiring	ø30	
E	Suspension bolts	(M10)	
F	Inspection hole	(635X890) Note (3)	

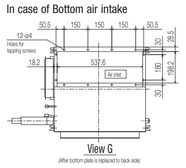




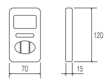
Notes
(1) The model name label is attached on the fan case inside the air return grille.
(2) Prepare the connecting socket (VP20) on site. (As for drain piping, it is possible to choose C_1 or C_2)
(3) When control box is located on the reverse side, Installation space should be modified to new location.
(4) Control box and Drain hose piece are able to be relocated on the reverse side.



In case of Bottom air intake

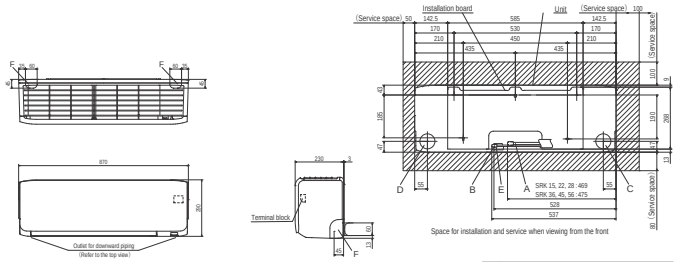


Simple remote control



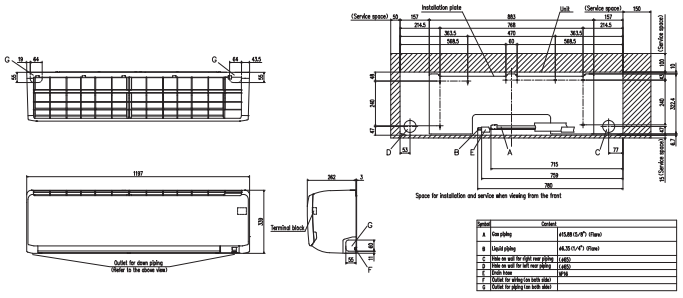
Wall Mounted
FDK15-90KXZE1, KXZE1-W

FDK15KXZE1, 22KXZE1, 28KXZE1, 36KXZE1, 45KXZE1, 56KXZE1
FDK15KXZE1-W, 22KXZE1-W, 28KXZE1-W, 36KXZE1-W, 45KXZE1-W, 56KXZE1-W All measurements in mm.



Symbol		Content
A	Gas piping	SRK15, 22, 28 : ø9.52 (3/8") (Flare) SRK36, 45, 56 : ø12.7 (1/2") (Flare)
B	Liquid piping	ø6.35 (1/4") (Flare)
C	Hole on wall for right rear piping	(ø65)
D	Hole on wall for left rear piping	(ø65)
E	Drain hose	VP16
F	Outlet for piping (on both side)	

FDK71KXZE1, 90KXZE1
FDK71KXZE1-W, 90KXZE1-W

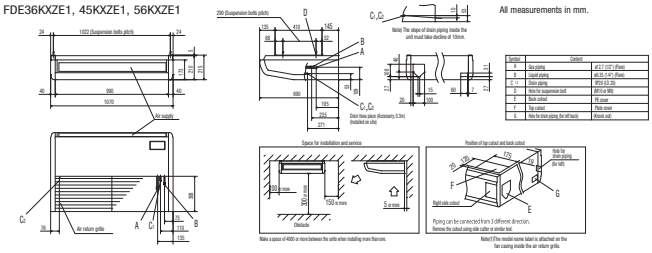


Symbol	Content	
A	Gas piping	ø15.88 (5/8") (Flare)
B	Liquid piping	ø6.35 (1/4") (Flare)
C	Hole on wall for right rear piping	(ø65)
D	Hole on wall for left rear piping	(ø65)
E	Drain hose	VP16
F	Outlet for piping (on both side)	
G	Outlet for piping (on both side)	

Ceiling Suspended
FDE36-140KXZE1

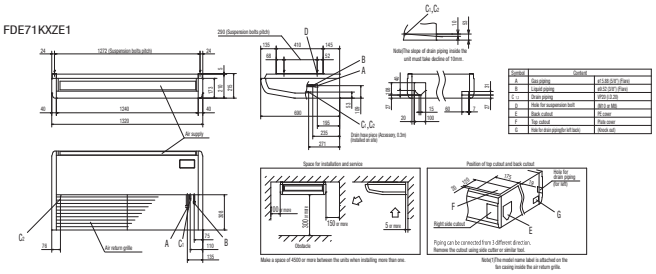
FDE36KXZE1, 45KXZE1, 56KXZE1

All measurements in mm.



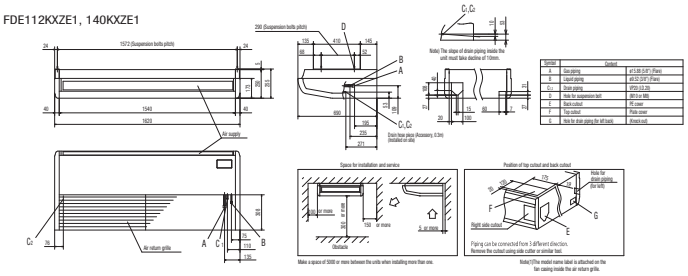
Symbol	Content
A	Gas piping
B	Liquid piping
C	Drain piping
D	Hole for suspension bolt
E	Back cutout
F	Top cutout
G	Hole for drain piping(for left back)

FDE71KXZE1



Content		
A	Gas piping	ø15.88 (5/8") (Flare)
B	Liquid piping	ø9.52 (3/8") (Flare)
C	Drain piping	VP20 (I.D.26)
D	Hole for suspension bolt	Ø20 or Ø30
E	Back cutout	PC cover
F	Top cutout	Plate cover
G	Hole for drain piping(for left back)	(Knock out)

FDE112KXZE1, 140KXZE1

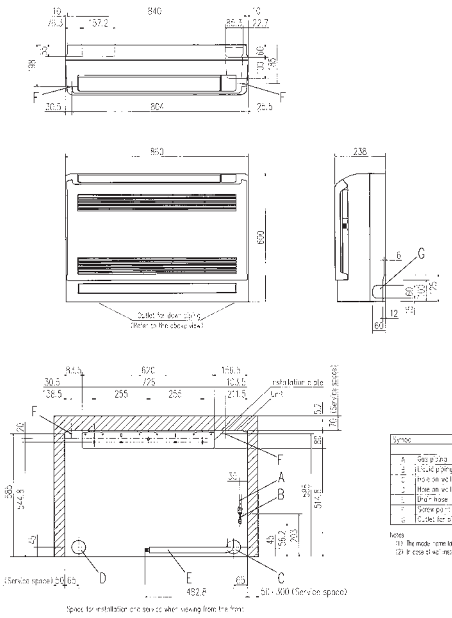


Symbol	Content
A	Gas piping
B	Liquid piping
C	Drain piping
D	Hole for suspension bolt
E	Back cutout
F	Top cutout
G	Hole for drain piping(for left back)

Two Way Floor Standing
FDFW28-56KXE6F

FDFW28KXE6F, 45KXE6F, 56KXE6F

All measurements in mm.



Symbol	Content		
	Model	FDFW28KXE6F	FDFW45KXE6F, 56KXE6F
A	Gas piping	φ9.52 (3/8") (Flare)	φ12.7 (1/2") (Flare)
B	Liquid piping	φ6.35 (1/4") (Flare)	
C	Hole on wall for right rear piping	(φ65)	
D	Hole on wall for left rear piping	(φ65)	
E	Drain hose	VP16 (I.D 16)	
F	Screw point fasten the indoor unit	φ5	
G	Outlet for piping (on both side)		

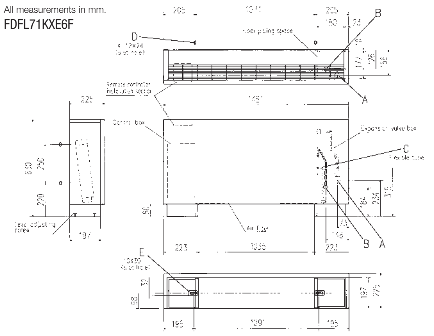
Notes
(1) The model name label is attached on the right side of the unit.
(2) In case of wall installation, leave the unit 150mm or less from the floor.

DIMENSIONS - INDOOR UNITS

Floor Standing With Casing - FDFL71KXE6F
Floor Standing Without Casing - FDFU28-71KXE6F

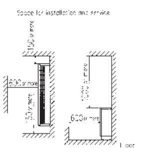
All measurements in mm.

FDFL71KXE6F

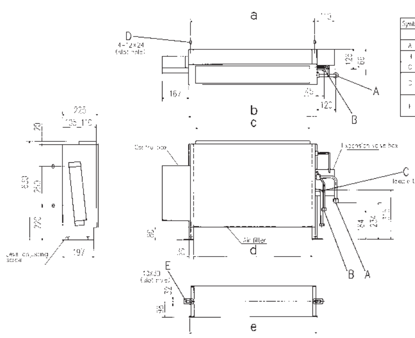


Symbol	Content	
	Model	FDFL71KXE6F
A	Gas piping (Accessory)	φ15.88 (5/8") (Flare)
B	Liquid piping	φ9.52 (3/8") (Flare)
C	Drain piping (Accessory)	PT20A female screw, 360mm
D	Slot hole for wall mounting	(M10)
E	Metal plate for floor mounting (Accessory)	(M8)

Note (1) The model name label is attached on the lid of the control box

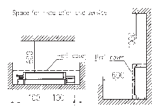


FDFU28KXE6F, 45KXE6F, 56KXE6F, 71KXE6F



Symbol	Content			
	Model	FDFU28KXE6F	FDFU45KXE6F, 56KXE6F	FDFU71KXE6F
A	Gas piping (Accessory)	φ9.52 (3/8") (Flare)	φ12.7 (1/2") (Flare)	φ15.88 (5/8") (Flare)
B	Liquid piping	φ6.35 (1/4") (Flare)		φ9.52 (3/8") (Flare)
C	Drain piping (Accessory)	PT20A female screw, 360mm		PT20A female screw, 360mm
D	Slot hole for wall mounting	(M10)		(M10)
E	Metal plate for floor mounting (Accessory)	(M8)		(M8)

Note (1) The model name label is attached on the lid of the control box.



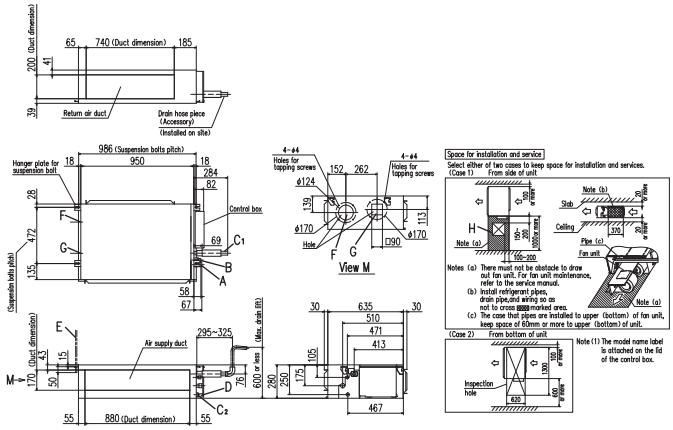
Dimension Table

Unit:mm

model	a	b	c	d	e
FDFU28KXE6F, 45KXE6F, 56KXE6F	786	810	722	750	806
FDFU71KXE6F	1071	1095	1007	1035	1091

Outdoor Air Processing Unit
FDU650FKXZE1

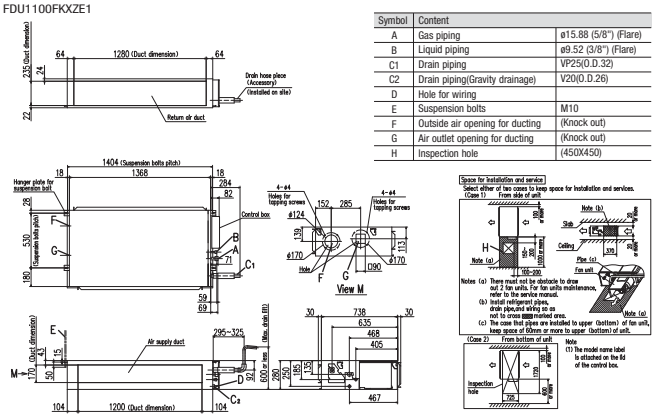
FDU650FKXZE1



Symbol	Content	
A	Gas piping	ø15.88 (5/8") (Flare)
B	Liquid piping	ø9.52 (3/8") (Flare)
C1	Drain piping	VP25(O.D.32)
C2	Drain piping(Gravity drainage)	V20(O.D.26)
D	Hole for wiring	
E	Suspension bolts	M10
F	Outside air opening for ducting	(Knock out)
G	Air outlet opening for ducting	(Knock out)
H	Inspection hole	(450X450)

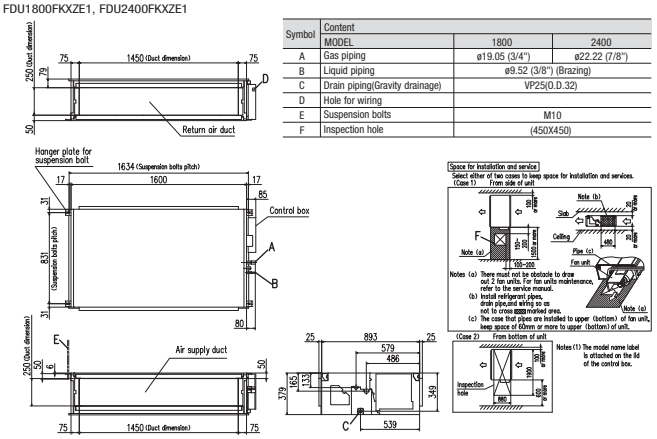
Outdoor Air Processing Unit
FDU1100-2400FKXZE1

FDU1100FKXZE1



Symbol	Content	
A	Gas piping	ø15.88 (5/8") (Flare)
B	Liquid piping	ø9.52 (3/8") (Flare)
C1	Drain piping	VP25(O.D.32)
C2	Drain piping(Gravity drainage)	V20(O.D.26)
D	Hole for wiring	
E	Suspension bolts	M10
F	Outside air opening for ducting	(Knock out)
G	Air outlet opening for ducting	(Knock out)
H	Inspection hole	(450X450)

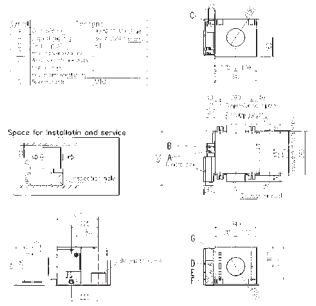
FDU1800FKXZE1, FDU2400FKXZE1



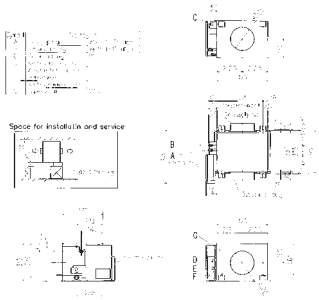
Symbol	Content		
	MODEL	1800	2400
A	Gas piping	ø19.05 (3/4")	ø22.22 (7/8")
B	Liquid piping	ø9.52 (3/8") (Brazing)	
C	Drain piping(Gravity drainage)	VP25(O.D.32)	
D	Hole for wiring		
E	Suspension bolts	M10	
F	Inspection hole	(450X450)	

Fresh Air DX Assembly
SAF-DX250-10000E6

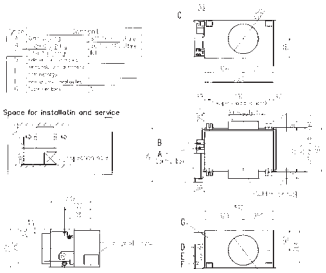
SAF-DX250E6,350E6



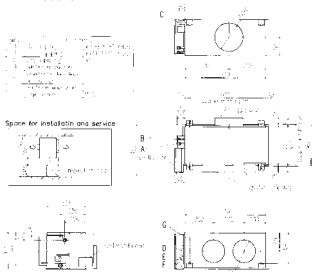
SAF-DX500E6 All measurements in mm.



SAF-DX800E6



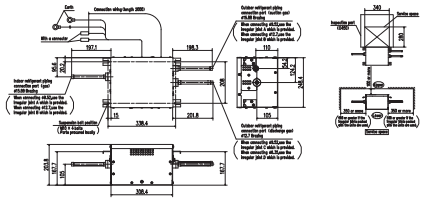
SAF-DX1000E6



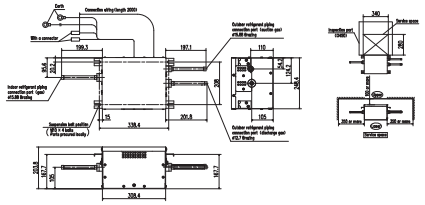
Refrigeration Flow Controller

All measurements in mm.

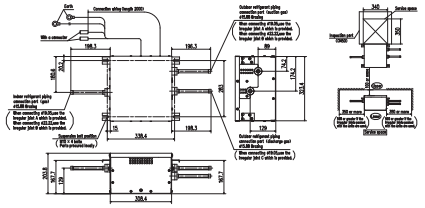
PFD1124-E



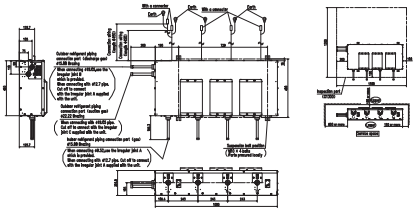
PFD1804-E



PFD2804-E



PFD1124X4-E



CONTROLLERS

	Wired Remote Control		
Module			
Model	RCH-E3	RC-E5	RC-EXZ3A
Description	Simple	Press Button	Touch Screen
Max Connectable Indoors	16	16	16
OPERATION			
ON/OFF	■	■	■
Operating Modes	■	■	■
Room Temperature Setting	■	■	■
Fan Speed	■	■	■
Louvre Direction		■	■
Filter Sign Reset		■	■
High Power Operation			■
Auto Temp Set Back		■	■
Administrator Setting		■	■
Enable/Disable Setting	■	■	■
Test Run		■	■
Motion Sensor			
DISPLAY			
Error Indication	■	■	■
Error Code	■	■	■
"ON" Indication	■	■	■
Room Temperature Reading		■	■
Ventilation Display	■	■	■
Current Time		■	■
Day of Week		■	■
Address Display	■	■	■
Central Control Display	■	■	■
Backlight			■
Connected Air Con No.	■	■	■
TIMER			
On/Off Timer		■	■
Sleep Timer		■	■
Peak-Cut Timer			■
Holiday Setting		■	■
Daily Schedule		■	■
Weekly Schedule		■	■
Annual Schedule			
ADDITIONAL CONTROLS			
Error History			
Emergency Stop		■	■
Energy Consumption			
USB Connectable			■
Multi Language			■

Wireless Remote Control (Option)								
								
RCN-KIT4-E2	RCN-T-5BW-E2 / RCN-T-5BB-E2	RCN-TC-5AW-E3	RCN-FW-E2	RCN-TS-E2	RCN-E-E2	RCN-TW-E2	RCN-K-E2	RCN-K71-E2
For FDTQ, FDU, FDUT, FDUM, FDUH, FDFL, FDFU, FDU-F, SAF-DX	For FDT	For FDTC	For FDFW	For FDTS	For FDE	For FDTW	For FDK22-56	For FDK71
16	16	16	16	16	16	16	16	16
OPERATION								
■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■
DISPLAY								
■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■
/	/	/	/	/	/	/	/	/
TIMER								
■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■
ADDITIONAL CONTROLS								

*The SC-BIKN2-E and SC-ADNA-E will implement the function via terminal interface.

CONTROLLERS

	Central Controller				
Module					
Model	**SC-SL1N-E**	**SC-SL2NA-E**	**SC-SL4-AE/BE**	**SC-WBGW256**	**SC-LGWNB**
Description	Simple Press Button Central Controller	Press Button Central Controller	Touch Screen Central Controller	Web Gateway and BACnet Gateway	LonWorks Gateway
Max Connectable Indoors	16	64	128	256	96
OPERATION					
ON/OFF	■	■	■	■	■
Operating Modes		■	■	■	■
Room Temperature setting		■	■	■	■
Fan Speed		■	■	■	■
Louvre Direction		■	■	■	■
Filter Sign Reset		■	■	■	■
High Power Operation					
Auto Temp Set Back					
Administrator Setting			■	■	■
Enable/Disable Setting		■	■	■	■
Test Run			■	■	■
Motion Sensor					
DISPLAY					
Error Indication	■	■	■	■	■
Error Code		■	■	■	■
"ON" Indication	■	■	■	■	■
Room Temperature Reading		■	■	■	■
Ventilation Display		■	■		
Current Time		■	■		
Day of Week		■	■		
Address Display		■	■	■	■
Central Control Display	■	■	■	■	■
Backlight		■	■	■	■
Connected Air Con No.		■	■	■	■
TIMER					
On/Off Timer		■	■	■	■
Sleep Timer					
Peak-Cut Timer					
Holiday Setting		■	■	■	■
Daily Schedule		■	■	■	■
Weekly Schedule		■	■	■	■
Annual Schedule			■	■	■
ADDITIONAL CONTROLS					
Error History		■	■		
Emergency Stop		■	■	■	■
Energy Consumption			BE only	■	
USB Connectable			■		
Multi Language			■	■	■

	Optional Parts								
									
Model	**LB-T58W-E / LB-T68B-E**	**LB-TC-5W-E**	**LB-KIT**	**LB-E**	**LB-TW-6W**	**CNT**	**SC-BIKN2-E**	**SC-GIFN-E**	**SC-ADNA-E**
Description	Motion Sensor for FDT	Motion Sensor for FDTC	Motion Sensor for FDU, FDUM, FDUT, FDK & FDTS	Motion Sensor for FDE	Motion Sensor for FDTW	Interface Connector for External In/Output	Interface Kit for RAC (includes CNT)	Interface for OEM via Superlink	Superlink E Board and Network Adaptor
Max Connectable Indoors	1	1	1	1	1	1	1	1	1
OPERATION									
ON/OFF	■	■	■	■	■	■	■	■	■
Operating Modes							■	■	■
Room Temperature setting									
Fan Speed									
Louvre Direction									
Filter Sign Reset							■	■	■
High Power Operation									
Auto Temp Set Back									
Administrator Setting									
Enable/Disable Setting							■	■	■
Test Run									
Motion Sensor	■	■	■	■	■				
DISPLAY									
Error Indication						■	■	■	■
Error Code									
"ON" Indication						■	■	■	■
Room Temperature Reading									
Ventilation Display									
Current Time									
Day of Week									
Address Display									
Central Control Display									
Backlight									
Connected Air Con No.									
TIMER									
On/Off Timer									
Sleep Timer									
Peak-Cut Timer									
Holiday Setting									
Daily Schedule									
Weekly Schedule									
Annual Schedule									
ADDITIONAL CONTROLS									
Error History									
Emergency Stop						■	■	■	■
Energy Consumption									
USB Connectable									
Multi Language									

CONTROLLERS

Individual Control Systems

Remote Control line up

	indoor unit	remote control
wired	all models	RC-EXZ3A
		RC-E5
		RCH-E3

	indoor unit	remote control	indoor unit	remote control	indoor unit	remote control
wireless	FDT	RCN-T-5BW-E2	FDTS	RCN-TS-E2	FDE	RCN-E-E2
	FDTC	RCN-TC-5AW-E3	FDK22~56	RCN-K-E2	FDFW	RCN-FW-E2
	FDTW	RCN-TW-E2	FDK71	RCN-K71-E2	others*	RCN-KIT4-E2

*FDTQ, FDU, FDUM, FDUT, FDUH, FDU-F

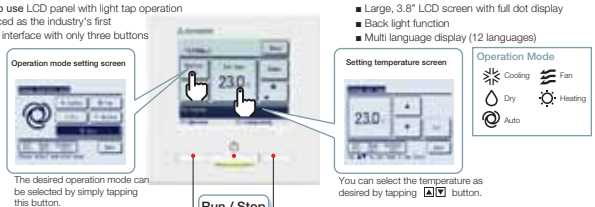
Wired Remote Control (option)

RC-EXZ3A

Easy touch and Easy view with full dot Liquid Crystal display

User friendly

- **Easy to use** LCD panel with light tap operation introduced as the industry's first
- Simple interface with only three buttons



Easy view

- Large, 3.8" LCD screen with full dot display
- Back light function
- Multi language display (12 languages)

High power operation
The highest capacity operation (Max 15 minutes)
•Increasing compressor speed
•Increasing air flow volume

Energy-saving operation
•Changes set temperature.
At 28°C in cooling mode and 22°C in heating mode, 25°C in auto mode.
•Operation correction by outdoor temperature

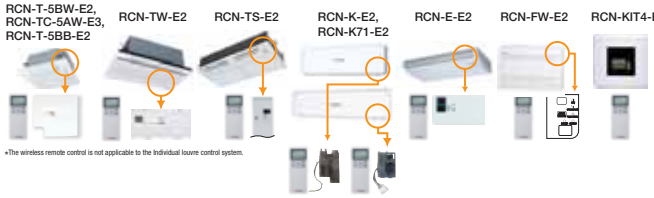
2. Main Functions

	Function name	Description
Economy & Timer	Energy-saving operation	Since the capacity is controlled automatically based on the outdoor temperature, energy can be saved without losing comfort.
	Sleep timer	Set the time period from start to stop of operation. The selectablerange of setting time is from 30 to 240 minutes (at 10-minuteintervals).
	Set temperature auto return	The temperature automatically returns to the previously set temperature.
	Set ON timer by hour	When the set time elapses, the air conditioner starts.
	Set OFF timer by hour	When the set time elapses, the air conditioner stops.
	Set ON timer by clock	The air conditioner starts at the set time.
	Set OFF timer by clock	The air conditioner stops at the set time.
	Weekly timer	On or Off timer can be set on a weekly basis.
	Peak-cut timer	Capacity control can be set by using peak cut function on RC-EXZ3A for better energy saving. Five-step capacity control is available.
	Home leave operation	When the unit is not used for a long period of time, the room temperature is maintained at a moderate level, avoiding extremely hot or cool temperatures.
Comfort	Large LCD & Touch screen panel	Large 3.8 inch screen has resulted in improved visibility and operability.
	Easy modification of Individual flap control	User can visually confirm and set the direction of flaps using the visual display on the remote controller.
	Automatic fan speed *1	The micro-computer automatically adjusts the airflow effectively to follow the changes of return air temperature.
	Temp.increment setting	Temperature increment for the change of the set temp can be changed.
	Silent mode	Set the period of time to operate the Outdoor unit with prioritizing the quietness.
Convenience	Function switch	The function switch allows user to select and set two functions among seven available functions.
	Favorite setting	Operation mode, set temperature, fan speed and air flow direction automatically adjust to the programmed favorite setting.
	Adjusting Brightness of the background light	The brightness of the background light can be adjusted by 10 stages.
	LCD contrast setting	This function allows user to adjust LCD display contrast.
	High power operation	High Power Mode increases the unit operating ability for 15 minutes to quickly adjust the room temperature to a comfortable level.
	Back light setting	This convenient function allows user to see controls under low light conditions.
	Administrator settings	This function only allows specific individuals to operate the unit.
	Setting temp range	Limited range of setting temperature in the heating or the cooling operation can be selected.
	External Input/Output Function	The external input/output of indoor unit by remote controller can set input/output based on user needs.
	Select the language	Set the language to be displayed on the remote control.
Service	USB connection (mini-B)	This function allows batch input of schedule timer settings and other settings involving a large amount of data.
	Error code display	This function allows user to check information displayed when abnormal function of the unit occurs.
	Operation data display	Displays various types of air conditioner operation data in real time.
	Contact company display	Address of the service contact is displayed.
	Filter sign	Announces the due time for cleaning of the air filter.
	Static pressure adjustment	Allows user to adjust duct static pressure using the remote control.
	Backup Control	Allows for rotation control, fault backup control, and capacity backup control.

*1 Cannot be used when a centralized control remote is connected.

Wireless Remote Control (option)

RCN-T-5BW-E2, RCN-TC-5AW-E3, RCN-T-5BB-E2 | RCN-TW-E2 | RCN-TS-E2 | RCN-K-E2, RCN-K71-E2 | RCN-E-E2 | RCN-FW-E2 | RCN-KIT4-E2



*The wireless remote control is not applicable to the Individual louvre control system.

Wired Remote Control (option)

RC-E5

The RC-E5 controller enables extensive access to service and maintenance technical data combined with easy to use functions and a clear LCD display.

Weekly timer function as standard
RC-E5 provides (as a standard feature) a weekly timer, which allows one-week operation schedules to be registered. A user can specify up to four times a day to start/stop the air conditioner. (Temperature setting is also possible with the timer).

Timer operation

Run hour meters to facilitate maintenance checking
RC-E5 stores operation data when an anomaly occurs and indicates the error on the LCD. It also displays cumulative operation hours of the air conditioner and compressor since commissioning.

Room temperature controlled by the remote control sensor
The temperature sensor is housed in the top section of the remote control unit. This arrangement has improved the sensitivity of the remote control unit's sensor, which permits more finely controlled air conditioning.

Changeable set temperature ranges
RC-E5 allows the upper and lower limits of a set temperature range to be specified separately.
By adjusting a set temperature range, you can ensure energy saving air conditioning by avoiding excessive cooling or heating.

Temperature Range	
Upper limit	20~30°C (effective for heating operation)
Lower limit	18~26°C (effective for non-heating operation)

Simple Remote Control (option)

RCH-E3 (wired)

Considering specialized usage in hotel rooms, control buttons are limited only to minimum required functions such as ON/OFF, mode, temperature setting and fan speed. It is really simple and easy to use.

Control up to 16 units
It can control up to 16 units individually, with pressing the AIR CON No. button.

AUTO restart
This function allows starting the air conditioner automatically when power supply is restored after power failure or by turning on the power switch.

•RCH-E3 is not applicable to the Individual louvre control system.
•When RCH-E3 is used, the fan speed setting can only be set to 3 speed settings (Hi-Me-Lo).

Thermistor (option)

SC-THB-E3

In case sensor in the indoor units or the remote control sensor can not sense the room temperature correctly, or individual remote control in each room is not required but only sensor is required (as when center control system is in place), install SC-THB-E3 at proper place in the rooms.

Motion Sensors (option)

LB-T-5W-E | LB-T-5BB-E | LB-TC-5W-E | LB Kit | LB-E | LB-TW-6W

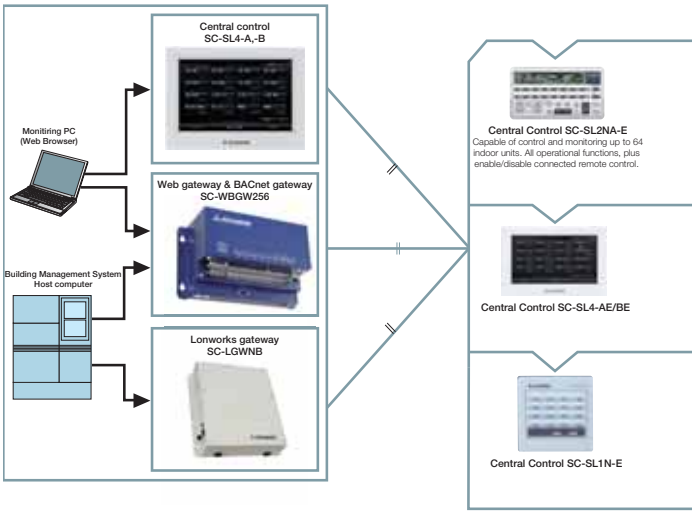
Suitable for FDT | Suitable for FDTC | Suitable for FDU, FDUM, FDUT, FDK & FDTS | Suitable for FDE | Suitable for FDTW

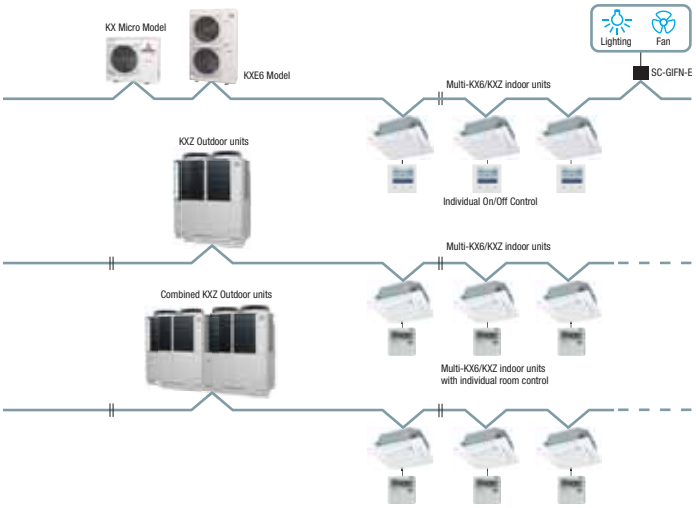
CONTROLLERS

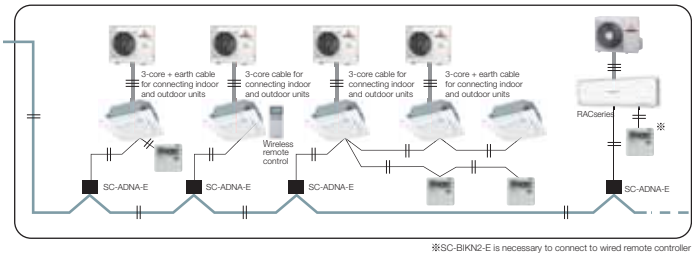
SUPERLINK®-II Control System

Mitsubishi Heavy Industries has now combined simplicity of installation with our highly sophisticated SUPERLINK-II control system, to offer building owners and occupiers a comprehensive control and management system, while providing complete commissioning and service maintenance assistance for installers and service engineers. The SUPERLINK-II network utilises two wire, non-polar cable - for further details of wiring.

SUPERLINK-II is an advanced high speed data transmission system that can connect up to 128 indoor units and 32 outdoor units as a network. Mitsubishi Heavy Industries offers a wide range of control options for the SUPERLINK-II network to suit any application large or small, as well as connection to new or existing building management systems. Individual Mitsubishi Heavy Industries split systems can also be integrated on to the SUPERLINK-II network using SC-ADNA-E.







※SC-BIKN2-E is necessary to connect to wired remote controller

CONTROLLERS

Central Controllers

SC-SL1N-E

Start/stop control of up to 16 indoor units either individually or collectively with a simplied, centralised control.

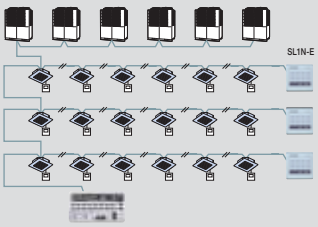
1. The SC-SL1N-E is connected to the Superlink-II network via 2-core, non-polar wires ('AB' connection).
2. It will monitor and control the start/stop function of up to 16 units, with the 16 operation buttons.
3. The unit or group numbers in operation or in need of service are displayed with an LED.
4. Collective start/stop is also available through the simultaneous on/off button.
5. Up to 12 SC-SL1N-E units can be connected to a Superlink-II network (consisting of up to 128 indoor units).
6. If a power failure occurs, the SC-SL1N-E will resume the operation of the system according to a stored operation condition, once power is restored.

SC-SL2NA-E

Central control of up to 64 indoor units including weekly timer function as standard.

1. The SC-SL2NA-E is connected to the Superlink-II network via 2-core, non-polar wires ('AB' connection).
2. It will monitor and control the start/stop function of up to16 units, or 16 groups of units, with the sixteen operation buttons.
3. It also monitors and controls the following functions for individual units, groups of units or the complete network: operation mode, set point temperature, return air temperature, louvre position, error code, air flow and center lock function.
4. The unit or group numbers in operation or in need of service are displayed with an LCD.
5. Collective start/stop is also available through the simultaneous on/off button.
6. If a power failure occurs, the SC-SL2NA-E will resume the operation of the system according to a stored operation condition, once power is restored.
7. The SC-SL2NA-E can be connected to an external timer to facilitate timed on/off cycles.
8. The number of units connected to one network are detailed on the table below.

Example setup of central control SC-SL2NA-E



Note:Please consult dealer for combination of center controls and BMS interface units.

An SC-SL2NA-E performs the start/stop control, monitoring and mode setting of up to 64 units. It is a high quality air conditioner control system that allows up to 64 indoor units to be freely grouped into 1 to 16 groups.
It allows not only the start/stop control but also the monitoring, display of operation statuses such as in operation or in need of service and mode setting such as switching of operation modes of connected units collectively, by group or individually.

Outer dimensions: H120 x W215 x D25+35*mm.
35* is the measurement including the part contained in a recess.

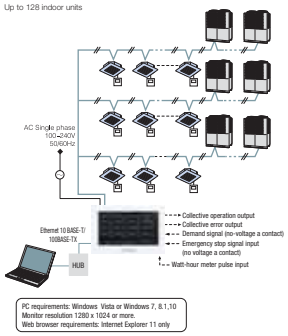
SC-SL4-AE/BE

MHI introduces the full colour touch screen central control SC-SL4-AE/BE, with 9 inch interactive LCD display. Offers control, monitoring, scheduling and service/maintenance functions for up to 128 indoor units.Control with PC is available by use of Internet Explorer.

Indoor units can be controlled, scheduled, monitored and either individually, as groups or as blocks of groups with the following functions:

System Diagram

Up to 128 indoor units



PC requirements: Windows Vista or Windows 7, 8.1,10
Monitor resolution 1280 x 1024 or more.
Web browser requirements: Internet Explorer 11 only

Control	Monitoring	Scheduling	Administration/Service
Run/Stop	Operating state	Yearly schedule	Block definition
Mode (cool/heat/fan/dry/Auto)	Mode	Today's schedule	Group definition
Set temperature	Set temperature	Detailed daily schedule	Unit definition
Operation permitted/prohibited	Room temperature		Time and date setting
Fan speeds	Operation permitted/ prohibited		Alarm history
Air direction	Fan speed		Energy consumption calculation period
Filter sign reset	Air direction		Energy consumption, cumulative operation time
Demand control (3 steps)	Filter sign		
Emergency stop	Maintenance (1, 2 or back-up)		

Electric power calculation function:
(for SC-SL4-BE only)

SC-SL4-BE gives outputs as "electric power consumption kWh data -each indoor unit, each group, each SUPERLINK-II system and each power pulse system-".

	SC-SL4-BE
Method of data export	USB / LAN
Calculation software	Standard
Watt-hour meter pulse input (Maximum)	8
Connecting indoor units number (Maximum)	128

Item	Model	SC-SL4-AE/SC-SL4-BE
Ambient temperature during use		0 ~ 40°C
Power supply		1 Phase 100-240V 50/60Hz
Power consumption		9W
External dimensions (Height x Width x Depth)		172mm x 250mm x 23 (+70) mm
Net weight		2.0kg
Number of connectable units (indoor units)		up to 128 units
LCD touch panel		Colour LCD, 9 inches wide
Inputs	SL (Superlink) signal inputs	1 system (Superlink-II)
	Watt-hour meter pulse input*	8-point, pulse width 80ms or more
	Emergency stop signal input*	1 point, non-voltage a contact input continuous input (closed, forced stop)
	Demand signal input*	2 point, non-voltage a contact input continuous input (closed, demand control)
Outputs	Operation output	1 point, maximum rated current 40mA, DC24 V During full stop; Open. If even one unit is operating; Closed All units stop; Open, any unit operating;Close
	Error output	1 point maximum rated current 40mA, DC24 V Normal; closed. If even one unit is abnormal; Open

* The receiving side power supply is DC 12V (10mA).
The air conditioning charges calculations of this unit are based on OIML, the international standard.

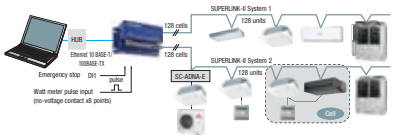
Building Management Systems

SC-WBGW256 (Web Gateway+BACnet Gateway)

The SC-WBGW256 allows the control and monitoring of up to 256 cells (some cells can have two or more indoor units and total number of indoor units can be up to 256 units) centralised to a network PC using the Superlink-II web gateway. Simple installation is assured with no special software requirements, operation is via Internet Explorer. A low power embedded CPU and compact flash ROM ensure a large storage capacity with high reliability (no moving parts such as a PC fan, etc). An IP address filter function combined with three-level user authentication check also ensures security. Also, SC-WBGW256 can be used as interface devices that convert Mitsubishi Heavy Industries Superlink-II communication data to BACnet code and are controlled centrally from a building management system.

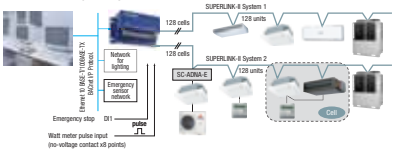
Additional engineering service cost etc. is required.
Please consult your dealer when using this central control.

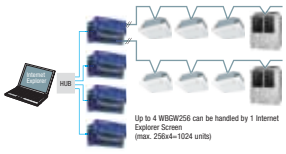
Web Gateway Configuration



PC requirements: Windows 7 or Windows 8.1.
Monitor resolution 1364 x 768.

BACnet Gateway Configuration



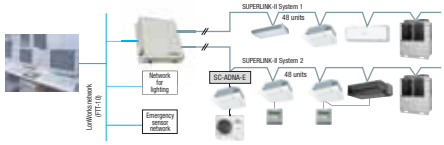


Up to 4 WBGW256 can be handled by 1 Internet Explorer Screen
(max. 256x4=1024 units)

Users can manage up to 1024 units by connecting the four devices.

SC-LGWNB (LonWorks Gateway)

SC-LGWNB is an interface device that converts Mitsubishi Heavy Industries Superlink-II communication data to LonWorks code. Control and monitoring functions of the a/c system for up to 96 indoor units can be integrated to a central control point via the building management system network.



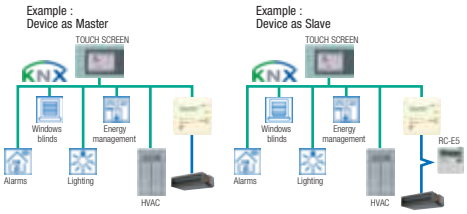
Additional engineering service cost etc. is required.
Please consult your dealer when using this gateway.

CONTROLLERS

KNX with SUPERLINK-II Integrated Into PAC System via Remote Control Line

MH-RC-KNX-1i

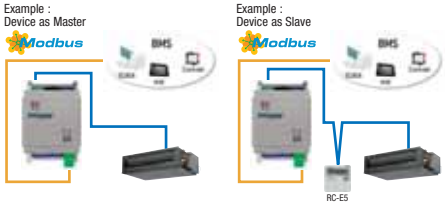
- Protocol : KNX TP-1 bus
- Dimension : 71 x 71 x 27 mm
- External Power supply : N/A



Modbus with SUPERLINK-II Integrated Into PAC System via Remote Control Line

MH-RC-MBS-1

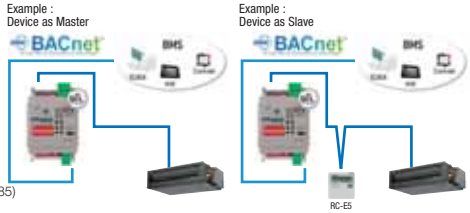
- Protocol : Modbus RTU (RS-485)
- Dimension : 93 x 53 x 58 mm
- External Power supply : N/A



BACnet with SUPERLINK-II Integrated Into PAC System via Remote Control Line

MH-RC-BAC-1

- Protocol : BACnet MS/TP (EIA485)
- Dimension : 93 x 53 x 58 mm
- External Power supply : N/A



INTESIS® Building Management Systems Interface

Intesis® ST Cloud Control

Intesis ST Cloud Control is a cloud-based solution from HMS which enables easy monitoring and control of any BACnet or Modbus device from an end user oriented app and a web based dashboard. Intesis ST Cloud Control uses HMS HubTM for communication between connected devices and the the cloud interface. HMS Hub is an industrially proven edge connectivity solution by HMS Networks, which is now also brought to the building management arena to ensure safe and secure transformation of information. With ST Cloud Control you are able to connect all types of BACnet or Modbus devices to the cloud, for an intuitive and centralized remote device management through an app or a web interface using a common dashboard.

Intesis™ BY HMS NETWORKS

- BACnet IP/MSTP or Modbus TCP/RTU connectivity
- Up to 32 devices can be connected to each gateway
- Up to 12 widgets per device
- Easy device configuration using Intesis MAPS
- Industrial grade connectivity now for Building Automation
- Fast and scalable real time edge connectivity over HMS HubTM
- Full data control and protection
- Secure and remote updates during the application lifetime

BACnet™ Modbus

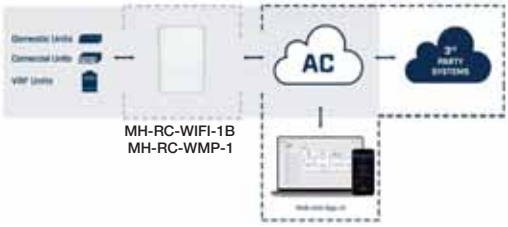
INTESIS® AC-Cloud Wi-Fi

Intesis® AC Cloud Control - HVAC IoT Solution for Building and Facility Management

Intesis AC Cloud Control is an HVAC IoT solution created by Intesis for building and facility management. A cloud-based remote-control system, that allows comfortable and intuitive control of air conditioners and heat pumps from a smartphone, tablet, smart watch or from a simple internet browser.

The AC Cloud Control gateways, offer cloud connectivity to a wide range of compatible AC units. No cables are needed for cloud connectivity, as the devices use Wi-Fi technology to bring all the data to the cloud. The bidirectional communication between Intesis devices and the AC unit, ensures the end user can keep using the manufacturers remote controller if desired, while keeping the cloud system updated with the real status of the HVAC units.

The devices can be managed using a web-based dashboard, so no additional management tool needs to be be installed. User friendly Android and iOS apps are available. More advanced integrations are also available thanks to the professional Full REST API, available for cloud to cloud communication. The API is used for many cloud integrations like Google Assistant, Amazon Alexa or IFTTT among others.



MH-RC-WIFI-1B
MH-RC-WMP-1

Intesis® AC Cloud Control Main Features

Multiple brands and multiple sites
Organize any brand and model in three different levels.

Energy saving and maintenance functionalities
Special functionalities to help increase energy efficiency

Secondary users
Manage who can monitor and control each unit

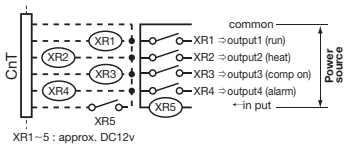
Professional API for 3rd party integration
Connect your system to Intesis cloud solutions and offer bidirectional HVAC control

Email and push notifications
Be aware of everything that happens in your climate system.

OEM projects
Reduce the time to market and maintenance costs.

CNT Terminal

The CNT terminal of the indoor unit control board accepts our 6 wire CNT wiring lead that provides for easy external control integration. The CNT terminal has been a standard inclusion of MHI ducted, in ceiling cassette and under ceiling models since inception.



XR1~5 : approx. DC12v

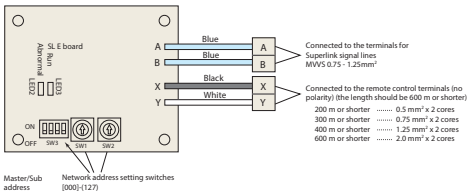
Pin 1 (Red)	Common (+12V DC)	Constant +12V DC Supply
Pin 2 (Black)	'On' indication	Active when fan coil is on in any mode
Pin 3 (Yellow)	Heating indication	Active when heating mode is selected
Pin 4 (Blue)	Compressor on indication	Active when compressor is on
Pin 5 (Brown)	Error indication	Active when unit is in error
Pin 6 (Orange)	Remote start/stop	Used to start stop/stop unit

SC-ADNA-E

This board is used when conducting control of the single package (wired remote control unit) 1-type series using a network option (SC-SL1N-E, SC-SL2NA-E, etc).

Functions

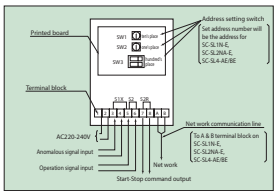
(a) Transmits the settings from the network option to the indoor units.
(b) Returns the priority indoor unit data in response to a data request from the network option.
(c) Inspects the error status of connected indoor units and transmits the inspection codes to the network option.
(d) A maximum of 16 units can be controlled (if in the same operation mode).



SC-GIFN-E Interface Kit

The SC-GIFN-E interface kit is suitable for use with air ventilation fans and air purifiers.

By using SC-GIFN-E together with central control such as SC-SL1N-E, SC-SL2NA-E and SC-SL4-AE/BE, you can start-stop, operate & monitor the operation of applicable products.



CONTROLLERS

Airzone Zoning Solution AIRZONE

Airzone

Suitable for commercial applications and compatible with MHIAA's VRF ducted systems, the Airzone variable air-flow zoning solution offers the ultimate level of comfort by providing complete temperature control over each individual zone and in turn, delivering high energy efficiencies and huge cost savings.

- Top of the line European design
- Allows for variable airflow
- High Efficiencies driving lower running costs
- Easy integration with a range of building management system
- Advanced features with simplified controls
- Airzone cloud app for smart devices for easy control and monitoring

Blueface Controller

- Intuitive, 3.5" colour touch screen
- Control up to 10 individual zones
- System mode settings
- Technical system settings and data
- Facilitates automatic system software updates via Wi-Fi

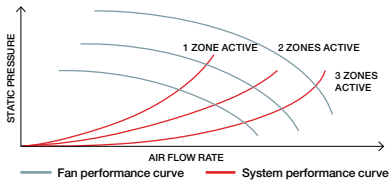
Think Controller

- E-ink screen with capacitive buttons
- Control up to 10 individual zones
- System mode settings
- Zone thermostat and controller

Lite Controller

- Simplified zone temperature controller
- On/Off functionality
- Zone thermostat and controller
- System mode settings

Q-Adapt Algorithm



The Q-Adapt algorithm automatically selects the fan speed of the zoned indoor units depending on the number of zones calling for demand. This algorithm adapts the control system to the application of the installation and the air flow demand of each zone. This adaptation is done by assigning a weight (percentage) to each zone, which is mainly suitable for complex ducted installations with numerous zones.

KXZ

Maintenance and Monitoring

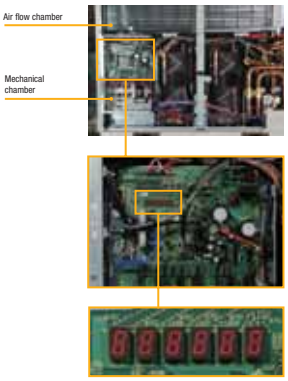
The design of the outdoor units separates the air flow compartment from the mechanical compartment, allowing easy access to serviceable parts by simply removing the panel.

This design also means that the base plate of the air flow compartment acts as a drain tray connected to a drain pipe that runs through the mechanical compartment, so a simple connection of a drain hose to the base of the unit is all that is required, no need for a separate drain tray to be installed.

Service maintenance and trouble shooting tasks can be carried out easily via the wired remote controller, as well as a cooling test operation to assist commissioning.

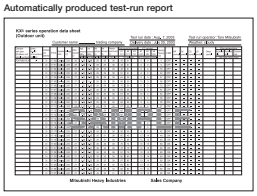
The outdoor unit control box is also equipped with a switch to invoke a 'test-run' mode. This function can be used to help detect any installation errors, indoor/outdoor unit matching errors, EEV and valve operation. A 'pump-down' switch on the PCB allows refrigerant to be recovered with the compressor protected.

All outdoor unit PCBs are also equipped with a 7-segment digital display for detailed operation history and fault finding. Operation data is stored for the 30 minute period preceding a fault occurring and details are displayed on the 7-segment reading.



Outdoor unit PCB 7-segment display

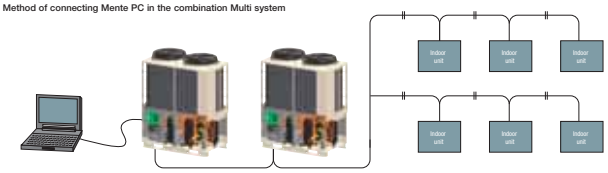
Automatically produced test-run report



Operation data storage during servicing

Operation data storage when a fault occurs

Method of connecting Mente PC in the combination Multi system



The origin of MHI can be traced all the way back to 1884.

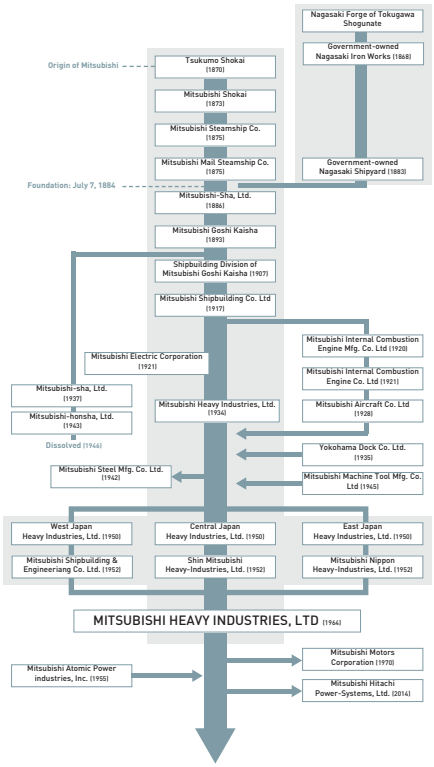
In that year, Yataro Iwasaki, the founder of Mitsubishi, took a lease out on government-owned Nagasaki Shipyard. He named it Nagasaki Shipyard & Machinery Works, and started the shipbuilding business on a full scale.

This shipbuilding business was later turned into Mitsubishi Shipbuilding Co., Ltd., and then launched as Mitsubishi Heavy Industries, Ltd. in 1934, establishing its position as the largest private firm in Japan, manufacturing ships, heavy machinery, airplanes, and railroad cars.

Following the end of World War II, a law aimed at dissolving "zaibatsu" or Nagasaki Shipyard & Machinery Works dismantling the over concentration of economic power was in effect. Thus, in 1950, MHI was divided into three entities: West Japan Heavy Industries, Ltd., Central Japan Heavy Industries, Ltd. and East Japan Heavy Industries, Ltd. It was later consolidated in 1964 and reborn as Mitsubishi Heavy Industries, Ltd.

In 1964, the same year Tokyo hosted the Summer Olympics, the three principal heavy industry companies reunited, creating today,s form of MHI Group. Its products expanded to encompass the fields of land, sea and air, and included oil drilling rigs, power plants, tankers and bridges. In addition, the successful lift-off of the H-I launch vehicle occurred during this period, and the Group's participation in full-fledged space development began. Since then, Mitsubishi Heavy Industries has launched multiple rockets into space, including the most recent being the HTV-7 freighter which delivered goods to the international space station in late 2018.

MHI Group has always sought high efficiency, and as the trend toward global environmental conservation gains momentum and the concept of ecology becomes commonplace, the company's gas turbine, eco-ship and other technologies and product fields are expanding on a global scale. The Group is working to develop technologies and products that help make societies more sustainable while raising its profile worldwide as a comprehensive infrastructure company.



OUR HERITAGE

Leveraging 130 years of engineering excellence, we incorporate our superior technology and design that comes from a history of being at home in the harshest environments into our high quality, high performance products.

- MHI has helped design and engineer a number of key land-based projects including forklifts, bridges, nuclear power plants, offshore wind farms, thermal power systems and gas turbines.
- One of the most famous includes the Tatara Bridge, Japan's longest cable-stayed bridge and the Dubai Metro - the world's longest unmanned, fully automatic rail system.

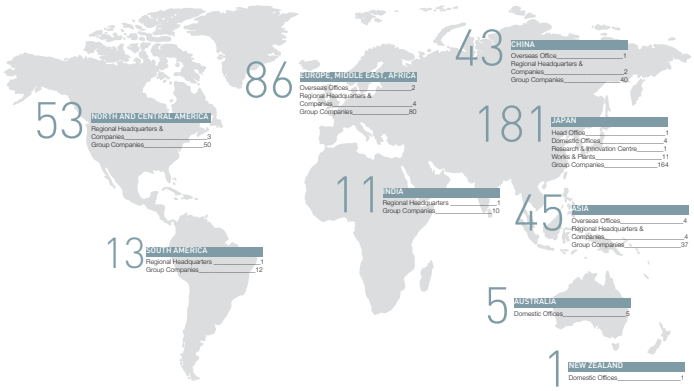
- Ship building has always been in our blood and MHI is proud to have been involved in delivering a number of projects including sea destroyers, deep sea drilling vessels and LNG transport vehicles.
- In 2014, MHI delivered TACHIBANA-MARU, the first cargo-passenger ship equipped with a tandem-hybrid contra-rotating propeller propulsion system designed to boost the vessels efficiency.
- MHI are also working on a milestone project that will deliver the worlds largest off-shore wind turbine by 2020.

- Over the last 20 years MHI has been involved in many aeronautical projects including the design of fighter jets and a number of commercial jets.
- To be launched in 2020 is the Mitsubishi SpaceJet family of aircraft which will address demand in the under-served regional jet market by delivering ultimate comfort for passengers and unmatched performance with more profit potential for airlines.

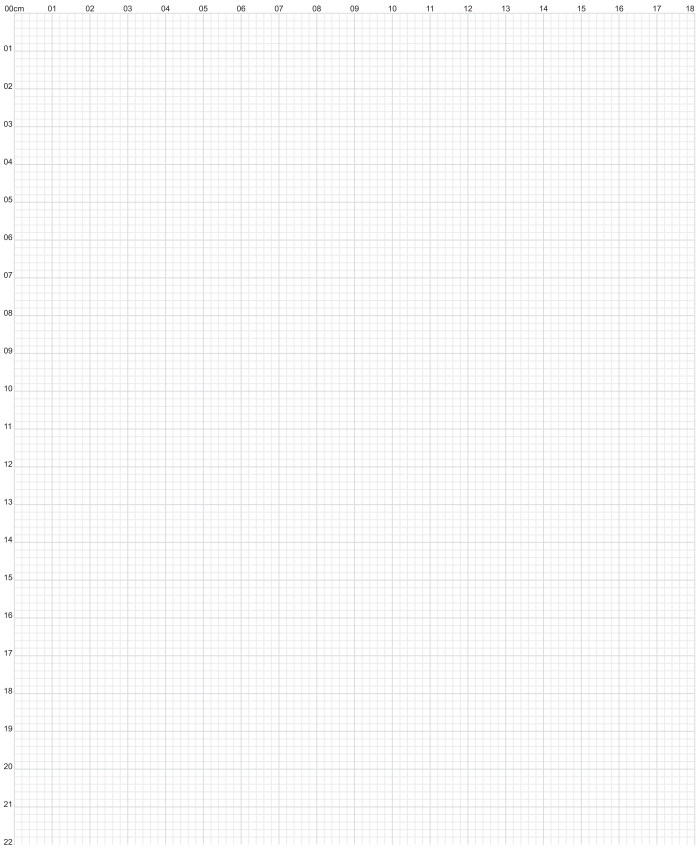
- Since 2007, MHI has help design 5 rockets that have been launched into space including two destined for the international space station.
- The most recent of these, the HTV-7 freighter, was launched in September 2018 and delivered 5 tonnes worth of important equipment and supplies to the International Space Station (ISS) that will allow the station to host more research experiments that will help to develop an advanced closed-loop life support system

MHI GLOBAL

MITSUBISHI HEAVY INDUSTRIES AROUND THE WORLD



NOTES NOTES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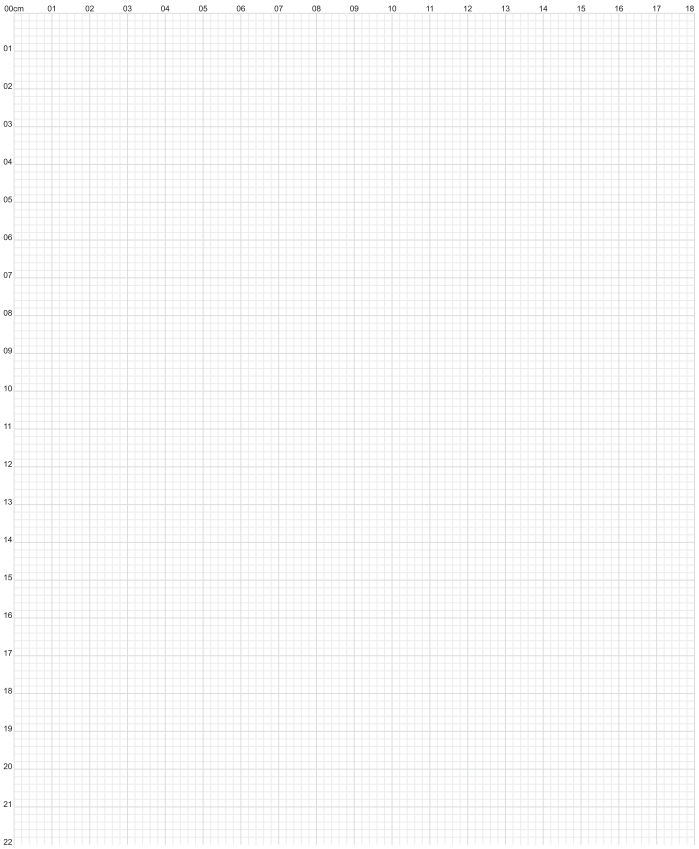
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Mitsubishi Heavy Industries Air-conditioners Australia, Pty. Ltd.

MOVE THE WORLD FORWARD

MITSUBISHI HEAVY INDUSTRIES GROUP

KX Brochure October 2022 AU