

# WATER COOLED VRF-T KXZW SYSTEM

These MHI systems use water as a source for air conditioning. They are ideal for tall buildings.

## CHARACTERISTICS

- Energy savings, reduced operating costs.
- High efficiency.
- Flexible and compact design that can be transported in a lift.
- Integrates with the architecture.
- Easy transport and installation.
- BMS (Building Management System); the same system for controlling the air-cooled system (KXZ).
- Support and maintenance; easy front access to the main parts (compressor, control, plate heat exchanger, etc.).
- Wide range of control software and maintenance instruments (Mente PC, SL-Checker, etc.).

## APPLICATIONS

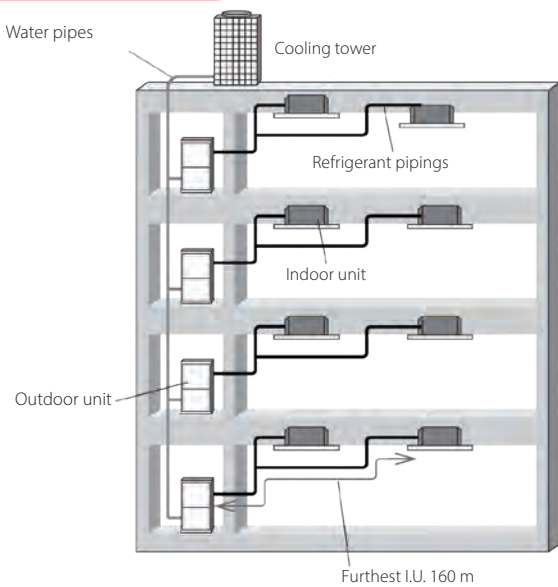
- Ideal for applications on tall buildings.
- Skyscraper 100 metres or more in height.
- Glass façade; exterior of a building thanks to the possibility of hiding the condensing unit.





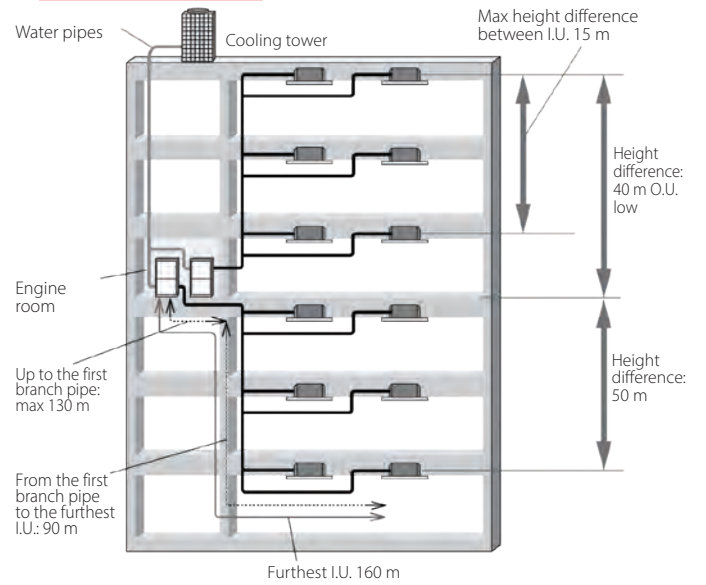
## OUTDOOR UNITS ON EVERY FLOOR (new construction projects)

Total length: 510 m



## OUTDOOR ENGINE ROOM UNITS (renovation projects)

Total length: 510 m



## WATER COOLED

KXZW



CONNECT UP TO 33 INDOOR  
UNITS/150% CAPACITY

FDC 224 KXZWE1 22.4 kW

FDC 280 KXZWE1 28.0 kW

FDC 335 KXZWE1 33.5 kW



8~12HP  
(22.4~33.5 kW)

Outdoor unit model			FDC 224 KXZWE1	FDC 280 KXZWE1	FDC 335 KXZWE1
Combinations			-	-	-
Power class			8	10	12
Rated capacity (W30/A27)	Cooling	HP	22.40	28.00	33.50
		kW	4.23	5.75	8.13
		EER	5.30	4.87	4.12
Rated capacity (W20/A20)	Heating	kW	25.00	31.50	37.50
		kW	4.24	5.10	6.30
		COP	5.90	6.18	5.95
<b>Electrical data</b>					
Power supply		Ph-V-Hz	3Ph-380~415V-50Hz		
Rated current	Cooling	A	7.14	9.64	13.40
	Heating	A	7.13	8.59	10.50
Maximum current		A	23.50	23.50	23.50
<b>Refrigerant circuit data</b>					
Refrigerant <sup>1</sup>		type (GWP)	R410A (2088)		
Qty of refrigerant pre-charge (tons of CO2 equivalent)		kg	9.9 (20.671)	9.9 (20.671)	9.9 (20.671)
Piping diameter <sup>2</sup>	Liquid	inch (mm)	3/8" (9.52)	3/8" (9.52)	1/2" (12.7)
	Gas		3/4" (19.05)	7/8" (22.22)	1" (25.4)
	Oil balancing		-	-	-
<b>Product specifications</b>					
Dimensions		HxLxD	mm	1110x780X550	1110x780x550
Net weight		kg	185	185	185
Sound power level		Max	dB(A)	65	66
Sound pressure level		Max	dB(A)	48	50
Water flow rate (for each unit)		Min ~ Max	L/min	50 ~ 150	50 ~ 150
Pressure drop of heat exchanger (for each unit)		Min ~ Max	kPa	8 ~ 68	8 ~ 68
Hydraulic pipes' diameter		In/Out	inch	R 1-1/4"	R 1-1/4"
Operating range (inlet water temperature)		°C	Cooling	10~45	10~45
			Heating	10~45	10~45
Connectable indoor units <sup>3</sup>		Min ~ Max	nb.	1 ~ 22	1 ~ 28
		Capacity	%	50 ~ 150	50 ~ 150

1. 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 CO<sub>2</sub> 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. 2. The diameters indicated refer to the section up to the first junction, with an equivalent length of less than 90 m. 3. When connecting indoor units of type FDK, FDFL, FDFU or FDFW the upper limit is always 130%.

CONNECT UP TO 67 INDOOR UNITS/150% CAPACITY

FDC 450 KXZWE1 (FDC 224x2)	45.0 kW
FDC 500 KXZWE1 (FDC 224+FDC 280)	50.0 kW
FDC 560 KXZWE1 (FDC 280x2)	56.0 kW
FDC 615 KXZWE1 (FDC 280+FDC 335)	61.5 kW
FDC 670 KXZWE1 (FDC 335x2)	67.0 kW



16~24HP  
(45.0~67.0 kW)

COMBINATIONS

Outdoor unit model			FDC 450 KXZWE1	FDC 500 KXZWE1	FDC 560 KXZWE1	FDC 615 KXZWE1	FDC 670 KXZWE1	
Combinations			FDC 224 KXZWE1	FDC 280 KXZWE1	FDC 280 KXZWE1	FDC 280 KXZWE1	FDC 335 KXZWE1	
			FDC 224 KXZWE1	FDC 280KXZWE1	FDC 280 KXZWE1	FDC 335 KXZWE1	FDC 335 KXZWE1	
<b>Power class</b>			16	18	20	22	24	
Rated capacity (W30/A27)			45.00	50.00	56.00	61.50	67.00	
Rated power input (W30/A27)			8.49	9.83	11.50	13.70	16.30	
Rated energy efficiency coefficient			5.30	5.09	4.87	4.49	4.11	
Rated capacity (W20/A20)			50.00	56.00	63.00	69.00	75.00	
Rated power input (W20/A20)			8.47	9.27	10.20	11.40	12.60	
Rated energy performance coefficient			5.90	6.04	6.18	6.05	5.95	
<b>Electrical data</b>								
Power supply			Ph-V-Hz		3Ph-380~415V-50Hz			
Rated current		Cooling	A	14.30	16.50	19.30	22.70	26.80
		Heating	A	14.30	15.60	17.20	19.10	21.00
Maximum current			A	47.00	47.00	47.00	47.00	47.00
<b>Refrigerant circuit data</b>								
Refrigerant <sup>1</sup>			Type (GWP)	R410A (2088)				
Qty. of refrigerant pre-charge (tons of CO2 equivalent)			kg	19.8 (41.342)	19.8 (41.342)	19.8 (41.342)	19.8 (41.342)	19.8 (41.342)
Piping diameter <sup>2</sup>		Liquid	inch	1/2" (12.7)	1/2" (12.7)	1/2" (12.7)	1/2" (12.7)	1/2" (12.7)
		Gas	(mm)	1-1/8" (28.58)	1-1/8" (28.58)	1-1/8" (28.58)	1-1/8" (28.58)	1-1/8" (28.58)
		Oil balancing		3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)
<b>Product specifications</b>								
Dimensions			HxLxD	mm	2220x780x550	2220x780x550	2220x780x550	2220x780x550
Net weight			kg	370	370	370	370	370
Sound power level			Max	dB(A)	-	-	-	-
Sound pressure level			Max	dB(A)	51	52	53	55
Water flow rate (for each unit)			Min ~ Max	L/min	50 ~ 150	50 ~ 150	50 ~ 150	50 ~ 150
Pressure drop of heat exchanger (for each unit)			Min ~ Max	kPa	8 ~ 68	8 ~ 68	8 ~ 68	8 ~ 68
Hydraulic pipes' diameter			In/Out	inch	R 1-1/4"	R 1-1/4"	R 1-1/4"	R 1-1/4"
Operating range (inlet water temperature)			Cooling	°C	10~45	10~45	10~45	10~45
			Heating		10~45	10~45	10~45	
Connectable indoor units <sup>3</sup>			Min ~ Max	nb.	1 ~ 44	1 ~ 50	1 ~ 56	2 ~ 61
			Capacity	%	50 ~ 150	50 ~ 150	50 ~ 150	50 ~ 150

1. 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. 2. The diameters indicated refer to the section up to the first junction, with an equivalent length of less than 90 m. 3. When connecting indoor units of type FDK, FDFL, FDFU or FDFW the upper limit is always 130%.

**WATER COOLED**

# KXZW



CONNECT UP TO 80 INDOOR  
UNITS/150% CAPACITY

FDC 730 KXZWE1 (FDC 224x2+FDC 280)	73.0 kW
FDC 775 KXZWE1 (FDC 224+FDC 280x2)	77.5 kW
FDC 850 KXZWE1 (FDC 280x3)	85.0 kW
FDC 900 KXZWE1 (FDC 280x2+FDC 335)	90.0 kW
FDC 950 KXZWE1 (FDC 280+FDC 335x2)	95.0 kW
FDC 1000 KXZWE1 (FDC 335x3)	100.0 kW



26~36HP  
(73.0~100.0 kW)

## COMBINATIONS

Outdoor unit model			FDC 730 KXZWE1	FDC 775 KXZWE1	FDC 850 KXZWE1	FDC 900 KXZWE1	FDC 950 KXZWE1	FDC 1000 KXZWE1	
Combinations			FDC 224 KXZWE1	FDC 224 KXZWE1	FDC 280 KXZWE1	FDC 280 KXZWE1	FDC 280 KXZWE1	FDC 335 KXZWE1	
			FDC 224 KXZWE1	FDC 280 KXZWE1	FDC 280 KXZWE1	FDC 280 KXZWE1	FDC 335 KXZWE1	FDC 335 KXZWE1	
			FDC 280KXZWE1	FDC280 KXZWE1	FDC 280 KXZWE1	FDC 335 KXZWE1	FDC 335 KXZWE1	FDC 335 KXZWE1	
Power class			HP	26	28	30	32	34	
Rated capacity (W30/A27)			kW	73.00	77.50	85.00	90.00	95.00	
Rated power input (W30/A27)			kW	14.20	15.50	17.50	19.50	21.70	
Rated energy efficiency coefficient			EER	5.14	5.00	4.86	4.62	4.38	
Rated capacity (W20/A20)			kW	82.50	90.00	95.00	100.00	106.00	
Rated power input (W20/A20)			kW	13.80	14.80	15.40	16.40	17.60	
Rated energy performance coefficient			COP	5.98	6.08	6.17	6.10	6.02	
Electrical data			3Ph-380~415V-50Hz						
Power supply			Ph-V-Hz	3Ph-380~415V-50Hz					
Rated current			Cooling	A	23.80	26.00	29.30	32.50	36.00
			Heating	A	23.20	24.90	25.90	27.50	29.40
Maximum current			A	70.50	70.50	70.50	70.50	70.50	70.50
Refrigerant circuit data			R410A (2088)						
Refrigerant <sup>1</sup>			Type (GWP)	R410A (2088)					
Q.ty of refrigerant pre-charge (tons of CO2 equivalent)			kg	29.7 (62.014)	29.7 (62.014)	29.7 (62.014)	29.7 (62.014)	29.7 (62.014)	29.7 (62.014)
Piping diameter <sup>2</sup>			Liquid	inch (mm)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)
			Gas	inch (mm)	1-1/4" (31.75)	1-1/4" (31.75)	1-1/4" (31.75)	1-1/4" (31.75)	1-1/2" (38.1)
			Oil balancing	inch (mm)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)
Product specifications									
Dimensions			HxLxD	mm	3330x780x550	3330x780x550	3330x780x550	3330x780x550	3330x780x550
Net weight			kg	555	555	555	555	555	555
Sound power level			Max	dB(A)	-	-	-	-	-
Sound pressure level			Max	dB(A)	54	54	55	56	57
Water flow rate (for each unit)			Min ~ Max	L/min	50 ~ 150	50 ~ 150	50 ~ 150	50 ~ 150	50 ~ 150
Pressure drop of heat exchanger (for each unit)			Min ~ Max	kPa	8 ~ 68	8 ~ 68	8 ~ 68	8 ~ 68	8 ~ 68
Hydraulic pipes' diameter			In/Out	inch	R 1-1/4"	R 1-1/4"	R 1-1/4"	R 1-1/4"	R 1-1/4"
Operating range (inlet water temperature)			Cooling	°C	10~45	10~45	10~45	10~45	10~45
			Heating	°C	10~45	10~45	10~45	10~45	10~45
Connectable indoor units <sup>3</sup>			Min ~ Max	nb.	2 ~ 72	2 ~ 78	2 ~ 80	2 ~ 80	2 ~ 80
			Capacity	%	50 ~ 150	50 ~ 150	50 ~ 150	50 ~ 150	50 ~ 150

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