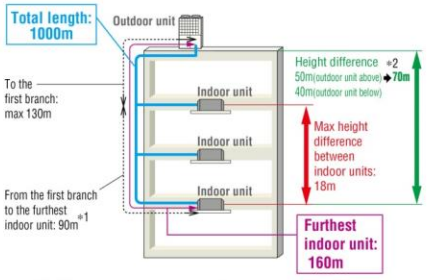
KXZ Heat pump systems
10, 12HP (28.0kW, 33.5kW)

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

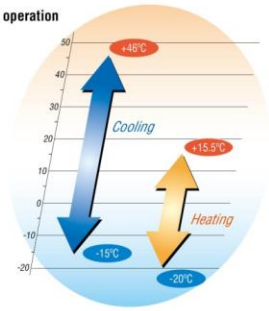
- Connect up to 29 indoor units/up to 130% capacity.
- High efficiency with COP (in cooling) up to 3.9.
- These units employ DC inverter multiport compressors with concentrated winding motor.
- Industry leading total piping length up to 1000m and a maximum pipe run of 160m.

Uniform footprint of models (10,12HP) 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. (MAX85m)
*2 In case of height difference up to 70m, please contact your dealer. Height difference up to 100m is possible with High Head series. Please refer to page56.

Range of operation



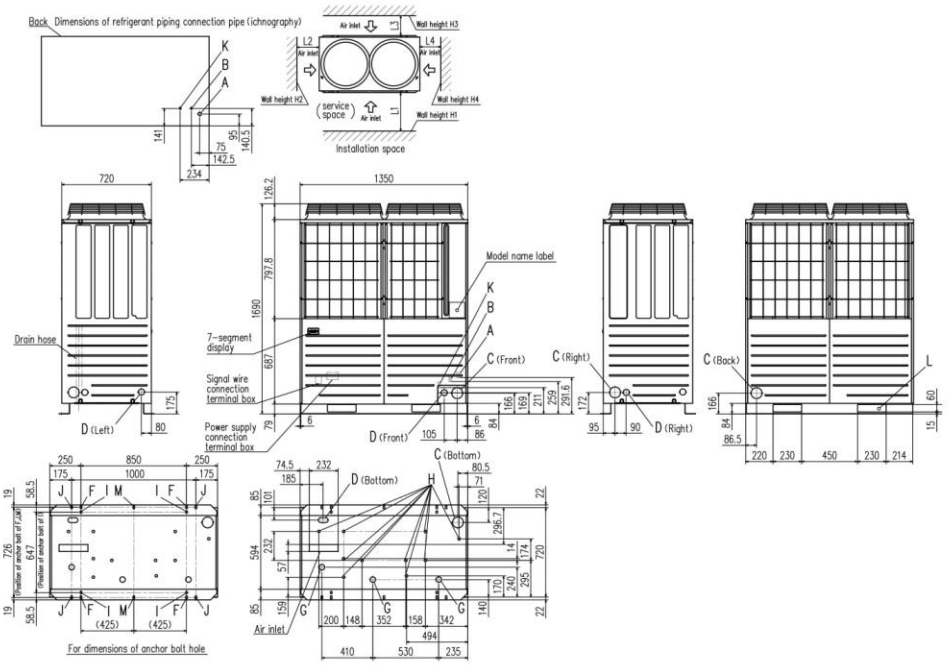
Specifications

Item			Model	FDC280KXZE1	FDC335KXZE1
Nominal horse power				10HP	12HP
Power source				3 Phase 380-415V, 50Hz	
Starting current			A	5	
Max current			A	21.2	
Nominal capacity	Cooling		kW	28.0	33.5
	Heating			31.5	37.5
Electrical characteristics	Power consumption	Cooling	kW	7.24	8.96
		Heating		7.28	9.04
Exterior dimensions	HxWxD		mm	1690x1350x720	
Net weight			kg	272	
Sound pressure level	Cooling/Heating		dB(A)	55/57	61/58
Refrigerant	Type / GWP			R410A / 2088	
	Charge		kg/TCO2Eq	11.0 / 22.968	
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	
Number of connectable indoor units				24	29

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. Piping length is 7.5m.
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_2 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.
4. [ ] : Pipe sizes applicable to European installations are shown in parentheses.

Dimensions

All measurements in mm.

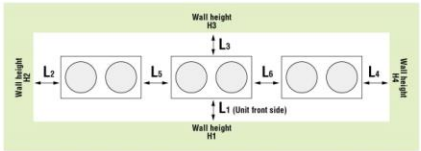


Mark	Content	280	335
A	Refrigerant gas piping connection pipe	ø22.22(Brazing)	ø25.4(Brazing)
B	Refrigerant liquid piping connection pipe	ø9.52(Flare)	ø12.7(Flare)
C	Refrigerant piping exit hole	ø88(or ø100)	
D	Power supply entry hole	ø50 (right · left · front), long hole 40 x 80 (bottom)	
F	Anchor bolt 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 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.

When more than one unit is installed



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

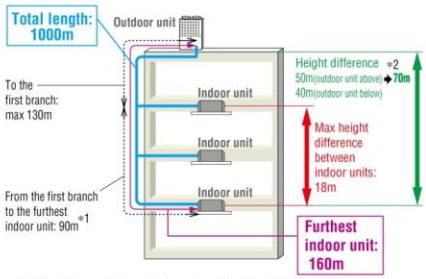
() :In case it is the promised installation location that the outdoor unit is used on conditions with the ambient temperature of 43°C or more.

KXZ Heat pump systems
14, 16, 17, 18, 20HP (40.0kW~56.0kW)

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

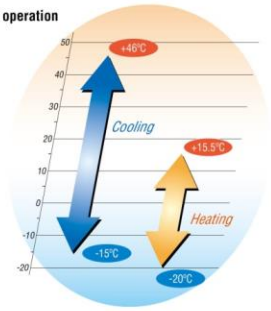
- Connect up to 48 indoor units/up to 130% capacity.
- High efficiency with COP (in cooling) up to 3.6.
- These units employ DC inverter multiport compressors with concentrated winding motor.
- Industry leading total piping length up to 1000m and a maximum pipe run of 160m.

Uniform footprint of all models (from 14HP~20HP) 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. (MAX85m)
*2 In case of height difference up to 70m, please contact your dealer. Height difference up to 100m is possible with High Head series. Please refer to page56.

Range of operation



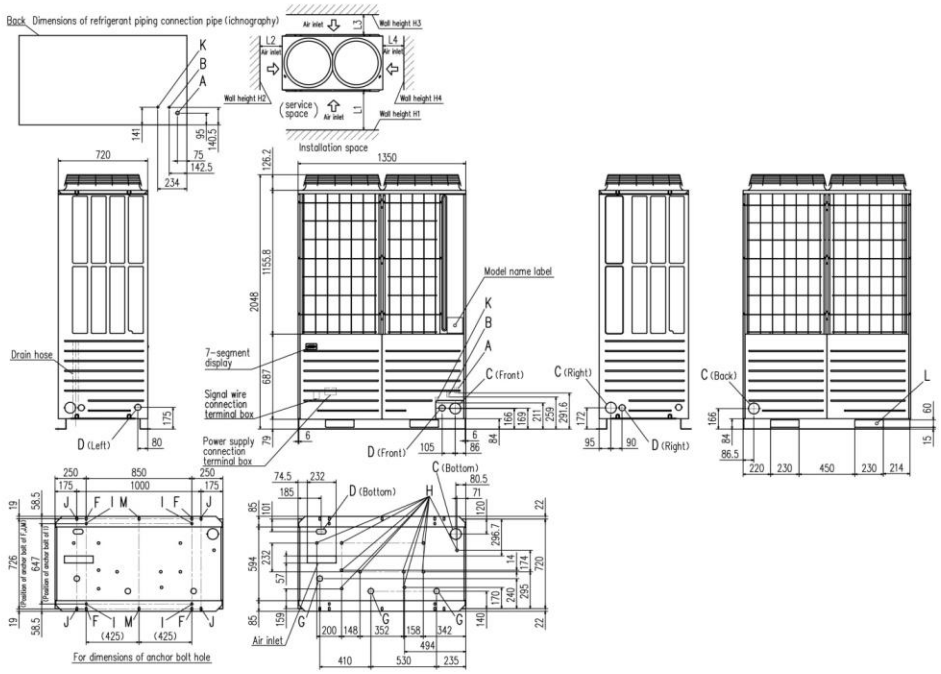
Specifications

Item			Model	FDC400KXZE1	FDC450KXZE1	FDC475KXZE1	FDC500KXZE1	FDC560KXZE1
Nominal horse power				14HP	16HP	17HP	18HP	20HP
Power source				3 Phase 380-415V, 50Hz				
Starting current			A	5		8		
Max current			A	32		42.4		
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	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
Exterior dimensions	HxWxD		mm	2048x1350x720				
Net weight			kg	317		370		
Sound pressure level	Cooling/Heating		dB(A)	60/62	61/62	61/61	61/62	64/66
Refrigerant	Type / GWP			R410A / 2088				
	Charge		kg/TCO2Eq	11.5 / 24.012				
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				
Number of connectable indoor units				34	39	41	43	48

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. Piping length is 7.5m.
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_2 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.
4. [ ] : Pipe sizes applicable to European installations are shown in parentheses.

Dimensions

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

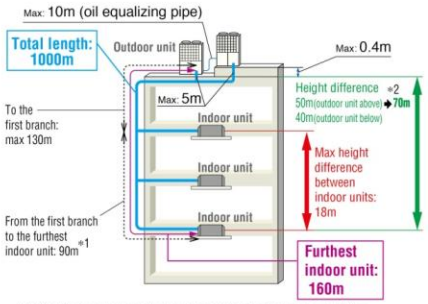
() :In case it is the promised installation location that the outdoor unit is used on conditions with the ambient temperature of 43°C or more.

KXZ Heat pump combination systems 22, 24HP (61.5kW, 67.0kW)

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

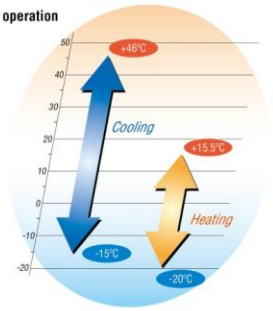
- Connect up to 58 indoor units/up to 130% capacity.
- High efficiency with COP (in cooling) up to 3.8.
- These units employ DC inverter multiport compressors with concentrated winding motor.
- Industry leading total piping length up to 1000m and a maximum pipe run of 160m.

Uniform footprint of all models (from 22HP, 24HP) 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. (MAX85m)
*2 In case of height difference up to 70m, please contact your dealer. Height difference up to 100m is possible with High Head series. Please refer to page56.

Range of operation



Specifications

Exterior dimension : Please refer to page37.

Item			Model	FDC615KXZE1	FDC670KXZE1
Combination (FDC)				280KXZE1	335KXZE1
				335KXZE1	335KXZE1
Nominal horse power				22HP	24HP
Power source				3 Phase 380-415V, 50Hz	
Starting current			A	10	
Max current			A	42.4	
Nominal capacity	Cooling		kW	61.5	67.0
	Heating			69.0	75.0
Electrical characteristics	Power consumption	Cooling	kW	16.20	17.92
		Heating		16.32	18.08
Exterior dimensions	HxWxD		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	
Number of connectable indoor units				53	58

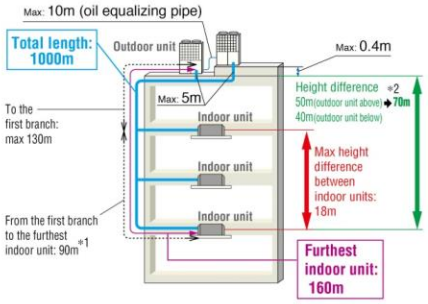
1. The data are measured under the following conditions(ISO-T1). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

KXZ Heat pump combination systems
26, 28, 30, 32, 34, 36, 38, 40HP (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

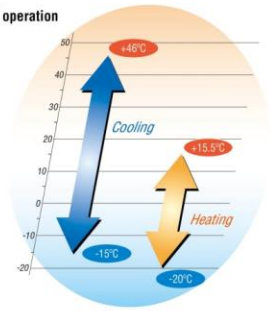
- Connect up to 80 indoor units/up to 130% capacity.
- High efficiency with COP (in cooling) up to 3.7.
- These units employ DC inverter multiport compressors with concentrated winding motor.
- Industry leading total piping length up to 1000m and a maximum pipe run of 160m.

• In case of 26HP



*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 100m is possible with High Head series. Please refer to page56.

Range of operation



Specifications

Exterior dimension : Please refer to page37,39.

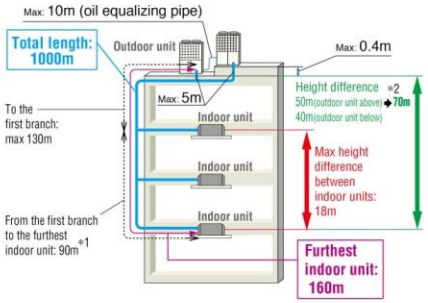
Item			Model	FDC735KXZE1	FDC800KXZE1	FDC850KXZE1	FDC900KXZE1	FDC950KXZE1	FDC1000KXZE1	FDC1060KXZE1	FDC1120KXZE1
Combination (FDC)				335KXZE1	400KXZE1	400KXZE1	450KXZE1	475KXZE1	500KXZE1	500KXZE1	560KXZE1
				400KXZE1	400KXZE1	450KXZE1	450KXZE1	475KXZE1	500KXZE1	560KXZE1	560KXZE1
Nominal horse power				26HP	28HP	30HP	32HP	34HP	36HP	38HP	40HP
Power source				3 Phase 380-415V, 50Hz							
Starting current			A	10				16			
Max current			A	53.2	64			84.8			
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	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
Exterior dimensions	HxWxD		mm	2048x2700x720							
Net weight			kg	589	634			740			
Refrigerant charge	R410A		kg	11.0+11.5	11.5x2						
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							
Number of connectable indoor units				63	69	73	78	80			

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. Piping length is 7.5m.
2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
3. [ ] : Pipe sizes applicable to European installations are shown in parentheses.

KXZ Heat pump combination systems
42, 44, 46, 48HP (120.0kW~135.0kW)

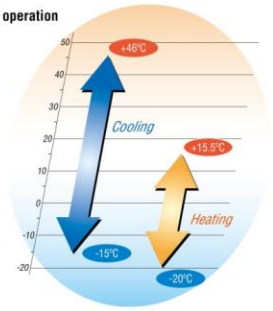
Model No.	Nominal Cooling Capacity
FDC1200KXZE1 (FDC400+FDC400+FDC400)	120.0kW
FDC1250KXZE1 (FDC400+FDC400+FDC450)	125.0kW
FDC1300KXZE1 (FDC400+FDC450+FDC450)	130.0kW
FDC1350KXZE1 (FDC450+FDC450+FDC450)	135.0kW

- Connect up to 80 indoor units/up to 130% capacity.
- High efficiency with COP (in cooling) up to 3.6.
- 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. (MAX85m)
*2 In case of height difference up to 70m, please contact your dealer. Height difference up to 100m is possible with High Head series. Please refer to page56.

Range of operation



Specifications

Exterior dimension : Please refer to page39.

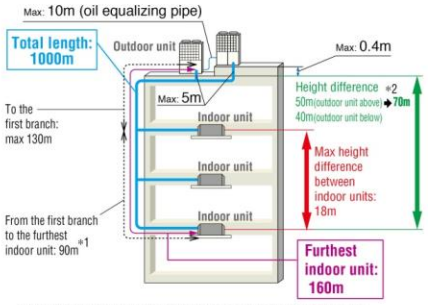
Item			Model	FDC1200KXZE1	FDC1250KXZE1	FDC1300KXZE1	FDC1350KXZE1
Combination (FDC)				400KXZE1	400KXZE1	400KXZE1	450KXZE1
				400KXZE1	400KXZE1	450KXZE1	450KXZE1
				400KXZE1	450KXZE1	450KXZE1	450KXZE1
Nominal horse power				42HP	44HP	46HP	48HP
Power source				3 Phase 380-415V, 50Hz			
Starting current			A	15			
Max current			A	96			
Nominal capacity	Cooling		kW	120.0	125.0	130.0	135.0
	Heating			135.0	140.0	145.0	150.0
Electrical characteristics	Power consumption	Cooling	kW	32.88	35.90	38.92	41.94
		Heating		32.07	33.88	35.69	37.50
Exterior dimensions	HxWxD		mm	2048x4050x720			
Net weight			kg	951			
Refrigerant charge	R410A		kg	11.5x3			
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			
Number of connectable indoor units				80			

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. Piping length is 7.5m.
2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
3. [ ] : Pipe sizes applicable to European installations are shown in parentheses.

KXZ Heat pump combination systems
50, 52, 54, 56, 58, 60HP (142.5kW~168.0kW)

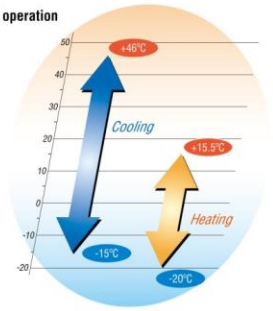
Model No.	Nominal Cooling Capacity
FDC1425KXZE1 (FDC475+FDC475+FDC475)	142.5kW
FDC1450KXZE1 (FDC475+FDC475+FDC500)	145.0kW
FDC1500KXZE1 (FDC500+FDC500+FDC500)	150.0kW
FDC1560KXZE1 (FDC500+FDC500+FDC560)	156.0kW
FDC1620KXZE1 (FDC500+FDC560+FDC560)	162.0kW
FDC1680KXZE1 (FDC560+FDC560+FDC560)	168.0kW

- Connect up to 80 indoor units/up to 130% capacity.
- High efficiency with COP (in cooling) up to 3.6.
- 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. (MAX85m)
*2 In case of height difference up to 70m, please contact your dealer. Height difference up to 100m is possible with High Head series. Please refer to page56.

Range of operation



Specifications

Exterior dimension : Please refer to page39.

Item			Model	FDC1425KXZE1	FDC1450KXZE1	FDC1500KXZE1	FDC1560KXZE1	FDC1620KXZE1	FDC1680KXZE1
Combination (FDC)				475KXZE1	475KXZE1	500KXZE1	500KXZE1	500KXZE1	560KXZE1
				475KXZE1	475KXZE1	500KXZE1	500KXZE1	560KXZE1	560KXZE1
				475KXZE1	500KXZE1	500KXZE1	560KXZE1	560KXZE1	560KXZE1
Nominal horse power				50HP	52HP	54HP	56HP	58HP	60HP
Power source				3 Phase 380-415V, 50Hz					
Starting current			A	24					
Max current			A	127.2					
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	Power consumption	Cooling	kW	41.94	41.93	41.91	44.56	47.21	49.86
		Heating		39.00	39.49	40.47	42.93	45.39	47.85
Exterior dimensions	HxWxD		mm	2048x4050x720					
Net weight			kg	1110					
Refrigerant charge	R410A		kg	11.5x3					
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					
Number of connectable indoor units				80					

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. Piping length is 7.5m.
2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
3. [ ] : Pipe sizes applicable to European installations are shown in parentheses.

KXZ Standard large connection Series
10~34HP (28.0kW~95.0kW)

Model No.	Nominal Cooling Capacity
FDCL280KXZE1	28.0kW
FDCL335KXZE1	33.5kW
FDCL400KXZE1	40.0kW
FDCL450KXZE1	45.0kW
FDCL475KXZE1	47.5kW
FDCL500KXZE1	50.0kW
FDCL560KXZE1	56.0kW

Model No.		Nominal Cooling Capacity
FDCL615KXZE1	(FDCL280+FDCL335)	61.5kW
FDCL670KXZE1	(FDCL335+FDCL335)	67.0kW
FDCL735KXZE1	(FDCL335+FDCL400)	73.5kW
FDCL800KXZE1	(FDCL400+FDCL400)	80.0kW
FDCL850KXZE1	(FDCL400+FDCL450)	85.0kW
FDCL900KXZE1	(FDCL450+FDCL450)	90.0kW
FDCL950KXZE1	(FDCL475+FDCL475)	95.0kW

Blue Fin

FDCL280KXZE1
FDCL335KXZE1

Blue Fin

FDCL400KXZE1
FDCL450KXZE1
FDCL475KXZE1
FDCL500KXZE1
FDCL560KXZE1

Increased indoor unit connection capacity

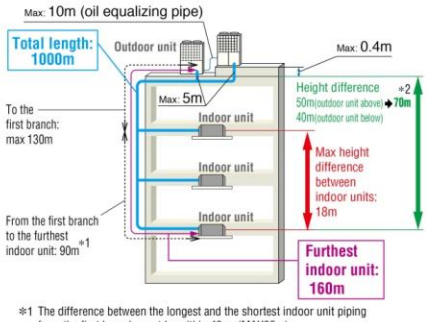
This series can connect indoor unit capacity up to 160~200% from 130% of Standard series.

Standard series

kW	capacity connection
28.0~95.0	130%

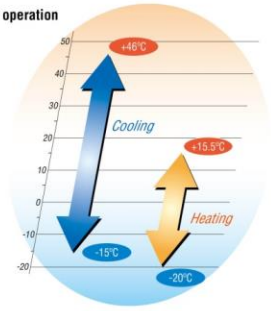
Standard large connection series

kW	capacity connection
28.0~45.0	200%
47.5~95.0	160%



*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 100m is possible with High Head series. Please refer to page 56.

Range of operation



Specifications

Item			Model	FDCL280KXZE1	FDCL335KXZE1	FDCL400KXZE1	FDCL450KXZE1
Nominal horse power				10HP	12HP	14HP	16HP
Power source				3Phase 380-415V, 50Hz			
Starting current			A	5			
Max current			A	21.2		32	
Nominal capacity	Cooling		kW	28.0	33.5	40.0	45.0
	Heating			31.5	37.5	45.0	50.0
Electrical characteristics	Power consumption	Cooling	kW	7.24	8.96	10.96	13.98
		Heating		7.28	9.04	10.69	12.50
Exterior dimensions	H x W x D		mm	1690x1350x720		2048x1350x720	
Net weight			kg	280		325	
Sound pressure level	Cooling / Heating		dB(A)	55/57	61/58	60/62	61/62
Refrigerant	Type / GWP			R410A/2088			
	Charge		kg/TCO$_2$Eq	11.0/22.968		11.5/24.012	
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")]	ø25.4(1")[ø28.58(1 1/8")]	ø28.58(1 1/8")
Capacity connection			%	200%			
Number of connectable indoor units				24	29	36	40

Item			Model	FDCL475KXZE1	FDCL500KXZE1	FDCL560KXZE1
Nominal horse power				17HP	18HP	20HP
Power source				3Phase 380-415V, 50Hz		
Starting current			A	8		
Max current			A	42.4		
Nominal capacity	Cooling		kW	47.5	50.0	56.0
	Heating			53.0	56.0	63.0
Electrical characteristics	Power consumption	Cooling	kW	13.98	13.97	16.62
		Heating		13.00	13.49	15.95
Exterior dimensions	H x W x D		mm	2048x1350x720		
Net weight			kg	378		
Sound pressure level	Cooling / Heating		dB(A)	61/61	61/62	64/66
Refrigerant	Type / GWP			R410A/2088		
	Charge		kg/TCO$_2$Eq	11.5/24.012		
Refrigerant piping size	Liquid line		mm(in)	ø12.7(1/2")		
	Gas line			ø28.58(1 1/8")		
Capacity connection			%	160%		
Number of connectable indoor units				41	43	48

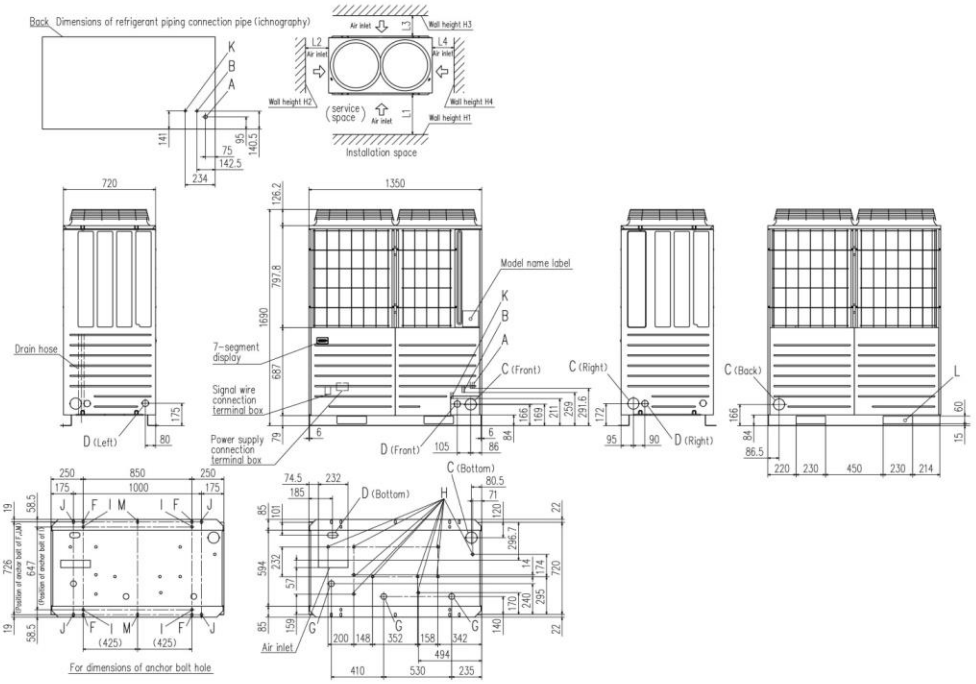
Item			Model	FDCL615KXZE1	FDCL670KXZE1	FDCL735KXZE1	FDCL800KXZE1	FDCL850KXZE1	FDCL900KXZE1	FDCL950KXZE1
Combination (FDC)				280KXZE1	335KXZE1	335KXZE1	400KXZE1	400KXZE1	450KXZE1	475KXZE1
				335KXZE1	335KXZE1	400KXZE1	400KXZE1	450KXZE1	450KXZE1	475KXZE1
Nominal horse power				22HP	24HP	26HP	28HP	30HP	32HP	34HP
Power source				3Phase 380-415V, 50Hz						
Starting current			A	10						16
Max current			A	42.4		53.2	64			84.8
Nominal capacity	Cooling		kW	61.5	67.0	73.5	80.0	85.0	90.0	95.0
	Heating			69.0	75.0	82.5	90.0	95.0	100.0	106.0
Electrical characteristics	Power consumption	Cooling	kW	16.20	17.92	19.92	21.92	24.94	27.96	27.96
		Heating		16.32	18.08	19.73	21.38	23.19	25.00	26.00
Exterior dimensions	H x W x D		mm	1690x2700x720		2048x2700x720				
Net weight			kg	560		605	650			756
Refrigerant charge	R410A		kg	11.0x2		11.0+11.5	11.5x2			
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")]				
	Oil equalization			ø9.52(3/8")						
Capacity connection			%	160%						
Number of connectable indoor units				53	58	63	69	73	78	80

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. Piping length is 7.5m.
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_2 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.
4. [ ] : Pipe sizes applicable to European installations are shown in parentheses.

Dimensions

All measurements in mm.

FDCL280KXZE1, 335KXZE1

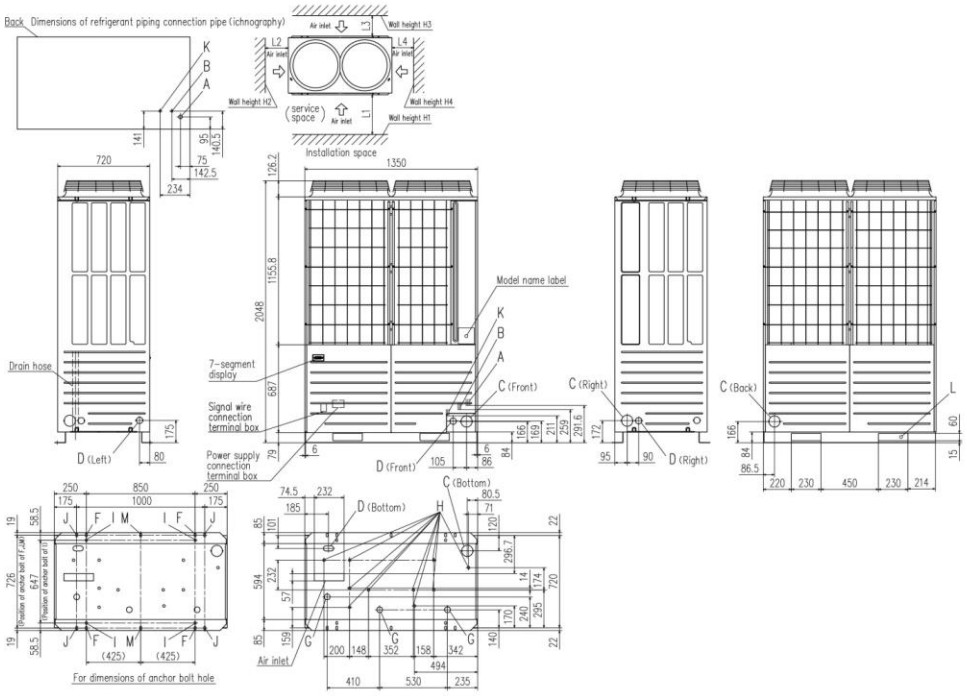


Mark	Content	280	335
A	Refrigerant gas piping connection pipe	ø22.22 (Brazing)	ø25.4 (Brazing)
B	Refrigerant liquid piping connection pipe	ø9.52 (Flare)	ø12.7 (Flare)
C	Refrigerant piping exit hole	ø88 (or ø100)	
D	Power supply entry hole	ø50 (Right · Left · Front), Long hole 40 x 80 (Bottom)	
F	Anchor 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 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℃ or more.

FDCL400KXZE1, 450KXZE1, 475KXZE1, 500KXZE1, 560KXZE1



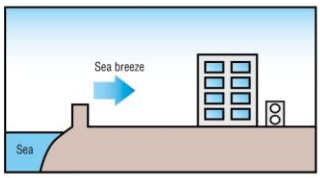
Mark	Content	400	450,475,500,560
A	Refrigerant gas piping connection pipe	ø25.4 (Brazing)	ø28.58 (Brazing)
B	Refrigerant liquid piping connection pipe	ø12.7 (Flare)	
C	Refrigerant piping exit hole	ø88 (or ø100)	
D	Power supply entry hole	ø50 (Right · Left · Front), Long hole 40 x 80 (Bottom)	
F	Anchor 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.

Corrosion Protection Treatment series 4~60HP (11.2kW~168.0kW)

Corrosion Protection Treatment series are available with special coating applied for not only sheet metals but also small parts in order to prevent salt corrosion caused by sea breeze in area along coast line (Within approximately 500m from coast line).



Model No.	Nominal Cooling Capacity
FDCS112KXEN6	11.2kW
FDCS112KXES6	11.2kW
FDCS140KXEN6	14.0kW
FDCS140KXES6	14.0kW
FDCS155KXEN6	15.5kW
FDCS155KXES6	15.5kW
FDCS224KXE6G	22.4kW
FDCS280KXE6G	28.0kW
FDCS335KXE6G	33.5kW

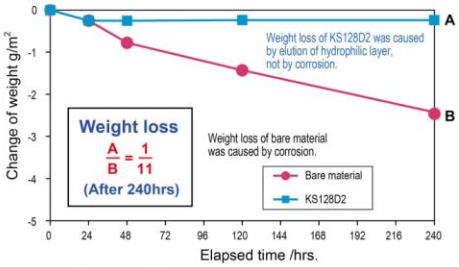
Model No.	Nominal Cooling Capacity
FDCS280KXZE1	28.0kW
FDCS335KXZE1	33.5kW
FDCS400KXZE1	40.0kW
FDCS450KXZE1	45.0kW
FDCS475KXZE1	47.5kW
FDCS504KXZE1	50.4kW
FDCS560KXZE1	56.0kW

- Combination systems:22~60HP (61.5kW~168.0kW) are the same as that of the standard KXZ series shown on previous pages.
- Specifications and Dimensions are the same as that of the standard KXZ series shown on previous pages.
- Non-CE Marking models.

Corrosion resistance performance of high anticorrosion fin

Comparison of weight loss by corrosion

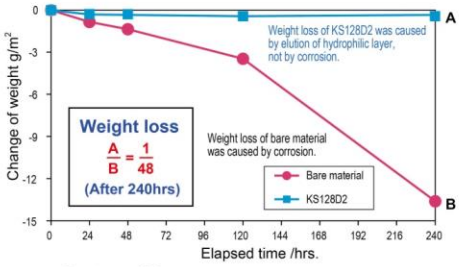
Neutral salt water spray test



<Test conditions>

JIS Z2371
NaC1 concentration : 50g/L
pH : 6.5~7.2
temperature : 35°C

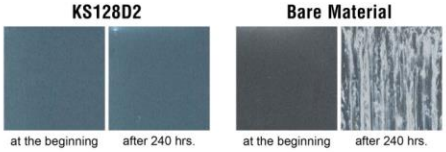
Acetic acid salt water spray test



<Test conditions>

JIS Z2371
NaC1 concentration : 50g/L
pH : 3.1~3.3(adjusted with acetic acid)
temperature : 35°C

Appearance comparison before and after acetic acid salt water spray test



For outside sheet metals, Cation electrodeposition coating is used for undercoat plus polyester powder coating or acrylic baked coating for top coat and corrosion protection is applied for heat exchanger, welded parts, fan guard, fin guard and other major parts.
Preventing corrosion by salt damage or sulfurous acid gas has made service life of this series longer while its exterior appearance has been greatly improved.
Durability of this series for anticorrosion is about two times that of standard outdoor units under the same conditions.

Additional treatment from the standard series

		Micro		KXZ
Exterior panel		undercoat: Cation electrodeposition coating topcoat: polyester powder coating or acrylic baked coating		undercoat: Cation electrodeposition coating topcoat: acrylic baked coating
Base plate		undercoat: Cation electrodeposition coating topcoat: polyester powder coating or acrylic baked coating		undercoat: Cation electrodeposition coating topcoat: acrylic baked coating
Drain pan		————		undercoat: Cation electrodeposition coating topcoat: acrylic baked coating
Fan motor		application of anticorrosion compound		application of anticorrosion compound
Fan motor base		4~6HP	————	application of anticorrosion compound
		8~12HP	application of anticorrosion compound	
Heat exchanger	Fin	Precoated Aluminum Blue Fins in high anticorrosion specification		Precoated Aluminum Blue Fins in high anticorrosion specification
	pipe	application of anticorrosion compound		application of anticorrosion compound
	Side plate	application of anticorrosion compound		application of anticorrosion compound
Compressor		application of anticorrosion compound		application of anticorrosion compound
Accumulator		application of anticorrosion compound		application of anticorrosion compound
Receiver		application of anticorrosion compound		application of anticorrosion compound
Control box		4~6HP	————	galvanized steel sheet + undercoat: Cation electrodeposition coating + topcoat: acrylic baked finish
		8~12HP	application of anticorrosion compound	
Baffle plate		4~6HP	————	————
		8~12HP	application of anticorrosion compound	————
Service valve bracket		4~6HP	————	galvanized steel sheet + undercoat: Cation electrodeposition coating + topcoat: acrylic baking finish
		8~12HP	application of anticorrosion compound	
Screw for exterior panel		zinc coating + chromate treatment + fluorine coating		zinc coating + chromate treatment + fluorine coating
Screw tap for inside of exterior panel		zinc coating + chromate treatment + fluorine coating		zinc coating + chromate treatment + fluorine coating

Corrosion protection treatment complies with regulation of The Japan Refrigeration and Air Conditioning Industry Association (JRA9002)

Caution

Even if the outdoor unit is protected with the anti-salt damage treatment, it cannot be perfectly free from rusting.
The following points should be kept in mind during installation and maintenance of the outdoor units.

Installation

(1) When installing the outdoor unit close to the coastal area, provide a windbreak to protect it from direct sea breeze and salt water splash.
(2) Select a well-drained place to install.
(3) If any scratch or damages occurred on the outdoor unit during installation, repair it carefully.

Maintenance

(1) Clean salt grains on the outdoor unit with fresh water periodically.
(2) Apply rust preventive at regular intervals for maintenance depending on the conditions at the installation place (consulting with the withstanding capacity).
(3) Confirm reset of screw tap after maintenance, if missing it may cause corrosion occurred from the hole of screw tap.
(4) During prolonged non operation periods, protect the unit with covering.

Water cooled series
8~36HP (22.4~100.0kW)

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

Model No.	Nominal Cooling Capacity
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

Features

1. High efficiency (EER/COP)
- Energy saving ➡ Reduction of operation cost!

2. Compact design
- Easy transportation and installation
- Elevator carrying

3. BMS (Building Management System)
- Can use the same BMS as air-cooled KX
- Available to large-scale and fine control

4. Serviceability & Maintenance
- Service and maintenance of main parts can be done from the front side only
- Useful service tools (Mente-PC, SL-Checker etc.)

Applicable to

1. High-rise Building
- 50m <FDC> , -100m <FDCH>
- 100m or higher in height <FDCW>

2. Glass-exterior facade Building
- Possible to hide KXZW units and to keep fine sight

8, 10, 12HP | 16, 18, 20, 22, 24HP | 26, 28, 30, 32, 34, 36HP

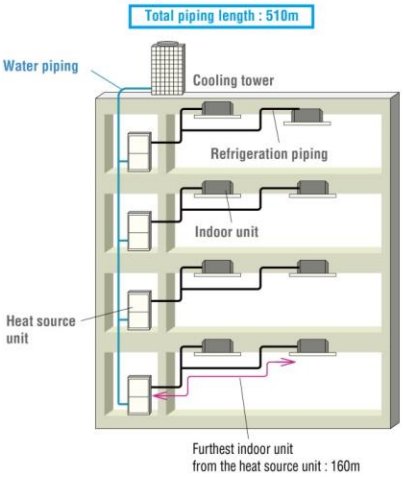
Specifications

Item		Model	FDC224KXZWE1	FDC280KXZWE1	FDC335KXZWE1	FDC450KXZWE1	FDC500KXZWE1	FDC560KXZWE1	FDC615KXZWE1	FDC670KXZWE1
Combination (FDC)			-	-	-	224KXZWE1	224KXZWE1	280KXZWE1	280KXZWE1	335KXZWE1
			-	-	-	224KXZWE1	280KXZWE1	280KXZWE1	335KXZWE1	335KXZWE1
Nominal horse power			8HP	10HP	12HP	16HP	18HP	20HP	22HP	24HP
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	67.0
	Heating		25.0	31.5	37.5	50.0	56.0	63.0	69.0	75.0
Power consumption	Cooling	kW	4.23	5.75	8.13	8.49	9.83	11.5	13.7	16.3
	Heating		4.24	5.10	6.30	8.47	9.27	10.2	11.4	12.6
EER	Cooling		5.3	4.9	4.1	5.3	5.1	4.9	4.5	4.1
COP	Heating		5.9	6.2	6.0	5.9	6.0	6.2	6.1	6.0
Exterior dimensions	HxWxD	mm	1100x780x550			(1100x780x550)x2				
Sound pressure level		dB(A)	48	50	52	50	52	53	54	55
Net weight		kg	185			185x2				

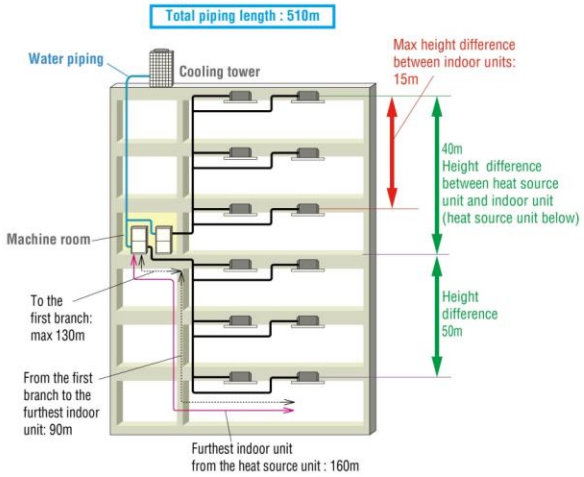
Item		Model	FDC730KXZWE1	FDC775KXZWE1	FDC850KXZWE1	FDC900KXZWE1	FDC950KXZWE1	FDC1000KXZWE1
Combination (FDC)			224KXZWE1	224KXZWE1	280KXZWE1	280KXZWE1	280KXZWE1	335KXZWE1
			224KXZWE1	280KXZWE1	280KXZWE1	280KXZWE1	335KXZWE1	335KXZWE1
			280KXZWE1	280KXZWE1	280KXZWE1	335KXZWE1	335KXZWE1	335KXZWE1
Nominal horse power			26HP	28HP	30HP	32HP	34HP	36HP
Power source			3 Phase 380-415V, 50Hz					
Nominal capacity	Cooling	kW	73.0	77.5	85.0	90.0	95.0	100
	Heating		82.5	90.0	95.0	100	106	112
Power consumption	Cooling	kW	14.2	15.5	17.5	19.5	21.7	24.3
	Heating		13.8	14.8	15.4	16.4	17.6	18.8
EER	Cooling		5.1	5.0	4.9	4.6	4.4	4.1
COP	Heating		6.0	6.1	6.2	6.1	6.0	6.0
Exterior dimensions	HxWxD	mm	(1100x780x550)x3					
Sound pressure level		dB(A)	54	54	55	56	56	57
Net weight		kg	185x3					

The data is based on the rating condition:
Cooling: Indoor temp. of 27 °C DB,19 °C WB, and heat source unit inlet water temp. of 30 °C, water flow rate 96 L/min
Heating: Indoor temp. of 20 °C DB,15 °C WB, and heat source unit inlet water temp. of 20 °C, water flow rate 96 L/min

Heat source units on every floor
- New building projects -

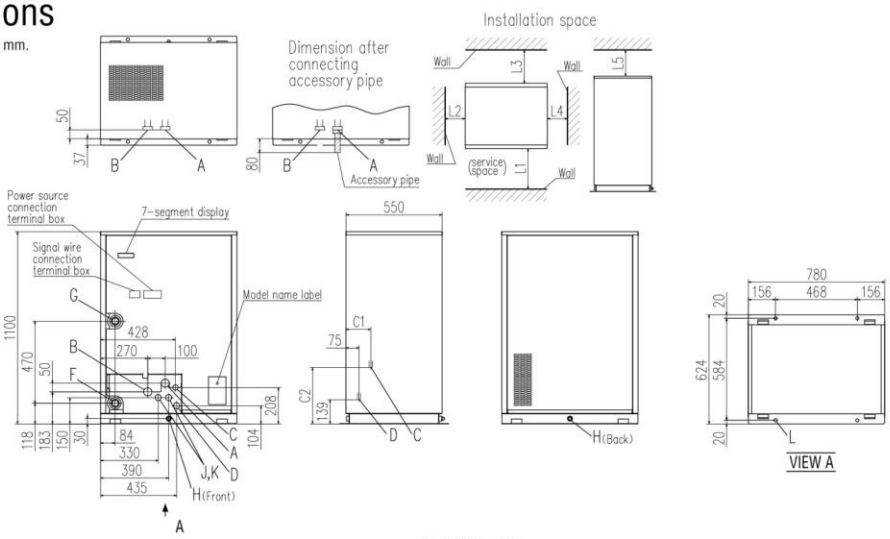


Heat source units in the machine room
- Renovation projects -



Dimensions

All measurements in mm.



Mark	Content	
A	High/low gas line	Refer to piping size
B	–	Not to use.
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	FDC-KXZWE1	
	224,280	335
C1	142	139
C2	322	316

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	

High Head series (100m) cooling only
14~48HP (40.0~136.0kW)

Model No.	Nominal Cooling Capacity
FDCH335CKXE6G-K ※	33.5 kW(380V)
FDCH400CKXE6G	40.0 kW(380V)
FDCH450CKXE6G	45.0 kW(380V)
FDCH504CKXE6G	50.4 kW(380V)
FDCH560CKXE6G	56.0 kW(380V)
FDCH560CKXE6G-K ※	56.0 kW(380V)
FDCH615CKXE6G	61.5 kW(380V)
FDCH680CKXE6G	68.0 kW(380V)

※FDCH335CKXE6G-K & FDCH560CKXE6G-K are only used for combining with other models.

Model No.	Nominal Cooling Capacity
FDCH735CKXE6G (FDCH335-K+FDCH400)	73.5 kW(380V)
FDCH800CKXE6G (FDCH400x2)	80.0 kW(380V)
FDCH850CKXE6G (FDCH400+FDCH450)	85.0 kW(380V)
FDCH900CKXE6G (FDCH450x2)	90.0 kW(380V)
FDCH960CKXE6G (FDCH450+FDCH504)	96.0 kW(380V)
FDCH1010CKXE6G (FDCH504x2)	101.0 kW(380V)
FDCH1065CKXE6G (FDCH504+FDCH560)	106.5 kW(380V)
FDCH1130CKXE6G (FDCH560x2)	113.0 kW(380V)
FDCH1180CKXE6G (FDCH560-K+FDCH615)	118.0 kW(380V)
FDCH1235CKXE6G (FDCH615x2)	123.5 kW(380V)
FDCH1300CKXE6G (FDCH615+FDCH680)	130.0 kW(380V)
FDCH1360CKXE6G (FDCH680x2)	136.0 kW(380V)

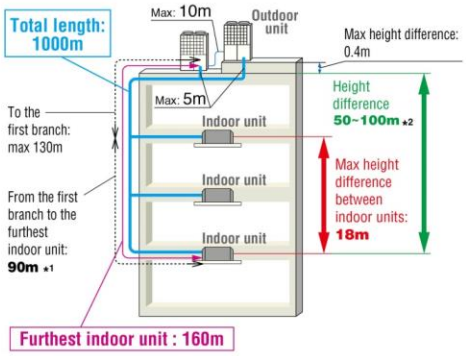
- Maximum allowable height difference between the outdoor and the indoor unit located at the lowest height position has been increased from 50m to 100m.
  (When the outdoor unit is located at higher position than the indoor unit)
- Non-CE Marking models.

Blue Fin

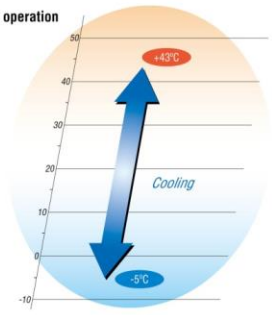
FDCH335CKXE6G-K
FDCH400CKXE6G
FDCH450CKXE6G

Blue Fin

FDCH504~680CKXE6G



Range of operation



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

*2 In case of less than 50m, the High Head models can not be applied.
In case Indoor unit is higher than outdoor unit, the High Head models can not be applied.

Specifications

Item			Model	FDCH400CKXE6G	FDCH450CKXE6G	FDCH504CKXE6G	FDCH560CKXE6G	FDCH615CKXE6G	FDCH680CKXE6G
Nominal horse power				14HP	16HP	18HP	20HP	22HP	24HP
Power source				3 Phase 380V, 60Hz					
Starting current			A	8					
Max current			A	47					
Nominal capacity	Cooling		kW	40.0	45.0	50.4	56.0	61.5	68.0
Electrical characteristics	Power consumption	Cooling	kW	11.27	12.97	14.73	16.79	20.37	24.98
Exterior dimensions	HxWxD		mm	1690x1350x720		2048x1350x720			
Net weight			kg	326		358		377	
Sound pressure level	Cooling		dB(A)	59.5	62.5	61.5	63.0	64.5	65.0
Refrigerant	Type/GWP			R410A/2088					
	Charge		kg/TCO2Eq	11.5/24.012					
Refrigerant piping size	Liquid line		mm(in)	ø12.7(1/2")		ø15.88(5/8")			
	Gas line			ø25.4(1") [ø28.58(1 1/8")]	ø28.58(1 1/8")	ø28.58(1 1/8")			
Capacity connection			%	50~200		50~160			
Number of connectable indoor units				36	40	36	40	44	49

Item			Model	FDCH735CKXE6G	FDCH800CKXE6G	FDCH850CKXE6G	FDCH900CKXE6G
Combination (FDCH)				335CKXE6G-K	400CKXE6G	400CKXE6G	450CKXE6G
				400CKXE6G	400CKXE6G	450CKXE6G	450CKXE6G
Nominal horse power				26HP	28HP	30HP	32HP
Power source				3 Phase 380V, 60Hz			
Starting current			A	16			
Max current			A	94			
Nominal capacity	Cooling		kW	73.5	80.0	85.0	90.0
Electrical characteristics	Power consumption	Cooling	kW	20.21	22.54	24.24	25.94
Exterior dimensions	HxWxD		mm	1690x2700x720			
Net weight			kg	326x2			
Refrigerant charge	R410A		kg	11.5x2			
Refrigerant piping size	Liquid line		mm(in)	ø19.05(3/4")			
	Gas line			ø31.8(1 1/4") [ø34.92(1 3/8")]			
Capacity connection			%	50~160			
Number of connectable indoor units				53	58	61	65

Item			Model	FDCH960CKXE6G	FDCH1010CKXE6G	FDCH1065CKXE6G	FDCH1130CKXE6G
Combination (FDCH)				450CKXE6G	504CKXE6G	504CKXE6G	560CKXE6G
				504CKXE6G	504CKXE6G	560CKXE6G	560CKXE6G
Nominal horse power				34HP	36HP	38HP	40HP
Power source				3 Phase 380V, 60Hz			
Starting current			A	16			
Max current			A	94			
Nominal capacity	Cooling		kW	96.0	101.0	106.5	113.0
Electrical characteristics	Power consumption	Cooling	kW	27.70	29.46	31.52	33.58
Exterior dimensions	HxWxD		mm	2048x2700x720			
Net weight			kg	326+358	358x2		
Refrigerant charge	R410A		kg	11.5x2			
Refrigerant piping size	Liquid line		mm(in)	ø19.05(3/4")		ø22.22(7/8")	
	Gas line			ø31.8(1 1/4")[ø34.92(1 3/8")]		ø38.1(1 1/2")	
Capacity connection			%	50~160	50~130		
Number of connectable indoor units				69	59	62	66

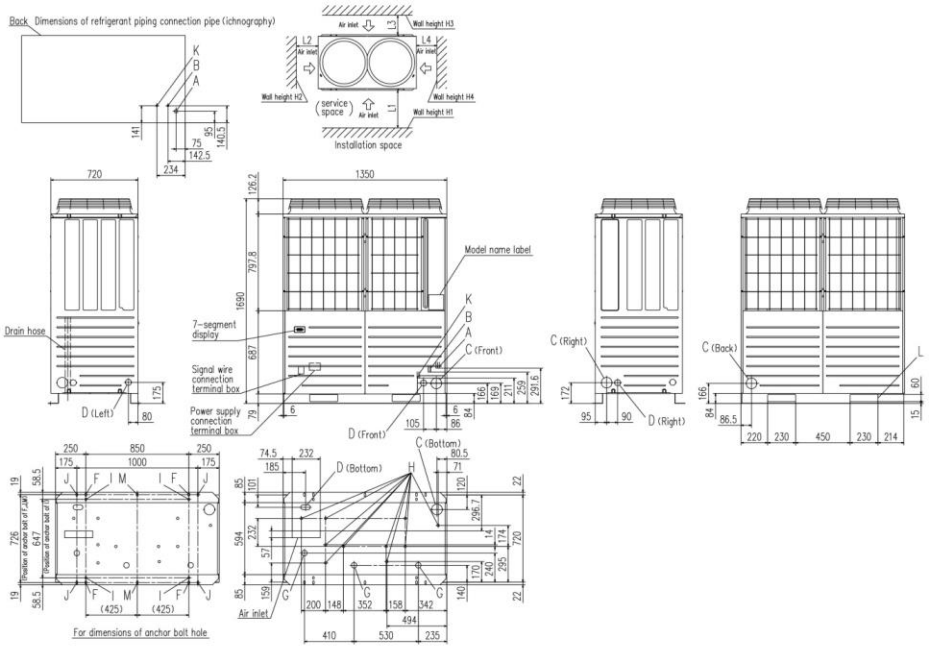
Item			Model	FDCH1180CKXE6G	FDCH1235CKXE6G	FDCH1300CKXE6G	FDCH1360CKXE6G
Combination (FDCH)				560CKXE6G-K	615CKXE6G	615CKXE6G	680CKXE6G
				615CKXE6G	615CKXE6G	680CKXE6G	680CKXE6G
Nominal horse power				42HP	44HP	46HP	48HP
Power source				3 Phase 380V, 60Hz			
Starting current			A	16			
Max current			A	94			
Nominal capacity	Cooling		kW	118.0	123.5	130.0	136.0
Electrical characteristics	Power consumption	Cooling	kW	37.16	40.74	45.35	49.96
Exterior dimensions	HxWxD		mm	2048x2700x720			
Net weight			kg	377x2			
Refrigerant charge	R410A		kg	11.5x2			
Refrigerant piping size	Liquid line		mm(in)	ø22.22(7/8")			
	Gas line			ø38.1(1 1/2")			
Capacity connection			%	50~130			
Number of connectable indoor units				69	72	76	80

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. Piping length is 7.5m.
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_2 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.
4. [ ] : Pipe sizes applicable to European installations are shown in parentheses.

Dimensions

All measurements in mm.

FDCH335CKXE6G-K, 400CKXE6G, 450CKXE6G

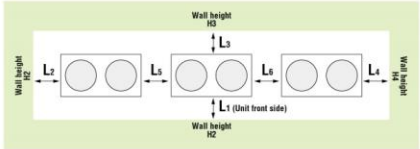


Mark	Content	335-K	400	450
A	Refrigerant gas piping connection pipe	ø25.4(Brazing)		ø28.58(Brazing)
B	Refrigerant liquid piping connection pipe	ø12.7(Flare)		
C	Refrigerant piping exit hole	ø88(or ø100)		
D	Power supply entry hole	ø50 (Right · Left · Front), Long hole 40 x 80 (Bottom)		
F	Anchor bolt hole	M10, 4 pcs		
G	Drain waste water hose hole	ø45, 3 pcs		
H	Drain hole	ø20, 10 pcs		
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	10
L_3	100	100
L_4	10	Open
H_1	1500	Open
H_2	No limit	No limit
H_3	1000	No limit
H_4	No limit	Open

Notes:
(1) The unit must be fixed with anchor bolts.
(2) Leave a 2m or larger space above the unit.
(3) The unit name plate is attached on the lower right corner of the front panel.
(4) The ports for refrigerant pipe and power cable penetrations are covered with half-blanks. Please cut off a half-blank with nippers in using these ports.
(5) Use a ø88 port for refrigerant pipe connection.
(6) Anchor holes marked "L J" (four holes for M10) are for a renewal installation.
(7) The oil-equalising pipe K should be used when outdoor units are used in combination. (For 14,16Hp only)

When more than one unit is installed

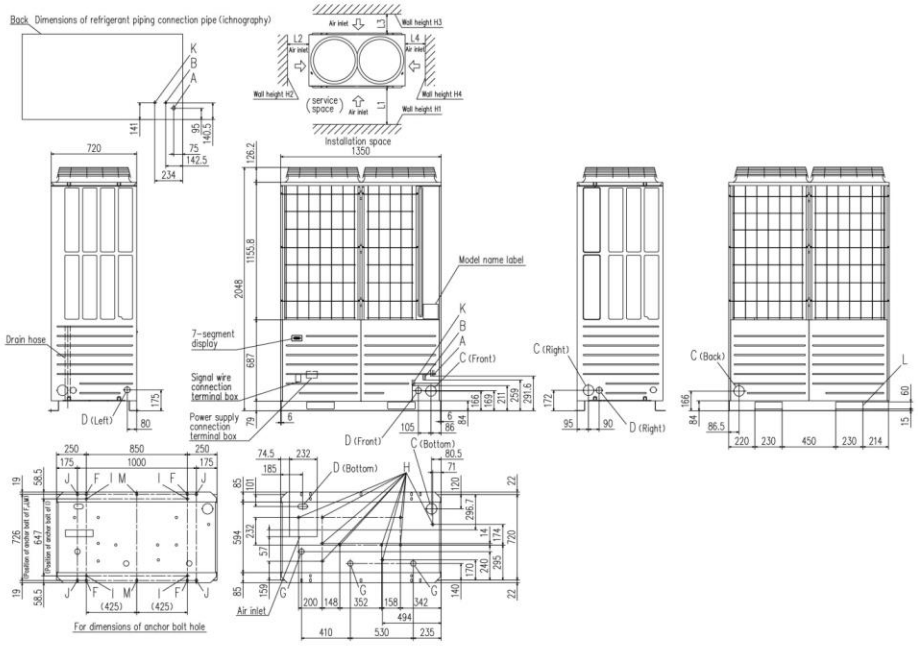


Installation example		
Dimensions	1	2
L_1	500	Open
L_2	10	200
L_3	100	300
L_4	10	Open
L_5	0	400
L_6	0	400
H_1	1500	No limit
H_2	No limit	No limit
H_3	1000	No limit
H_4	No limit	No limit

Dimensions

All measurements in mm.

FDCH504CKXE6G, 560CKXE6G, 560CKXE6G-K, 615CKXE6G, 680CKXE6G



Mark	Content	
A	Refrigerant gas piping connection pipe	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, 4 pcs
G	Drain waste water hose hole	ø45, 3 pcs
H	Drain hole	ø20, 10 pcs
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	10
L_3	100	100
L_4	10	Open
H_1	1500	Open
H_2	No limit	No limit
H_3	1000	No limit
H_4	No limit	Open

Notes:
(1) The unit must be fixed with anchor bolts.
(2) Leave a 2m or larger space above the unit.
(3) The unit name plate is attached on the lower right corner of the front panel.
(4) The ports for refrigerant pipe and power cable penetrations are covered with half-blanks. Please cut off a half-blank with nippers in using these ports.
(5) Use a ø88 port for refrigerant pipe connection.
(6) Anchor holes marked "L J" (four holes for M10) are for a renewal installation.
(7) The oil-equalising pipe K should be used when outdoor units are used in combination.

Refresh series
8, 10HP(22.4kW · 28.0kW)

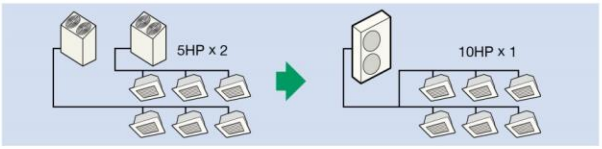
If replacing a used unit with a new one, these units can reuse existing piping.

Model No.	Nominal Cooling Capacity
FDCR224KXE6	22.4kW
FDCR280KXE6	28.0kW

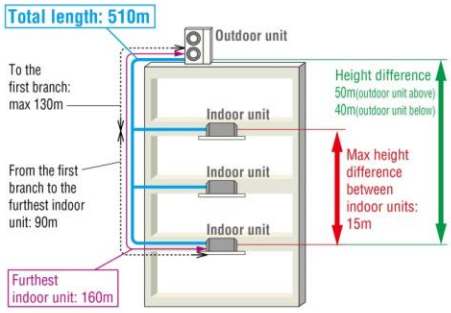
<Option>

FDCR-KIT-E : Service valve kit

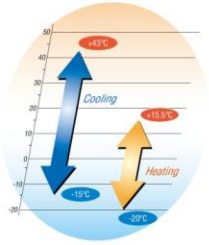
- Applies to a wide range of pipe sizes (R22, R407C, R410A standard size).
- Meets to a short period of renewal installation.
- Savings on replacement expenses such as scrapping waste material or procuring new pipe.
- Possible to replace the existing unit with a new larger capacity unit.
- Possible to replace plural systems with one system.
  For example:Existing 5HP x 2units can be replaced with a new 10HP x 1unit.



Note: FDUT15KXE6F-E, FDTC15KXZE1 and FDK15KXZE1 can not be connected to the above systems.



Range of operation



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			25.0	31.5
Electrical characteristics	Power consumption	Cooling	kW	5.60	8.09
		Heating		6.03	8.21
Exterior dimensions	HxWxD		mm	1675x1080x480	
Net weight			kg	224	
Sound pressure level	Cooling/Heating		dB(A)	58/58	59/60
Refrigerant	Type / GWP			R410A / 2088	
	Charge		kg/TCO2Eq	11.5 / 24.012	
Refrigerant piping size	Liquid line		mm(in)	ø9.52(3/8")~ø15.88(5/8")	
	Gas line			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_2 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.

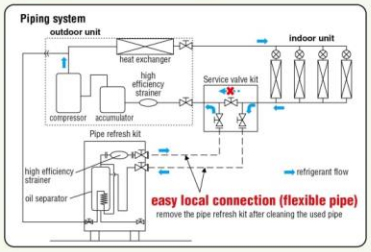
1. Implement cooling operation of all indoor units for more than 30 minutes.
2. Implement pump-down after cooling operation.
3. Recover refrigerant and remove the existing outdoor unit and indoor unit.

◆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.

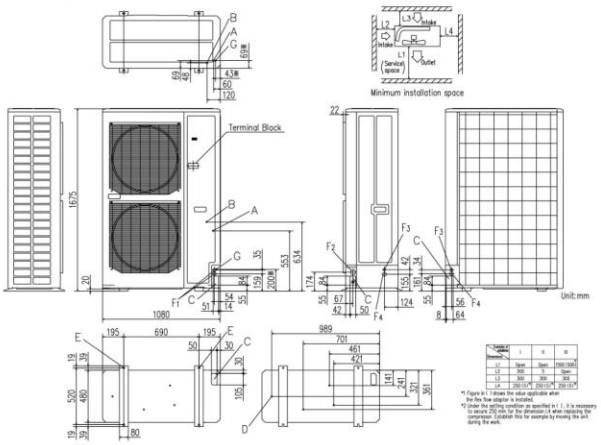
7-segment display



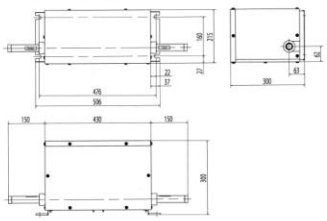
Pipe refresh kit (FDCR-KIT-E)

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 x 4places
E	Anchor bolt hole	M10 x 4places
F_1	Cable draw-out hole	ø30
F_2	Cable draw-out hole	ø45
F_3	Cable draw-out hole	ø22
F_4	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 the 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.
(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)