

# KXZ MICRO COMPACT



## Heat pump

### CONNECT UP TO 10 INDOOR UNITS/150% CAPACITY

FDC 121 KXZEN1/ZES1 12.1 kW single-phase/three-phase

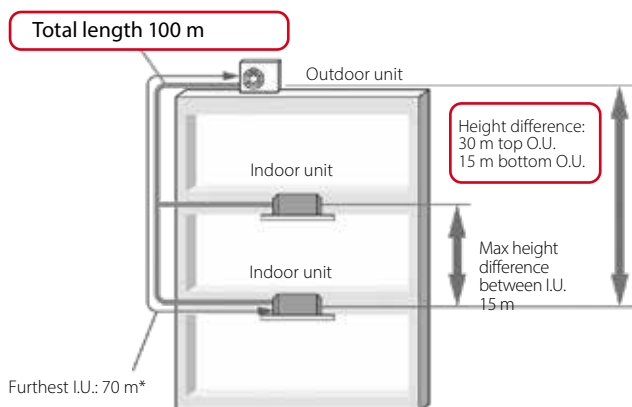
FDC 140 KXZEN1/ZES1 14.0 kW single-phase/three-phase

FDC 155 KXZEN1/ZES1 15.5 kW single-phase/three-phase

### CHARACTERISTICS

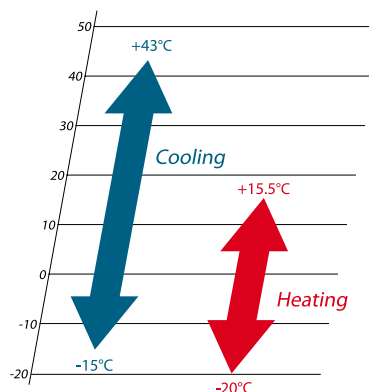
- Maximum energy efficiency COP 3.91 (4HP)
- Scroll DC Inverter compressor on all units
- DC Inverter fan motors
- 4 sound levels in Silent mode
- New PCB cooling system: a refrigerant pipe branch passes to the base of the PCB to prevent overheating
- **Can connect 1.5 kW indoor units**
- New system for managing indoor unit priorities
- Pump down" safety function: to identify any gas leaks inside the room (third-party sensor) and start up the refrigerant recall procedure by the outdoor unit, present inside the system

### INSTALLATION DIAGRAM



\* The total length of piping, liquid side  $\phi 9.52$  mm (3/8") should be 50 m or less.

### OPERATING RANGE



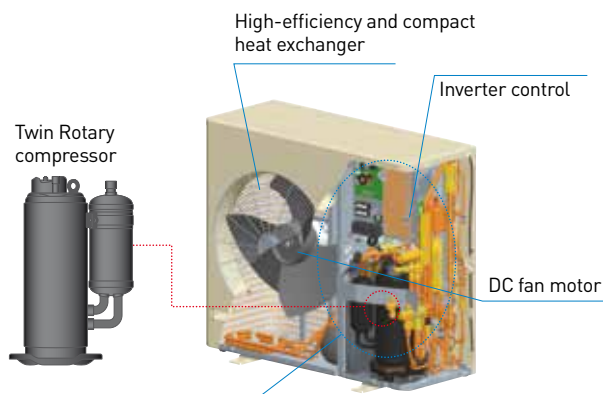
### I.U. NUMBER INCREASED CONNECTABLE



	KXE6	NEW KXZ
4HP	6 units	→ 8 units
5HP	8 units	→ 10 unit <sup>1</sup>
6HP	8 units	→ 10 unit <sup>2</sup>

1. max capacity  $\leq 100\%$  with 9 or 10 connected units
2. max capacity  $\leq 100\%$  with 9 or 10 connected units

### HIGH EFFICIENCY OF OUTDOOR UNITS 4~6HP



Optimal coolant control system, advanced liquid return control, high-speed control system with Superlink, and optimised coolant distribution.

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## Heat pump



### 4-6HP (12.1~15.5 kW)



#### REFRIGERANT CONNECTIONS

HP		4	5	6
Liquid side	Furthest I.U. =<70 m	ø 9.52 (3/8")		
Gas side		ø 15.88 (5/8")		

#### BRANCH PIPES



DIS-22-1B  
DIS-180-1B

#### MANIFOLDS



HEAD4-22-1B  
HEAD6-180-1B

Models		FDC 121 KXZEN1	FDC 140 KXZEN1	FDC 155 KXZEN1	FDC 121 KXZES1	FDC 140 KXZES1	FDC 155 KXZES1
Nominal Cool. capacity (T=35°C)	kW	12.10	14.00	15.50	12.10	14.00	15.50
Cool. power consumption (T=35°C)	kW	3.16	3.96	5.20	3.16	3.96	5.20
Annual energy consumption in Cool.	kWh/a	-	-	-	-	-	-
Seasonal energy efficiency class in Cool.	626/2011 <sup>1</sup>	-	-	-	-	-	-
Seasonal energy efficiency index in Cool.	SEER <sup>2</sup>	8.15	7.73	7.21	8.15	7.73	7.21
Rated energy efficiency coefficient in Cool.	EER <sup>3</sup>	3.82	3.54	2.98	3.82	3.54	2.98
Nominal Heat. capacity (T=7°C)	kW	12.10	14.00	15.50	12.10	14.00	15.50
Heat. power consumption (T=7°C)	kW	3.09	3.66	4.28	3.09	3.66	4.28
Annual energy consumption in Heat.	kWh/a	-	-	-	-	-	-
Seasonal energy efficiency class in Heat.	626/2011 <sup>1</sup>	-	-	-	-	-	-
Seasonal energy efficiency index in Heat.	SCOP <sup>2</sup>	4.63	4.59	4.55	4.63	4.59	4.55
Rated energy efficiency coefficient in Heat.	COP <sup>3</sup>	3.91	3.83	3.62	3.91	3.83	3.62
Power		Single-phase 220~240V 50Hz			Three-phase 380~415V 50Hz		
Rated current in Cool.	A	14.00	19.60	25.70	5.20	6.50	8.60
Rated current in Heat.	A	13.90	18.30	21.40	5.10	6.10	7.10
Sound pressure level	dB(A)	53	53	54	53	53	54
Sound power level	dB(A)	70	71	71	70	71	71
External dimensions (HxLxD)	mm	845x970x370	845x970x370	845x970x370	845x970x370	845x970x370	845x970x370
Exterior appearance (Munsell colour)		Stucco white (4.2Y7.5 / 1.16) equivalent					
Net weight	kg	85	85	85	87	87	87
Refrigerant circuit/Compressor type and qty.		RMT5126MDE21x1	RMT5126MDE21x1	RMT5126MDE21x1	RMT5126MDE31x1	RMT5126MDE31x1	RMT5126MDE31x1
Motor	kW	2.3	2.9	3.2	2.3	2.9	3.2
Starting method		In line, direct					
Indoor System Units	Number of connectable I.U.	from 1 to 8	from 1 to 10*	from 1 to 10*	from 1 to 8	from 1 to 10*	from 1 to 10*
	Total connectable capacity	97 ~ 181	112 ~ 210	124 ~ 233	97 ~ 181	112 ~ 210	124 ~ 233
Crankcase heater	W	20	20	20	20	20	20
Refrigerant circuit/Heat exchanger		Pipes finned and grooved internally					
Refrigerant control		Electronic expansion valve					
Refrigerant/GWP <sup>4</sup>		R410A	R410A	R410A	R410A	R410A	R410A
Quantity	kg	5	5	5	5	5	5
Tons of CO2 equivalent		10.44	10.44	10.44	10.44	10.44	10.44
Refrigerant oil	l	1.0 (M-MA68)	1.0 (M-MA68)	1.0 (M-MA68)	1.0 (M-MA68)	1.0 (M-MA68)	1.0 (M-MA68)
Defrost control		Microcomputer controlled					
Air treatment/Fan type and quantity		Axial fan x 1					
Motor	W	86x1	86x1	86x1	86x1	86x1	86x1
Starting method		Direct	Direct	Direct	Direct	Direct	Direct
Air flow (Standard)	m <sup>3</sup> /h	4500	4500	4500	4500	4500	4500
Shock and vibration absorption		Rubber vibration absorber (for compressor)					
Safety devices		Compressor overheating protection, overcurrent protection, power transistor overheating protection, abnormal high pressure protection					
Diameter refrigerant pipes	mm (inch)	Liquid side ø 3/8" (9.52)					
		Gas side ø 5/8" (15.88)					
Joining method		by flare fittings					
Condensate drain		Hole for drain ø 20x3					
Piping insulation		Necessary (on both sides, liquid and gas)					
Accessories		-	-	-	-	-	-

\* With limitations on maximum connectivity.

1. EU Delegated Regulation No.626/2011 on the labelling indicating the energy consumption of air conditioners. 2. EU Regulation No.206/2012 - N.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 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.