

MITSUBISHI HEAVY INDUSTRIES

VRF

KX 100% INVERTER MULTI-UNITES



Présentation du Projet

Project: Centre des Finances Publiques
Installation: DRV 6 Synoptique DRV 4 BFROI OK

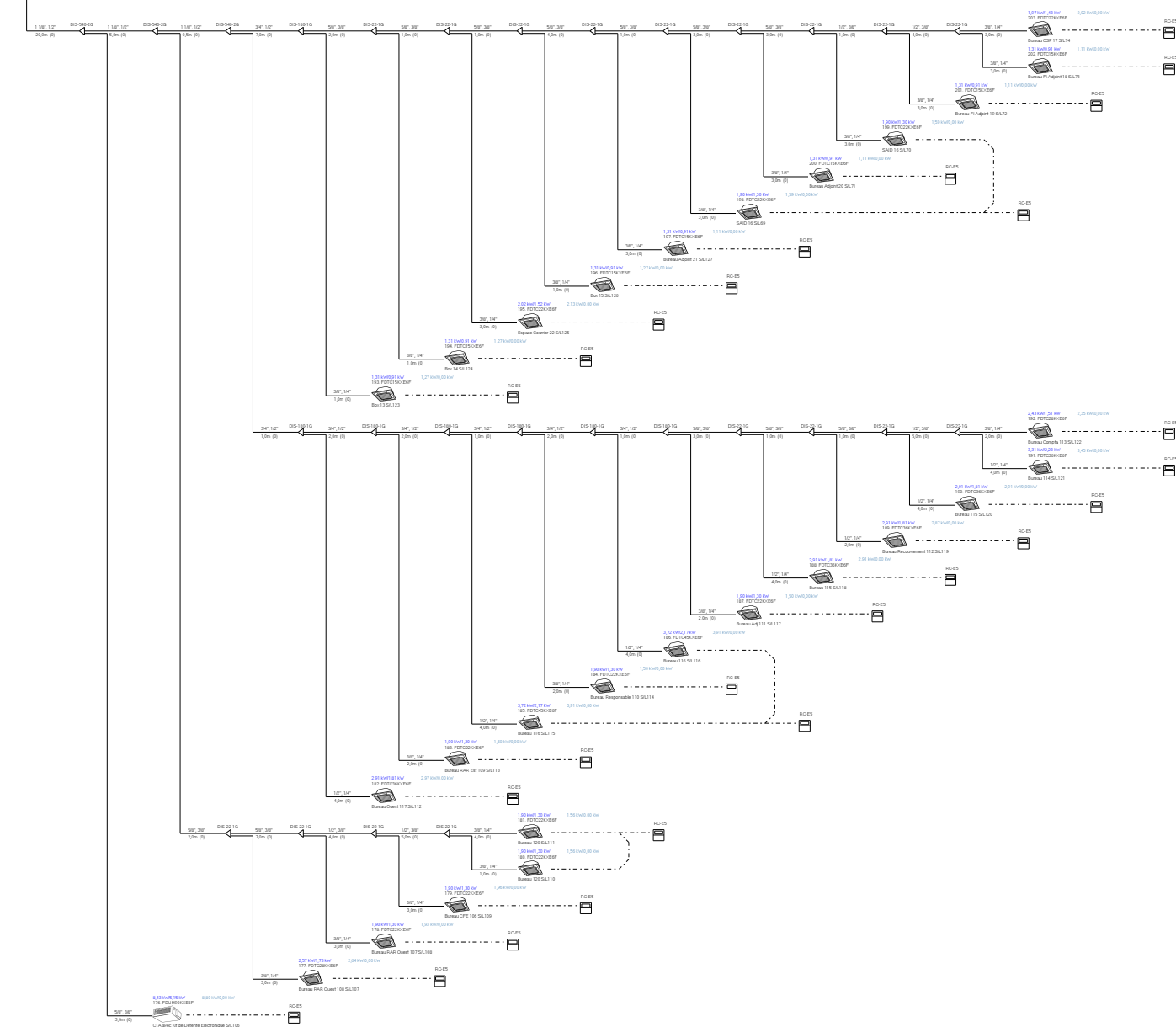
Client: BFROI

Réalisé par: FRITEC OI
Lieu: St DENIS

Date et heure de réalisation: 07/06/2013 06:20



Projet : Centre des Finances Publiques
Réf. Projet : DRV Mitsubishi
Installation : DRV 6 Synoptique DRV 4 BFR01 OK
Cond. de sélec.: 24,0°C TS , 18,6°C TH / 32,0°C TS
Longueur tot. de tuyauterie : 167,5m de 1000,0m
Nb d'UI raccordées : 28
Puissance frigo. réelle : 66,17 kW / 43,15 kW
Puissance frigo. requise : 63,81 kW / 0,00 kW
Indice de puissance raccordé : 763 / 1088
Coef : 0%
Complément de charge : 18,0 kg



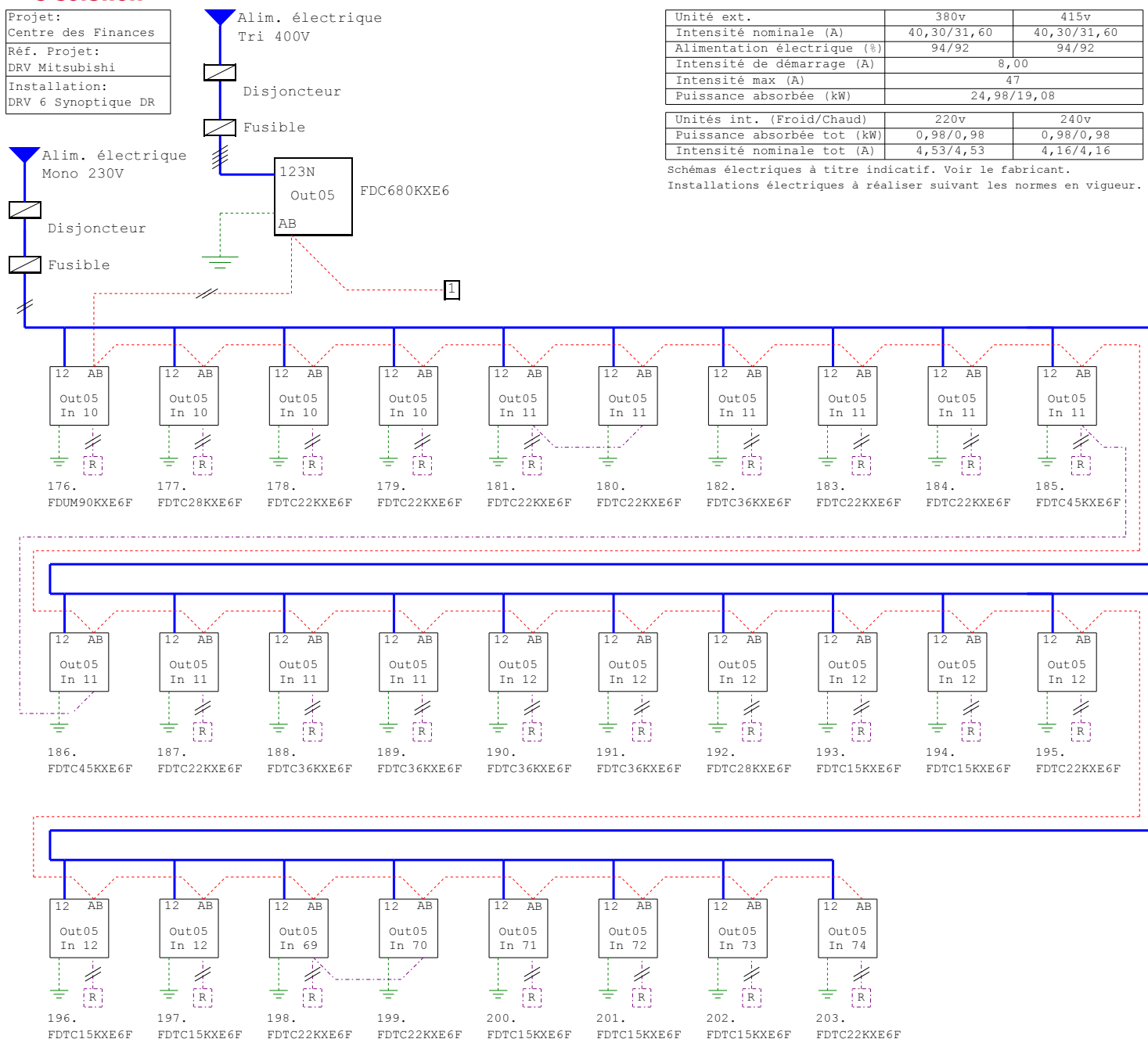
Projet : Centre des Finances Publiques
Réf. Projet : DRV Mitsubishi

Installation : DRV 6 Synoptique DRV 4 BFROI 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		FDC680KXE6	68,00	-	73,00	66,17	-	71,79					1	05	-
Intérieur	176	FDUM90KXE6F	8,85	6,21	9,75	8,43	5,15	9,10	dessous	0,0	23,0	23,0	1	05	106
Intérieur	177	FDTC28KXE6F	2,70	2,15	3,06	2,57	1,73	2,85	dessous	0,0	30,0	30,0	1	05	107
Intérieur	178	FDTC22KXE6F	2,00	1,61	2,23	1,90	1,30	2,08	dessous	0,0	37,0	37,0	1	05	108
Intérieur	179	FDTC22KXE6F	2,00	1,61	2,23	1,90	1,30	2,08	dessous	0,0	41,0	41,0	1	05	109
Intérieur	180	FDTC22KXE6F	2,00	1,61	2,23	1,90	1,30	2,08	dessous	0,0	44,0	44,0	1	05	110
Intérieur	181	FDTC22KXE6F	2,00	1,61	2,23	1,90	1,30	2,08	dessous	0,0	47,0	47,0	1	05	111
Intérieur	182	FDTC36KXE6F	3,06	2,20	3,33	2,91	1,81	3,11	dessous	0,0	30,5	30,5	1	05	112
Intérieur	183	FDTC22KXE6F	2,00	1,61	2,23	1,90	1,30	2,08	dessous	0,0	30,5	30,5	1	05	113
Intérieur	184	FDTC22KXE6F	2,00	1,61	2,23	1,90	1,30	2,08	dessous	0,0	33,5	33,5	1	05	114
Intérieur	185	FDTC45KXE6F	3,91	2,57	4,25	3,72	2,17	3,97	dessous	0,0	34,5	34,5	1	05	115
Intérieur	186	FDTC45KXE6F	3,91	2,57	4,25	3,72	2,17	3,97	dessous	0,0	37,5	37,5	1	05	116
Intérieur	187	FDTC22KXE6F	2,00	1,61	2,23	1,90	1,30	2,08	dessous	0,0	36,5	36,5	1	05	117
Intérieur	188	FDTC36KXE6F	3,06	2,20	3,33	2,91	1,81	3,11	dessous	0,0	41,5	41,5	1	05	118
Intérieur	189	FDTC36KXE6F	3,06	2,20	3,33	2,91	1,81	3,11	dessous	0,0	40,5	40,5	1	05	119
Intérieur	190	FDTC36KXE6F	3,06	2,20	3,33	2,91	1,81	3,11	dessous	0,0	43,5	43,5	1	05	120
Intérieur	191	FDTC36KXE6F	3,48	2,76	3,82	3,31	2,23	3,56	dessous	0,0	48,5	48,5	1	05	121
Intérieur	192	FDTC28KXE6F	2,55	1,83	2,86	2,43	1,51	2,67	dessous	0,0	46,5	46,5	1	05	122
Intérieur	193	FDTC15KXE6F	1,38	1,14	1,55	1,31	0,91	1,45	dessous	0,0	33,5	33,5	1	05	123
Intérieur	194	FDTC15KXE6F	1,38	1,14	1,55	1,31	0,91	1,45	dessous	0,0	35,5	35,5	1	05	124
Intérieur	195	FDTC22KXE6F	2,12	1,92	2,40	2,02	1,52	2,24	dessous	0,0	38,5	38,5	1	05	125
Intérieur	196	FDTC15KXE6F	1,38	1,14	1,55	1,31	0,91	1,45	dessous	0,0	37,5	37,5	1	05	126
Intérieur	197	FDTC15KXE6F	1,38	1,14	1,55	1,31	0,91	1,45	dessous	0,0	43,5	43,5	1	05	127
Intérieur	198	FDTC22KXE6F	2,00	1,61	2,23	1,90	1,30	2,08	dessous	0,0	44,5	44,5	1	05	69
Intérieur	199	FDTC22KXE6F	2,00	1,61	2,23	1,90	1,30	2,08	dessous	0,0	50,5	50,5	1	05	70
Intérieur	200	FDTC15KXE6F	1,38	1,14	1,55	1,31	0,91	1,45	dessous	0,0	47,5	47,5	1	05	71
Intérieur	201	FDTC15KXE6F	1,38	1,14	1,55	1,31	0,91	1,45	dessous	0,0	51,5	51,5	1	05	72
Intérieur	202	FDTC15KXE6F	1,38	1,14	1,55	1,31	0,91	1,45	dessous	0,0	55,5	55,5	1	05	73
Intérieur	203	FDTC22KXE6F	2,07	1,80	2,32	1,97	1,43	2,16	dessous	0,0	55,5	55,5	1	05	74
TOTAL			69.49	53.00	76.95	66.17	43.15	71.79							

Projet:
Centre des Finances
Réf. Projet:
DRV Mitsubishi
Installation:
DRV 6 Synoptique DR



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 6 Synoptique DRV 4 BFROI OK

Unité ext.	Qté
FDC680KXE6	1

Unité int.	Qté
FDUM90KXE6F	1
FDTC28KXE6F	2
FDTC22KXE6F	11
FDTC36KXE6F	5
FDTC45KXE6F	2
FDTC15KXE6F	7

Façade	Qté
TC-PSA-25W-E	27

Dérivation	Qté
DIS-540-2G	3
DIS-22-1G	17
DIS-180-1G	7

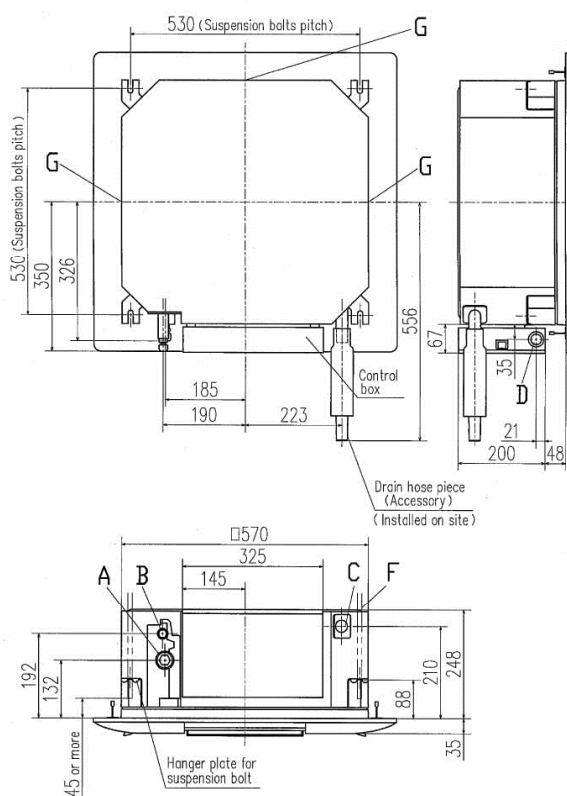
Télécommandes à distance	Qté
RC-E5	25

Complément de charge	18,0 kg
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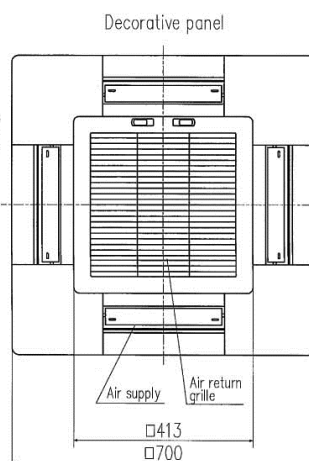
Diam. tuyauterie	L. totale (m)
1/4"	75,0
3/8"	100,0
1/2"	86,5
5/8"	32,0
3/4"	16,0
1 1/8"	25,5

FDTC28KXE6F

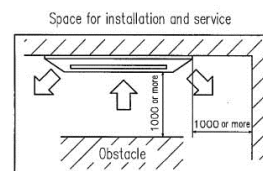
Unit:mm



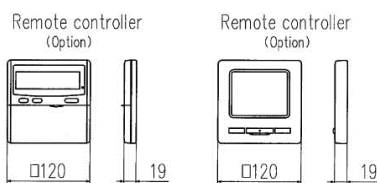
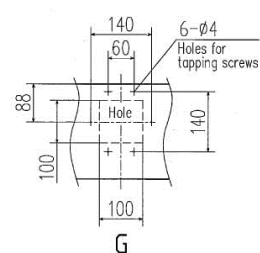
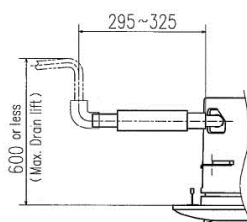
- Notes (1) The model name label is attached on the control box lid.
(2) Prepare the connecting socket (VP20) on site.
(3) This unit is designed for 2x2 grid ceiling.
If it is installed on a ceiling other than 2x2 grid ceiling,
provide an inspection port on the control box side.



Symbol	Content
	Model 22,28 36,45,56
A	Gas piping $\phi 5.2 (3/8")$ (Flare) $\phi 12.7 (1/2")$ (Flare)
B	Liquid piping $\phi 6.35 (1/4")$ (Flare)
C	Drain piping VP20 (I.D.20, O.D.26) Note (2)
D	Hole for wiring $\phi 25$
F	Suspension bolts (M10 or M8)
G	Air outlet opening for ducting (Knock out)

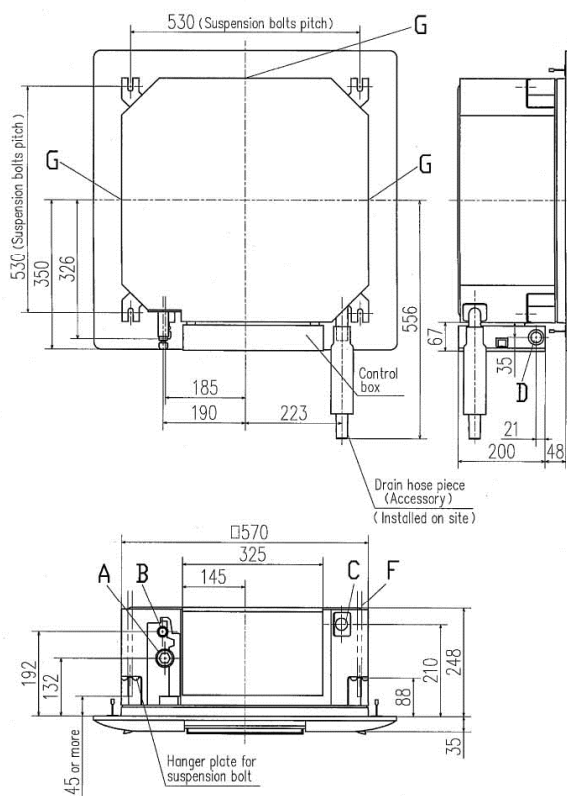


Make a space of 4000 or more between the units when installing more than one.

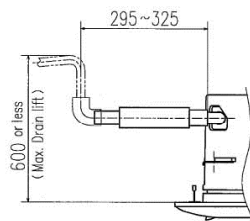
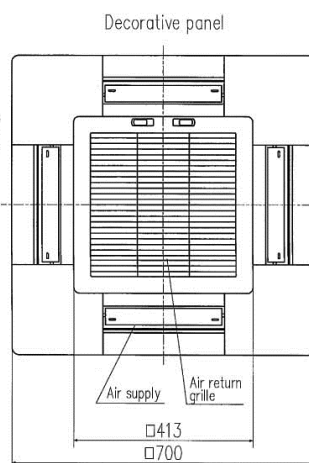


FDTC36KXE6F

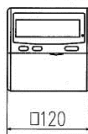
Unit:mm



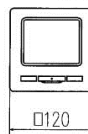
Notes (1) The model name label is attached on the control box lid.
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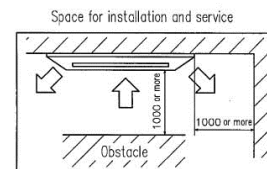
Remote controller
(Option)



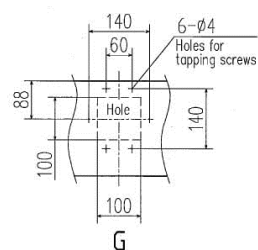
Remote controller
(Option)



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)

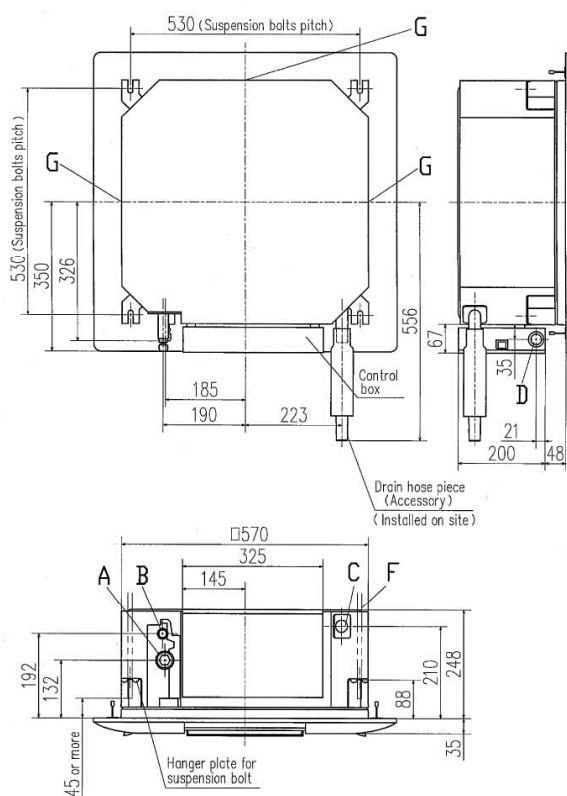


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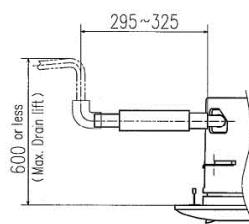
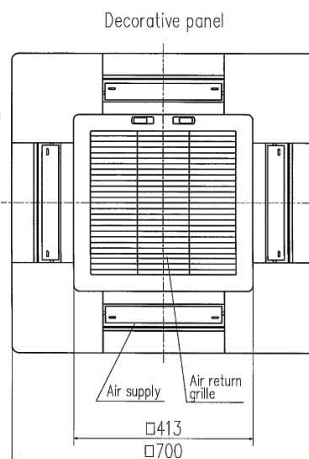


FDTC45KXE6F

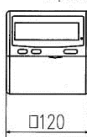
Unit:mm



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.



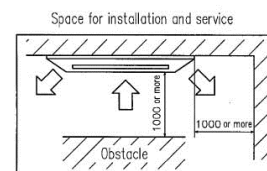
Remote controller
(Option)



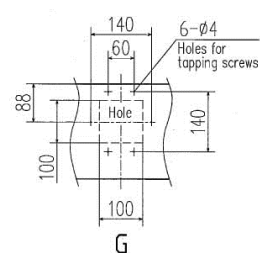
Remote controller
(Option)



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)

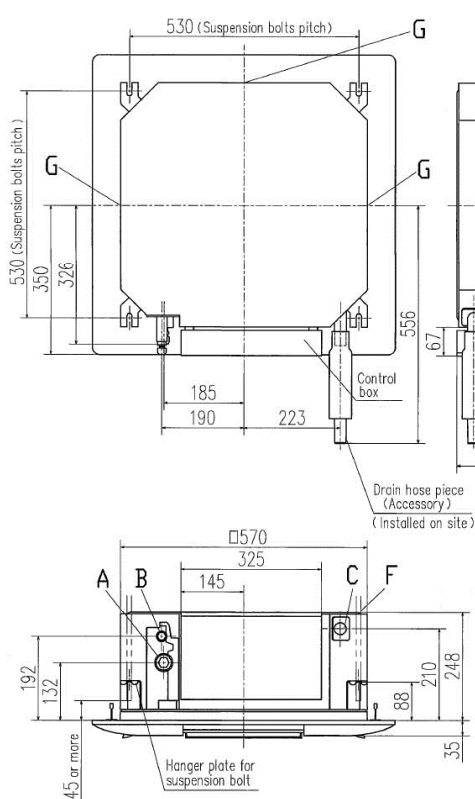


Make a space of 4000 or more between the units when installing more than one.



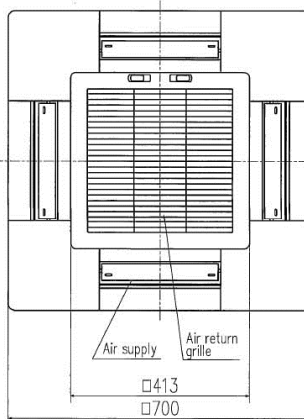
FDTC15KXE6F

Unit:mm



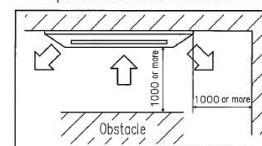
Notes (1) The model name label is attached on the control box lid.
(2) This unit is designed for 2x2 grid ceiling.
If it is installed on a ceiling other than 2x2 grid ceiling,
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Decorative panel

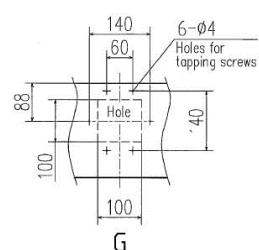
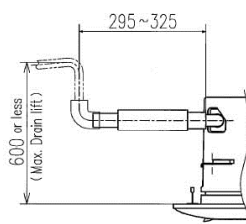


Symbol	Model	15,22,28	36,45,56
A	Gas piping	φ9.52 (3/8") (Flare)	φ12.7 (1/2") (Flare)
B	Liquid piping	φ6.35 (1/4") (Flare)	
C	Drain piping	VP25 (O.D.32)	
D	Hole for wiring	φ25	
F	Suspension bolts	(M10 or M8)	
G	Air outlet opening for ducting	(Knock out)	

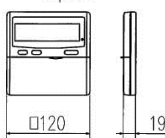
Space for installation and service



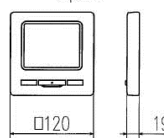
Make a space of 4000 or more between the units when installing more than one.



Remote controller (Option)

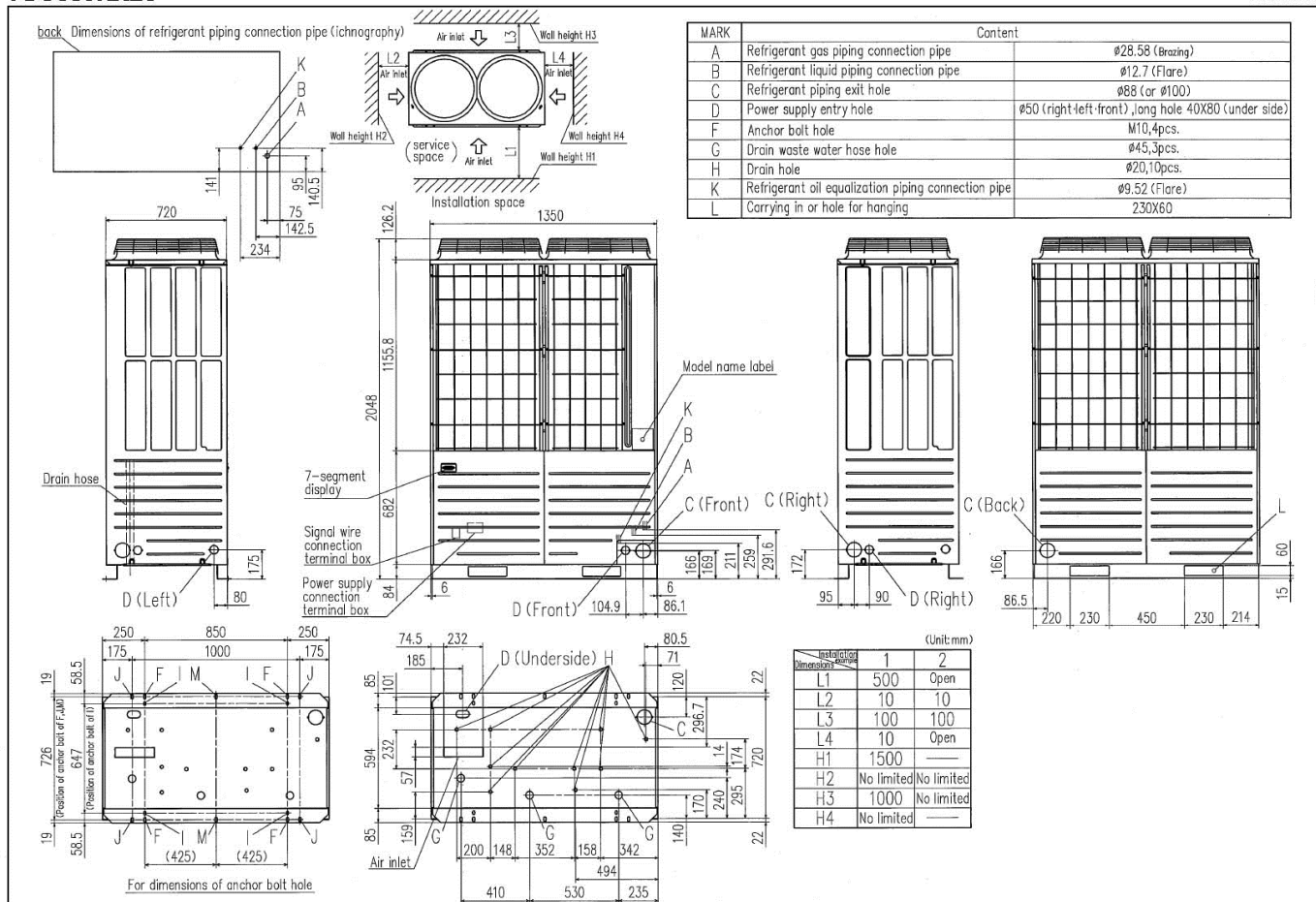


Remote controller (Option)



FDC680KXE6

Unit:mm



Duct Connected -Middle static pressure- type (FDUM)

Models			FDUM90KXE6F
			-
Nominal cooling capacity	kW		9.0
Nominal heating capacity			10.0
Power source			220-240V~ 50Hz / 220V~ 60Hz
Power consumption	Cool	kW	0.20 - 0.20 / 0.20
	Heat		0.20 - 0.20 / 0.20
Running current	Cool	A	0.91 - 0.83 / 0.91
	Heat		0.91 - 0.83 / 0.91
Sound Pressure Level		dB(A)	P-Hi : 38 Hi : 33 Me : 29 Lo : 25
Exterior dimensions Height x Width x Depth		mm	280 × 950 × 635
			-
Net weight	kg		34
Refrigerant equipment Heat exchanger			Louver fin & inner grooved tubing
Refrigerant control			Electronic Expansion Valve
Air handling equipment Fan type & Q'ty			Centrifugal fan × 2
Motor	W		130
Starting method			Direct line start
Air flow(Standard)	CMM		P-Hi : 24 Hi : 19 Me : 15 Lo : 10
External static pressure	Pa		100 (at 24 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	35
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			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				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		mm	Unit : 248 × 570 × 570				
Height x Width x Depth			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	27 °C	19 °C	35 °C	24 °C	
Heating*2	20 °C	7 °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			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.

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

Models			FDTC45KXE6F
Panel model (Option)			TC-PSA-25W-E
Nominal cooling capacity*1	kW		4.5
Nominal heating capacity*2			5.0
Power source			220-240V~ 50Hz / 220V~ 60Hz
Power consumption	Cool	kW	0.05 - 0.05 / 0.05
	Heat		0.05 - 0.05 / 0.05
Running current	Cool	A	0.25 - 0.23 / 0.25
	Heat		0.25 - 0.23 / 0.25
Sound Pressure Level	Cool	dB(A)	P-Hi : 48 Hi : 40 Me : 37 Lo : 31
	Heat		P-Hi : 48 Hi : 40 Me : 37 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 : 15 Hi : 11 Me : 9 Lo : 7
	Heat		P-Hi : 15 Hi : 11 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.

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

Models			FDTC15KXE6F		
Panel model (Option)			TC-PSA-25W-E		
Nominal cooling capacity*1		kW	1.5		
Nominal heating capacity*2			1.7		
Power source			220-240V~ 50Hz / 220V~ 60Hz		
Power consumption	Cool	kW	0.02 - 0.02 / 0.02		
	Heat		0.02 - 0.02 / 0.02		
Running current	Cool	A	0.06 - 0.05 / 0.06		
	Heat		0.06 - 0.05 / 0.06		
Sound Pressure Level	Cool	dB(A)	P-Hi : 34 Hi : 32 Me : 28 Lo : 25		
	Heat		P-Hi : 34 Hi : 32 Me : 28 Lo : 25		
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 : 8 Hi : 7 Me : 5.5 Lo : 4.5		
	Heat		P-Hi : 8 Hi : 7 Me : 5.5 Lo : 4.5		
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	27 °C	19 °C	35 °C	24 °C	
Heating*2	20 °C	7 °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	FDC560KXE6-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		375		
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		Electronic expansion valve								
Refrigerant control		R410A								
Refrigerant		11.5								
Quantity	kg	4.2 (M-MA32R)								
Refrigerant oil	l	Microcomputer controlled De-Icer								
Defrost control		Propeller fan x 2								
Air handling equipment		386x2								
fan type & Q'ty		Direct start								
Motor	W	220/180				250/220		260/240		270/250
Starting method		Max.50								
Air flow (Standard)	CMM	Rubber mount (for compressor)								
Static pressure	Pa	Compressor overheat protection / overcurrent protection / power transistor overheating protection / abnormal high pressure protection								
Shock & vibration absorber		Liquid line: #12.7 (1/2")								
safety equipment		Gas line: #25.4 (1") (#28.58 (11/8"))				Gas line: #28.58 (11/8")				
Installation data	mm (in)	Gas line: Brazing / Liquid line: Flare								
Refrigerant piping size		High 4.15 Low 2.21								
Connecting method		Hole for drain (#20 x 10pcs , #45 x 3pcs)								
MAX. Pressure	MPa	Necessary (both Liquid & Gas lines)								
Drain										
Insulation for piping										
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

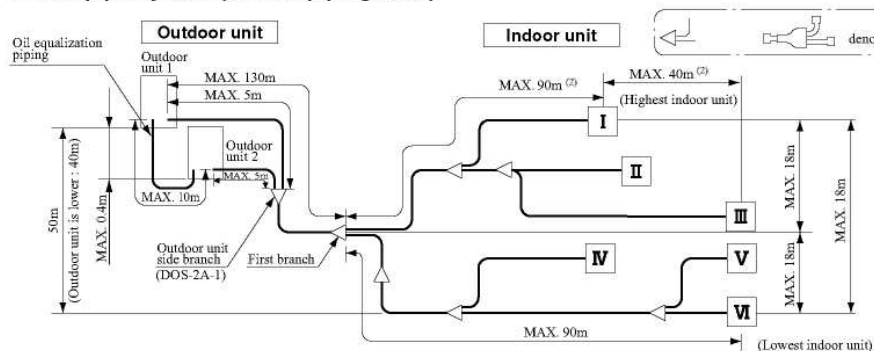
- (2) This packaged air-conditioner is manufactured and tested in conformity with the following standard.
ISO-T1 "UNITARY AIR-CONDITIONERS"
- (3) Refrigerant piping size applicable to European installations are shown in parentheses.

Range of usage & limitations

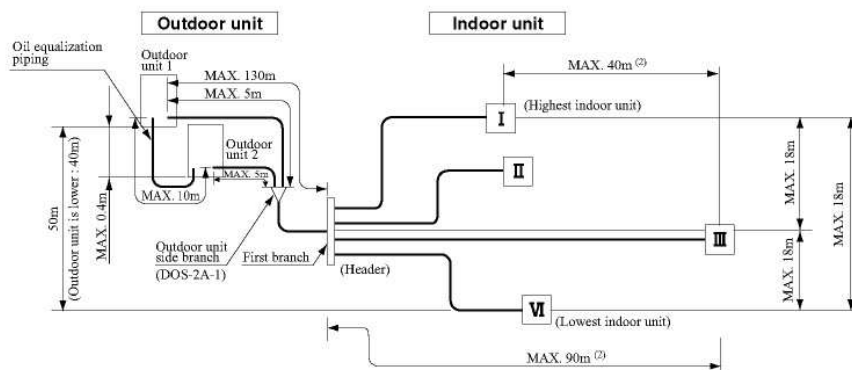
FDC680KXE6

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

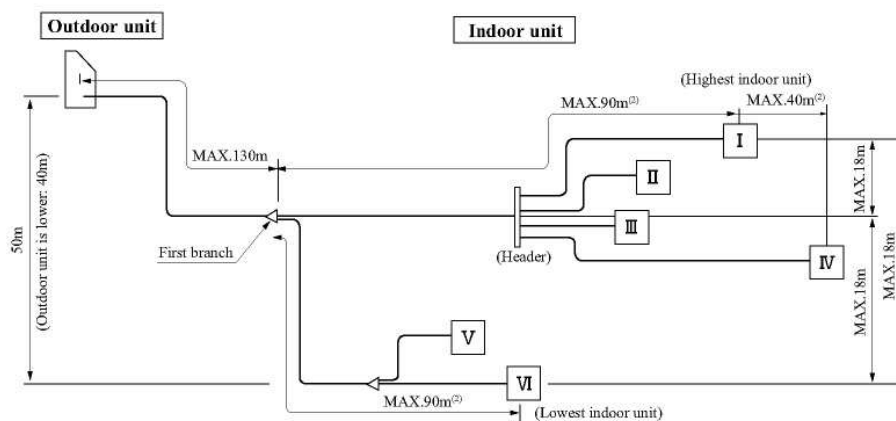
(1) Branch pipe System (Branch piping used)



(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.

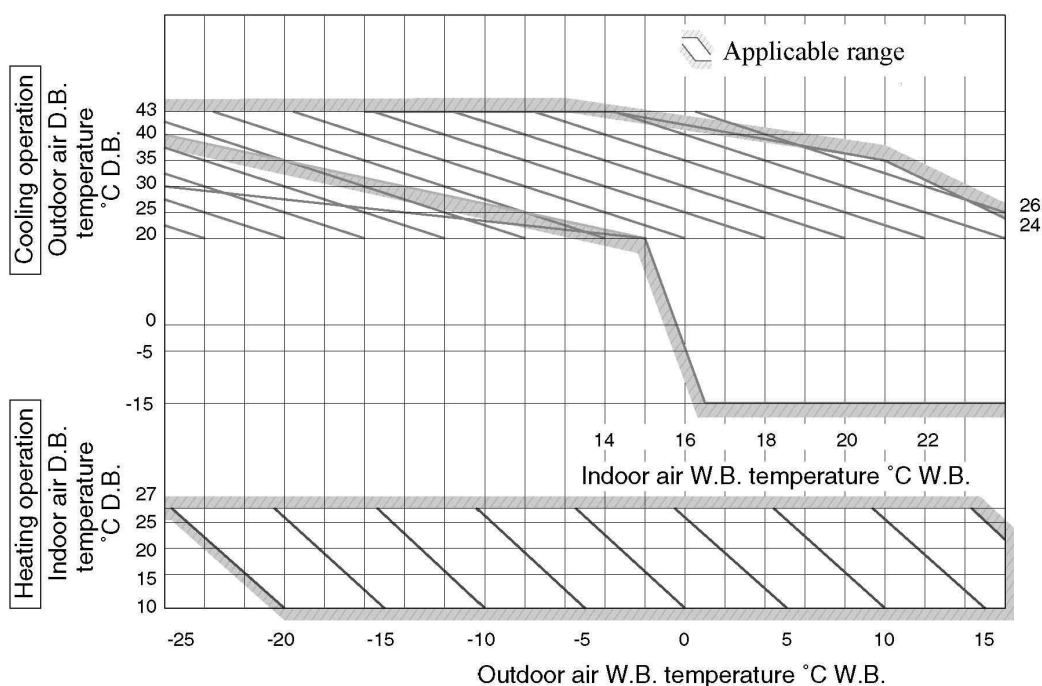
(2) 90m or less (However, difference between the longest and shortest piping : 40m or less)

Important

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

Outdoor unit	P (kg)
735-1360	100

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

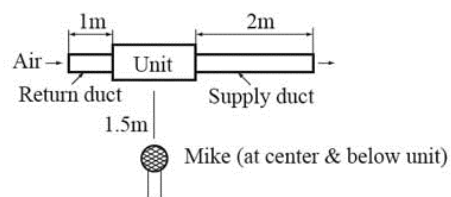
- 1) Install the outdoor unit at the place where strong wind cannot blow directly into the outdoor unit.
- 2) If there is no installation place where can prevent strong wind from directly blowing into the outdoor unit, prepare a windbreak fence or something like that locally in order to divert the strong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

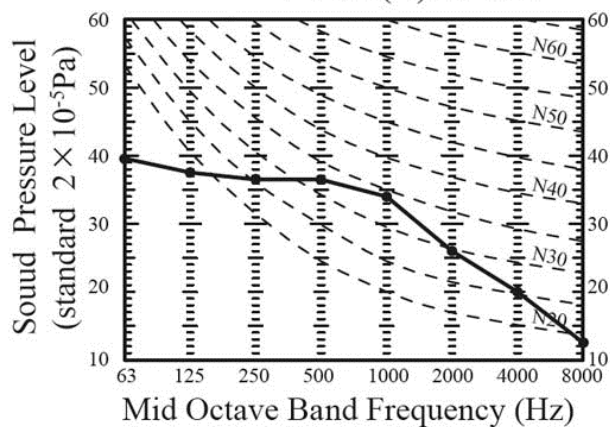
Noise Level

Measured based on JIS B 8616
Mike position as right



FDUM90KXE6F

Noise level 38 dB (A) at P-HIGH
33 dB (A) at HIGH
29 dB (A) at MEDIUM
25 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



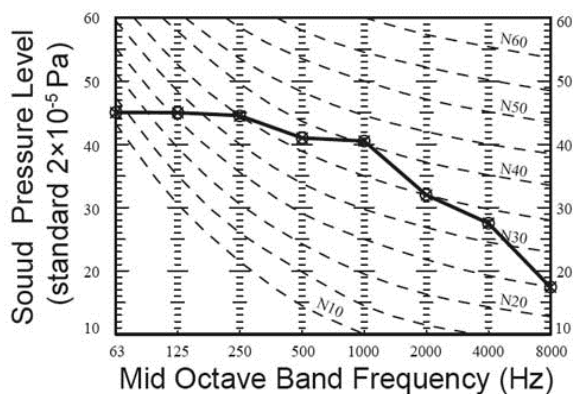
FDTC28KXE6F

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.

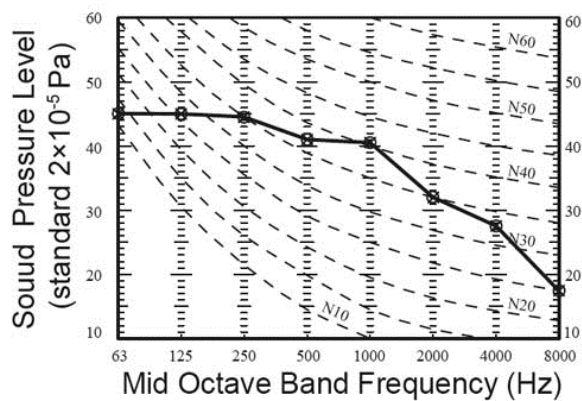
Measured based on JIS B 8616

Mike position as right



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



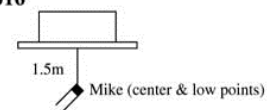
Noise level

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



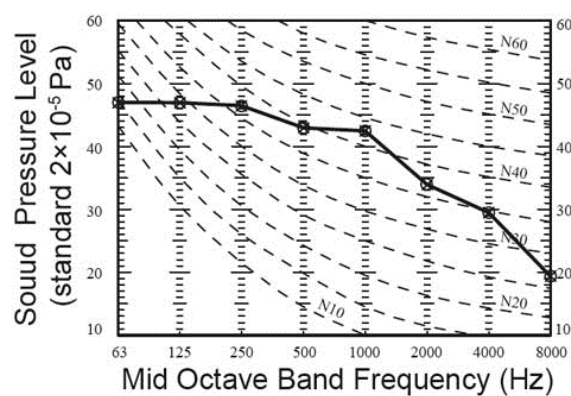
FDTC36KXE6F

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



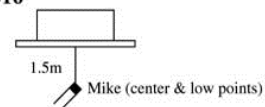
Noise level

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



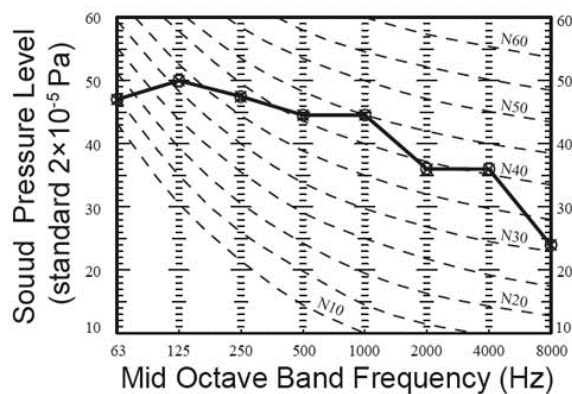
FDTC45KXE6F

Noise level 48 [48] dB (A) at P-HIGH

40 [40] dB (A) at HIGH

37 [37] dB (A) at MEDIUM

31 [34] dB (A) at LOW



Noise Level

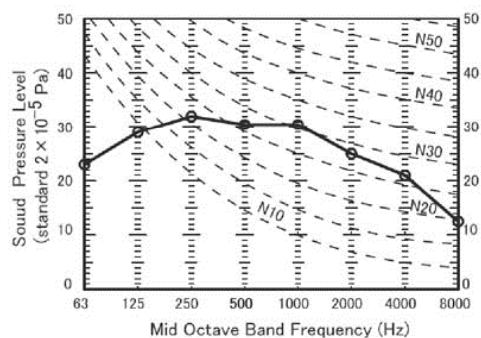
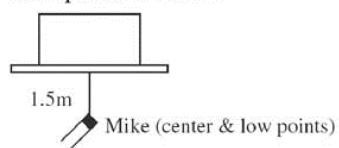
Ceiling cassette-4 way compact type (FDTC)

FDTC15KXE6F

Noise level 34 dB (A) at P-HIGH
32 dB (A) at HIGH
28 dB (A) at MEDIUM
25 dB (A) at LOW

Measured based on JIS B 8616

Mike position as below



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 of reflection.

Noise level

Measured based on JIS B 8616

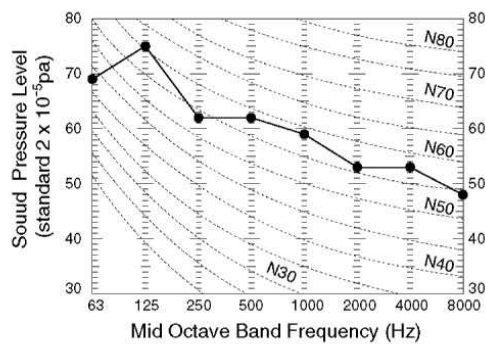
Mike position as highest noise level in position as below

Distance from front side 1m

Height 1m

FDC680KXE6

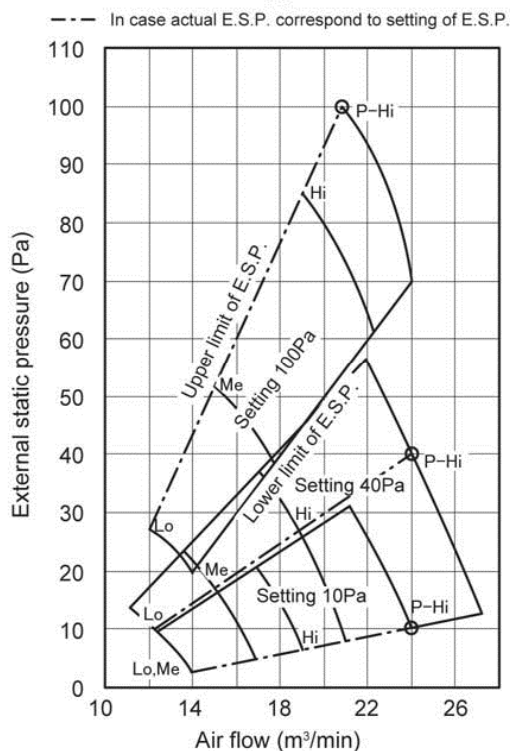
Noise level 65 dB (A) at cooling
65 dB (A) at heating



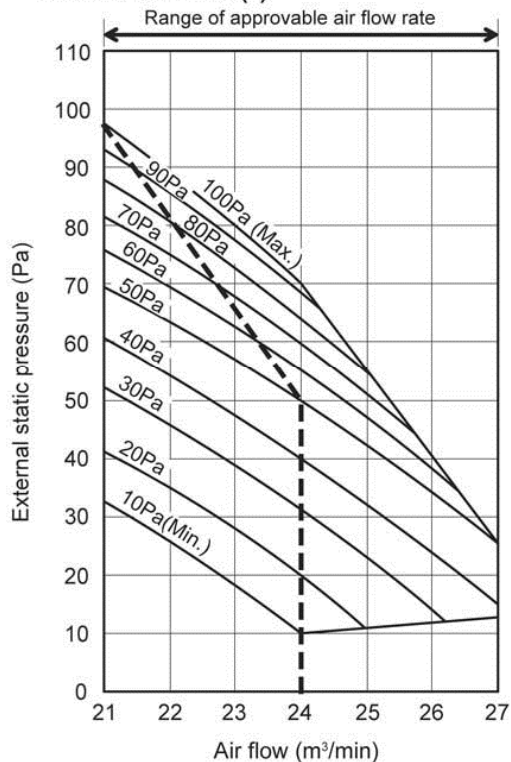
Characteristics of fan

FDUM90KXE6F

Characteristic FAN(1)



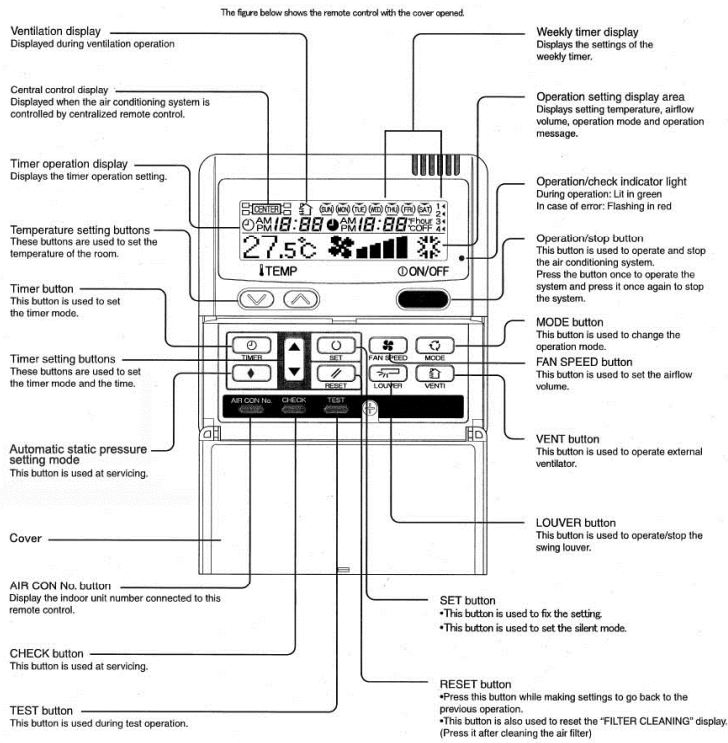
Characteristic FAN(2)



- 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

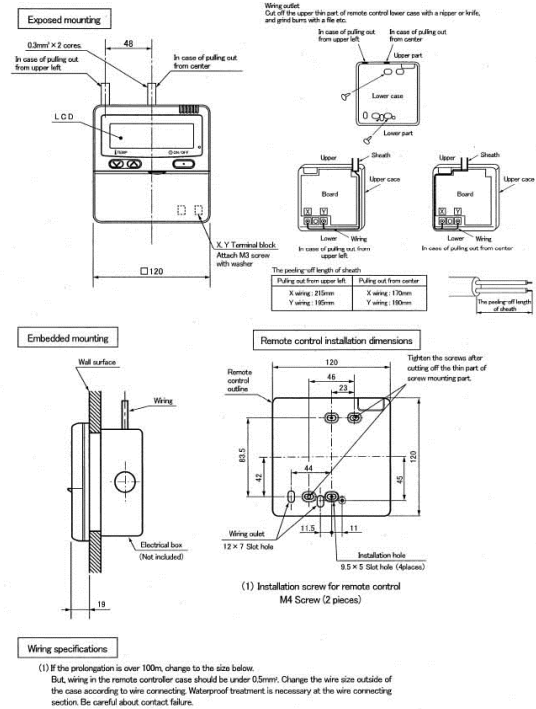


* All displays are described in the liquid crystal display for explanation.

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



Length	Wiring thickness
100 to 200m	0.5mm ² X 2 cores
Under 300m	0.75mm ² X 2 cores
Under 400m	1.25mm ² X 2 cores
Under 600m	2.0mm ² X 2 cores

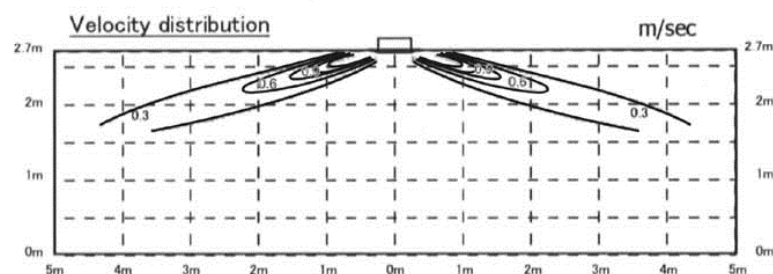
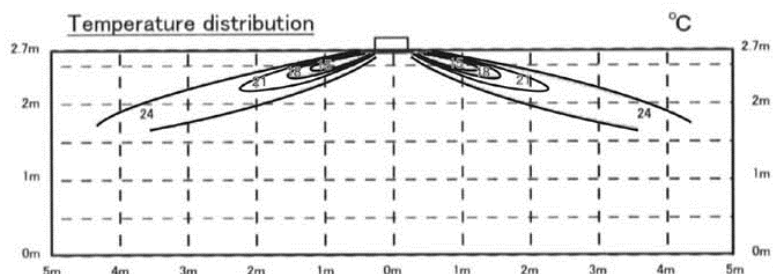
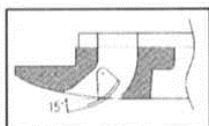
Adapted to RoHS directive

Temperature and velocity distribution

FDT C28KXE6F

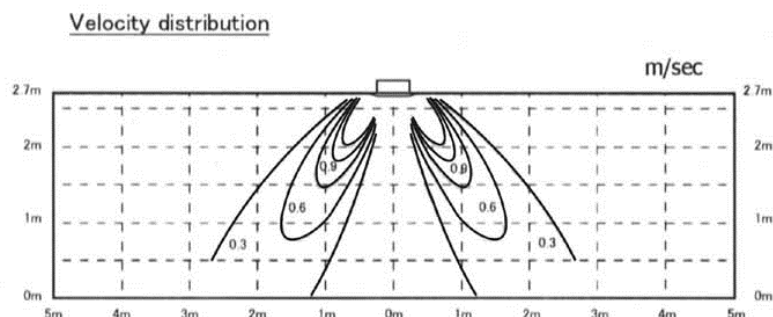
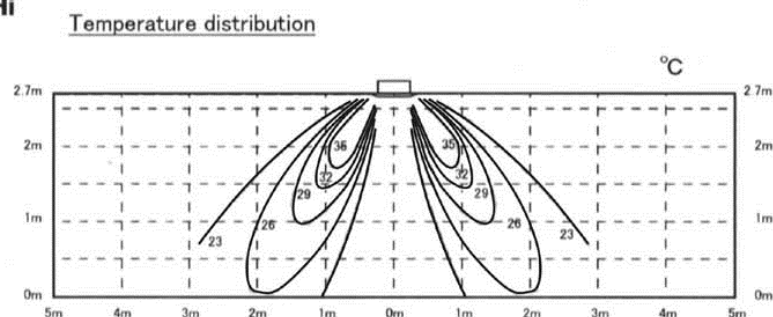
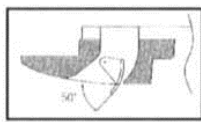
Cooling Air flow: P-Hi

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.

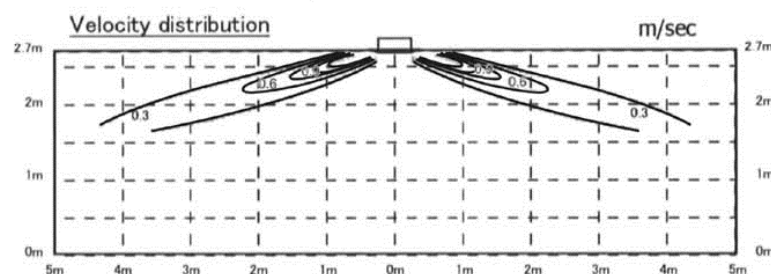
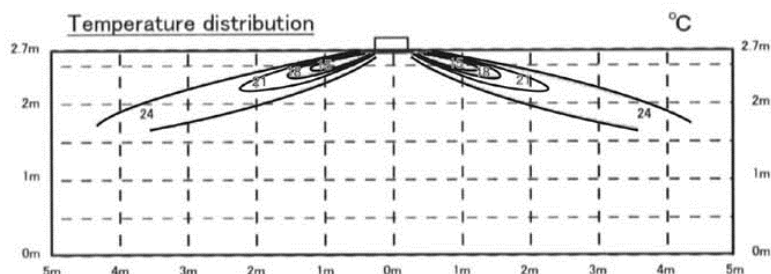
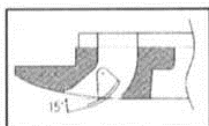
In the actual installation, they may differ from the typical figures under the influence of air temperature conditions, ceiling height, operation conditions and obstacles.

Temperature and velocity distribution

FDTC22KXE6F

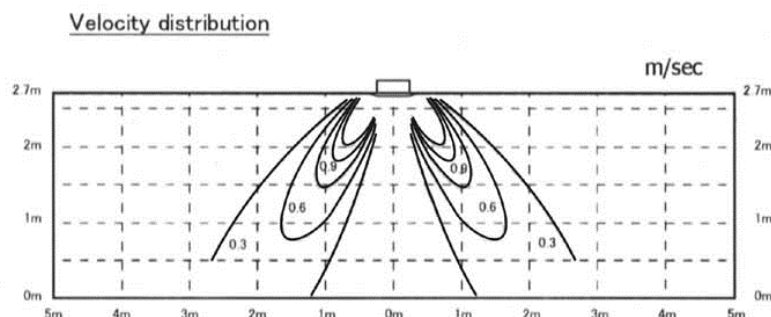
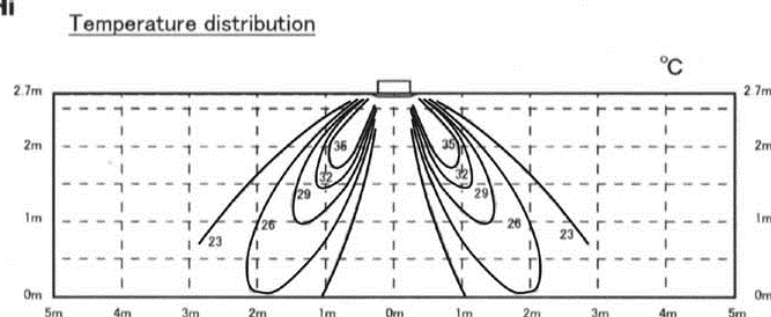
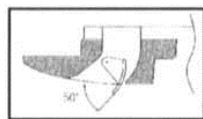
Cooling Air flow: P-Hi

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.

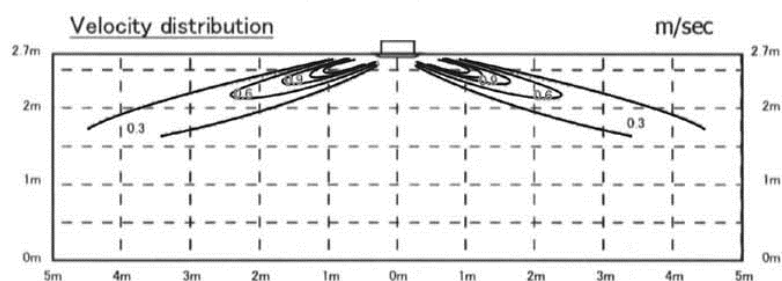
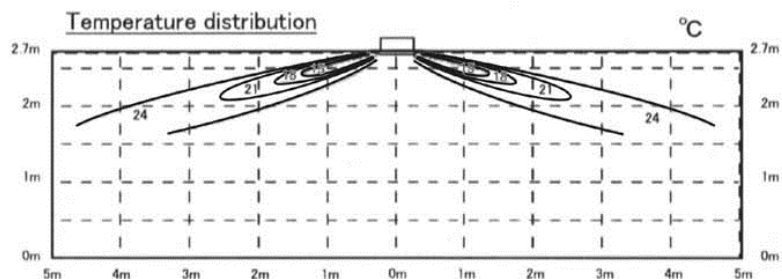
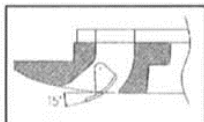
In the actual installation, they may differ from the typical figures under the influence of air temperature conditions, ceiling height, operation conditions and obstacles.

Temperature and velocity distribution

FDT C36KXE6F

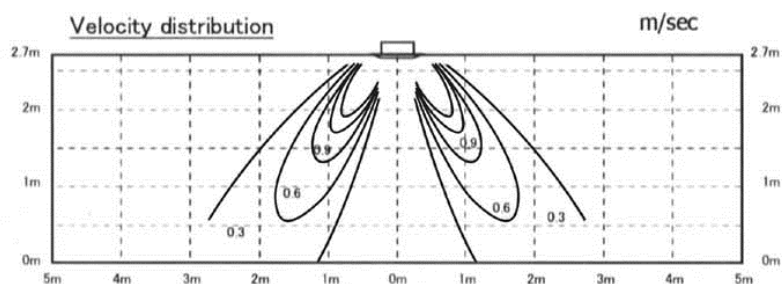
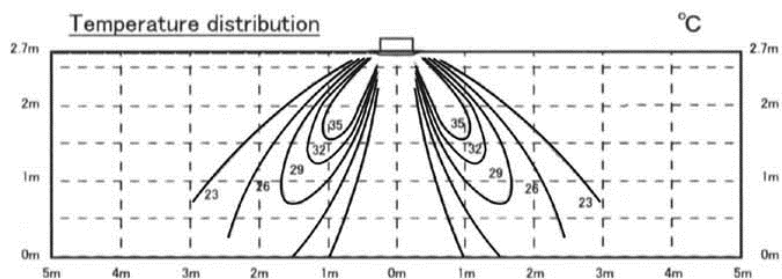
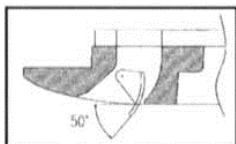
Cooling Air flow: P-Hi

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.

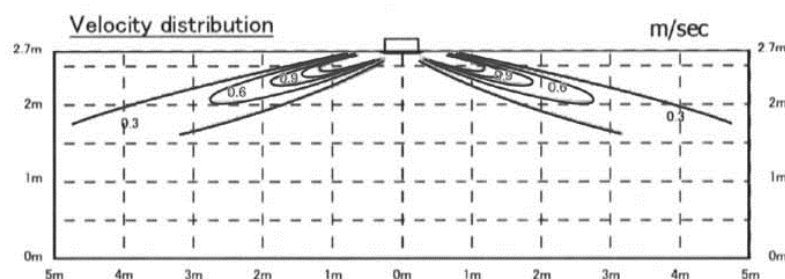
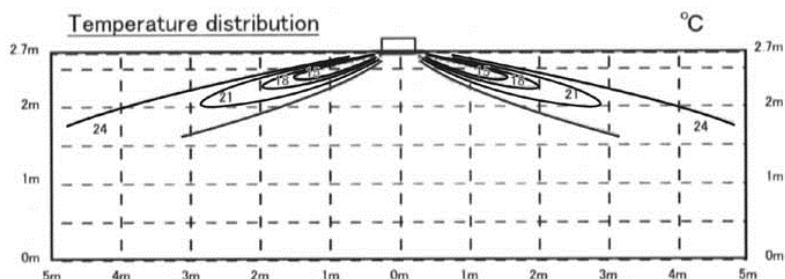
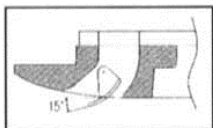
In the actual installation, they may differ from the typical figures under the influence of air temperature conditions, ceiling height, operation conditions and obstacles.

Temperature and velocity distribution

FDTC45KXE6F

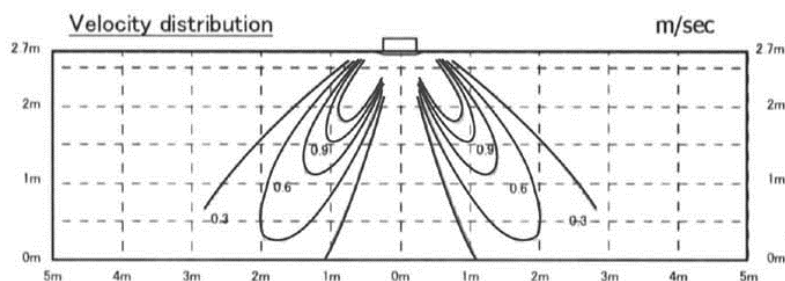
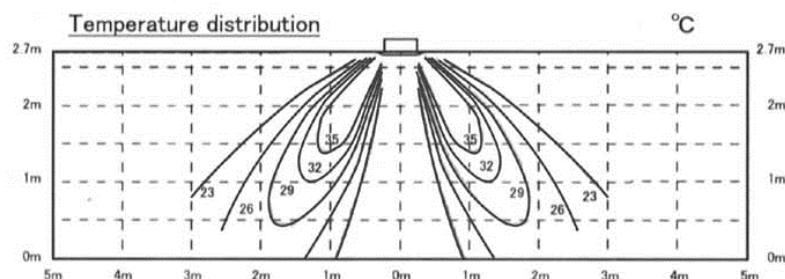
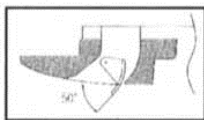
Cooling Air flow: P-Hi

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.

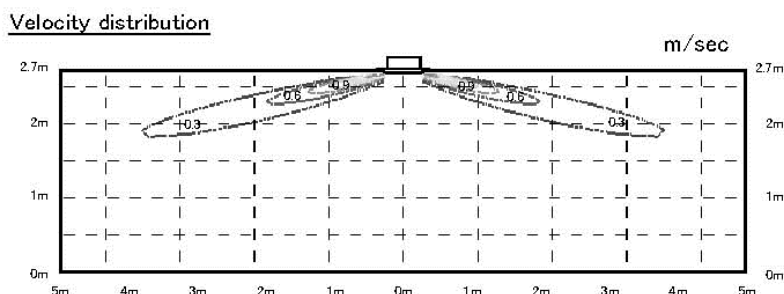
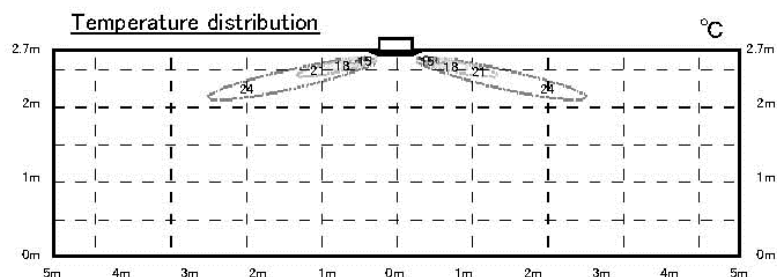
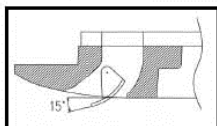
In the actual installation, they may differ from the typical figures under the influence of air temperature conditions, ceiling height, operation conditions and obstacles.

Temperature and velocity distribution

FDTC15KXE6F

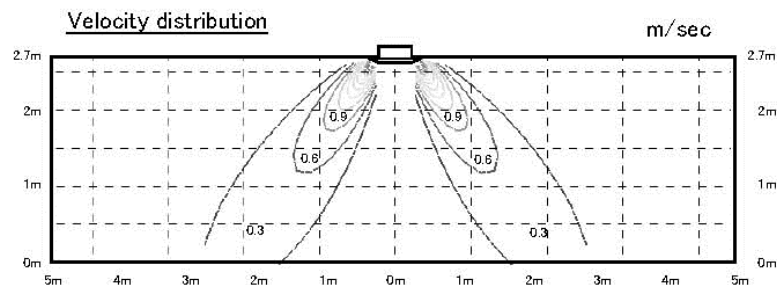
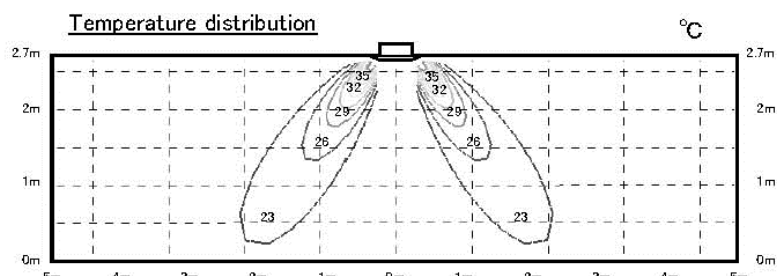
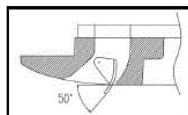
Cooling Air flow: P-Hi

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.