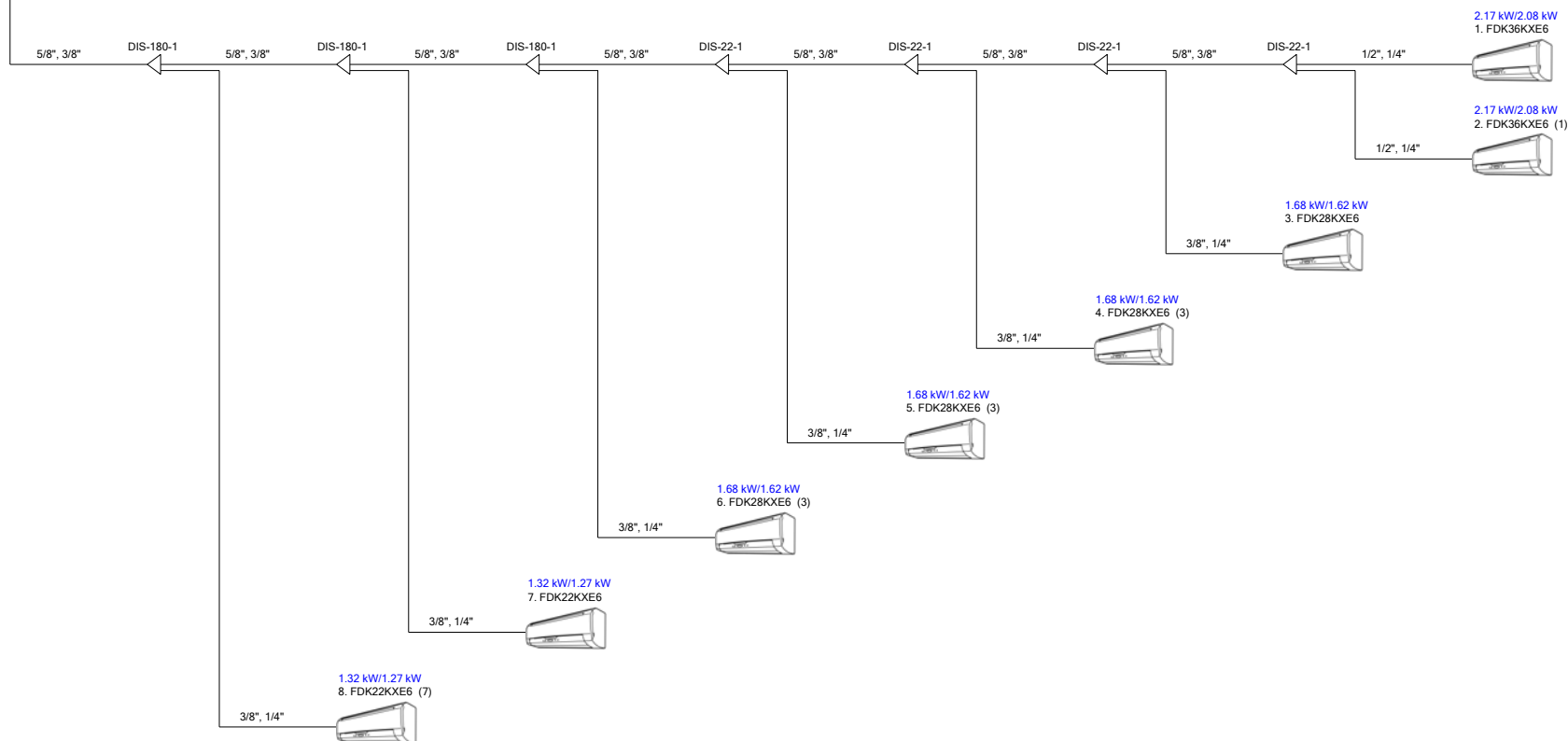




Project : New Project
Project Ref :
System : Dentist
Design Conditions: 23.0°C DB, 16.0°C WB / 30.0°C DB
Total Pipe Run : 72.0m of 100.0m
Total Connected Indoor Units : 8
Total Actual Cooling : 13.72 kW / 13.17 kW
Total Required Cooling : 0.00 kW / 0.00 kW
Connected Capacity : 228 / 233
Diversity Factor : 0%



Project : New Project

Project Ref :

System : Dentist

Temperatue Conditions (cooling)

outdoor dry bulb indoor wet bulb

30.0°C

16.0°C

Temperatue Conditions (heating)

outdoor wet bulb indoor dry bulb

6.0°C

20.0°C

	Unit	Model	Nominal Capacity (kW)			Actual Capacity (kW)			Indoor Unit Position (m)		Actual Length (m)	Piping Length (m)	Address		
			Total	Sensible	Heating	Total	Sensible	Heating					S/L	O/U	I/U
Outdoor		FDC155KXEN6	15.50	-	16.30	13.72	-	16.34					1	00	-
Indoor	1	FDK36KXE6	3.60	2.82	4.00	2.17	2.08	2.53	Below	0.0	51.0	51.0	1	00	00
Indoor	2	FDK36KXE6	3.60	2.82	4.00	2.17	2.08	2.53	Below	0.0	51.0	51.0	1	00	01
Indoor	3	FDK28KXE6	2.80	2.25	3.20	1.68	1.62	2.03	Below	0.0	48.0	48.0	1	00	02
Indoor	4	FDK28KXE6	2.80	2.25	3.20	1.68	1.62	2.03	Below	0.0	45.0	45.0	1	00	03
Indoor	5	FDK28KXE6	2.80	2.25	3.20	1.68	1.62	2.03	Below	0.0	42.0	42.0	1	00	04
Indoor	6	FDK28KXE6	2.80	2.25	3.20	1.68	1.62	2.03	Below	0.0	39.0	39.0	1	00	05
Indoor	7	FDK22KXE6	2.20	2.00	2.50	1.32	1.27	1.58	Below	0.0	36.0	36.0	1	00	06
Indoor	8	FDK22KXE6	2.20	2.00	2.50	1.32	1.27	1.58	Below	0.0	33.0	33.0	1	00	07
TOTAL			22.80	18.63	25.80	13.72	13.17	16.34							

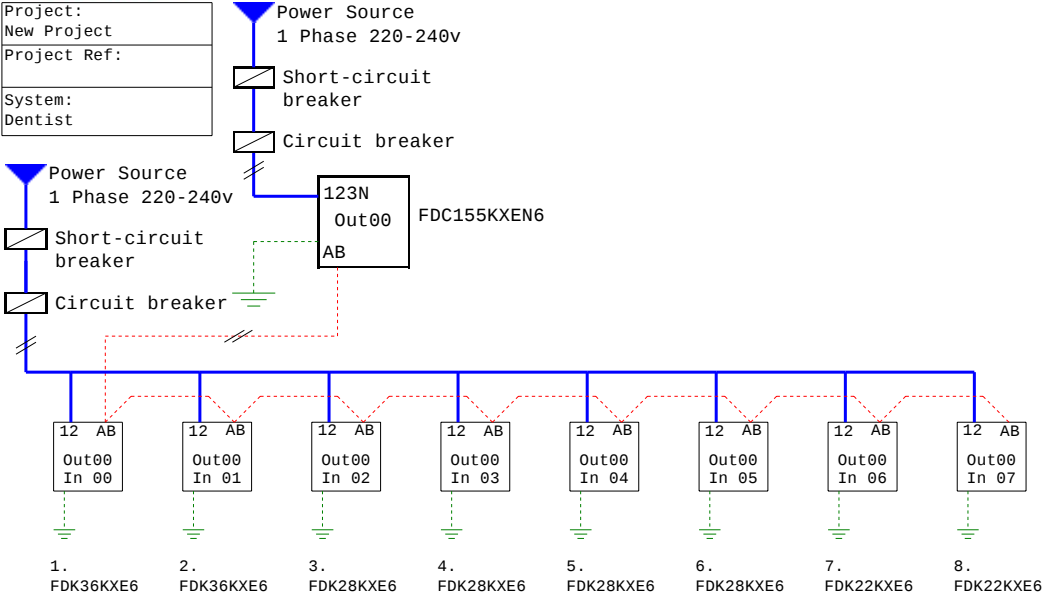
Project:

New Project

Project Ref:

System:

Dentist



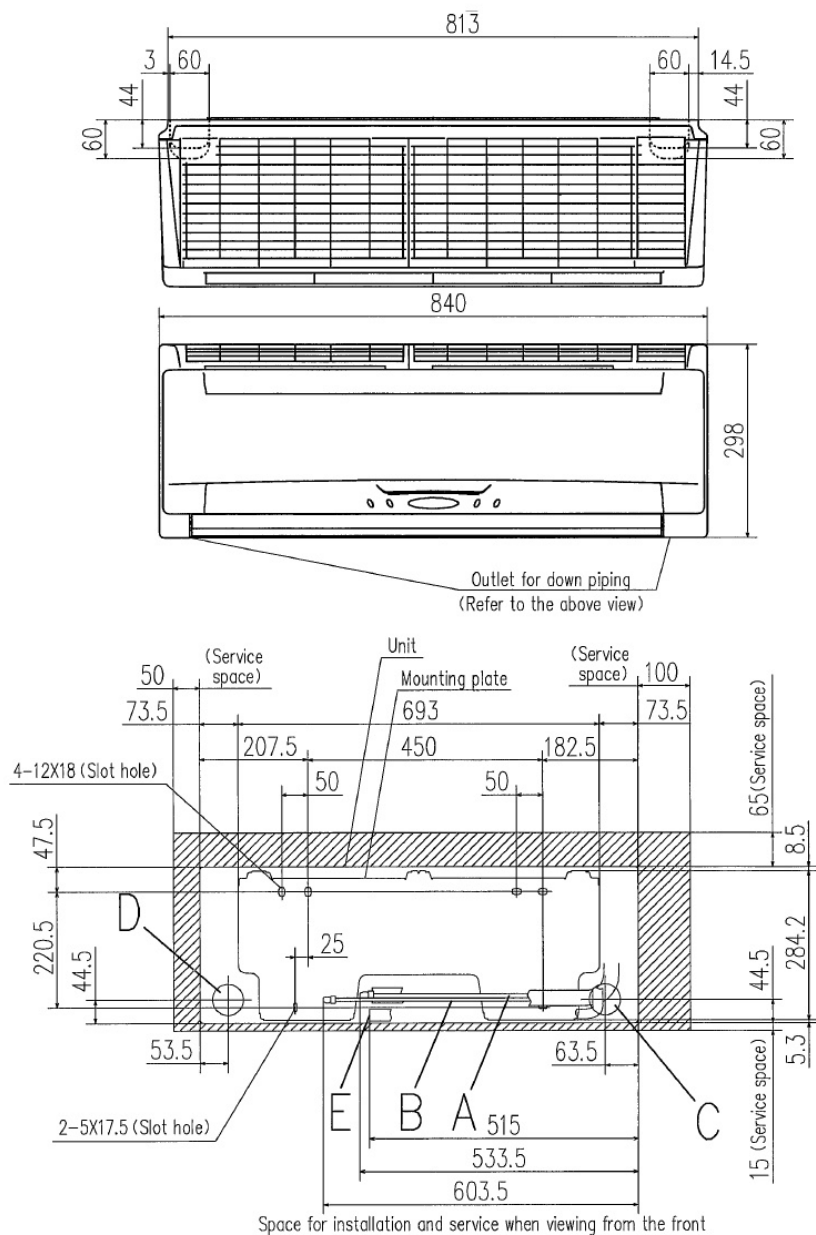
Outdoor Unit	220v	240v
Running Current (A)	23.30/21.90	23.30/21.90
Power (%)	92/91	84/83
Inrush Current (A)	5.00	
Input (kW)	4.71/4.38	

Indoor Units (Cool/Heat)	220v	240v
Total Input (kW)	0.40/0.32	0.40/0.40
Total Running Current (A)	1.84/1.84	1.68/1.68

Electrical schematic diagrams are for guidance only.
Electrical installations must comply with statutory regulations.

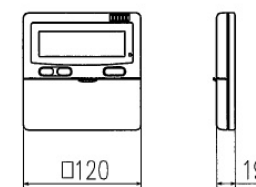
FDK22KXE6

Unit:mm



Symbol	Model	Content
	FDK22KXE6, 28KXE6	FDK36KXE6, 45KXE6, 56KXE6
A	Gas piping	φ9.52 (3/8") (Flare) φ12.7 (1/2") (Flare)
B	Liquid piping	φ6.35 (1/4") (Flare)
C	Hole on wall for right rear piping	(φ65)
D	Hole on wall for left rear piping	(φ65)
E	Drain piping	VP16
F	Outlet for wiring	
G	Outlet for piping (on both side)	

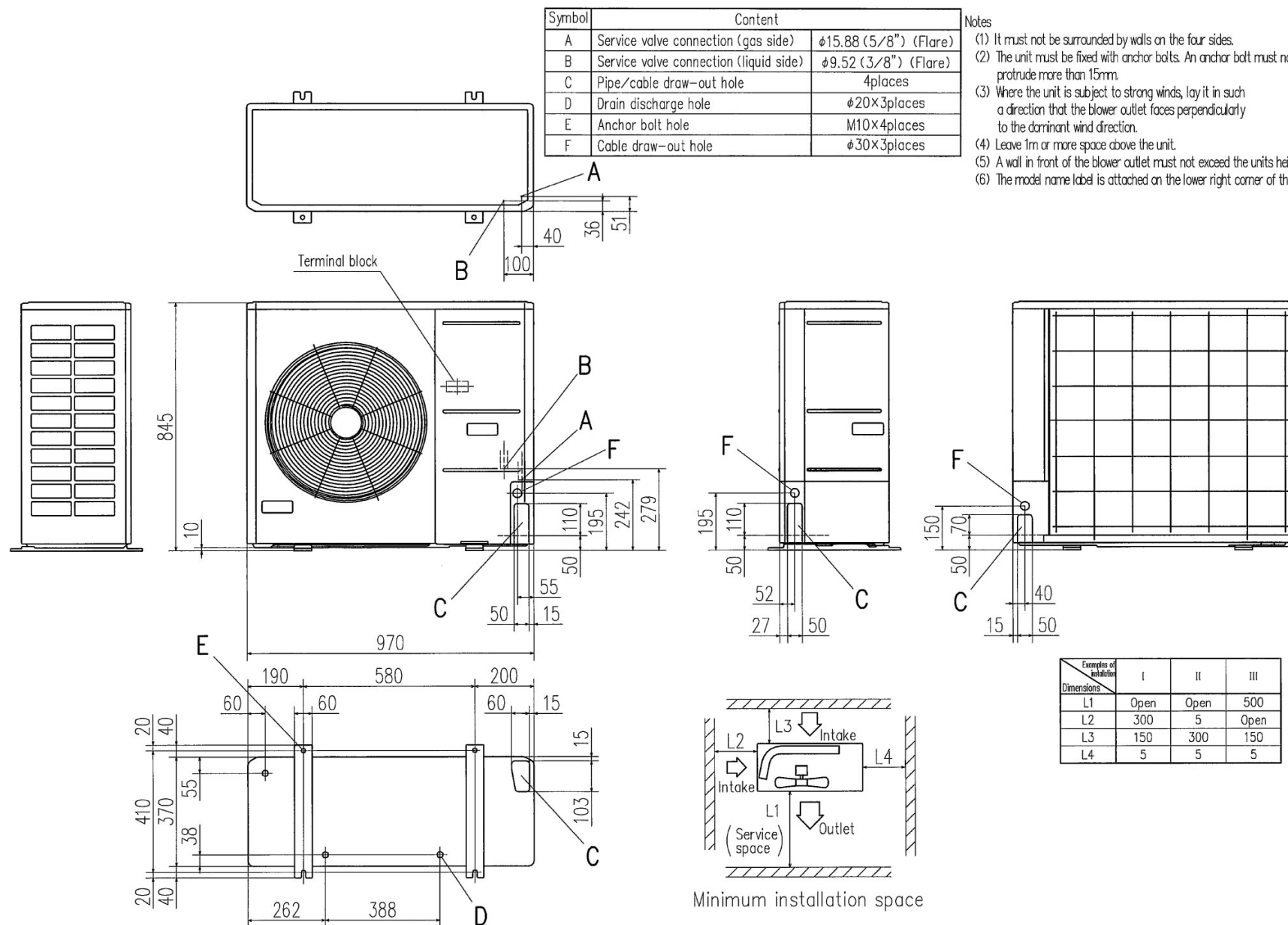
Remote controller
(Option)



Note (1) The model name label is attached on the underside of the panel.

FDC155KXEN6

Unit:mm



Wall Mounted type (FDK)

Models		FDK36KXE6	
		-	
Nominal cooling capacity*1	kW	3.6	
Nominal heating capacity*2		4.0	
Power source		220-240V~ 50Hz / 220V 60Hz	
Power consumption	Cool	kW	0.05
	Heat		0.04
Running current	Cool	A	0.23 - 0.21 / 0.23
	Heat		0.23 - 0.21 / 0.23
Sound Pressure Level		dB(A)	Hi: 39 Me: 35 Lo: 31
Exterior dimensions Height x Width x Depth		mm	298 × 840 × 259
Exterior appearance (Munsell color)		Cool White (9.3G8.7/0.1) near equivalent	
Net weight	kg	12	
Refrigerant equipment			
Heat exchanger		Louver fin & inner grooved tubing	
Refrigerant control		Electronic Expansion Valve	
Air handling equipment			
Fan type & Q'ty		Tangential fan ×1	
Motor	W	33	
Starting method		Direct line start	
Air flow(Standard)	CMM	Hi: 10 Me: 9 Lo: 7	
Available static pressure	Pa	0	
Outside air intake		Not possible	
Air filter, Q'ty		Polypropylene net ×2(Washable)	
Shock & vibration absorber		Rubber sleeve(for fan motor)	
Insulation (noise & heat)		Polyurethane form	
Operation control		Remote control switch	
Operation switch		Option: RC-E3	
Room temperature control		Thermostat by electronics	
Safety equipment		Overload protection for fan motor Frost protection thermostat	
Installation data			
Refrigerant piping size		Liquid line: φ6.35 (1/4") Gas line: φ12.7 (1/2")	
Connecting method		Flare piping	
Refrigerant		R410A	
		—	
Drain hose		Connectable with VP16	
Insulation for piping		Necessary(both Liquid & Gas line)	
Standard Accessories		Mounting kit	

Notes

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

Item	Indoor air temperature		Outdoor air temperature		Standards
	DB	WB	DB	WB	
Cooling*1	27 °C	19 °C	35 °C	24 °C	ISO-T1
Heating*2	20 °C		7 °C	6 °C	

(2) This packaged air-conditioner is manufactured and tested in conformity with the following standard.
ISO-T1 "UNITARY AIR-CONDITIONERS"

Wall Mounted type (FDK)

Models		FDK28KXE6	
		-	
Nominal cooling capacity*1	kW	2.8	
Nominal heating capacity*2		3.2	
Power source		220-240V~ 50Hz / 220V 60Hz	
Power consumption	Cool	kW	0.05
	Heat		0.04
Running current	Cool	A	0.23 - 0.21 / 0.23
	Heat		0.23 - 0.21 / 0.23
Sound Pressure Level		dB(A)	Hi: 35 Me: 33 Lo: 31
Exterior dimensions Height x Width x Depth		mm	298 × 840 × 259
Exterior appearance (Munsell color)		Cool White (9.3G8,7/0.1) near equivalent	
Net weight	kg	12	
Refrigerant equipment			
Heat exchanger		Louver fin & inner grooved tubing	
Refrigerant control		Electronic Expansion Valve	
Air handling equipment			
Fan type & Q'ty		Tangential fan ×1	
Motor	W	33	
Starting method		Direct line start	
Air flow(Standard)	CMM	Hi: 8 Me: 7 Lo: 6	
Available static pressure	Pa	0	
Outside air intake		Not possible	
Air filter, Q'ty		Polypropylene net ×2(Washable)	
Shock & vibration absorber		Rubber sleeve(for fan motor)	
Insulation (noise & heat)		Polyurethane form	
Operation control		Remote control switch	
Operation switch		Option: RC-E3	
Room temperature control		Thermostat by electronics	
Safety equipment		Overload protection for fan motor Frost protection thermostat	
Installation data		Liquid line: φ6.35 (1/4") Gas line: φ9.52 (3/8")	
Refrigerant piping size			
Connecting method		Flare piping	
Refrigerant		R410A	
		—	
Drain hose		Connectable with VP16	
Insulation for piping		Necessary(both Liquid & Gas line)	
Standard Accessories		Mounting kit	

Notes

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

Item	Indoor air temperature		Outdoor air temperature		Standards
	DB	WB	DB	WB	
Cooling*1	27 °C	19 °C	35 °C	24 °C	ISO-T1
Heating*2	20 °C		7 °C	6 °C	

(2) This packaged air-conditioner is manufactured and tested in conformity with the following standard.
ISO-T1 "UNITARY AIR-CONDITIONERS"

Wall Mounted type (FDK)

Models		FDK22KXE6	
		-	
Nominal cooling capacity*1	kW	2.2	
Nominal heating capacity*2		2.5	
Power source		220-240V~ 50Hz / 220V 60Hz	
Power consumption	Cool	kW	0.05
	Heat		0.04
Running current	Cool	A	0.23 - 0.21 / 0.23
	Heat		0.23 - 0.21 / 0.23
Sound Pressure Level		dB(A)	Hi: 35 Me: 33 Lo: 31
Exterior dimensions Height x Width x Depth		mm	298 × 840 × 259
Exterior appearance (Munsell color)		Cool White (9.3G8.7/0.1) near equivalent	
Net weight	kg	12	
Refrigerant equipment			
Heat exchanger		Louver fin & inner grooved tubing	
Refrigerant control		Electronic Expansion Valve	
Air handling equipment			
Fan type & Q'ty		Tangential fan ×1	
Motor	W	33	
Starting method		Direct line start	
Air flow(Standard)	CMM	Hi: 8 Me: 7 Lo: 6	
Available static pressure	Pa	0	
Outside air intake		Not possible	
Air filter, Q'ty		Polypropylene net ×2(Washable)	
Shock & vibration absorber		Rubber sleeve(for fan motor)	
Insulation (noise & heat)		Polyurethane form	
Operation control		Remote control switch	
Operation switch		Option: RC-E3	
Room temperature control		Thermostat by electronics	
Safety equipment		Overload protection for fan motor Frost protection thermostat	
Installation data			
Refrigerant piping size		Liquid line: φ6.35 (1/4") Gas line: φ9.52 (3/8")	
Connecting method		Flare piping	
Refrigerant		R410A	
		—	
Drain hose		Connectable with VP16	
Insulation for piping		Necessary(both Liquid & Gas line)	
Standard Accessories		Mounting kit	

Notes

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

Item	Indoor air temperature		Outdoor air temperature		Standards
	DB	WB	DB	WB	
Cooling*1	27 °C	19 °C	35 °C	24 °C	ISO-T1
Heating*2	20 °C		7 °C	6 °C	

(2) This packaged air-conditioner is manufactured and tested in conformity with the following standard.
ISO-T1 "UNITARY AIR-CONDITIONERS"

OUTDOOR UNIT (FDC)

Models		FDC112KXEN6	FDC140KXEN6	FDC155KXEN6
Nominal cooling capacity ⁽¹⁾	kW	11.2	14.0	15.5
Nominal heating capacity ⁽¹⁾		12.5	16.0	16.3
Power source		1 Phase 220-240V 50Hz, 220V 60Hz		
Power consumption	Cool	2.80	4.17	4.71
	Heat	2.89	4.31	4.38
Running current	Cool	13.5 / 12.4	20.6 / 18.9	23.3 / 21.3
	Heat	14.1 / 12.9	21.5 / 19.7	21.9 / 20.1
Sound Pressure Level	dB(A)	52 / 54	53 / 55	53 / 56
Exterior dimensions		845 × 970 × 370		
Height x Width x Depth	mm			
Net weight	kg	82		
Refrigerant equipment compressor type & Qty		RMT5126MDE21 × 1		
Motor	kW	1.9	2.9	3.2
Starting method		Direct line start		
Capacity control	%	29-113	22-110	21-101
Crankcase heater	W	20		
Refrigerant equipment Heat exchanger		Straight fin & inner grooved tubing		
Refrigerant control		Electronic expansion valve		
Refrigerant		R410A		
Quantity	kg	5.0		
Refrigerant oil	l	1.0 (M-MA68)		
Defrost control		MC controlled De-Icer		
Air handling equipment fan type & Qty		Propeller fan × 1		
Motor	W	86		
Starting method		Direct line start		
Air flow(Standard)	CMM	75 / 75	75 / 82	75 / 82
Shock & vibration absorber		Rubber mount (for compressor & fan motor)		
Safety equipment		Compressor over current protection / abnormal high pressure protection		
		abnormal low pressure protection / abnormal discharge temperature protection / over current protection		
Installation data		Liquid line: φ9.52 (3/8")		
Refrigerant piping size	mm(in)	Gas line: φ15.88 (5/8")		
Connecting method		Flare (both Liquid & Gas lines)		
Drain		Hole for drain (φ20 × 3pcs)		
Insulation for piping		Necessary (both Liquid & Gas lines)		
Accessories		—	—	—

Notes

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

Item	Indoor air temperature		Outdoor air temperature		Standards
Operation	DB	WB	DB	WB	ISO-T1
Cooling*1	27 °C	19 °C	35 °C	24 °C	
Heating*2	20 °C	—	7 °C	6 °C	

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

ISO-T1 "UNITARY AIR-CONDITIONERS"

(3) Indoor unit other than KXE6 cannot be connected.

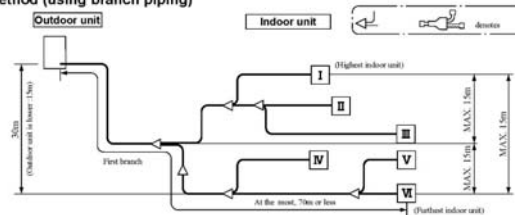
Range of usage & limitations

FDC155KXEN6

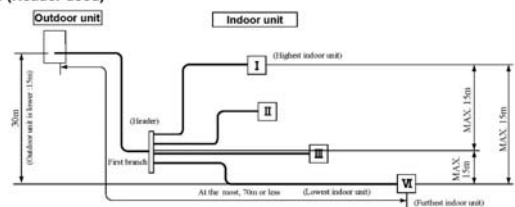
System		FDC112KXEN6 112KXES6	FDC140KXEN6 140KXES6	FDC155KXEN6 155KXES6
Item	Indoor intake air temperature (Upper, lower limits)	Please see the next page.		
	Outdoor air temperature (Upper, lower limits)			
Indoor units that can be used in combination	Number of connected units	1 to 6 units	1 to 8 units	1 to 8 units
	Total capacity	90 ~ 168	112 ~ 210	124 ~ 233
Total Piping Length (Total of the lengths of all piping)		MAX. 100m		
Maximum Piping Distance (From outdoor unit to farthest indoor unit)		Indoor unit MAX. 70m		
Total length of $\phi 9.52$ liquid pipe		Within 50 m		
Difference in height between indoor and outdoor units	Outdoor unit is higher	MAX. 30m		
	Outdoor unit is lower	MAX. 15m		
Difference in height between indoor units		MAX. 15m		
Permissible height difference between the first branch and the indoor unit		MAX. 15m		
Indoor unit atmosphere (behind ceiling) temperature and humidity		Dew point temperature 28℃ or less, relative humidity 80% or less		
Compressor stop/start frequency	1 cycle time	6 min or more (3 minutes or more from start to stop or 3 minutes or more from stop to start)		
	Stop time	3 min or more		
Power source voltage	Voltage fluctuation	Within $\pm 10\%$ of rated voltage		
	Voltage drop during start	Within $\pm 15\%$ of rated voltage		
	Phase unbalance	Within $\pm 3\%$ of rated voltage		

Allowable length of refrigerant piping, height difference between indoor and outdoor unit

(1) Branch pipe method (using branch piping)

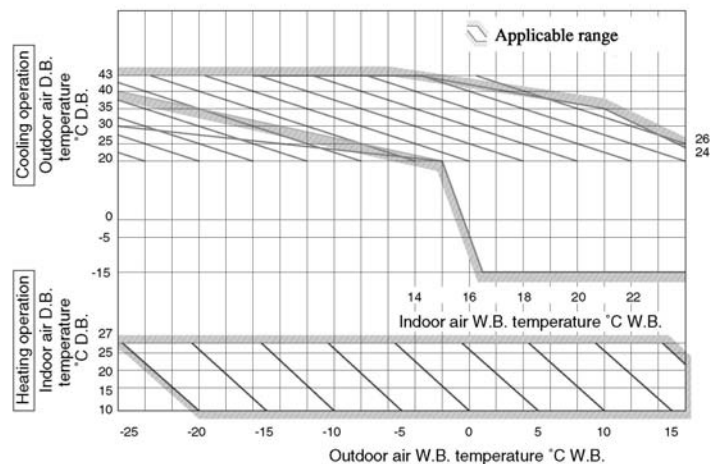


(2) Header System (Header used)



Note (1) A branch piping system cannot be connected after a header system.

Operating temperature range



“CAUTION” Cooling operation under low ambient air temperature conditions

KXE6 models can be operated in cooling mode at low ambient air temperature condition within above temperature range. However in case of severely low temperature conditions if the following precaution is not observed, it may not be operated in spite of operable temperature range mentioned above and cooling capacity may not be established under certain conditions.

[Precaution]

In case of severely low temperature condition

- 1) Install the outdoor unit at the place where strong wind cannot blow directly into the outdoor unit.
- 2) If there is no installation place where can prevent strong wind from directly blowing into the outdoor unit, mount the flex flow adaptor (prepared as optional part) or like such devices onto the outdoor unit in order to divert the strong wind.

[Reason]

Under the low ambient air temperature conditions of -5°C or lower, if strong wind directly blow into the outdoor unit, the outdoor heat exchanger temperature will drop, even though the outdoor fan is stopped by outdoor fan control. This makes high and low pressures to drop as well. This low pressure drop makes the indoor heat exchanger temperature to drop and will activate anti-frost control at indoor heat exchanger at frequent intervals, that cooling operation may not be established for any given time.

Noise level

Note (1) The data are based on the following conditions.

Ambient air temperature: Indoor unit 27°C DB, 19°C WB. Outdoor unit 35°C DB

(2) The data in the chart are measured in an anechoic room.

(3) The noise levels measured in the field are usually higher than the data because

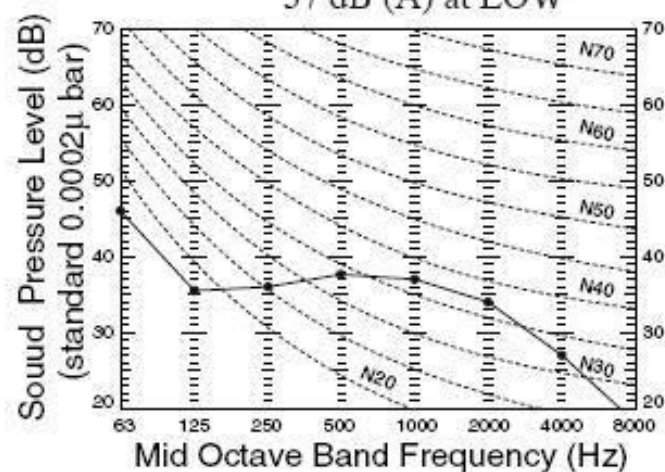
Wall mounted type (FDK)

Measured based on JIS B 8616
Mike position as right



Model FDK36KXE6

Noise level 41 dB (A) at HIGH
39 dB (A) at MEDIUM
37 dB (A) at LOW



Noise level

Note (1) The data are based on the following conditions:

Ambient air temperature: Indoor unit 27°C DB, 19°C WB. Outdoor unit 35°C DB

(2) The data in the chart are measured in an anechoic room.

(3) The noise levels measured in the field are usually higher than the data because

Wall mounted type (FDK)

Measured based on JIS B 8616
Mike position as right

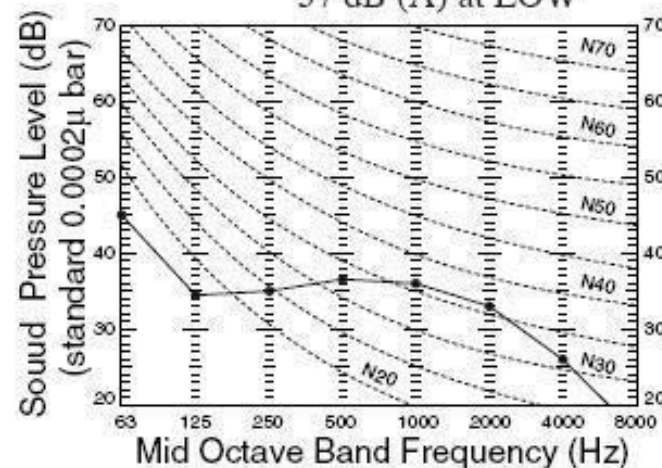


Models FDK28KXE6

Noise level 40 dB (A) at HIGH

39 dB (A) at MEDIUM

37 dB (A) at LOW



Noise level

Note (1) The data are based on the following conditions:

Ambient air temperature: Indoor unit 27°C DB, 19°C WB. Outdoor unit 35°C DB

(2) The data in the chart are measured in an anechoic room.

(3) The noise levels measured in the field are usually higher than the data because

Wall mounted type (FDK)

Measured based on JIS B 8616
Mike position as right

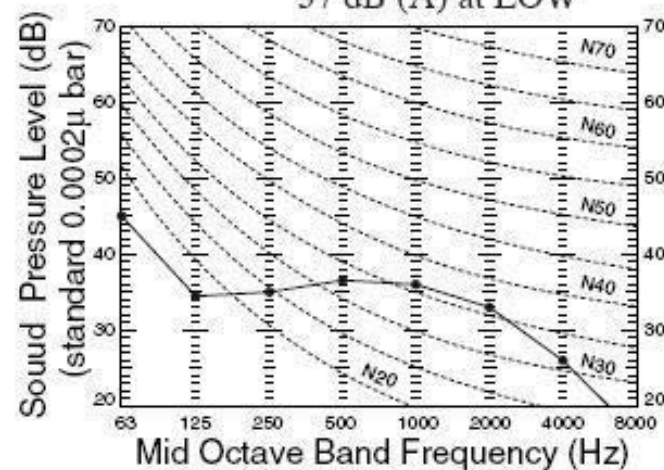


Models FDK22KXE6

Noise level 40 dB (A) at HIGH

39 dB (A) at MEDIUM

37 dB (A) at LOW



Noise level

Measured based on JIS B 8616

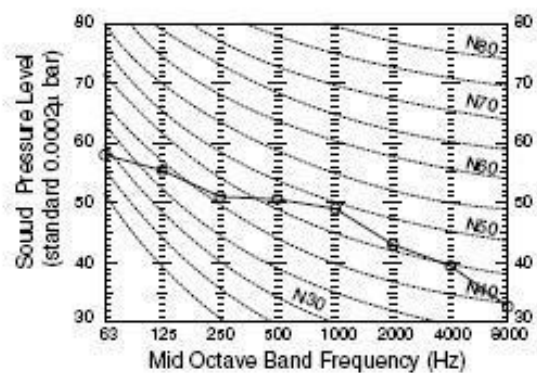
Mike position as highest noise level in position as below

Distance from front side 1m

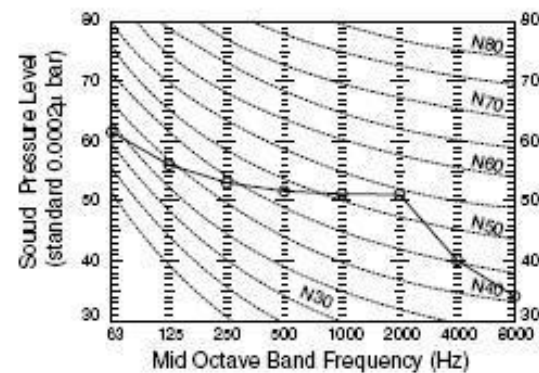
Height 1m

Models FDC155KXEN6

Noise level 53 dB (A) at 50Hz



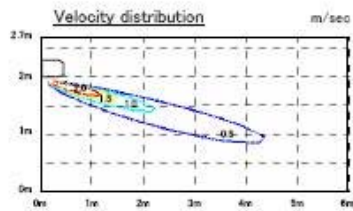
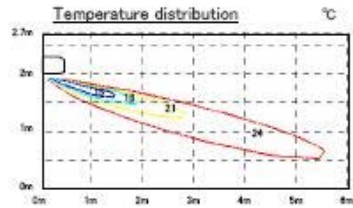
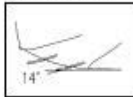
Noise level 56 dB (A) at 60Hz



FDK36KXE6

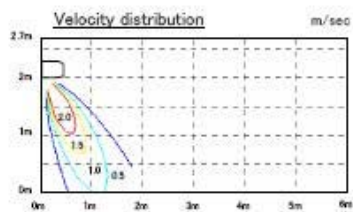
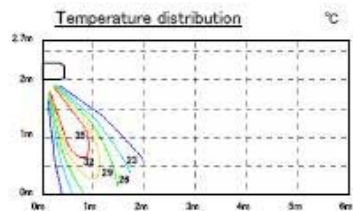
Cooling Air flow Hi

Louver position



Heating Air flow Hi

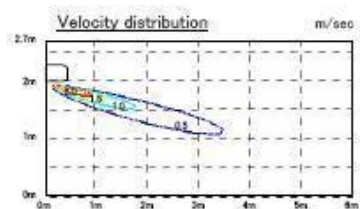
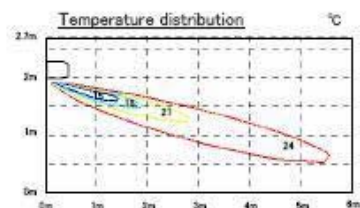
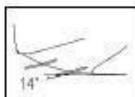
Louver position



FDK28KXE6

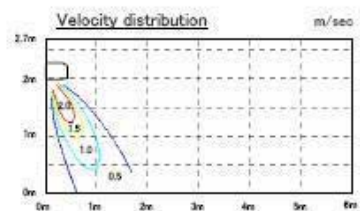
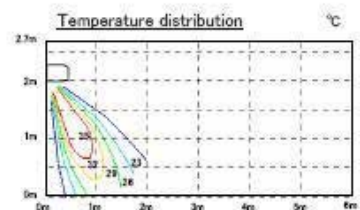
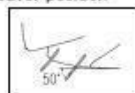
Cooling Air flow Hi

Louver position



Heating Air flow Hi

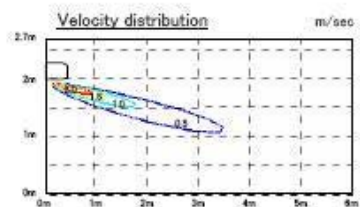
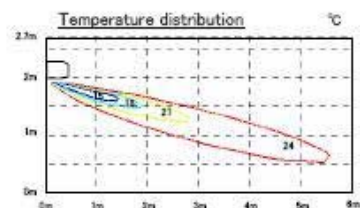
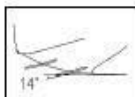
Louver position



FDK22KXE6

Cooling Air flow Hi

Louver position



Heating Air flow Hi

Louver position

