

MITSUBISHI HEAVY INDUSTRIES

VRF

KX 100% INVERTER MULTI-UNITES



Présentation du Projet

Project: Centre des Finances Publiques
Installation: DRV 1 R+1 OK

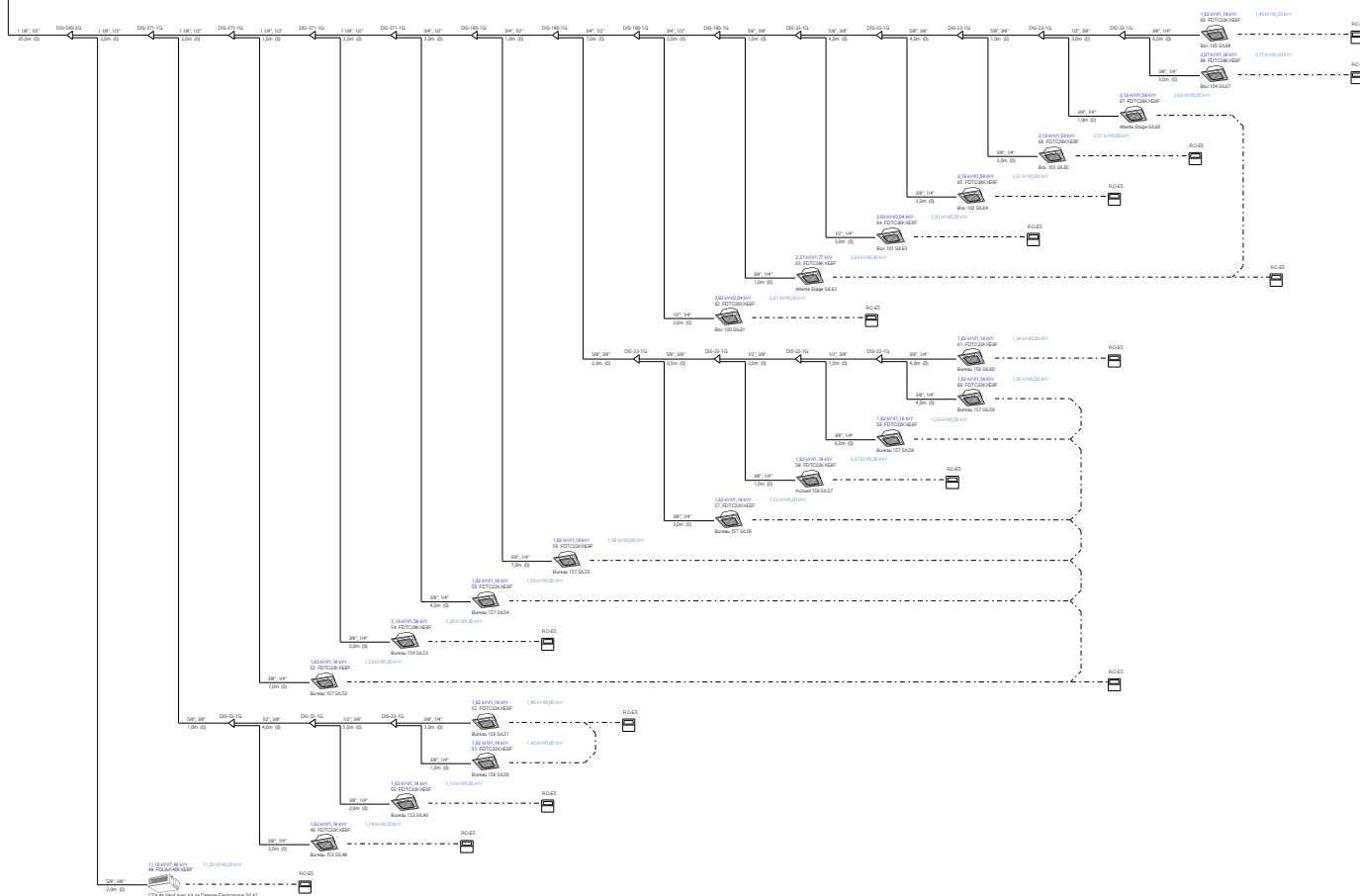
Client: BFROI

Réalisé par: FRITEC OI
Lieu: St DENIS

Date et heure de réalisation: 06/06/2013 12:07



Projet : Centre des Finances Publiques
Réf. Projet : DRV Mitsubishi
Installation : DRV 1 R+1 OK
Cond. de sélec.: 24,0°C TS , 18,6°C TH / 32,0°C TS
Longueur tot. de tuyauterie : 155,5m de 1000,0m
Nb d'UI raccordées : 22
Puissance frigo. réelle : 50,98 kW / 36,32 kW
Puissance frigo. requise : 49,89 kW / 0,00 kW
Indice de puissance raccordé : 666 / 806
Coef : 0%
Complément de charge : 14,9 kg



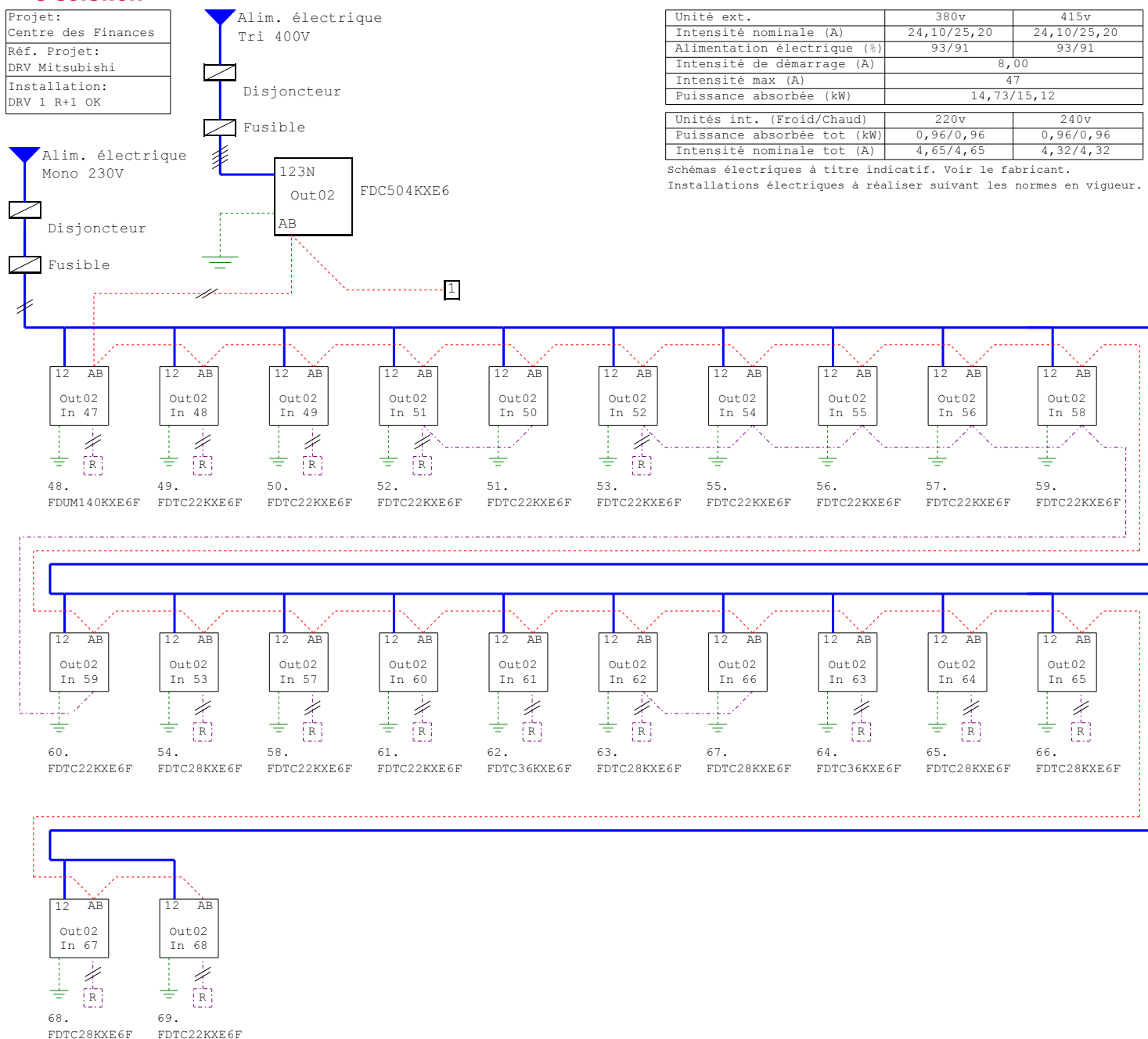
Projet : Centre des Finances Publiques
Réf. Projet : DRV Mitsubishi

Installation : DRV 1 R+1 OK

Cond. de température (Froid)		Cond. de température (Chaud)	
TS ext.	TH int.	TH ext.	TS int.
32,0°C	18,6°C	11,9°C	20,0°C

	Unit	Modèle	Puissance nominale (kW)			Puissance projet (kW)			Unité int.		réelle Long. (m)	Tuyau. Long. (m)	Adresse		
			Tot. froid	Sens froid	Chaud	Tot. froid	Sens froid	Chaud	Position (m)				S/L	O/U	I/U
Extérieur		FDC504KXE6	50,40	-	56,50	50,98	-	55,61					1	02	-
Intérieur	48	FDUM140KXE6F	13,77	10,10	15,68	11,16	7,48	12,35	dessous	0,0	37,0	37,0	1	02	47
Intérieur	49	FDTC22KXE6F	2,00	1,61	2,23	1,62	1,18	1,76	dessous	0,0	40,0	40,0	1	02	48
Intérieur	50	FDTC22KXE6F	2,00	1,61	2,23	1,62	1,18	1,76	dessous	0,0	44,0	44,0	1	02	49
Intérieur	51	FDTC22KXE6F	2,00	1,61	2,23	1,62	1,18	1,76	dessous	0,0	48,0	48,0	1	02	50
Intérieur	52	FDTC22KXE6F	2,00	1,61	2,23	1,62	1,18	1,76	dessous	0,0	50,0	50,0	1	02	51
Intérieur	53	FDTC22KXE6F	2,00	1,61	2,23	1,62	1,18	1,76	dessous	0,0	46,0	46,0	1	02	52
Intérieur	54	FDTC28KXE6F	2,70	2,15	3,06	2,19	1,58	2,41	dessous	0,0	42,0	42,0	1	02	53
Intérieur	55	FDTC22KXE6F	2,00	1,61	2,23	1,62	1,18	1,76	dessous	0,0	46,0	46,0	1	02	54
Intérieur	56	FDTC22KXE6F	2,00	1,61	2,23	1,62	1,18	1,76	dessous	0,0	52,0	52,0	1	02	55
Intérieur	57	FDTC22KXE6F	2,00	1,61	2,23	1,62	1,18	1,76	dessous	0,0	51,0	51,0	1	02	56
Intérieur	58	FDTC22KXE6F	2,00	1,61	2,23	1,62	1,18	1,76	dessous	0,0	49,5	49,5	1	02	57
Intérieur	59	FDTC22KXE6F	2,00	1,61	2,23	1,62	1,18	1,76	dessous	0,0	57,5	57,5	1	02	58
Intérieur	60	FDTC22KXE6F	2,00	1,61	2,23	1,62	1,18	1,76	dessous	0,0	56,5	56,5	1	02	59
Intérieur	61	FDTC22KXE6F	2,00	1,61	2,23	1,62	1,18	1,76	dessous	0,0	56,5	56,5	1	02	60
Intérieur	62	FDTC36KXE6F	3,48	2,76	3,82	2,82	2,04	3,01	dessous	0,0	56,0	56,0	1	02	61
Intérieur	63	FDTC28KXE6F	2,80	2,41	3,20	2,27	1,77	2,52	dessous	0,0	56,0	56,0	1	02	62
Intérieur	64	FDTC36KXE6F	3,48	2,76	3,82	2,82	2,04	3,01	dessous	0,0	59,0	59,0	1	02	63
Intérieur	65	FDTC28KXE6F	2,70	2,15	3,06	2,19	1,58	2,41	dessous	0,0	63,0	63,0	1	02	64
Intérieur	66	FDTC28KXE6F	2,70	2,15	3,06	2,19	1,58	2,41	dessous	0,0	67,0	67,0	1	02	65
Intérieur	67	FDTC28KXE6F	2,70	2,15	3,06	2,19	1,58	2,41	dessous	0,0	66,0	66,0	1	02	66
Intérieur	68	FDTC28KXE6F	2,55	1,83	2,86	2,07	1,36	2,25	dessous	0,0	71,0	71,0	1	02	67
Intérieur	69	FDTC22KXE6F	2,00	1,61	2,23	1,62	1,18	1,76	dessous	0,0	74,0	74,0	1	02	68
TOTAL			62,88	49,35	70,61	50,98	36,32	55,61							

Projet:
Centre des Finances
Réf. Projet:
DRV Mitsubishi
Installation:
DRV 1 R+1 OK



Liste de matériaux du projet

Projet : Centre des Finances Publiques

Réf. Projet : DRV Mitsubishi

Aucune commande centralisée ou système GTC n'est utilisé pour ce projet.

Liste Matériaux de l'installation

Projet : Centre des Finances Publiques

Réf. Projet : DRV Mitsubishi

Installation : DRV 1 R+1 OK

Unité ext.	Qté
FDC504KXE6	1

Unité int.	Qté
FDUM140KXE6F	1
FDTC22KXE6F	13
FDTC28KXE6F	6
FDTC36KXE6F	2

Façade	Qté
TC-PSA-25W-E	21

Dérivation	Qté
DIS-540-2G	1
DIS-371-1G	4
DIS-22-1G	12
DIS-180-1G	4

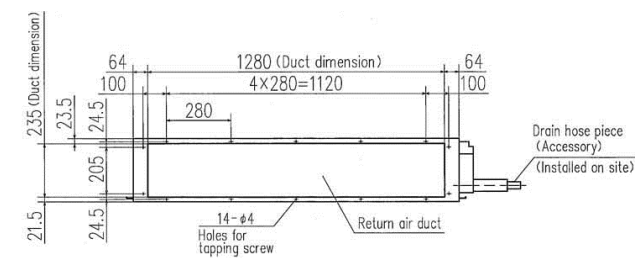
Télécommandes à distance	Qté
RC-E5	15

Complément de charge	14,9 kg
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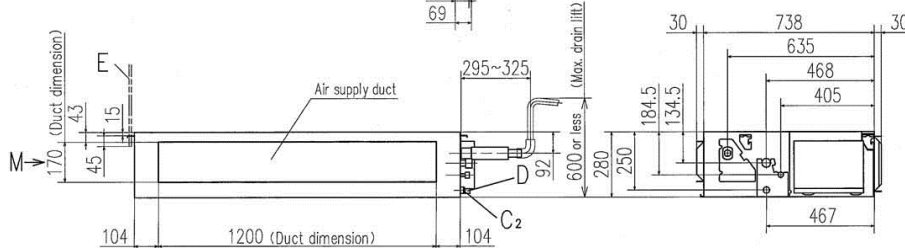
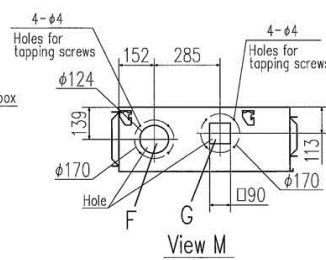
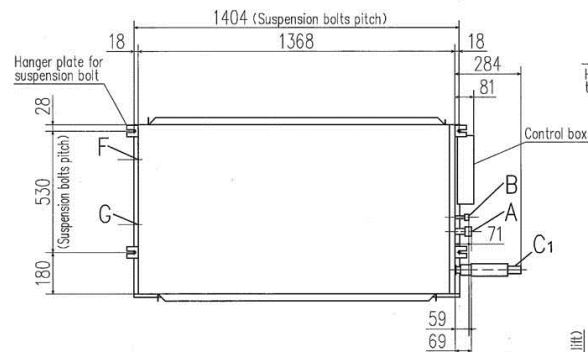
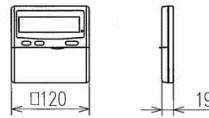
Diam. tuyauterie	L. totale (m)
1/4"	69,0
3/8"	94,5
1/2"	77,0
5/8"	15,5
3/4"	13,0
1 1/8"	42,0

FDUM140KXE6F

Unit:mm



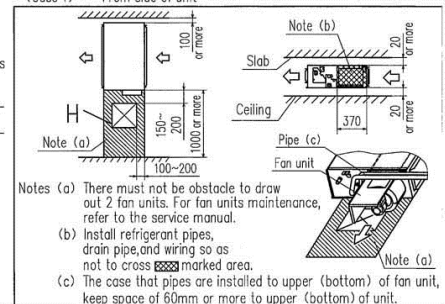
Remote controller
(Option)



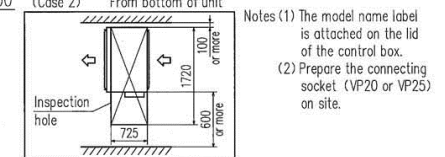
Symbol	Content
A	Gas piping φ15.88 (5/8") (Flare)
B	Liquid piping φ9.52 (3/8") (Flare)
C1	Drain piping VP20 (Standard) or VP25 (Used with attached socket) Note (2)
C2	Drain piping (Gravity drainage) VP20 (Standard) or VP25 (Used with attached socket)
D	Hole for wiring
E	Suspension bolts (M10)
F	Outside air opening for ducting (Knock out)
G	Air outlet opening for ducting (Knock out)
H	Inspection hole (450X450)

Space for installation and service

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

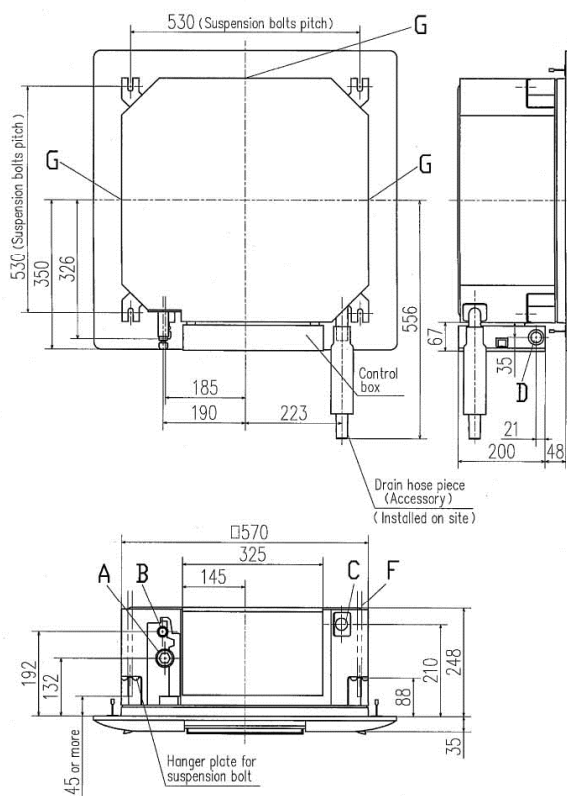


(Case 2) From bottom of unit

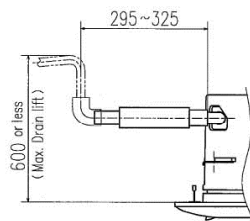
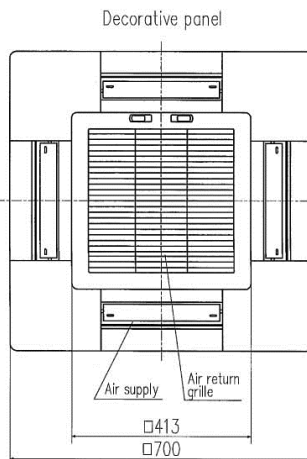


FDTC36KXE6F

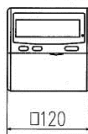
Unit:mm



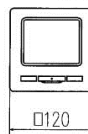
Notes (1) The model name label is attached on the control box lid.
(2) Prepare the connecting socket (VP20) on site.
(3) This unit is designed for 2x2 grid ceiling.
If it is installed on a ceiling other than 2x2 grid ceiling,
provide an inspection port on the control box side.



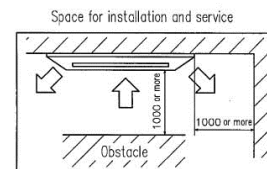
Remote controller
(Option)



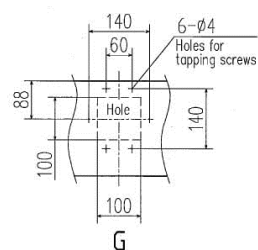
Remote controller
(Option)



Symbol	Model	Content
		22,28 36,45,56
A	Gas piping	φ9.52 (3/8") (Flare) φ12.7 (1/2") (Flare)
B	Liquid piping	φ6.35 (1/4") (Flare)
C	Drain piping	VP20 (I.D.20,O.D.26) Note (2)
D	Hole for wiring	φ25
F	Suspension bolts	(M10 or M8)
G	Air outlet opening for ducting	(Knock out)



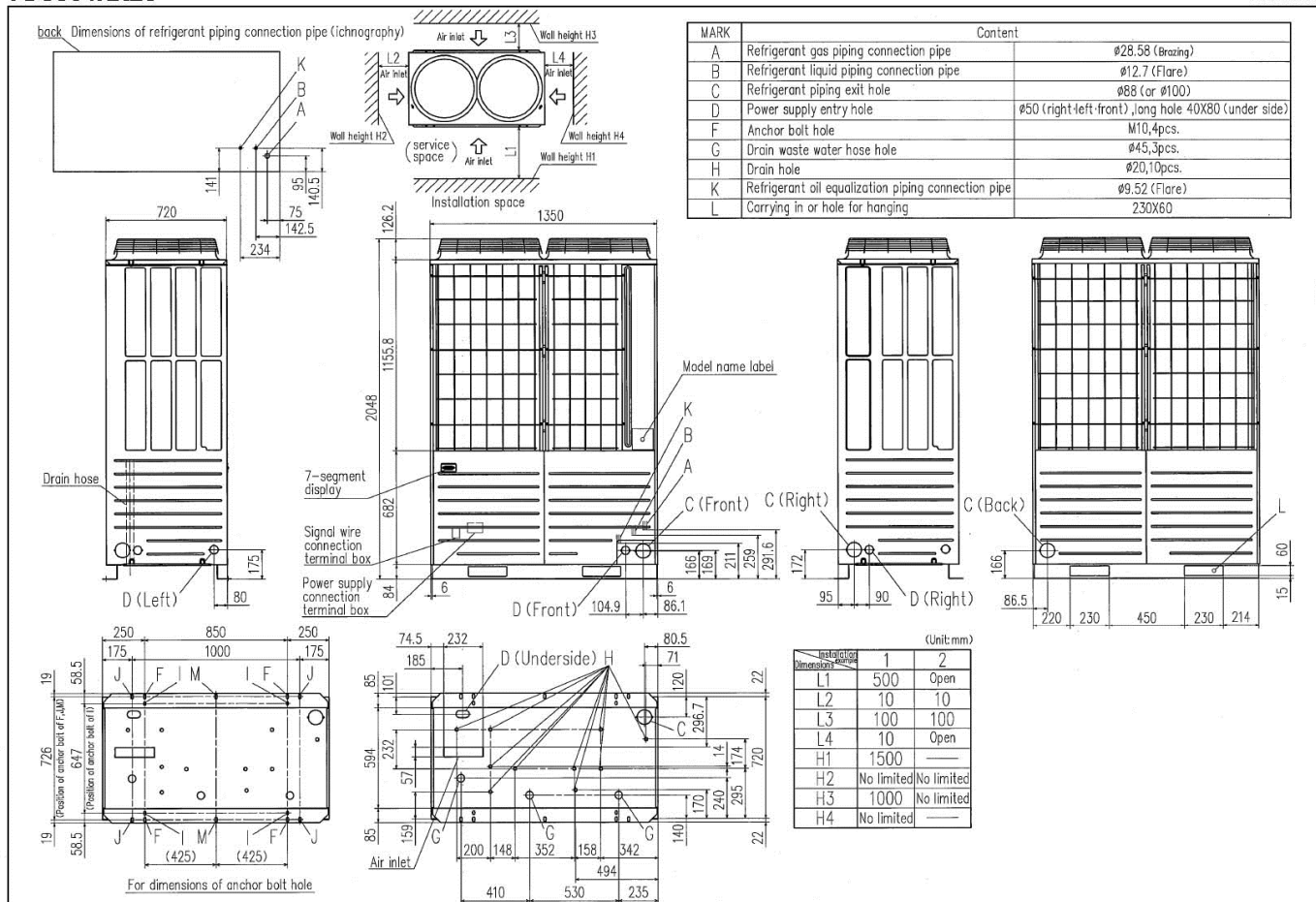
Make a space of 4000 or more between the units when installing more than one.



G

FDC504KXE6

Unit:mm



Duct Connected -Middle static pressure- type (FDUM)

Models			FDUM140KXE6F
			-
Nominal cooling capacity	kW	14.0	
Nominal heating capacity		16.0	
Power source			220-240V~ 50Hz / 220V~ 60Hz
Power consumption	Cool	kW	0.33 - 0.33 / 0.33
	Heat		0.33 - 0.33 / 0.33
Running current	Cool	A	1.50 - 1.38 / 1.50
	Heat		1.50 - 1.38 / 1.50
Sound Pressure Level		dB(A)	P-Hi : 45 Hi : 40 Me : 34 Lo : 29
Exterior dimensions Height x Width x Depth		mm	280 × 1,370 × 740
			-
Net weight	kg	54	
Refrigerant equipment Heat exchanger			Louver fin & inner grooved tubing
Refrigerant control			Electronic Expansion Valve
Air handling equipment Fan type & Q'ty			Centrifugal fan × 3
Motor	W	100 + 200	
Starting method			Direct line start
Air flow(Standard)	CMM	P-Hi : 39 Hi : 32 Me : 26 Lo : 20	
External static pressure	Pa	100 (at 39 CMM)	
Outside air intake			Possible
Air filter, Q'ty			Procure locally
Shock & vibration absorber			Rubber sleeve(for fan motor)
Insulation (noise & heat)			Polyurethane form
Operation control Operation switch			Remote control switch Option: RC-EX1A, RC-E5
Room temperature control			Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat
Installation data Refrigerant piping size			Liquid line: ϕ 9.52 (3/8") Gas line: ϕ 15.88 (5/8")
Connecting method			Flare piping
Refrigerant			R410A
Drain pump			Built-in Drain pump
Drain hose			Connectable with V P 2 0 (Standard) or V P 2 5 (used with attached socket)
Insulation for piping			Necessary(both Liquid & Gas line)
Accessories			Drain hose

Notes

Adapted to **RoHS** directive

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

Item	Indoor air temperature		Outdoor air temperature		Standards	External static pressure of indoor unit
Operation	DB	WB	DB	WB		Pa
Cooling	27 °C	19 °C	35 °C	24 °C	ISO-T1	60
Heating	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) Initial static pressure values of optional air filter "UM-FL2EF,3EF" are 5Pa.

(4) When wireless remote controller is used, fan is 3 speed setting(Hi-Me-Lo) only.

Ceiling Cassette -4way- Compact (600x600mm) type (FDTC)

Models			FDTC22KXE6F
Panel model (Option)			TC-PSA-25W-E
Nominal cooling capacity*1	kW		2.2
Nominal heating capacity*2			2.5
Power source			220-240V~ 50Hz / 220V~ 60Hz
Power consumption	Cool	kW	0.03 - 0.03 / 0.03
	Heat		0.03 - 0.03 / 0.03
Running current	Cool	A	0.10 - 0.09 / 0.10
	Heat		0.10 - 0.09 / 0.10
Sound Pressure Level	Cool	dB(A)	P-Hi : 44 Hi : 35 Me : 33 Lo : 30
	Heat		P-Hi : 44 Hi : 35 Me : 33 Lo : 32
Exterior dimensions Height x Width x Depth		mm	Unit : 248 × 570 × 570 Panel : 35 × 700 × 700
Exterior appearance (Munsell color)			Plaster White (6.8Y8.9/0.2) near equivalent
Net weight		kg	Unit : 14 Panel : 3.5
Refrigerant equipment			
Heat exchanger			Louver fin & inner grooved tubing
Refrigerant control			Electronic Expansion Valve
Air handling equipment			
Fan type & Q'ty			Turbo fan × 1
Motor		W	33
Starting method			Direct line start
Air flow(Standard)	Cool	CMM	P-Hi : 12 Hi : 9.5 Me : 8.5 Lo : 7
	Heat		P-Hi : 12 Hi : 9.5 Me : 8.5 Lo : 8
Available static pressure		Pa	0
Outdoor air intake			Not possible
Air filter, Q'ty			Pocket plastic net × 1 (Washable)
Shock & vibration absorber			Rubber sleeve(for fan motor)
Insulation (noise & heat)			Polyurethane form
Operation control			Remote control switch
Operation switch			Option: RC-E5, RC-EX1A
Room temperature control			Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat
Installation data			Liquid line: ϕ 6.35 (1/4")
Refrigerant piping size			Gas line: ϕ 9.52 (3/8")
Connecting method			Flare piping
Refrigerant			R410A
Drain pump			Built-in Drain pump
Drain hose			Connectable with V P 2 5
Insulation for piping			Necessary(both Liquid & Gas line)
Accessories			Mounting kit, Drain hose

Adapted to **RoHS** directive

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"

(3) When wireless remote controller is used, fan is 3 speed setting(HI-Me-Lo) only.

Ceiling Cassette -4way- Compact (600x600mm) type (FDTC)

Models			FDTC28KXE6F	
Panel model (Option)			TC-PSA-25W-E	
Nominal cooling capacity*1		kW	2.8	
Nominal heating capacity*2			3.2	
Power source			220-240V～ 50Hz / 220V～ 60Hz	
Power consumption	Cool	kW	0.03 - 0.03 / 0.03	
	Heat		0.03 - 0.03 / 0.03	
Running current	Cool	A	0.10 - 0.09 / 0.10	
	Heat		0.10 - 0.09 / 0.10	
Sound Pressure Level	Cool	dB(A)	P-Hi : 44 Hi : 35 Me : 33 Lo : 30	
	Heat		P-Hi : 44 Hi : 35 Me : 33 Lo : 32	
Exterior dimensions Height x Width x Depth		mm	Unit : 248 × 570 × 570 Panel : 35 × 700 × 700	
Exterior appearance (Munsell color)			Plaster White (6.8Y8.9/0.2) near equivalent	
Net weight		kg	Unit : 14 Panel : 3.5	
Refrigerant equipment				
Heat exchanger			Louver fin & inner grooved tubing	
Refrigerant control			Electronic Expansion Valve	
Air handling equipment				
Fan type & Q'ty			Turbo fan × 1	
Motor		W	33	
Starting method			Direct line start	
Air flow(Standard)	Cool	CMM	P-Hi : 12 Hi : 9.5 Me : 8.5 Lo : 7	
	Heat		P-Hi : 12 Hi : 9.5 Me : 8.5 Lo : 8	
Available static pressure		Pa	0	
Outdoor air intake			Not possible	
Air filter, Q'ty			Pocket plastic net × 1 (Washable)	
Shock & vibration absorber			Rubber sleeve(for fan motor)	
Insulation (noise & heat)			Polyurethane form	
Operation control			Remote control switch	
Operation switch			Option: RC-E5, RC-EX1A	
Room temperature control			Thermostat by electronics	
Safety equipment			Overload protection for fan motor Frost protection thermostat	
Installation data			Liquid line: ϕ 6.35 (1/4")	
Refrigerant piping size			Gas line: ϕ 9.52 (3/8")	
Connecting method			Flare piping	
Refrigerant			R410A	
Drain pump			Built-in Drain pump	
Drain hose			Connectable with V P 2 5	
Insulation for piping			Necessary(both Liquid & Gas line)	
Accessories			Mounting kit, Drain hose	

Adapted to **RoHS** directive

Notes

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

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

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

ISO-T1 "UNITARY AIR-CONDITIONERS"

(3) When wireless remote controller is used, fan is 3 speed setting(HI-Me-Lo) only.

Ceiling Cassette -4way- Compact (600x600mm) type (FDTC)

Models			FDTC36KXE6F
Panel model (Option)			TC-PSA-25W-E
Nominal cooling capacity*1	kW		3.6
Nominal heating capacity*2			4.0
Power source			220-240V~ 50Hz / 220V~ 60Hz
Power consumption	Cool	kW	0.03 - 0.03 / 0.03
	Heat		0.03 - 0.03 / 0.03
Running current	Cool	A	0.11 - 0.10 / 0.11
	Heat		0.11 - 0.10 / 0.11
Sound Pressure Level	Cool	dB(A)	P-Hi : 46 Hi : 38 Me : 36 Lo : 31
	Heat		P-Hi : 46 Hi : 38 Me : 36 Lo : 34
Exterior dimensions Height x Width x Depth		mm	Unit : 248 × 570 × 570 Panel : 35 × 700 × 700
Exterior appearance (Munsell color)			Plaster White (6.8Y8.9/0.2) near equivalent
Net weight		kg	Unit : 15 Panel : 3.5
Refrigerant equipment			
Heat exchanger			Louver fin & inner grooved tubing
Refrigerant control			Electronic Expansion Valve
Air handling equipment			
Fan type & Q'ty			Turbo fan × 1
Motor		W	33
Starting method			Direct line start
Air flow(Standard)	Cool	CMM	P-Hi : 13 Hi : 10 Me : 9 Lo : 7
	Heat		P-Hi : 13 Hi : 10 Me : 9 Lo : 8
Available static pressure		Pa	0
Outdoor air intake			Not possible
Air filter, Q'ty			Pocket plastic net × 1 (Washable)
Shock & vibration absorber			Rubber sleeve(for fan motor)
Insulation (noise & heat)			Polyurethane form
Operation control			Remote control switch
Operation switch			Option: RC-E5, RC-EX1A
Room temperature control			Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat
Installation data			Liquid line: φ 6.35 (1/4")
Refrigerant piping size			Gas line: φ 12.7 (1/2")
Connecting method			Flare piping
Refrigerant			R410A
Drain pump			Built-in Drain pump
Drain hose			Connectable with V P 2 5
Insulation for piping			Necessary(both Liquid & Gas line)
Accessories			Mounting kit, Drain hose

Adapted to **RoHS** directive

Notes

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

Item	Indoor air temperature		Outdoor air temperature		Standards
	DB	WB	DB	WB	
Operation					
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"

(3) When wireless remote controller is used, fan is 3 speed setting(HI-Me-Lo) only.

OUTDOOR UNIT(FDC)

Models			FDC335KXE6-K	FDC400KXE6	FDC450KXE6	FDC504KXE6	FDC560KXE6	FDC60KXE6-K	FDC615KXE6	FDC680KXE6
Nominal cooling capacity*1		kW	33.5	40.0	45.0	50.4	56.0	56.0	61.5	68.0
Nominal heating capacity*2			37.5	45.0	50.0	56.5	63.0	63.0	69.0	73.0
Power source			3 Phase 380-415V 50Hz/380V 60Hz							
Power consumption	Cool	kW	8.94	11.27	12.97	14.73	16.79	16.79	20.37	24.98
	Heat		8.93	11.73	13.10	15.12	16.79	16.79	18.48	19.08
Running current	Cool	A	14.5/13.3	18.4/16.9	21.1/19.3	24.1/22.0	27.4/25.1	27.4/25.1	33.1/30.3	40.3/36.9
	Heat		14.8/13.5	19.6/17.9	21.7/19.9	25.2/23.1	28.0/25.7	28.0/25.7	30.7/28.1	31.6/29.0
Power factor	Cool	%	94/94	93/93	93/93	93/93	93/93	93/93	94/94	94/94
	Heat		92/92	91/91	92/92	91/91	91/91	91/91	91/91	92/92
Sound Pressure Level		dB (A)	59/59	59.5/60	62.5/62.5	61.5/62	63/63.5	63/63.5	64.5/64	65/65
Exterior dimensions		mm	1690x1350x720				2048x1350x720			
Height x Width x Depth										
Net weight		kg	334				356			
Refrigerant equipment			GTC5150NH4BLx2				GTD5160NH4BLx2			
compressor type & Q'ty										
Motor		kW	2.99x2	3.71x2	4.29x2	4.87x2	5.78x2	6.66x2	7.15x2	
Starting method			Direct line starting							
capacity control		%	19-130	15-114	13-112	11-100	10-113	12-113	11-110	10-108
Crankcase heater		W	33x2							
Refrigerant equipment			M fin & inner grooved tubing							
Heat exchanger										
Refrigerant control			Electronic expansion valve							
Refrigerant			R410A							
Quantity		kg	11.5							
Refrigerant oil		l	4.2 (M-MA32R)							
Defrost control			Microcomputer controlled De-icer							
Air handling equipment			Propeller fan x 2							
fan type & Q'ty										
Motor		W	386x2							
Starting method			Direct start							
Air flow (Standard)		CMM	220/180	250/220	260/240	270/250				
Static pressure		Pa	Max.50							
Shock & vibration absorber			Rubber mount (for compressor)							
safety equipment			Compressor overheat protection / overcurrent protection / power transistor overheating protection / abnormal high pressure protection							
Installation data		mm (in)	Liquid line: #12.7 (1/2")							
Refrigerant piping size			Gas line: #25.4 (1") (#28.58 (11/8"))				Gas line: #28.58 (11/8")			
Connecting method			Gas line: Brazing / Liquid line: Flare							
MAX. Pressure		MPa	High 4.15 Low 2.21							
Drain			Hole for drain (#20 x 10pcs , #45 x 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	
Cooling*1	27 ℃	19 ℃	35 ℃	24 ℃	ISO-T1
Heating*2	20 ℃	-	7 ℃	6 ℃	

Adapted to RoHS directive

- (2) This packaged air-conditioner is manufactured and tested in conformity with the following standard.
ISO-T1 "UNITARY AIR-CONDITIONERS"
- (3) Refrigerant piping size applicable to European installations are shown in parentheses.

Range of usage & limitations

FDC504KXE6

• Single use (also for combined use)

System		FDC400KXE6	FDC450KXE6	FDC504KXE6
Indoor air temperature (Upper, lower limits)		Refer to the Databook 09KX-DB-127		
Outdoor air temperature (Upper, lower limits)				
Indoor units that can be used in combination	Number of connected units	1 to 36 unit	1 to 40 unit	1 to 36 unit
	Connectable capacity ⁽¹⁾	200 ~ 800	225 ~ 900	252 ~ 806
Total piping length ⁽²⁾		1000m or less		
Main pipe length		130m or less		
Single direction piping length		Actual length : 160m or less, Equivalent length : 185m or less		
Allowable pipe length from the first branching		90m or less (However, difference between the longest and shortest piping : 40m or less)		
Elevation difference between the first branching point and the indoor unit		18m or less		
Difference in height between indoor and outdoor units	Outdoor unit is higher	50m or less		
	Outdoor unit is lower	40m or less ⁽³⁾		
Difference in the elevation of indoor units in a system		18m or less		
Indoor unit atmosphere (behind ceiling) temperature and humidity (Only models FDT, FDTC, FDTW, FDTS, FDTQ, FDU, FDUM, FDQS, FDUH)		Dew point temperature 28 ℃ or less, relative humidity 80% or less (FDE, FDK, FDFL, FDFU : Dew point temperature 23℃ 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 ±10% of rated voltage		
	Voltage drop during start	Within ±15% of rated voltage		
	Phase unbalance	Within ±3% of rated voltage		

Note (1) When connecting the indoor unit type FDK, FDFL, FDFU or FDFW (not yet) Series, limit the connectable capacity not higher than 130%.

(2) When the pipe extension length exceeds 510 m, additional refrigerant oil must be charged (1,000 cc).

(3) It must be less than 30 m when conducting the cooling operation with the outdoor air temperature lower than 10°C.

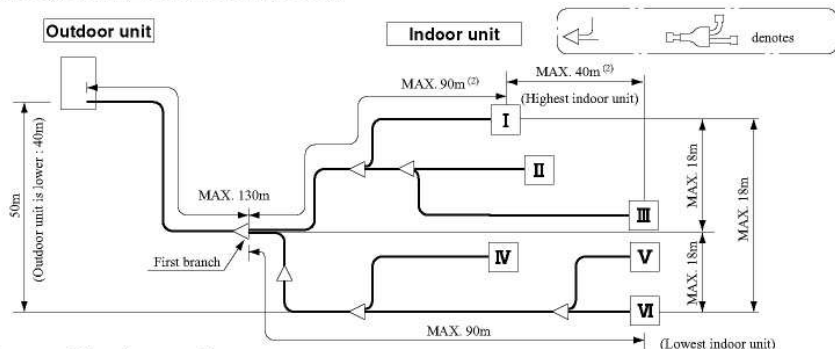
(4) If superlink I (previous superlink) is selected, all the range of usage and limitations, not only the limitations of connectable indoor capacity and connectable number of indoor unit but also of the piping length, operating temperature range and etc., become same as those of KX4 (See technical manual '07 • KX • KXR-T-114). In addition to above limitations, all of new functions for KX6 such as automatic address setting function for multiple refrigerant systems and etc. will be cancelled.

Range of usage & limitations

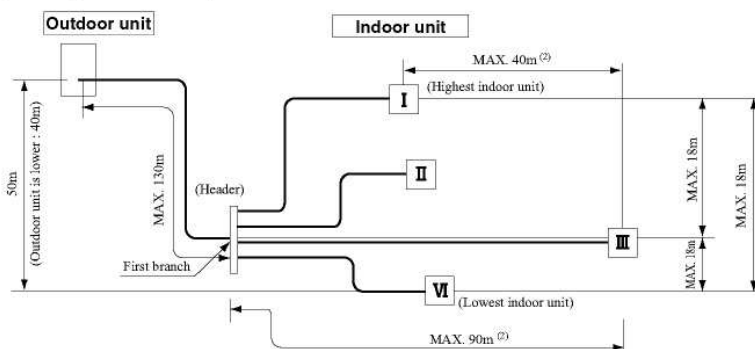
FDC504KXE6

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

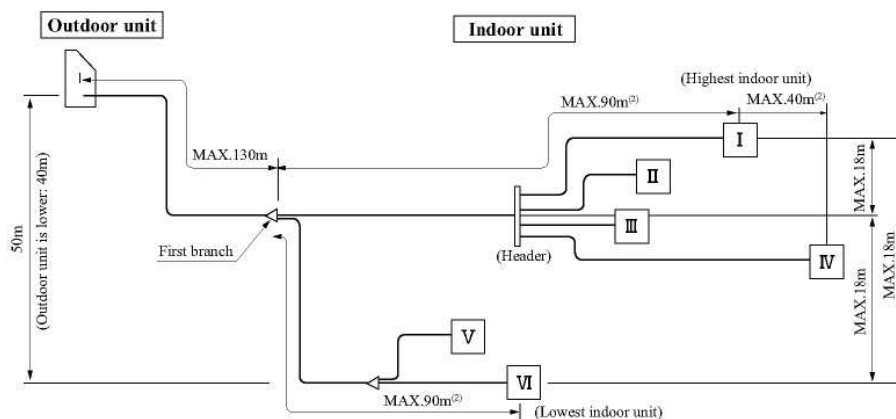
(1) Branch pipe System (Branch piping used)



(2) Header System (Header used)



(3) Mixed System (Branch piping and Header used)



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

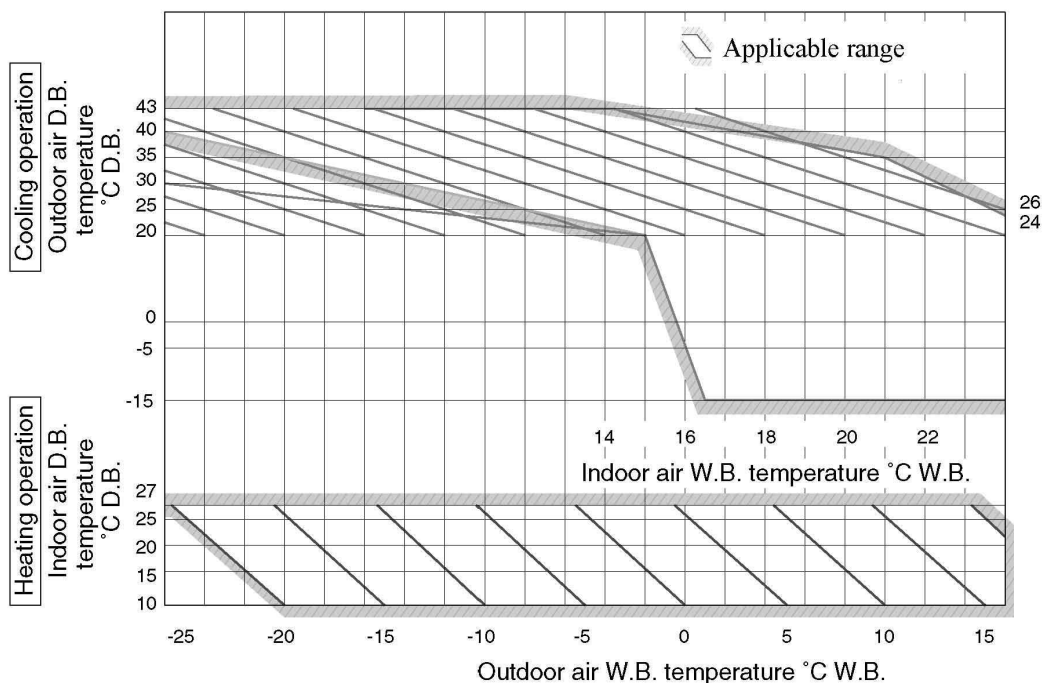
(2) 90m or less (However, difference between the longest and shortest piping : 40m or less)

Important

When the Additional refrigerant quantity for piping (P) is over the following table, please separate the refrigerant line.

Outdoor unit	P (kg)
400-680	50

Operating temperature range



“CAUTION” Cooling operation under low outdoor air temperature conditions

KXE6 models can be operated in cooling mode at low outdoor 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

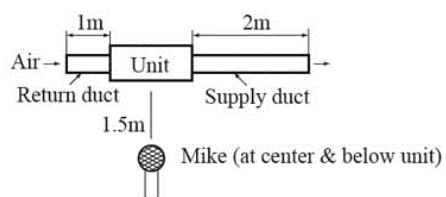
- 1) Install the outdoor unit at the place where strong wind cannot blow directly into the outdoor unit.
- 2) If there is no installation place where can prevent strong wind from directly blowing into the outdoor unit, prepare a windbreak fence or something like that locally in order to divert the strong wind from the outdoor unit.

[Reason]

Under the low outdoor 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.

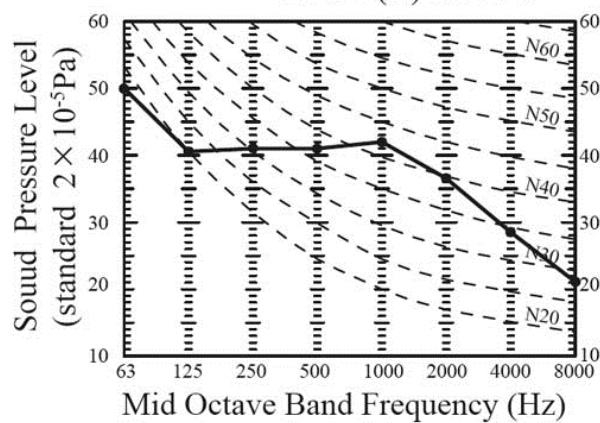
Noise Level

Measured based on JIS B 8616
Mike position as right



FDUM140KXE6F

Noise level 45 dB (A) at P-HIGH
40 dB (A) at HIGH
34 dB (A) at MEDIUM
29 dB (A) at LOW



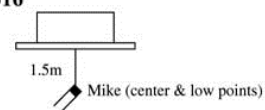
Noise level

Ceiling cassette-4 way compact type (FDTC)

Note (1) Value in [] are for the heating mode.

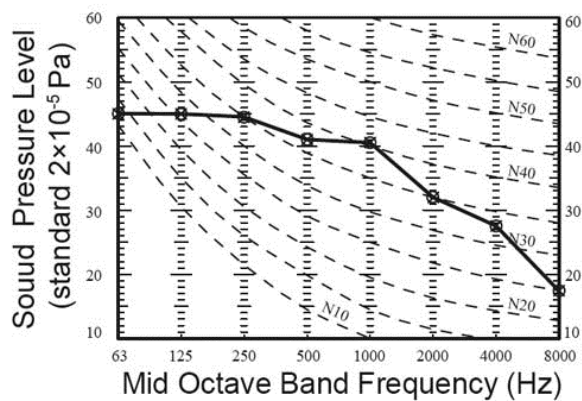
Measured based on JIS B 8616

Mike position as right



FDTC22KXE6F

Noise level 44 [44] dB (A) at P-HIGH
35 [35] dB (A) at HIGH
33 [33] dB (A) at MEDIUM
30 [32] dB (A) at LOW



Noise level

Ceiling cassette-4 way compact type (FDTC)

Note (1) Value in [] are for the heating mode.

Measured based on JIS B 8616

Mike position as right



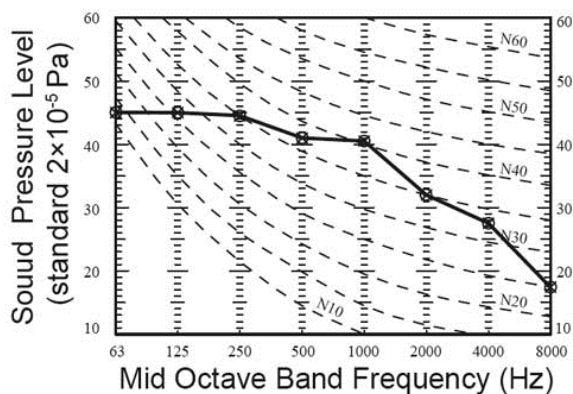
FDTC28KXE6F

Noise level 44 [44] dB (A) at P-HIGH

35 [35] dB (A) at HIGH

33 [33] dB (A) at MEDIUM

30 [32] dB (A) at LOW



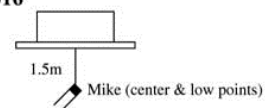
Noise level

Ceiling cassette-4 way compact type (FDTC)

Note (1) Value in [] are for the heating mode.

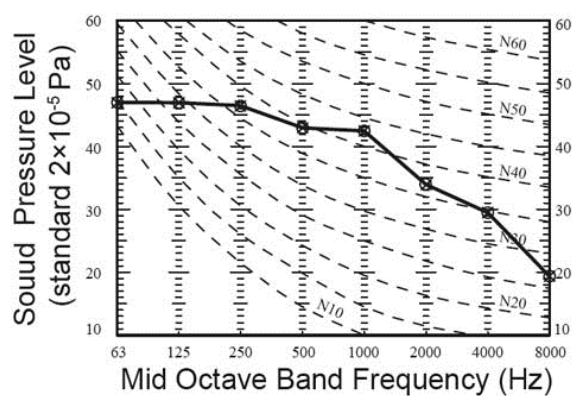
Measured based on JIS B 8616

Mike position as right



FDTC36KXE6F

Noise level 46 [46] dB (A) at P-HIGH
38 [38] dB (A) at HIGH
36 [36] dB (A) at MEDIUM
31 [34] dB (A) at LOW



Noise level

Measured based on JIS B 8616

Mike position as highest noise level in position as below

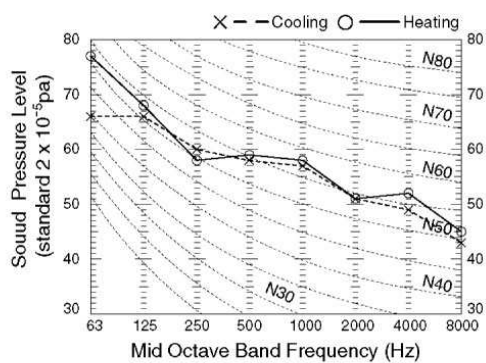
Distance from front side 1m

Height 1m

FDC504KXE6

Noise level 61.5 dB (A) at cooling

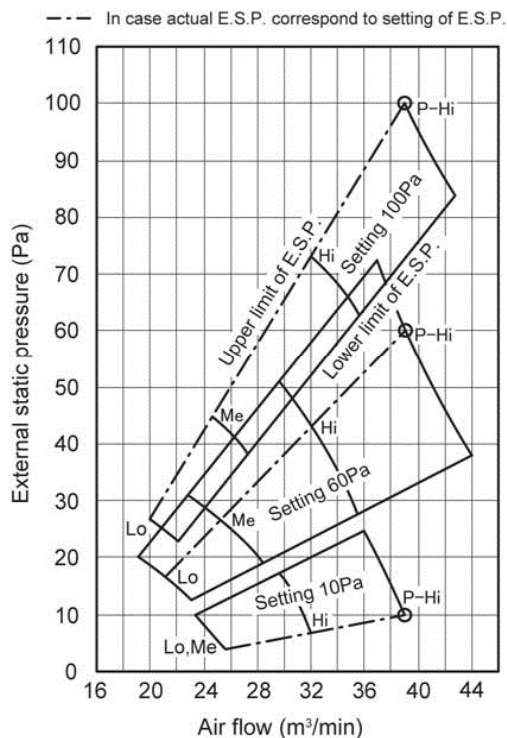
62 dB (A) at heating



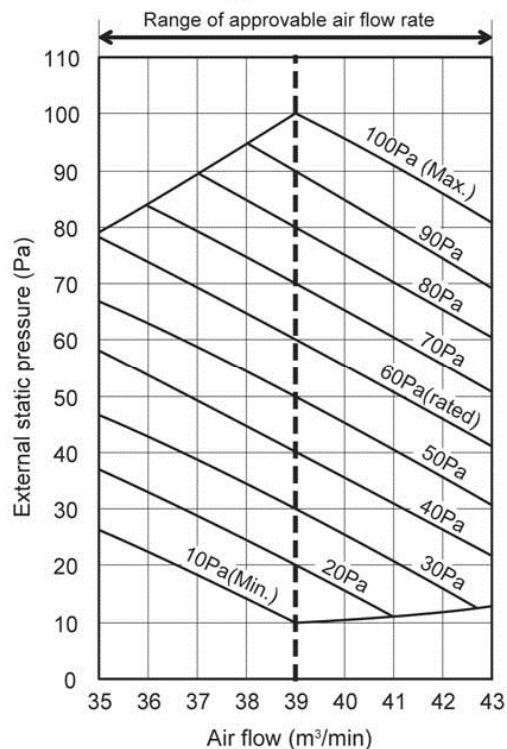
Characteristics of fan

FDUM140KXE6F

Characteristic FAN(1)



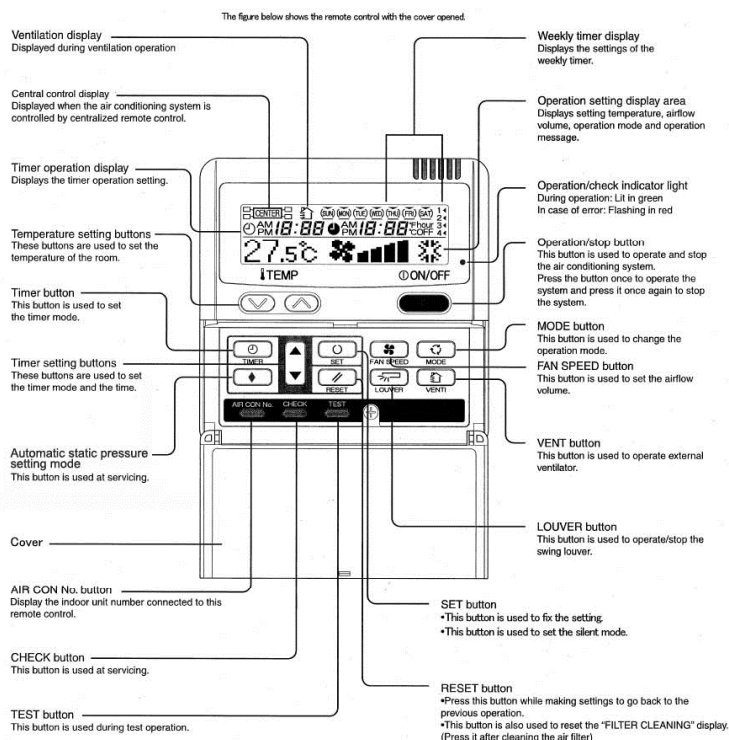
Characteristic FAN(2)



- Characteristic FAN (1) shows air flow vs. External Static Pressure (E.S.P.) range where settings of E.S.P. are maximum E.S.P. (100Pa), rated E.S.P., and minimum E.S.P. (10Pa)
- Characteristic FAN (2) shows air flow vs. E.S.P. curve when set fan tap is set P-Hi with each setting of E.S.P. by remote controller.
- External Static Pressure (E.S.P.) can be set by wired remote controller.
- You can set required E.S.P. by wired remote controller which calculate it with the set air flow rate and pressure loss of the duct connected.

RC-E5

Unit:mm

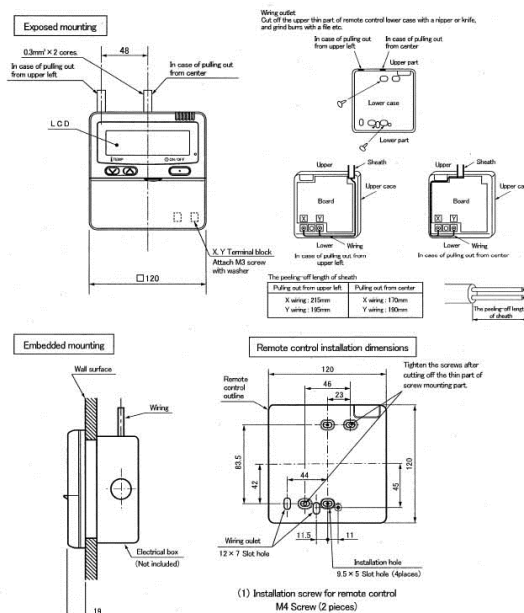


* All displays are described in the liquid crystal display for explanation.

Installation of remot control

DO NOT install it on the following places in order to avoid malfunction.

- (1) Places exposed to direct sunlight
- (2) Places near heat devices
- (3) High humidity places
- (4) Hot surface or cold surface enough to generate condensation
- (5) Places exposed to oil mist or steam directly
- (6) Uneven surface



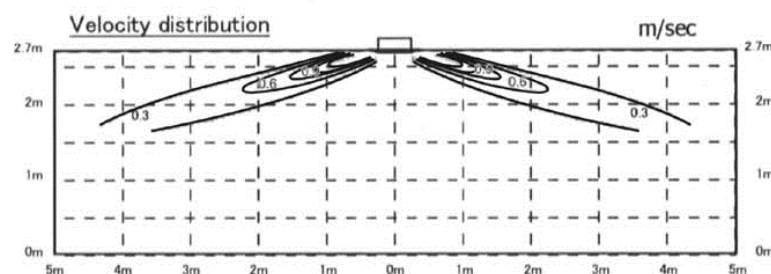
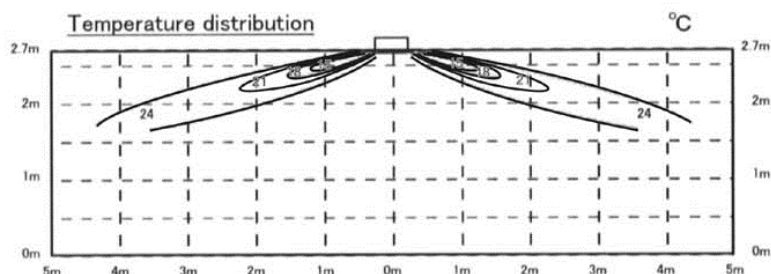
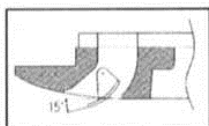
Adapted to RoHS directive

Temperature and velocity distribution

FDTC22KXE6F

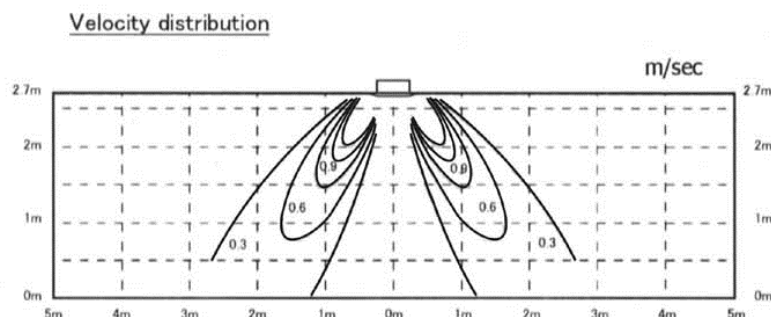
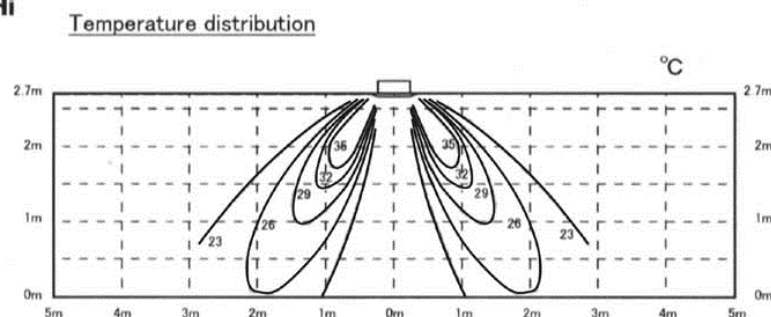
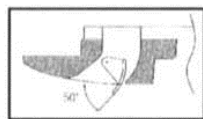
Cooling Air flow: P-Hi

Louver position



Heating Air flow: P-Hi

Louver position



Indoor temperature

Cooling 27°CDB/ 19°CWB

Heating 20°CDB

Note:

These figures represent the typical main range of temperature and velocity distribution at the center of air outlet within the published conditions.

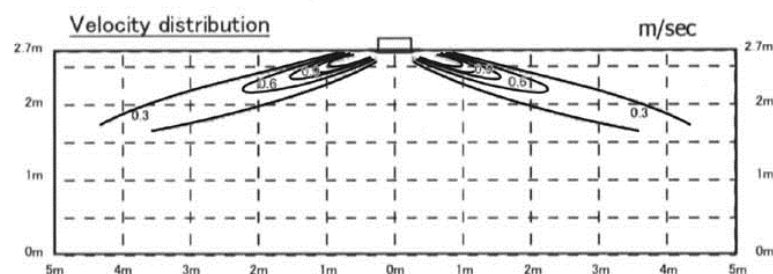
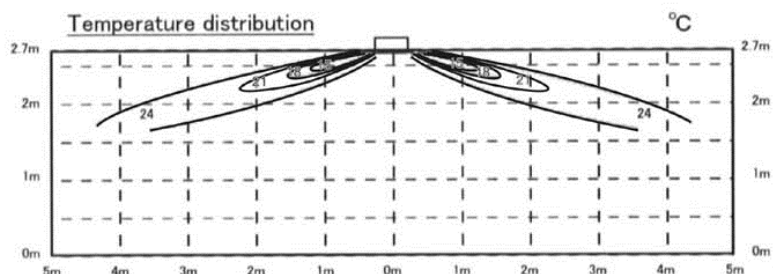
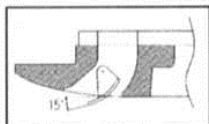
In the actual installation, they may differ from the typical figures under the influence of air temperature conditions, ceiling height, operation conditions and obstacles.

Temperature and velocity distribution

FDT C28KXE6F

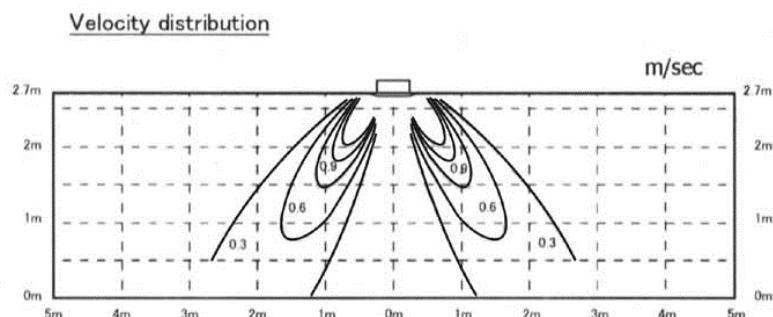
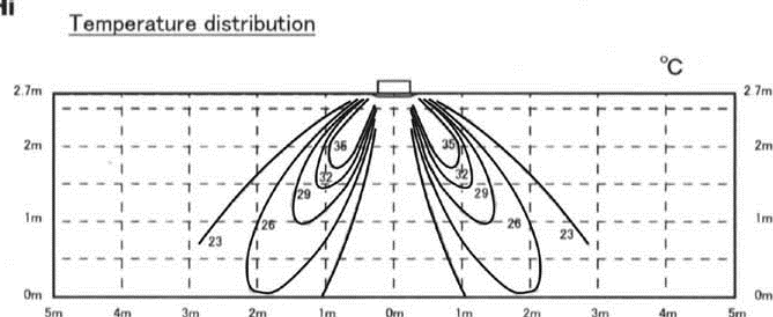
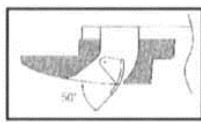
Cooling Air flow: P-Hi

Louver position



Heating Air flow: P-Hi

Louver position



Indoor temperature

Cooling 27°CDB/ 19°CWB

Heating 20°CDB

Note:

These figures represent the typical main range of temperature and velocity distribution at the center of air outlet within the published conditions.

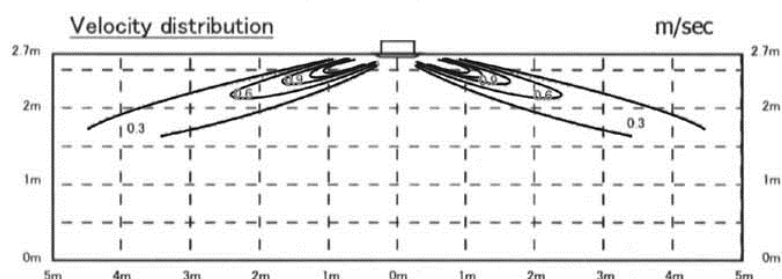
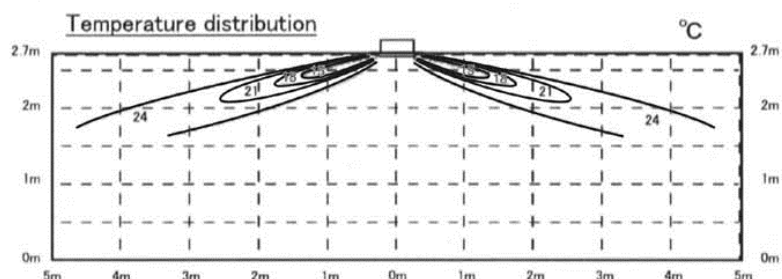
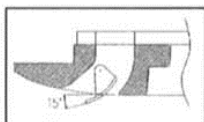
In the actual installation, they may differ from the typical figures under the influence of air temperature conditions, ceiling height, operation conditions and obstacles.

Temperature and velocity distribution

FDTC36KXE6F

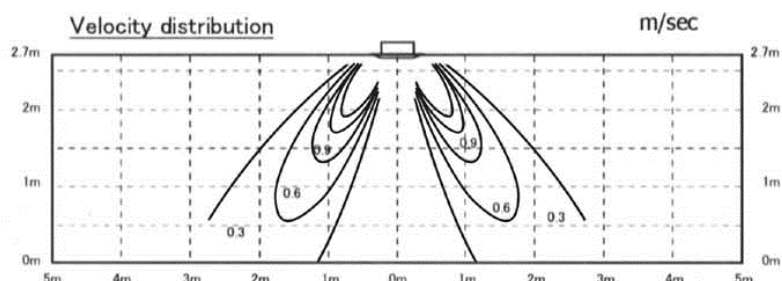
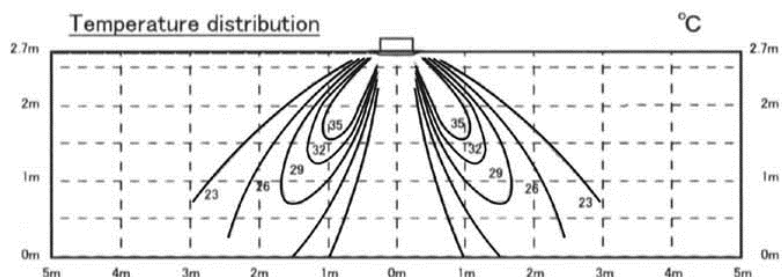
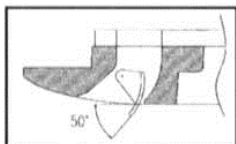
Cooling Air flow: P-Hi

Louver position



Heating Air flow: P-Hi

Louver position



Indoor temperature

Cooling 27°CDB/ 19°CWB

Heating 20°CDB

Note:

These figures represent the typical main range of temperature and velocity distribution at the center of air outlet within the published conditions.

In the actual installation, they may differ from the typical figures under the influence of air temperature conditions, ceiling height, operation conditions and obstacles.