



FDC224KXZRE2

22.4kW

Specifications

Nominal horse power			8HP
Power source			3 Phase 380-415V, 50Hz
Starting current		A	5
Max Current		A	16.0
Nominal capacity	Cooling	kW	22.4
	Heating		22.4
Electrical characteristics Power Consumption	Cooling	kW	5.76
	Heating		5.27
Exterior dimensions	HxWxD	mm	1697x1350x720
Sound pressure level	Cooling/Heating	dB(A)	55/57
Net Weight		kg	305
Refrigerant	Type / GWP		R410A / 2088
Refrigerant	Charge	kg/TCO2Eq	11.5 / 24.012
Refrigerant piping size	Liquid line	mm (ø inch)	ø9.52(3/8")
Refrigerant piping size	Suction Gas line	mm (ø inch)	ø19.05(3/4")
Refrigerant piping size	Discharge Gas line	mm (ø inch)	ø15.88(5/8")
Capacity connection		%	50~200
Number of connectable indoor units			29

The data are measured under the following conditions(ISO-T1,H1). 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. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

'tonne(s) of CO₂ 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.

[] : Pipe sizes applicable to European installations are shown in parentheses.

Back Dimensions of refrigerant piping connection pipe (lchigraphy)

720

172

236

59

115

AA

114

13

17

58.5

77.5

19

136

14

175

250

850

1000

175

250

J

F

I

M

I

F

J

J

F

I

M

I

F

J

(425)

(425)

For dimensions of anchor bolt hole

Dimensions MODEL 224,280 335

AA	67	64
AB	252	246

2. OUTDOOR UNIT

2.1 Specifications

- Single use (Used also for combination)

Models	FDC24KXZRE2	FD280KXZRE2	FDC335KXZRE2	FDC400KXZRE2	FDC480KXZRE2	FDCA75KXZRE2	FDC500KXZRE2	FDC560KXZRE2	FDC615KXZRE2	FDC670KXZRE2
Nominal cooling capacity ¹	22.4	28.0	33.5	40.0	45.0	47.5	50.0	56.0	61.5	67.0
Nominal heating capacity ²	22.4	28.0	33.5	40.0	45.0	47.5	50.0	56.0	61.5	63.0
Maximum heating capacity	25.0	31.5	37.5	45.0	50.0	53.0	56.0	63.0	63.0	63.0
Power source	3 Phase 380 / 415V 50Hz / 380V 60Hz									
Power consumption	5.76	7.39	9.65	11.56	14.47	14.84	15.20	19.31	21.35	25.57
Heating	5.27	6.86	8.44	9.76	11.39	11.67	12.69	14.93	16.14	17.45
Cooling	10.1 / 9.2	12.2 / 11.2	15.6 / 14.4	18.5 / 17.1	23.1 / 21.2	24.0 / 22.0	24.6 / 22.5	31.2 / 28.6	34.5 / 31.6	41.3 / 37.8
Running current	9.1 / 8.3	11.3 / 10.4	13.8 / 12.6	15.9 / 14.8	18.6 / 17.0	18.9 / 17.3	20.5 / 18.8	24.1 / 22.1	26.1 / 23.9	28.2 / 25.8
Heating	87 / 87	92 / 92	93 / 93	95 / 94	95 / 95	94 / 94	94 / 94	94 / 94	94 / 94	94 / 94
Cooling	88 / 88	92 / 92	93 / 93	93 / 92	93 / 93	94 / 94	94 / 94	94 / 94	94 / 94	94 / 94
Heating	3.89	3.79	3.11	3.47	3.20	3.29	3.29	2.88	2.88	2.62
EER	4.25	4.08	3.97	4.10	3.95	4.07	3.94	3.75	3.81	3.61
COP	56 / 58	55 / 57	63 / 63	61 / 62	61 / 62	61 / 62	61 / 62	64 / 63	65 / 64	65 / 64
Sound pressure level (Cooling / Heating)	75 / 77	75 / 76	82 / 82	81 / 82	81 / 82	81 / 82	81 / 82	84 / 82	84 / 83	84 / 83
Sound power level (Cooling / Heating)	5	5	5	5	5	5	5	8	8	8
Starting current	16.0	20.0	21.2	30.0	32.0	40.4	41.0	41.6	42.0	42.4
Maximum current	2052×1350×720									
Exterior dimensions	1697×1350×720									
Height × Width × Depth	1697×1350×720									
Exterior appearance (Munsell color)	Suco White (4.2Y7.5 / 1.1) & Dark Silver (0.5Y4.3 / 0.1) near equivalent									
Net weight	305	305	372	372	420	420	420	420	420	420
Refrigerant equipment compressor type & Qty	GUC5150NC47BF X 1									
Motor	3.41×1	4.80×1	6.54×1	7.92×1	9.73×1	4.53×2	4.84×2	5.79×2	7.05×2	9.87×2
Starting method	Direct line starting									
Crankcase heater	33×1	40×1	40×1	40×1	40×1	40×1	40×1	40×1	40×1	40×1
Refrigerant equipment	M fin & inner grooved tubing									
Heat exchanger	Electronic expansion valve									
Refrigerant control	R410A									
Refrigerant type	11.5									
Refrigerant amount	3.3 (M-MA32R)									
Refrigerant oil	4.4 (M-MA32R)									
Defrost control	Microcomputer controlled De-Icer									
Air handling equipment fan type & Qty	Propeller fan × 2									
Motor	385×2	385×2	385×2	385×2	385×2	385×2	385×2	385×2	385×2	385×2
Starting method	Direct start									
Air flow (Standard)	225 / 225	294 / 283	304 / 304	304 / 304	304 / 304	300 / 300	300 / 300	300 / 284	300 / 284	300 / 284
Available external static pressure	Max 50									
Shock & vibration absorber	Rubber mount (for compressor)									
Safety equipment	Compressor overheat protection / overcurrent protection / power transistor overheat protection / abnormal high pressure protection									
Liquid Line	φ9.52 (3 / 8")	φ9.52 (3 / 8")	φ9.52 (3 / 8")	φ9.52 (3 / 8")	φ9.52 (3 / 8")	φ9.52 (3 / 8")	φ9.52 (3 / 8")	φ9.52 (3 / 8")	φ9.52 (3 / 8")	φ9.52 (3 / 8")
Suction gas line	φ19.05 (3 / 4")	φ22.22 (7 / 8")	φ25.4 (1")	φ25.4 (1")	φ25.4 (1")	φ25.4 (1")	φ25.4 (1")	φ25.4 (1")	φ25.4 (1")	φ25.4 (1")
Discharge gas line	φ15.88 (5 / 8")	φ19.05 (3 / 4")	φ22.22 (7 / 8")	φ22.22 (7 / 8")	φ22.22 (7 / 8")	φ22.22 (7 / 8")	φ22.22 (7 / 8")	φ22.22 (7 / 8")	φ22.22 (7 / 8")	φ22.22 (7 / 8")
Connecting method	Gas line: Brazing / Liquid line: Flare									
Max. Pressure	High 4.15 Low 2.21									
Drain	Hole for drain: φ20 × 10 pcs., φ45 × 3 pcs.									
Insulation for piping	Necessary (both Liquid & Gas line)									
IP number	IP24									
Accessories	-									
Exterior dimensions	PCB004Z515									
Electrical wiring	PCB004Z517									

(4) Refrigerant piping size applicable to European installations are shown in parentheses.

(5) This air-conditioner is adapted RoHS directive.

Notes (1) The data are measured at the following conditions.

Item	Indoor air temperature		Outdoor air temperature		Standards
	DB	WB	DB	WB	
Operation	27 °C	19 °C	35 °C	24 °C	ISO5151-T1,H1
Cooling	27 °C	19 °C	35 °C	24 °C	
Heating	20 °C	7 °C	7 °C	6 °C	

(2) This air-conditioner is manufactured and tested in conformity with the ISO.

(3) Sound level indicates the value in an anechoic chamber.

During operation these value are somewhat higher due to ambient conditions.

PCB004Z514

• Combination use

Models		FDC735KXZRE2	FDC800KXZRE2	FDC850KXZRE2	FDC900KXZRE2
Combination unit		FDC335KXZRE2	FDC400KXZRE2	FDC400KXZRE2	FDC450KXZRE2
Power source		FDC400KXZRE2	FDC400KXZRE2	FDC450KXZRE2	FDC450KXZRE2
Nominal cooling capacity*1	kW	73.5	80.0	85.0	90.0
Nominal heating capacity*2	kW	73.5	80.0	85.0	90.0
Power consumption	kW	21.21	23.12	26.03	28.94
Running current	A	18.20	19.52	21.15	22.78
Power factor	%	34.3 / 31.4	37.0 / 34.2	41.6 / 38.3	46.3 / 42.4
Net weight	kg	29.7 / 27.4	31.9 / 29.6	34.6 / 31.8	37.2 / 34.1
	%	94 / 94	95 / 94	95 / 95	95 / 95
	kg	93 / 93	93 / 92	93 / 93	93 / 93
	mm (in)	677	744	744	744
Refrigerant piping size		$\phi 15.88$ (5 / 8")			
		$\phi 31.75$ (1-1 / 4") ($\phi 34.92$ (1-3 / 8"))			
		$\phi 25.4$ (1") ($\phi 28.58$ (1-1 / 8"))			
		$\phi 9.52$ (3 / 8")			

Models		FDC950KXZRE2	FDC1000KXZRE2	FDC1060KXZRE2	FDC1120KXZRE2
Combination unit		FDC475KXZRE2	FDC500KXZRE2	FDC500KXZRE2	FDC560KXZRE2
Power source		FDC475KXZRE2	FDC500KXZRE2	FDC560KXZRE2	FDC560KXZRE2
Nominal cooling capacity*1	kW	95.0	100.0	106.0	112.0
Nominal heating capacity*2	kW	95.0	100.0	106.0	112.0
Power consumption	kW	29.68	30.40	34.51	38.62
Running current	A	23.34	25.38	27.62	29.86
Power factor	%	48.0 / 43.9	49.1 / 45.0	55.8 / 51.1	62.4 / 57.2
Net weight	kg	37.7 / 34.5	41.0 / 37.6	44.6 / 40.9	48.3 / 44.2
	%	94 / 94	94 / 94	94 / 94	94 / 94
	kg	94 / 94	94 / 94	94 / 94	94 / 94
	mm (in)	840	840	840	840
Refrigerant piping size		$\phi 15.88$ (5 / 8")			
		$\phi 31.75$ (1-1 / 4") ($\phi 34.92$ (1-3 / 8"))			
		$\phi 28.58$ (1-1 / 8")			
		$\phi 9.52$ (3 / 8")			

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• Combination use

Models		FDC1200KXZRE2	FDC1250KXZRE2	FDC1300KXZRE2	FDC1350KXZRE2	FDC1425KXZRE2
Combination unit		FDC400KXZRE2	FDC400KXZRE2	FDC400KXZRE2	FDC400KXZRE2	FDC475KXZRE2
		FDC400KXZRE2	FDC400KXZRE2	FDC400KXZRE2	FDC400KXZRE2	FDC475KXZRE2
		FDC400KXZRE2	FDC400KXZRE2	FDC400KXZRE2	FDC400KXZRE2	FDC475KXZRE2
		FDC400KXZRE2	FDC400KXZRE2	FDC400KXZRE2	FDC400KXZRE2	FDC475KXZRE2
3 Phase 380-415V 50Hz / 380V 60Hz						
Power source		120.0	125.0	130.0	135.0	142.5
Nominal cooling capacity*1	kW	120.0	125.0	130.0	135.0	142.5
Nominal heating capacity*2	kW	34.68	37.59	40.50	43.41	44.52
Power consumption	Cooling	29.28	30.91	32.54	34.17	35.01
	Heating	55.5 / 51.3	60.1 / 55.4	64.8 / 59.5	69.4 / 63.6	72.0 / 65.9
Running current	Cooling	47.8 / 44.4	50.5 / 46.6	53.2 / 48.9	55.8 / 51.1	56.6 / 51.8
	Heating	95 / 94	95 / 94	95 / 95	95 / 95	94 / 94
Power factor	Cooling	93 / 92	93 / 92	93 / 93	93 / 93	94 / 94
	Heating	93 / 92	93 / 92	93 / 93	93 / 93	94 / 94
Net weight	kg	1116	1116	1116	1116	1260
Refrigerant piping size	Liquid line	$\phi 19.05 (3/4")$				
	Suction gas line	$\phi 38.1 (1\frac{1}{2} ") (\phi 34.92 (1\frac{3}{8} "))$				
	Discharge gas line	$\phi 31.75 (1\frac{1}{4} ") (\phi 28.58 (1\frac{1}{8} "))$				
	Oil equalization	$\phi 9.52 (3/8")$				

Models		FDC1450KXZRE2	FDC1500KXZRE2	FDC1560KXZRE2	FDC1620KXZRE2	FDC1680KXZRE2
Combination unit		FDC475KXZRE2	FDC500KXZRE2	FDC500KXZRE2	FDC500KXZRE2	FDC560KXZRE2
		FDC475KXZRE2	FDC500KXZRE2	FDC500KXZRE2	FDC500KXZRE2	FDC560KXZRE2
		FDC475KXZRE2	FDC500KXZRE2	FDC500KXZRE2	FDC500KXZRE2	FDC560KXZRE2
		FDC475KXZRE2	FDC500KXZRE2	FDC500KXZRE2	FDC500KXZRE2	FDC560KXZRE2
3 Phase 380-415V 50Hz / 380V 60Hz						
Power source		145.0	150.0	156.0	162.0	168.0
Nominal cooling capacity*1	kW	145.0	150.0	156.0	162.0	168.0
Nominal heating capacity*2	kW	44.88	45.60	49.71	53.82	57.93
Power consumption	Cooling	36.03	38.07	40.31	42.55	44.79
	Heating	72.5 / 66.4	73.7 / 67.5	80.3 / 73.6	87.0 / 79.7	93.6 / 85.7
Running current	Cooling	58.2 / 53.3	61.5 / 56.3	65.2 / 59.7	68.8 / 63.0	72.4 / 66.3
	Heating	94 / 94	94 / 94	94 / 94	94 / 94	94 / 94
Power factor	Cooling	94 / 94	94 / 94	94 / 94	94 / 94	94 / 94
	Heating	94 / 94	94 / 94	94 / 94	94 / 94	94 / 94
Net weight	kg	1260	1260	1260	1260	1260
Refrigerant piping size	Liquid line	$\phi 19.05 (3/4")$				
	Suction gas line	$\phi 38.1 (1\frac{1}{2} ") (\phi 34.92 (1\frac{3}{8} "))$				
	Discharge gas line	$\phi 31.75 (1\frac{1}{4} ") (\phi 28.58 (1\frac{1}{8} "))$				
	Oil equalization	$\phi 9.52 (3/8")$				

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• High-COP Combination use

Models	FDC450KXZRE2	FDC500KXZRE2	FDC560KXZRE2	FDC615KXZRE2	FDC670KXZRE2
Combination unit	FDC224KXZRE2	FDC224KXZRE2	FDC280KXZRE2	FDC280KXZRE2	FDC335KXZRE2
Power source	FDC224KXZRE2	FDC280KXZRE2	FDC280KXZRE2	FDC335KXZRE2	FDC335KXZRE2
Nominal cooling capacity*1	45.0	50.0	56.0	61.5	67.0
Nominal heating capacity*2	45.0	50.0	56.0	61.5	67.0
Power consumption	11.52	13.15	14.78	17.04	19.30
Running current	20.2 / 18.4	22.3 / 20.4	24.4 / 22.4	28.0 / 25.6	31.5 / 28.9
Power factor	92 / 92	92 / 92	92 / 92	93 / 93	93 / 93
Net weight	610	610	610	610	610
Refrigerant piping size	Liquid line $\phi 12.7$ (1/2") Suction gas line $\phi 28.58$ (1-1/8") Discharge gas line $\phi 22.22$ (7/8") Oil equalization $\phi 9.52$ (3/8")				
	Refrigerant piping size $\phi 25.4$ (1") ($\phi 22.22$ (7/8"))				

Models	FDC735KXZRE2	FDC800KXZRE2	FDC850KXZRE2	FDC900KXZRE2	FDC950KXZRE2	FDC1000KXZRE2
Combination unit	FDC224KXZRE2	FDC224KXZRE2	FDC280KXZRE2	FDC280KXZRE2	FDC335KXZRE2	FDC335KXZRE2
Power source	FDC280KXZRE2	FDC280KXZRE2	FDC280KXZRE2	FDC335KXZRE2	FDC335KXZRE2	FDC335KXZRE2
Nominal cooling capacity*1	73.5	80.0	85.0	90.0	95.0	100.0
Nominal heating capacity*2	73.5	80.0	85.0	90.0	95.0	100.0
Power consumption	18.91	20.54	22.17	24.43	26.69	28.95
Running current	32.4 / 29.6	34.5 / 31.6	36.6 / 33.5	40.2 / 36.8	43.7 / 40.0	47.3 / 43.3
Power factor	92 / 92	92 / 92	92 / 92	92 / 92	93 / 93	93 / 93
Net weight	915	915	915	915	915	915
Refrigerant piping size	Liquid line $\phi 15.88$ (5/8") Suction gas line $\phi 31.75$ (1-1/4") ($\phi 34.92$ (1-3/8")) Discharge gas line $\phi 25.4$ (1") ($\phi 28.58$ (1-1/8")) Oil equalization $\phi 9.52$ (3/8")					
	Refrigerant piping size $\phi 28.58$ (1-1/8") ($\phi 34.92$ (1-3/8"))					

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•Weights of packing parts

Unit : kg

Material Model		Gross weight	Packing parts weight (Total)	Paper	Foam Polystyrene	Plastic	Metal		Wood	Glass	Other
							Aluminium	Steel			
Outdoor unit	FDC224KXZRE2	337.00	23.00	6.00	—	0.10	—	0.81	22.15	—	—
	FDC280KXZRE2	337.00	23.00	6.00	—	0.10	—	0.81	22.15	—	—
	FDC335KXZRE2	337.00	23.00	6.00	—	0.10	—	0.81	22.15	—	—
	FDC400KXZRE2	407.00	23.00	8.00	—	0.10	—	0.81	22.15	—	—
	FDC450KXZRE2	407.00	23.00	8.00	—	0.10	—	0.81	22.15	—	—
	FDC475KXZRE2	455.00	23.00	8.00	—	0.10	—	0.81	22.15	—	—
	FDC500KXZRE2	455.00	23.00	8.00	—	0.10	—	0.81	22.15	—	—
	FDC560KXZRE2	455.00	23.00	8.00	—	0.10	—	0.81	22.15	—	—
	FDC615KXZRE2	455.00	23.00	8.00	—	0.10	—	0.81	22.15	—	—
	FDC670KXZRE2	455.00	23.00	8.00	—	0.10	—	0.81	22.15	—	—
PFD branching control	PFD1124-E	14.10	4.30	4.02	—	0.28	—	—	—	—	—
	PFD1804-E	14.20	3.90	3.62	—	0.28	—	—	—	—	—
	PFD2804-E	16.40	4.50	4.22	—	0.28	—	—	—	—	—
	PFD1124X4-E	56.80	15.90	15.04	—	0.86	—	—	—	—	—

