

Duct Connected -High Static Pressure-FDU

Model No.

FDU45KXE6F-W	FDU45KXE6F
FDU56KXE6F-W	FDU56KXE6F
FDU71KXE6F-W	FDU71KXE6F
FDU90KXE6F-W	FDU90KXE6F
FDU112KXE6F-W	FDU112KXE6F
FDU140KXE6F-W	FDU140KXE6F
FDU160KXE6F-W	FDU160KXE6F



FDU 45-160



FDU 224-280

Model No.

FDU224KXZE1
FDU280KXZE1

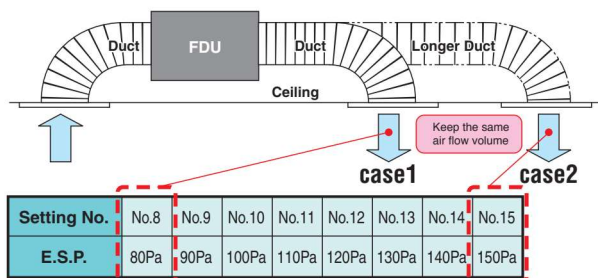
*R32 indoor unit are not compatible with R410A outdoor unit and vice versa.

External Static Pressure(E.S.P) control

Manually set the E.S.P on the wired controller, and the indoor unit will control the fan speed to keep rated air flow volume at each fan speed setting. You can set a required E.S.P by your wired remote controller – calculated with the set air flow rate and the pressure loss of the duct.



E.S.P. button RC-E5
External Static Pressure (E.S.P.) can be set by E.S.P. button.



*Range of 80-150 Pa is set at ex-factory default.
Range of 10-200 Pa is available by setting SW8-4 switch on at site.

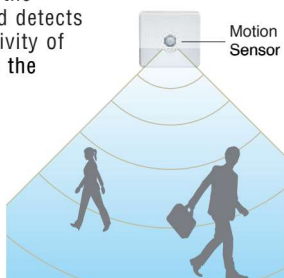
Motion Sensor

(Option)

Motion sensor is equipped in the ceiling plane or wall plane and detects the presence/absence and activity of humans in a room to improve the comfort and energy saving performance of the unit.



LB-KIT2



Remote control (option)

Wired



RC-EX3D RC-E5 RCH-E3

Wireless



RCN-KIT4-E2

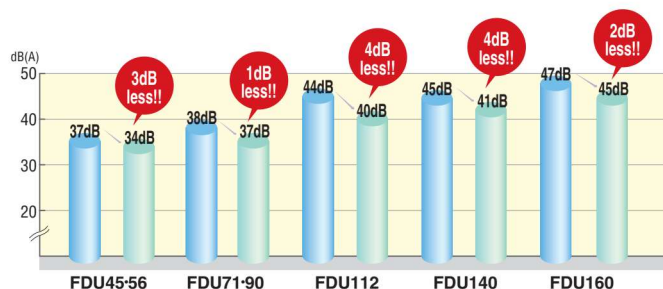
Thin design

The height of FDU(45 – 160) models are only 280mm



Reduction of sound pressure level

■ Previous (R410A) ■ Current (R32) (P-Hi cooling mode)

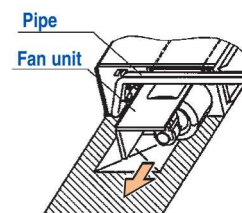


Transparent inspection window

Dirt condition of the bottom of the drain pan can be checked through this transparent inspection window without removing drain pan. (Please refer to P86)

Improvement of the serviceability

Fan unit (impeller and motor) can be pulled out from the right side of the unit. Maintenance can be carried out from the right side or the bottom side of the unit.



Specifications



Item		Model	FDU45KXE6F-W	FDU56KXE6F-W	FDU71KXE6F-W	FDU90KXE6F-W	FDU112KXE6F-W	FDU140KXE6F-W	FDU160KXE6F-W
Nominal cooling capacity		kW	4.5	5.6	7.1	9.0	11.2	14.0	16.0
Nominal heating capacity		kW	5.0	6.3	8.0	10.0	12.5	16.0	18.0
Power source			1 Phase 220-240V, 50Hz						
Power consumption	Cooling	kW	0.10-0.10	0.24-0.25		0.31-0.32	0.35-0.36	0.42-0.43	
	Heating		0.10-0.10	0.24-0.25		0.31-0.32	0.35-0.36	0.42-0.43	
Sound power level		dB(A)	Cooling:58 Heating:60		Cooling:63 Heating:65		Cooling:68 Heating:69		72
Sound pressure level	Cooling	dB(A)	P-Hi:34 Hi:29 Me:27 Lo:25		P-Hi:37 Hi:31 Me:27 Lo:22		P-Hi:40 Hi:36 Me:34 Lo:28	P-Hi:41 Hi:37 Me:34 Lo:28	P-Hi:45 Hi:38 Me:34 Lo:29
	Heating		P-Hi:35 Hi:30 Me:29 Lo:25		P-Hi:39 Hi:33 Me:28 Lo:23		P-Hi:41 Hi:36 Me:34 Lo:28	P-Hi:41 Hi:37 Me:34 Lo:28	P-Hi:45 Hi:38 Me:34 Lo:29
Exterior dimensions (H x W x D)		mm	280x750x635		280x950x635		280x1368x740		
Net weight		kg	29		34		54		
Air flow		m³/min	P-Hi:13 Hi:10 Me:9 Lo:8		P-Hi:24 Hi:19 Me:15 Lo:10		P-Hi:36 Hi:28 Me:25 Lo:19	P-Hi:39 Hi:32 Me:26 Lo:20	P-Hi:48 Hi:35 Me:28 Lo:22
Maximum external static pressure		Pa	200						
Outside air intake			Possible						
Air filter, Q'ty			Procure locally						
Remote control (option)			wired:RC-EX3D, RC-E5, RCH-E3 wireless:RCN-KIT4-E2						
Installation data Refrigerant piping size		mm(in)	Liquid line:ø6.35(1/4") Gas line:ø12.7(1/2")		Liquid line:ø9.52(3/8") Gas line:ø15.88(5/8")				

- The data are measured under the following conditions(ISO-T1). 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.

Specifications



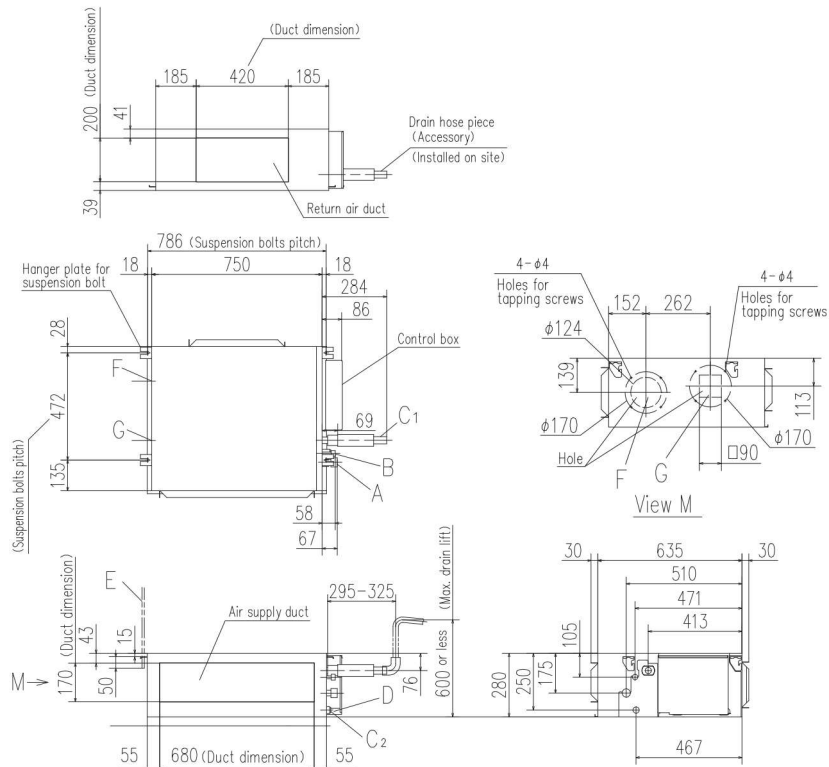
Item		Model	FDU45KXE6F	FDU56KXE6F	FDU71KXE6F	FDU90KXE6F	FDU112KXE6F	FDU140KXE6F	FDU160KXE6F
Nominal cooling capacity		kW	4.5	5.6	7.1	9.0	11.2	14.0	16.0
Nominal heating capacity		kW	5.0	6.3	8.0	10.0	12.5	16.0	18.0
Power source			1 Phase 220-240V, 50Hz						
Power consumption	Cooling	kW	0.10-0.10	0.24-0.25		0.31-0.32		0.35-0.36	0.42-0.43
	Heating		0.10-0.10	0.24-0.25		0.31-0.32		0.35-0.36	0.42-0.43
Sound power level		dB(A)	60		65		71	72	74
Sound pressure level		dB(A)	P-Hi:37 Hi:32 Me:29 Lo:26		P-Hi:38 Hi:33 Me:29 Lo:25		P-Hi:44 Hi:38 Me:36 Lo:30	P-Hi:45 Hi:40 Me:34 Lo:29	P-Hi:47 Hi:40 Me:35 Lo:30
Exterior dimensions (H x W x D)		mm	280x750x635		280x950x635		280x1368x740		
Net weight		kg	29		34		54		
Air flow		m³/min	P-Hi:13 Hi:10 Me:9 Lo:8		P-Hi:24 Hi:19 Me:15 Lo:10		P-Hi:36 Hi:28 Me:25 Lo:19	P-Hi:39 Hi:32 Me:26 Lo:20	P-Hi:48 Hi:35 Me:28 Lo:22
Maximum external static pressure		Pa	200						
Outside air intake			Possible						
Air filter, Q'ty			Procure locally						
Remote control (option)			wired:RC-EX3D, RC-E5, RCH-E3 wireless:RCN-KIT4-E2						
Installation data Refrigerant piping size		mm(in)	Liquid line:ø6.35(1/4") Gas line:ø12.7(1/2")		Liquid line:ø9.52(3/8") Gas line:ø15.88(5/8")				

Item	Model	FDU224KXZE1	FDU280KXZE1
Nominal cooling capacity	kW	22.4	28.0
Nominal heating capacity	kW	25.0	31.5
Power source		1 Phase 220-240V, 50Hz	
Power consumption	Cooling	kW	1.16-1.20
	Heating		1.16-1.20
Sound power level		dB(A)	75
Sound pressure level		dB(A)	P-Hi:52 Hi:50 Me:47 Lo:45
Exterior dimensions (H x W x D)	mm	379x1600x893	
Net weight	kg	89	
Air flow	m³/min	P-Hi:80 Hi:72 Me:64 Lo:56	
Maximum external static pressure	Pa	200	
Outside air intake		Possible(on return duct)	
Air filter, Q'ty		Procure locally	
Remote control (option)		wired:RC-EX3D, RC-E5, RCH-E3 wireless:RCN-KIT4-E2	
Installation data Refrigerant piping size	mm(in)	Liquid line:ø9.52(3/8") Gas line:ø19.05(3/4")	Liquid line:ø9.52(3/8") Gas line:ø22.22(7/8")

- The data are measured under the following conditions(ISO-T1). 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.

All measurements in mm.

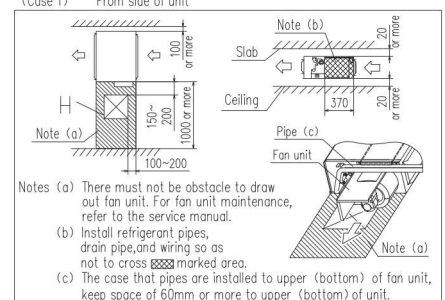
FDU45KXE6F-W, 56KXE6F-W
FDU45KXE6F, 56KXE6F



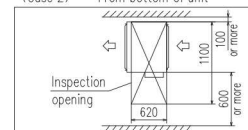
Symbol	Content
A	Gas piping $\phi 12.7 (1/2")$ (Flare)
B	Liquid piping $\phi 6.35 (1/4")$ (Flare)
C1	Drain piping VP25 (O.D.32)
C2	Drain piping (Gravity drainage) VP20
D	Hole for wiring
E	Suspension bolts M10
F	Outside air opening for ducting (Knock out)
G	Air outlet opening for ducting (Knock out)
H	Inspection opening (450X450)

Space for installation and service

Select either of two cases to keep space for installation and services.
(Case 1) From side of unit



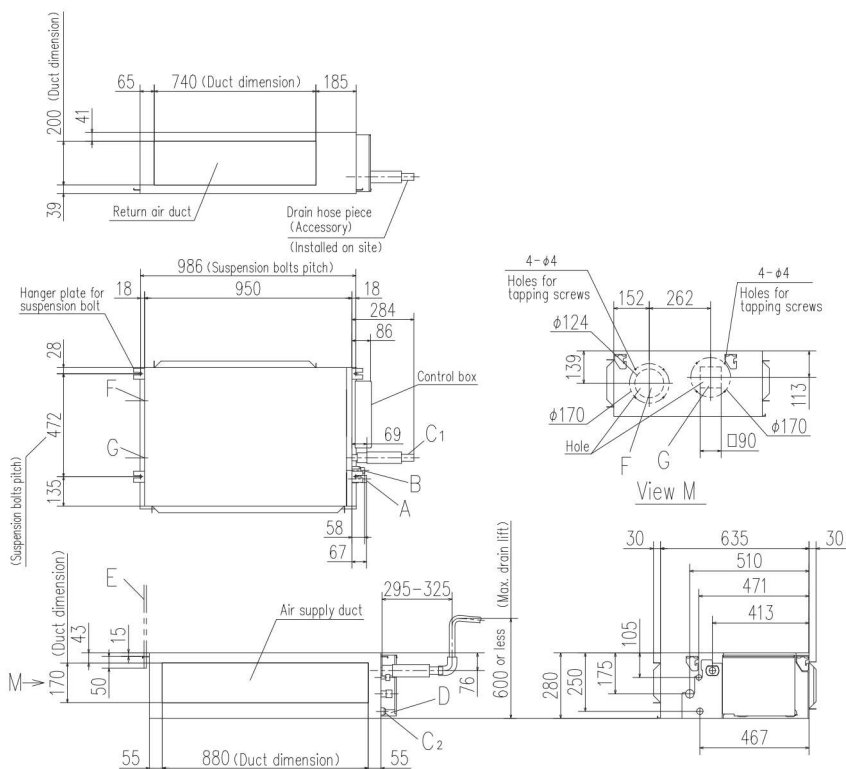
(Case 2)	From bottom of unit
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Note

(1) The model name label is attached on the lid of the control box.

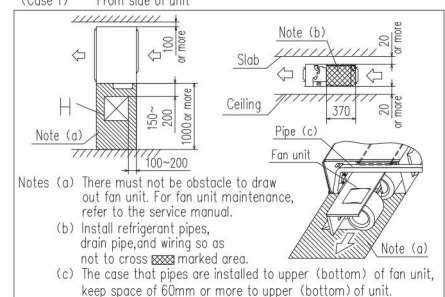
FDU71KXE6F-W, 90KXE6F-W
FDU71KXE6F, 90KXE6F



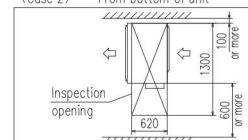
Symbol	Content
A	Gas piping ø15.88 (5/8") (Flare)
B	Liquid piping ø9.52 (3/8") (Flare)
C1	Drain piping VP25 (O.D. 32)
C2	Drain piping (Gravity drainage) VP20
D	Hole for wiring
E	Suspension bolts M10
F	Outside air opening for ducting (Knock out)
G	Air outlet opening for ducting (Knock out)
H	Inspection opening (450X450)

Space for installation and service

Select either of two cases to keep space for installation and services.
(Case 1) From side of unit



(Case 2) From bottom of unit



Note (1) The model name label is attached on the lid of the control box.

Technical drawing of the M Series Return Air Duct, showing front and side views with dimensions and labels.

Front View (Top):

- Overall width: 1280 (Duct dimension)
- Top flange width: 64
- Top flange thickness: 23.5
- Bottom flange thickness: 21.5
- Label: Return air duct
- Accessory: Drain hose piece (Accessory) (Installed on site)

Front View (Bottom):

- Overall width: 1404 (Suspension bolts pitch)
- Inner width: 1368
- Top flange width: 18
- Top flange thickness: 28
- Side flange thickness: 530 (Suspension bolts pitch)
- Bottom flange thickness: 180
- Label: Hanger plate for suspension bolt
- Label: Control box
- Label: B
- Label: A
- Label: 71
- Label: C₁
- Label: 59
- Label: 69

Side View (Right):

- Overall height: 284
- Inner height: 86
- Label: 4-φ (Holes for tapping)
- Label: 295-325
- Label: 92
- Label: 600 or less (Max. drain lift)
- Label: 280
- Label: 250
- Label: C₂
- Label: D
- Label: Air supply duct
- Label: 104
- Label: 1200 (Duct dimension)
- Label: 104
- Label: 170 (Duct dimension)
- Label: 43
- Label: 15
- Label: 50
- Label: M


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Space for installation and service

Select either of two cases to keep space for installation and services.

(Case 1) From side of unit

Notes (a) There must not be obstacle to draw out 2 fan units. For fan units maintenance, refer to the service manual.

(b) Install refrigerant pipes, drain pipe, and wiring so as not to cross  marked area.

(c) The case that pipes are installed to upper (bottom) of fan unit, keep space of 60mm or more to upper (bottom) of unit.

(Case 2) From bottom of unit

Note (1) The model name label is attached on the lid of the control box.