

# Refresh series

## 8, 10HP(22.4kW · 28.0kW)

If replacing a used unit with a new one, these units can reuse existing piping.



### Model No. Nominal Cooling Capacity

FDCR224KXE6 22.4kW

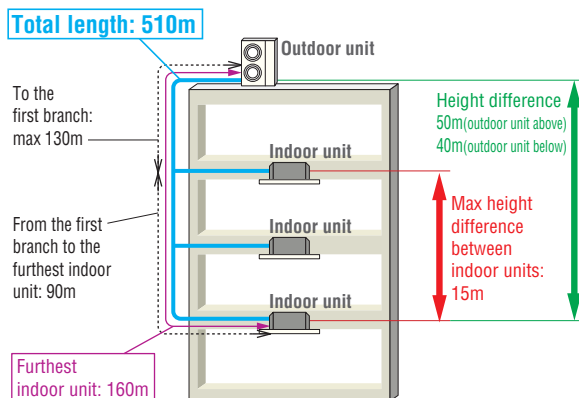
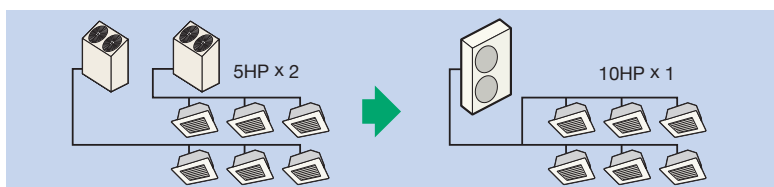
FDCR280KXE6 28.0kW

### <Option>

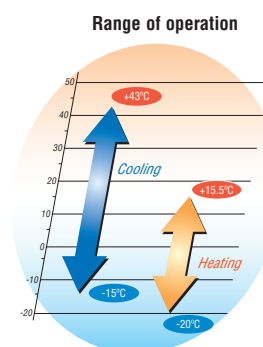
FDCR-KIT-E : Service valve kit

- Applies to a wide range of pipe sizes (R22, R407C, R410A standard size).
- Meets to a short period of renewal installation.
- Savings on replacement expenses such as scrapping waste material or procuring new pipe.
- Possible to replace the existing unit with a new larger capacity unit.
- Possible to replace plural systems with one system.

For example: Existing 5HP × 2units can be replaced with a new 10HP × 1unit.



Note: FDUT15KXE6F-E, FDC15KXZE1 and FDK15KXZE1 can not be connected to the above systems.



## Specifications

Item		Model	FDCR224KXE6	FDCR280KXE6
Nominal horse power			8HP	10HP
Power source			3 Phase 380-415V, 50Hz	
Starting current		A	5	
Max current		A	20	
Nominal capacity	Cooling	kW	22.4	28.0
	Heating	kW	25.0	31.5
Electrical characteristics	Power consumption	kW	5.60	8.09
	Cooling Heating	kW	6.03	8.21
Exterior dimensions		HxWxD	mm 1675x1080x480	
Net weight		kg	224	
Sound pressure level		Cooling/Heating	58/58	59/60
Refrigerant	Type / GWP		R410A / 2088	
	Charge	kg/TCO <sub>2</sub> Eq	11.5 / 24.012	
Refrigerant piping size	Liquid line	mm(in)	ø9.52(3/8")~ø15.88(5/8")	
	Gas line	mm(in)	ø19.05(3/4")~ø25.4(1")	ø22.22(7/8")~ø28.58(1 1/8")
Capacity connection		%	50~130	
Number of connectable indoor units			13	16

1. The data are measured under the following conditions(ISO-T1). 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. 'tonne(s) of CO<sub>2</sub> equivalent' means a quantity of greenhouse gases- expressed as the product of the weight of the greenhouse gases in metric tonnes and of their global warming potential.

## Advanced refresh function

### ◆ When the existing unit is operable

The existing pipe can be reused by cooling operation only.

Pipe refresh kit and Service valve kit are not required.

1. Implement cooling operation of all indoor units for more than 30 minutes.
2. Implement pump-down after cooling operation.
3. Recover refrigerant and remove the existing outdoor unit and indoor unit.

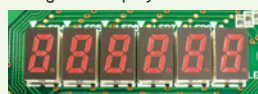
### ◆ When the existing unit is not operable

The existing pipe can be reused by washing operation after connecting Refresh outdoor units, Pipe refresh kit and Service valve kit.

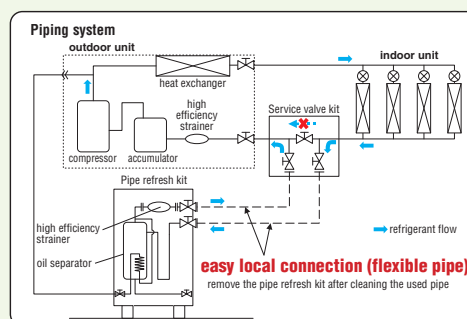
Connecting and removing of Refresh outdoor units and Pipe refresh kit is very easy by use of flexible pipe and flanges.

1. Pipe washing operation is implemented by changing dip switch on the outdoor unit PCB.
2. Completing washing is monitored via 7-segment display on the outdoor unit PCB.
3. As washing operation is about 60 minutes, it can meet to a required short period of renewal installation.

7-segment display

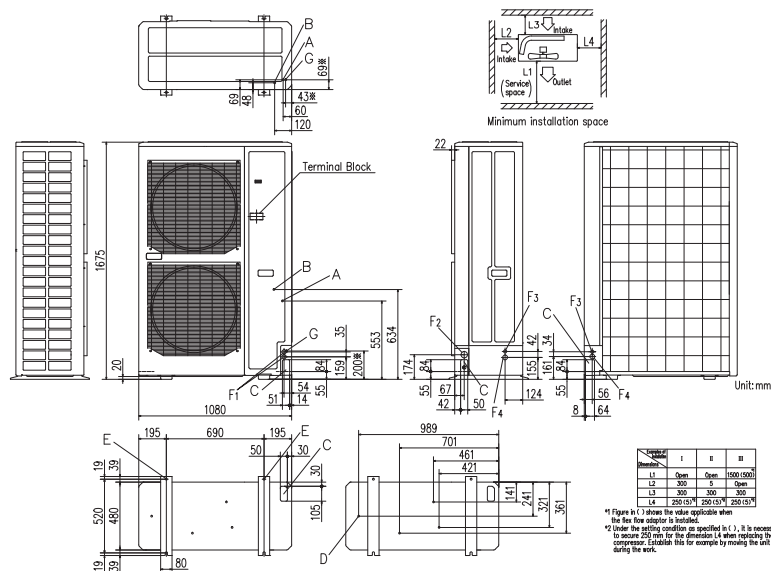


Pipe refresh kit (FDCR-KIT-E)

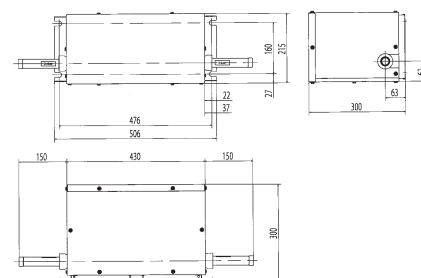


## Dimensions

All measurements in mm.



Service valve kit



Mark	Content	
A	Service valve connection of the attached connecting pipe (gas side)	ø19.05 (3/4") (Flare)
B	Service valve connection (liquid side)	ø12.7 (1/2) (Flare)
C	Pipe/cable draw-out hole	4places
D	Drain discharge hole	ø20 × 4places
E	Anchor bolt hole	M10 × 4places
F1	Cable draw-out hole	ø30
F2	Cable draw-out hole	ø45
F3	Cable draw-out hole	ø22
F4	Cable draw-out hole	ø34
G	Connecting position of the local pipe. (gas side)	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, 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 unit's 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)