



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	kW	22.4
Electrical characteristics Power Consumption	Cooling	kW	5.76
	Heating	kW	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.

[illegible]

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
Running current	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
Power factor	87 / 87	92 / 92	93 / 93	95 / 94	95 / 95	94 / 94	94 / 94	94 / 94	94 / 94	94 / 94
EER	88 / 88	92 / 92	93 / 93	93 / 92	93 / 93	94 / 94	94 / 94	94 / 94	94 / 94	94 / 94
COP	3.89	3.79	3.47	3.46	3.11	3.20	3.29	2.88	2.88	2.62
Sound pressure level (Cooling / Heating)	56 / 58	55 / 57	63 / 63	61 / 62	61 / 62	61 / 62	61 / 62	64 / 63	65 / 64	65 / 64
Sound power level (Cooling / Heating)	75 / 77	75 / 76	82 / 82	81 / 82	81 / 82	81 / 82	81 / 82	84 / 82	84 / 83	84 / 83
Starting current	5									
Maximum current	8									
Exterior dimensions										
Height x Width x Depth	1697x1350x720									
Exterior appearance (Munsell color)	2052x1350x720									
Net weight	372									
Refrigerant equipment compressor type & Qty	Suco White (4.2/17.5 / 1.1) & Dark Silver (0.5/4.3 / 0.1) near equivalent									
Motor	372									
Starting method	Direct line starting									
Crankcase heater	40x1									
Refrigerant equipment Heat exchanger	M fin & inner grooved tubing									
Refrigerant control	Electronic expansion valve									
Refrigerant type	R410A									
Refrigerant amount	11.5									
Refrigerant oil	3.3 (M-MA32R)									
Defrost control	Microcomputer controlled De-Icer									
Air handling equipment fan type & Qty	Propeller fan x 2									
Motor	385x2									
Starting method	Direct start									
Air flow (Standard)	Max 50									
Available external static pressure	300 / 300									
Shock & vibration absorber	300 / 284									
Safety equipment	Compressor overheat protection / overcurrent protection / power transistor overheating protection / abnormal high pressure protection									
Liquid Line	φ19.05 (3 / 4")									
Suction gas line	φ22.22 (7 / 8")									
Discharge gas line	φ15.88 (5 / 8")									
Connecting method	Gas line: Brazing / Liquid line: Flare									
Max. Pressure	High 4.15 Low 2.21									
Drain	Hole for drain (φ20 x 10 pcs., φ45 x 3 pcs.)									
Insulation for piping	Necessary (both Liquid & Gas line)									
IP number	IP24									
Accessories										
Exterior dimensions										
Electrical wiring										

- (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	—	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.

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• 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
		93 / 93	93 / 92	93 / 93	93 / 93
		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
		94 / 94	94 / 94	94 / 94	94 / 94
		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						
Nominal cooling capacity*1		120.0	125.0	130.0	135.0	142.5
Nominal heating capacity*2		120.0	125.0	130.0	135.0	142.5
Power consumption	Cooling	34.68	37.59	40.50	43.41	44.52
	Heating	29.28	30.91	32.54	34.17	35.01
Running current	Cooling	55.5 / 51.3	60.1 / 55.4	64.8 / 59.5	69.4 / 63.6	72.0 / 65.9
	Heating	47.8 / 44.4	50.5 / 46.6	53.2 / 48.9	55.8 / 51.1	56.6 / 51.8
Power factor	Cooling	95 / 94	95 / 94	95 / 95	95 / 95	94 / 94
	Heating	93 / 92	93 / 92	93 / 93	93 / 93	94 / 94
Net weight		1116	1116	1116	1116	1260
Refrigerant piping size	Liquid line	$\phi 19.05$ (3 / 4")				
	Suction gas line	$\phi 38.1$ (1.1 / 2") ($\phi 34.92$ (1.3 / 8"))				
	Discharge gas line	$\phi 31.75$ (1.1 / 4") ($\phi 28.58$ (1.1 / 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						
Nominal cooling capacity*1		145.0	150.0	156.0	162.0	168.0
Nominal heating capacity*2		145.0	150.0	156.0	162.0	168.0
Power consumption	Cooling	44.88	45.60	49.71	53.82	57.93
	Heating	36.03	38.07	40.31	42.55	44.79
Running current	Cooling	72.5 / 66.4	73.7 / 67.5	80.3 / 73.6	87.0 / 79.7	93.6 / 85.7
	Heating	58.2 / 53.3	61.5 / 56.3	65.2 / 59.7	68.8 / 63.0	72.4 / 66.3
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		1260	1260	1260	1260	1260
Refrigerant piping size	Liquid line	$\phi 19.05$ (3 / 4")				
	Suction gas line	$\phi 38.1$ (1.1 / 2") ($\phi 34.92$ (1.3 / 8"))				
	Discharge gas line	$\phi 31.75$ (1.1 / 4") ($\phi 28.58$ (1.1 / 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")				

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")					

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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	—	—	—	—	—

