KXZX Hi-COP VRF-T SYSTEM

Unprecedented efficiency in heating and cooling

In any combination of outdoor units, KXZX heat pump systems provide increased energy efficiency.

8HP
(22.4 kW)

10~12HP
(28.0~33.5 kW)

MITSUBISHI HEAVY INDUSTRIES

KXZX Hi-COP

Heat pump - outdoor units

VRF-T

8~12HP (22.4~33.5 kW)

CONNECT UP TO 44 INDOOR UNITS/200% CAPACITY

FDC 224 KXZXE1	22.4 kW
FDC 280 KXZXE1	28.0 kW
FDC 335 KXZXE1	33.5 kW

CHARACTERISTICS

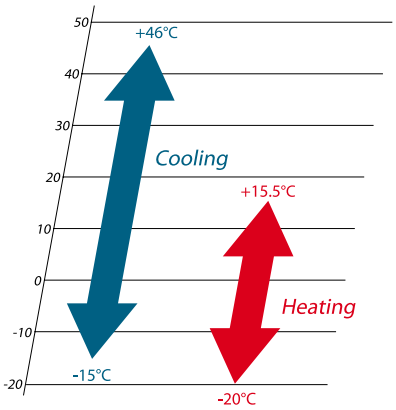
- Maximum energy efficiency COP 4.61 (10HP)
- Only DC Inverter compressors
- High split: up to 1000 m in total and with a maximum distance between the O.U. and the furthest I.U. of 160 m

Combinations 16~36HP (45.0~100.0 kW)

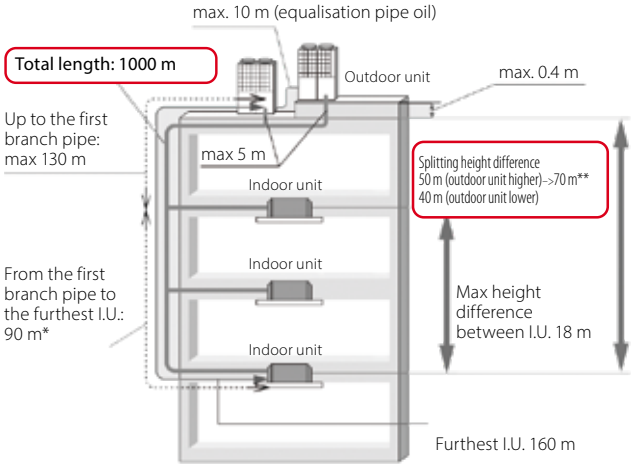
CONNECT UP TO 80 INDOOR UNITS/160% (FDC 450 KXZE1 200%) CAPACITY

FDC 450 KXZXE1 (FDC 224+FDC 224)	45.0 kW
FDC 500 KXZXE1 (FDC 224+FDC 280)	50.0 kW
FDC 560 KXZXE1 (FDC 280+FDC 280)	56.0 kW
FDC 615 KXZXE1 (FDC 280+FDC 335)	61.5 kW
FDC 670 KXZXE1 (FDC 335+FDC 335)	67.0 kW
FDC 735 KXZXE1 (FDC 224+FDC 224+FDC 280)	73.5 kW
FDC 800 KXZXE1 (FDC 224+FDC 280+FDC 280)	80.0 kW
FDC 850 KXZXE1 (FDC 280+FDC 280+FDC 280)	85.0 kW
FDC 900 KXZXE1 (FDC 280+FDC 280+FDC 335)	90.0 kW
FDC 950 KXZXE1 (FDC 280+FDC 335+FDC 335)	95.0 kW
FDC 1000 KXZXE1 (FDC 335+FDC 335+FDC 335)	100.0 kW

OPERATING RANGE



INSTALLATION DIAGRAM



* With difference of length between the farthest indoor unit and the nearest one from the first branch pipe < 40 m (MAX 85 m).
** Comply with installation conditions. For details, refer to the Technical Manual.

FDC 224 KXZXE1

FDC 280~335 KXZXE1

CHARACTERISTICS Hi-COP

- High efficiency
- Low consumption
- High energy savings

Models		FDC224KXZXE1	FDC280KXZXE1	FDC335KXZXE1
Nominal Cool. capacity	kW	22.40	28.00	33.50
Cool. power consumption	kW	4.98	6.95	8.68
Seasonal energy efficiency index in Cool.	SEER[2]	7.58	7.27	7.41
Rated energy efficiency coefficient in Cool.	EER[3]	4.50	4.03	3.86
Nominal Heat. capacity	kW	25.00	31.50	37.50
Heat. power consumption	kW	5.56	6.83	8.39
Seasonal energy efficiency index in Heat.	SCOP[2]	4.86	4.91	4.86
Rated energy efficiency coefficient in Heat.	COP[3]	4.50	4.61	4.47
Power		Three-phase 380-415V 50Hz		
Rated current in Cool.	A	8.7	11.7	14.7
Rated current in Heat.	A	9.6	11.7	14.3
Sound level	dB(A)	57	56	62
External dimensions (HxLxD)	mm	1690x1350x720	2048x1350x720	
Exterior appearance (Munsell colour)		Stucco white (4.2Y7.5 / 1.16) equivalent		
Net weight	kg	280	325	325
Refrigerant circuit/Compressor type and qty.		GTC5150NC47LF×1	GUC5185ND47V×1	
Motor	kW	3.23*1	4.60*1	5.72*1
Starting method		Direct, in line		
Indoor System Units	Number of connectable I.U.	from 1 to 29	from 1 to 37	from 1 to 44
	Total connectable capacity*	180 ~ 448	224 ~ 560	268 ~ 670
Crankcase heater	W	33*1	40*1	40*1
Refrigerant circuit/Heat exchanger		Pipes finned with Blue fin treatment and grooved internally		
Refrigerant control		Electronic expansion valve		
Refrigerant/GWP[4]		R410A/2088		
Quantity	kg	11	11.5	11.5
Tons of CO2 equivalent		22.97	24.01	24.01
Refrigerant oil	l	2.25 (M-MA32R)	2.9 (M-MA32R)	
Defrost control		Micro -computerised		
Air treatment/Fan type and quantity		Axial fan x 2		
Motor	W	386×2		
Starting method		Direct		
Air flow (Standard)	m^3h	13200	13200	16800
Available static pressure	Pa	Max 50		
Shock and vibration absorption		Rubber vibration absorber (for compressor)		
Safety devices		Compressor overheating protection/overcurrent/power transistor overheating protection/abnormal high pressure protection		
Diameter refrigerant pipes	mm (inch)	Liquid side ø 3/8" (9.52)	Liquid side ø 3/8" (9.52)	Liquid side: ø 12.7 (1/2")
		Gas side: ø19.05 (3/4")	Gas side ø 7/8" (22.22)	Gas side: ø25.4 (1") (ø22.22 (7/8"))
Joining method		Gas side: brazing / Liquid side: flare		
Condensate drain		Drain holes: ø20 x 10 pcs., ø45 x 3 pcs.		
Piping insulation		Necessary (on both sides, liquid and gas)		
Accessories		-	-	-

* When connecting the indoor units in the following series: FDK, FDFL, FDFU or FDFW, the power of the connectable indoor units cannot exceed 130%. 2. EU Regulation No.2281/2016 - - Value measured according to harmonised standard EN14825. 3. Value measured according to harmonised standard EN14511. 4. Refrigerant leakage contributes to climate change. When released into the atmosphere, refrigerants with a lower global warming potential (GWP) contribute less to global warming than those with a higher GWP. This appliance contains a refrigerant with a GWP of 2088. If 1 kg of this refrigerant fluid were released into the atmosphere, therefore, the impact on global warming would be 2088 times higher than 1 kg of CO2, over a period of 100 years. Under no circumstances should the user try to intervene on the refrigerant circuit or disassemble the product. Always contact qualified personnel if necessary.

COMBINATIONS

Models		FDC450KXZXE1	FDC500KXZXE1	FDC560KXZXE1	FDC615KXZXE1	FDC670KXZXE1	FDC735KXZXE1
Combinations		FDC224KXZXE1	FDC224KXZXE1	FDC280KXZXE1	FDC280KXZXE1	FDC335KXZXE1	FDC224KXZXE1
		FDC224KXZXE1	FDC280KXZXE1	FDC280KXZXE1	FDC335KXZXE1	FDC335KXZXE1	FDC224KXZXE1
		-	-	-	-	-	FDC280KXZXE1
Power		Three-phase 380-415V 50Hz					
Nominal Cool. capacity	kW	45.00	50.00	56.00	61.50	67.00	73.50
Cool. power consumption	kW	10.00	11.80	13.90	15.60	17.40	17.10
Rated energy efficiency coefficient in Cool.	EER[3]	4.50	4.24	4.03	3.94	3.85	4.30
Nominal Heat. capacity	kW	50.00	56.0,	63.0,	69.00	75.00	82.50
Heat. power consumption	kW	11.10	12.30	13.70	15.20	16.80	18.20
Rated energy efficiency coefficient in Heat.	COP[3]	4.50	4.55	4.60	4.54	4.46	4.53
Rated current in Cool.	A	17.50	20.00	23.50	26.40	29.30	29.40
Rated current in Heat.	A	19.20	21.20	23.30	26.00	28.60	31.40
Indoor System Units	Number of connectable I.U.	from 2 to 60	from 2 to 53	from 2 to 59	from 2 to 65	from 2 to 71	from 3 to 78
	Total connectable capacity*	360 ~ 900	400 ~ 800	448 ~ 896	492 ~ 984	536 ~ 1072	588 ~ 1176
Net weight	kg	560	605	650	650	650	885
Diameter refrigerant pipes	mm (inch)	Liquid side ø 1/2" (12.7)		Liquid side ø 5/8" (15.88)	Liquid side ø 1/2" (12.7)		Liquid side ø 5/8" (15.88)
	mm (inch)	Gas side: ø28.58 (1.1/8")					Gas side: ø31.75 (1.1/4") (ø34.92 (1.3/8")
Oil equalisation	mm (inch)	ø 3/8" (9.52)					

Models		FDC800KXZXE1	FDC850KXZXE1	FDC900KXZXE1	FDC950KXZXE1	FDC1000KXZXE1
Combinations		FDC224KXZXE1	FDC280KXZXE1	FDC280KXZXE1	FDC280KXZXE1	FDC335KXZXE1
		FDC280KXZXE1	FDC280KXZXE1	FDC280KXZXE1	FDC335KXZXE1	FDC335KXZXE1
		FDC280KXZXE1	FDC280KXZXE1	FDC335KXZXE1	FDC335KXZXE1	FDC335KXZXE1
Power		Three-phase 380-415V 50Hz				
Nominal Cool. capacity	kW	80.00	85.00	90.00	95.00	100.00
Cool. power consumption	kW	19.30	21.10	22.70	24.30	25.90
Rated energy efficiency coefficient in Cool.	EER[3]	4.15	4.03	3.96	3.91	3.86
Nominal Heat. capacity	kW	90.00	95.00	100.00	106.00	112.00
Heat. power consumption	kW	19.70	20.60	21.90	23.50	25.10
Rated energy efficiency coefficient in Heat.	COP[3]	4.57	4.61	4.57	4.51	4.46
Rated current in Cool.	A	32.90	35.60	38.40	41.00	43.70
Rated current in Heat.	A	33.50	35.20	37.40	40.10	42.80
Indoor System Units	Number of connectable I.U.	from 3 to 80	from 3 to 80	from 3 to 80	from 3 to 80	from 3 to 80
	Total connectable capacity*	640 ~ 1280	680 ~ 1360	720 ~ 1440	760 ~ 1520	800 ~ 1600
Net weight	kg	930	975	975	975	975
Diameter refrigerant pipes	mm (inch)	Liquid side ø 5/8" (15.88)				
	mm (inch)	Gas side: ø31.75 (1.1/4") (ø34.92 (1.3/8")				Gas side: ø38.1 (1.1/2")
Oil equalisation	mm (inch)	ø 3/8" (9.52)				

* When connecting the indoor units in the following series: FDK, FDFL, FDFU or FDFW, the power of the connectable indoor units cannot exceed 130%.
3. Value measured according to harmonised standard EN14511.