Pasūtītājs: **SIA „Jelgavas nekustamā īpašuma pārvalde"**
Reģ. Nr. 43603011548
Juridiskā adrese: Pulkveža Brieža iela 26,
Jelgava, LV-3007

Objekts: **Administratīvā ēka**
Pulkveža Brieža ielā 26, Jelgavā

AVK

TELPU GAISA DZESĒŠANAS RISINĀJUMS

Līgums Nr.12/2018

Izpildītājs: **SIA „AVK risinājumi"**
Reģ.Nr.: 40203031452
Būvkomersanta Reģ. Nr.: 13364
Adrese: Vienības gatve 186a-101, LV-1058
Tālr.: 26523622
e-pasts: ilze.dimdina@gmail.com

Valdes locekle, projektētāja .....
Ilze Dimdiņa
Sert.Nr.: 3-01735 (sfēra Nr.05-50-00354)

Rīgā, 2018. gads

Satura rādītājs

AVK-IS
DZESĒŠANA. IEKĀRTU UN MATERIĀLU SPECIFIKĀCIJA.

Objekta nosaukums: Administratīvā ēka
Objekta adrese: Pulkveža Brieža iela 26, Jelgava, LV-3007

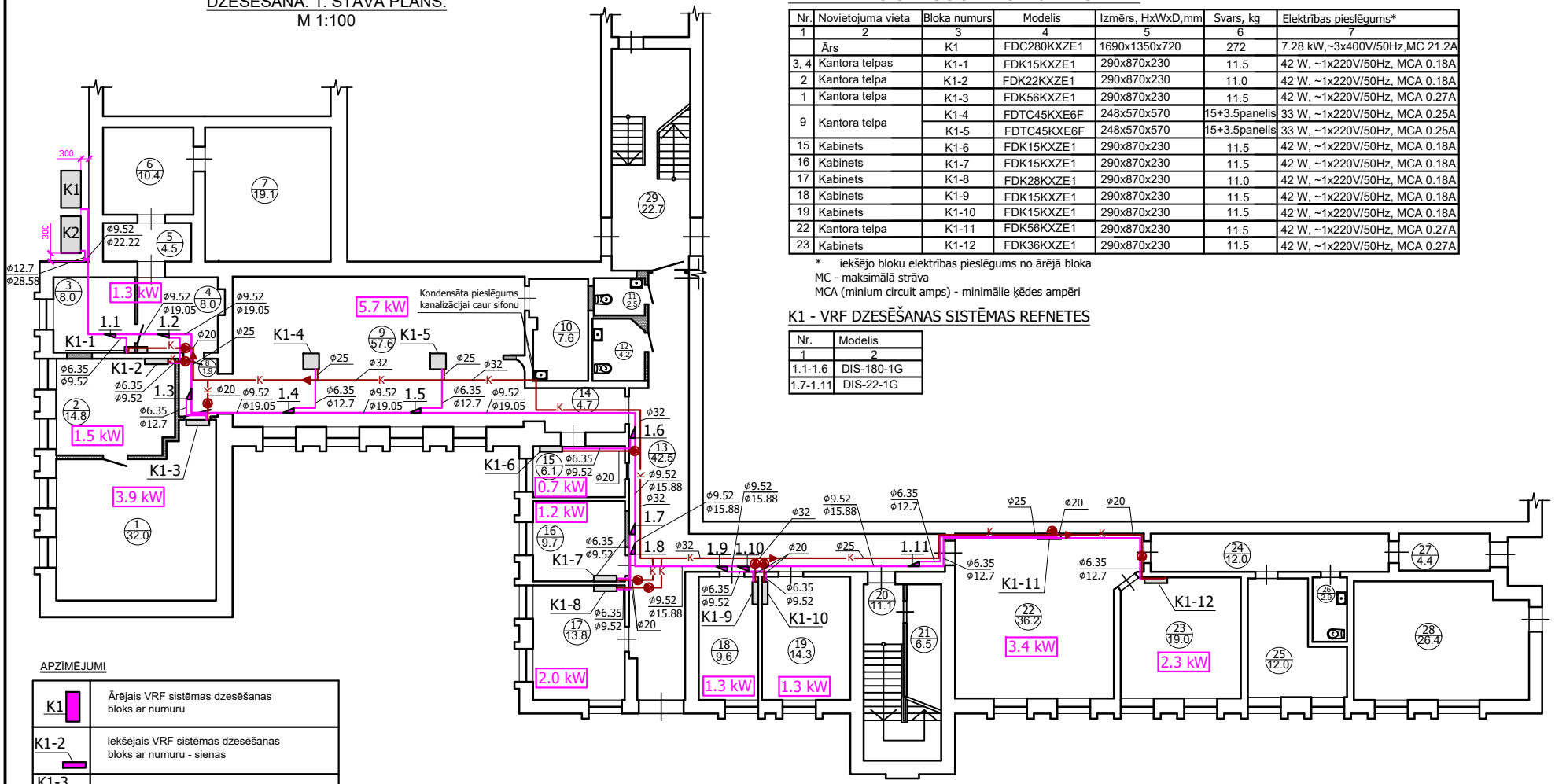
Nr.	Darbu un materiālu nosaukums	Modelis, Izmērs	Ražotājs (valsts)	Mērvienība	Daudzums
1	2	3	4	5	6
	K1 - VRF dzesēšanas sistēma 1.stāvam				
1	Ārējais dzesēšanas bloks (nominālā dzesēšanas jauda 28.0 kW, ~3x400V/50Hz; Imax=21.2 A)	FDC280KXZE1	Mitsubishi Heavylnd.(JP)	Kompl.	1,0
2	Iekšējais sienas dzesēšanas bloks (nominālā dzesēšanas jauda 1.36 kW)	FDK15KXZE1	Mitsubishi Heavylnd.(JP)	Kompl.	5,0
3	Iekšējais sienas dzesēšanas bloks (nominālā dzesēšanas jauda 1.73 kW)	FDK22KXZE1	Mitsubishi Heavylnd.(JP)	Kompl.	1,0
4	Iekšējais sienas dzesēšanas bloks (nominālā dzesēšanas jauda 2.2 kW)	FDK28KXZE1	Mitsubishi Heavylnd.(JP)	Kompl.	1,0
5	Iekšējais sienas dzesēšanas bloks (nominālā dzesēšanas jauda 2.5 kW)	FDK36KXZE1	Mitsubishi Heavylnd.(JP)	Kompl.	1,0
6	Iekšējais sienas dzesēšanas bloks (nominālā dzesēšanas jauda 4.07 kW)	FDK56KXZE1	Mitsubishi Heavylnd.(JP)	Kompl.	2,0
7	Iekšējā griestu dzesēšanas kasete (nominālā dzesēšanas jauda 3.91 kW)	FDTC45KXZE6F	Mitsubishi Heavylnd.(JP)	Kompl.	2,0
8	Iekšējā griestu dzesēšanas kasetes dekoratīvais panelis	TC-PSA-25W-E	Mitsubishi Heavylnd.(JP)	Kompl.	2,0
9	Bezvadu pults iekšējiem blokiem (atbilstoši telpu skaitam ar vienu bloku)	RCN-K-E2	Mitsubishi Heavylnd.(JP)	Gab.	10,0
10	Bezvadu pults iekšējiem blokiem (atbilstoši telpu skaitam ar diviem blokiem)	RCN-TC-24W-E2	Mitsubishi Heavylnd.(JP)	Gab.	1,0
11	Freona cauruļu savienojumi - refnetes	DIS-180-1G	Mitsubishi Heavylnd.(JP)	Gab.	6,0
12	Freona cauruļu savienojumi - refnetes	DIS-22-1G	Mitsubishi Heavylnd.(JP)	Gab.	5,0
13	Rūpnieciski ražotas un izolētas vara caurules freonam	ø6.35 mm	KME (DE)	m	48,0
14	Rūpnieciski ražotas un izolētas vara caurules freonam	ø9.52 mm	KME (DE)	m	70,0
15	Rūpnieciski ražotas un izolētas vara caurules freonam	ø12.7 mm	KME (DE)	m	26,0
16	Rūpnieciski ražotas un izolētas vara caurules freonam	ø15.88 mm	KME (DE)	m	14,0
17	Rūpnieciski ražotas un izolētas vara caurules freonam	ø19.05 mm	KME (DE)	m	22,0
18	Rūpnieciski ražotas un izolētas vara caurules freonam	ø22.22 mm	KME (DE)	m	12,0
19	Caurule kondensāta novadīšanai	ø20 mm	-	m	25,0
20	Caurule kondensāta novadīšanai	ø25 mm	-	m	20,0
21	Caurule kondensāta novadīšanai	ø32 mm	-	m	30,0
22	Materiāli freona cauruļu ar izolāciju aizsardzībai ārpus ēkas	-	-	m	8,0
23	Dekoratīvie paneļi cauruļu izvietošanai telpās (pēc nepieciešamības - saskaņot ar Pasūtītāju)	-	-	m	precizēt
24	Kondensāta sūkņi	Mini BLUE	Charles Austen Pumps (GB)	Gab.	10,0
25	Sifons (kondensāta novadīšanai)	-	-	Gab.	2,0
26	Freons R410A	-	-	kg	5,0
27	Montāžas stiprinājumi un palīgmateriāli	-	-	Kompl.	1,0

Nr.	Darbu un materiālu nosaukums	Modelis, Izmērs	Ražotājs (valsts)	Mērvienība	Daudzums
1	2	3	4	5	6
	K2 - VRF dzesēšanas sistēma 2.stāvam				
28	Ārējais dzesēšanas bloks (nominālā dzesēšanas jauda 40.0 kW, ~3x400V/50Hz; Imax=32 A)	FDC400KXZE1	Mitsubishi Heavylnd.(JP)	Kompl.	1,0
29	Iekšējais sienas dzesēšanas bloks (nominālā dzesēšanas jauda 1.73 kW)	FDK22KXZE1	Mitsubishi Heavylnd.(JP)	Kompl.	7,0
30	Iekšējais sienas dzesēšanas bloks (nominālā dzesēšanas jauda 2.2 kW)	FDK28KXZE1	Mitsubishi Heavylnd.(JP)	Kompl.	1,0
31	Iekšējais sienas dzesēšanas bloks (nominālā dzesēšanas jauda 2.5 kW)	FDK36KXZE1	Mitsubishi Heavylnd.(JP)	Kompl.	1,0
32	Iekšējais sienas dzesēšanas bloks (nominālā dzesēšanas jauda 4.07 kW)	FDK56KXZE1	Mitsubishi Heavylnd.(JP)	Kompl.	4,0
33	Iekšējais sienas dzesēšanas bloks (nominālā dzesēšanas jauda 5.13 kW)	FDK71KXZE1	Mitsubishi Heavylnd.(JP)	Kompl.	1,0
34	Bezvadu pults iekšējiem blokiem (atbilstoši telpu skaitam ar vienu bloku)	RCN-K-E2	Mitsubishi Heavylnd.(JP)	Gab.	13,0
35	Bezvadu pults iekšējiem blokiem (atbilstoši telpu skaitam ar vienu bloku)	RCN-K71-E2	Mitsubishi Heavylnd.(JP)	Gab.	1,0
36	Freona cauruļu savienojumi - refnetes	DIS-371-1G	Mitsubishi Heavylnd.(JP)	Gab.	3,0
37	Freona cauruļu savienojumi - refnetes	DIS-180-1G	Mitsubishi Heavylnd.(JP)	Gab.	7,0
38	Freona cauruļu savienojumi - refnetes	DIS-22-1G	Mitsubishi Heavylnd.(JP)	Gab.	3,0
39	Rūpnieciski ražotas un izolētas vara caurules freonam	ø6.35 mm	KME (DE)	m	40,0
40	Rūpnieciski ražotas un izolētas vara caurules freonam	ø9.52 mm	KME (DE)	m	38,0
41	Rūpnieciski ražotas un izolētas vara caurules freonam	ø12.7 mm	KME (DE)	m	65,0
42	Rūpnieciski ražotas un izolētas vara caurules freonam	ø15.88 mm	KME (DE)	m	10,0
43	Rūpnieciski ražotas un izolētas vara caurules freonam	ø19.05 mm	KME (DE)	m	35,0
44	Rūpnieciski ražotas un izolētas vara caurules freonam	ø28.58 mm	KME (DE)	m	22,0
45	Caurule kondensāta novadīšanai	ø20 mm	-	m	30,0
46	Caurule kondensāta novadīšanai	ø25 mm	-	m	10,0
47	Caurule kondensāta novadīšanai	ø32 mm	-	m	18,0
48	Caurule kondensāta novadīšanai	ø40 mm	-	m	15,0
49	Materiāli freona cauruļu ar izolāciju aizsardzībai ārpus ēkas	-	-	m	10,0
50	Dekoratīvie paneļi cauruļu izvietošanai telpās (pēc nepieciešamības - saskaņot ar Pasūtītāju)	-	-	m	precizēt
51	Kondensāta sūkņi	Mini BLUE	Charles Austen Pumps (GB)	Gab.	14,0
52	Sifons (kondensāta novadīšanai)	-	-	Gab.	2,0
53	Freons R410A	-	-	kg	12,0
54	Montāžas stiprinājumi un palīgmateriāli	-	-	Kompl.	1,0

Visas norādītās iekārtas un materiāli, kā arī atsauces uz to ražotājiem, liecina par to kvalitātes līmeni un funkcionalitāti. Norādīto iekārtu un materiālu nomaiņa ar citām tehniski ekvivalentām iekārtām un materiāliem iespējama, to saskaņojot ar pasūtītāju un projekta autoru.
Visas iekārtas un materiālus montēt saskaņā ar ražotāja norādījumiem.
Montāžas darbu veicējam jāveic objekta apsekošana un jāizvērtē nepieciešamās materiālu rezerves un iekārtu montāžas materiāli pēc nepieciešamības, iekļaujot tos darbu izmaksās.

Inženiere Ilze Dimdiņa
Sert.Nr.: 3-01735

DZESĒŠANA. 1. STĀVA PLĀNS.
M 1:100



K1 - VRF DZESĒŠANAS SISTĒMAS BLOKI 1. STĀVAM

Nr.	Novietojuma vieta	Bloka numurs	Modelis	Izmērs, HxWxD,mm	Svars, kg	Elektrības pieslēgums*
1	2	3	4	5	6	7
	Ārs	K1	FDC280KXZE1	1690x1350x720	272	7.28 kW,~3x400V/50Hz,MC 21.2A
3, 4	Kantora telpas	K1-1	FDK15KXZE1	290x870x230	11.5	42 W, ~1x220V/50Hz, MCA 0.18A
2	Kantora telpa	K1-2	FDK22KXZE1	290x870x230	11.0	42 W, ~1x220V/50Hz, MCA 0.18A
1	Kantora telpa	K1-3	FDK56KXZE1	290x870x230	11.5	42 W, ~1x220V/50Hz, MCA 0.27A
9	Kantora telpa	K1-4	FDTC45KXE6F	248x570x570	15+3.5panelis	33 W, ~1x220V/50Hz, MCA 0.25A
		K1-5	FDTC45KXE6F	248x570x570	15+3.5panelis	33 W, ~1x220V/50Hz, MCA 0.25A
15	Kabinets	K1-6	FDK15KXZE1	290x870x230	11.5	42 W, ~1x220V/50Hz, MCA 0.18A
16	Kabinets	K1-7	FDK15KXZE1	290x870x230	11.5	42 W, ~1x220V/50Hz, MCA 0.18A
17	Kabinets	K1-8	FDK28KXZE1	290x870x230	11.0	42 W, ~1x220V/50Hz, MCA 0.18A
18	Kabinets	K1-9	FDK15KXZE1	290x870x230	11.5	42 W, ~1x220V/50Hz, MCA 0.18A
19	Kabinets	K1-10	FDK15KXZE1	290x870x230	11.5	42 W, ~1x220V/50Hz, MCA 0.18A
22	Kantora telpa	K1-11	FDK56KXZE1	290x870x230	11.5	42 W, ~1x220V/50Hz, MCA 0.27A
23	Kabinets	K1-12	FDK36KXZE1	290x870x230	11.5	42 W, ~1x220V/50Hz, MCA 0.27A

* iekšējo bloku elektrības pieslēgums no ārējā bloka
MC - maksimālā strāva
MCA (minium circuit amps) - minimālie ķēdes ampēri

K1 - VRF DZESĒŠANAS SISTĒMAS REFNETES

Nr.	Modelis
1	2
1.1-1.6	DIS-180-1G
1.7-1.11	DIS-22-1G

APZĪMĒJUMI

K1	Ārējais VRF sistēmas dzesēšanas bloks ar numuru
K1-2	Iekšējais VRF sistēmas dzesēšanas bloks ar numuru - sienas
K1-3	Iekšējais VRF sistēmas dzesēšanas bloks ar numuru - griestu kasete
3.9 kW	Telpas dzesēšanas aprēķina jauda, kW
ø6.35 ø9.52	Vara caurules freonam, rūpnieciski ražotas un izolētas, norādīts turpgaitas un atgaitas diametrs (iekšējais)
1.1	Refnete ar elementa numuru
ø20 K	Caurule kondensāta novadīšanai, norādīts diametrs (iekšējais)
	Kondensāta sūknis
	Caurules diametra maiņa

PIEZĪMES

Ārējie bloki K1, K2 montējami uz rāmja, vismaz 500 mm virs grunts līmeņa, vismaz 300 mm no ēkas konstrukcijām, ievērojot nepieciešamos montāžas un servisa apkopes zonas izvietojumus. Pretī ventilatoriem minimāli brīvajam laukumam jābūt 1.5 m.
Freona sistēmai izvēlēties rūpnieciski izolētas vara caurules un ārpus ēkas paredzēt tās izvietot PVC vai cita materiāla caurulē vai montāžas penālī, aizsardzībai pret āra vides (klimata un dzīvnieku) iespējamiem bojājumiem.
Iekštelpās freona, kondensāta aizvadīšanas caurules un vadi izvietojami pēc iespējas zem piekārtiem griestiem. izvietojumu precizēt montāžas darbu gaitā, atbilstoši faktiskajam konstrukciju un telpu aprīkojuma izvietojumam un telpu augstumam līdz un virs piekārtajiem griestiem.
Kondensāta caurules montēt ar kritumu vismaz 1..2%, nodrošinot kondensāta aizvadīšanu paštecē vai uzstādot kondensāta sūkņus atbilstoši ražotāja instrukcijām, vietas norādītas plānā. Griestu kasetes ir aprīkotas ar iebūvētu kondensāta sūkni. Kondensāta cauruļu pievienošana pie ēkas kanalizācijas sistēmas jāveic caur sifonu.
Dzesēšanas sistēmai ekspluatācijas laikā jāveic periodiskas apkopes, jānodrošina freona uzskaite un uzpildīšana pēc nepieciešamības. Visus freona sistēmas montāžas un ekspluatācijas servisa vai remonta darbus drīkst veikt tikai kvalificētas personas, atbilstoši Ministru kabineta 2011. gada 12. jūlija noteikumiem Nr. 563 "Noteikumi par īpašiem ierobežojumiem un aizliegumiem attiecībā uz darbībām ar ozona slāni noārdošām vielām un fluorētām siltumnīcefekta gāzēm".
Visas norādītās iekārtas un materiāli, kā arī atsauces uz to ražotājiem, liecina par to kvalitātes līmeni un funkcionalitāti. Norādīto iekārtu un materiālu nomaiņa ar citām tehniski ekvivalentām iekārtām un materiāliem iespējama, to saskaņojot ar pasūtītāju un projekta autoru.
Visas iekārtas un materiālus montēt saskaņā ar ražotāja norādījumiem.

Amats	V.Uzvārds	Paraksts	Dat.	Līgums Nr.12/2018
Būvproj. d.vad.	I. Dimdiņa		31.08. 2018.	Pasūtītājs: SIA „Jelgavas nekustamā īpašuma pārvalde" Reģ. Nr.: 43603011548
Projektēja	I. Dimdiņa		31.08.18.	

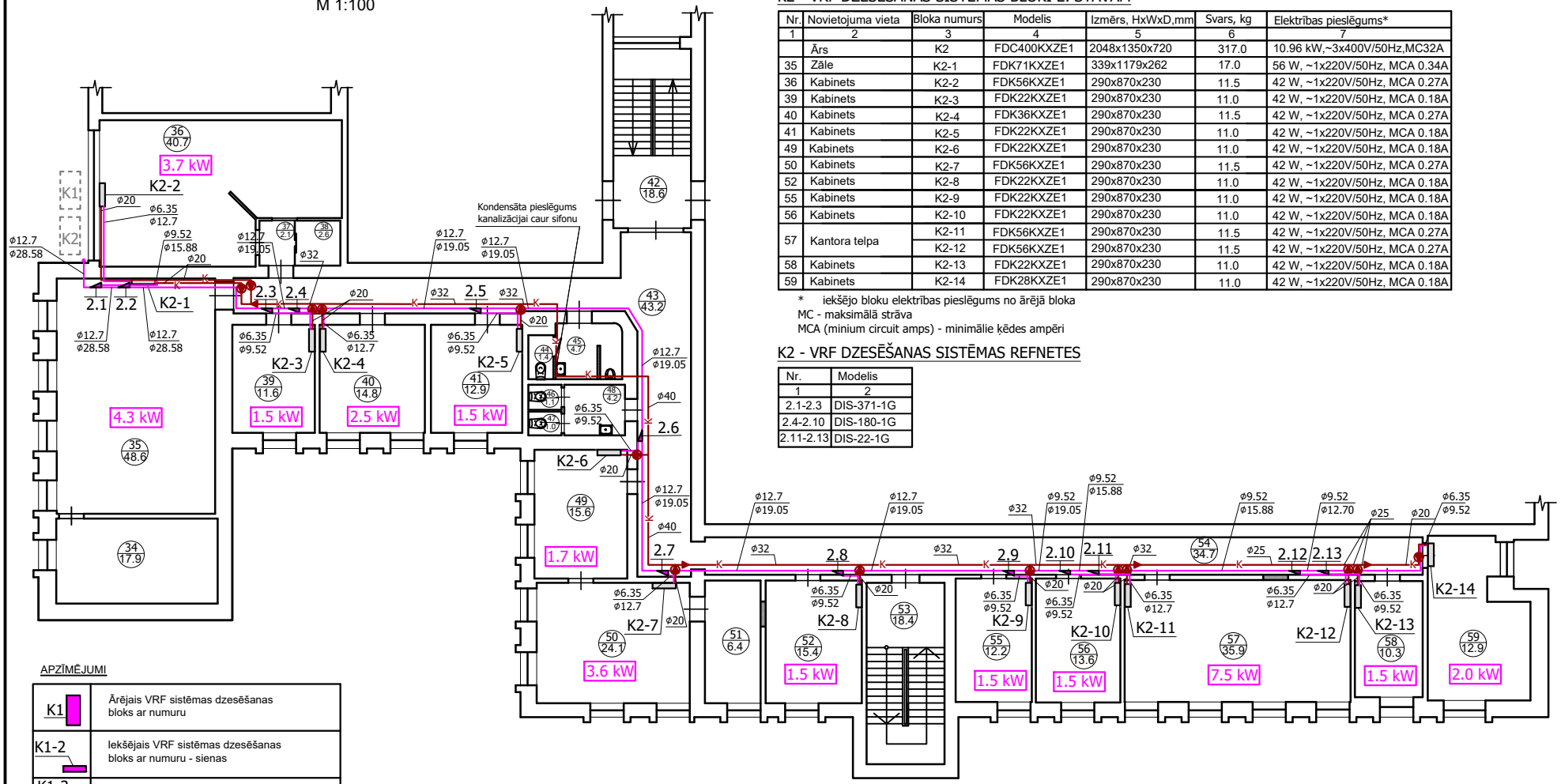
Objekts: **Administratīvā ēka** Adrese: Pulkveža Brieža iela 26, Jelgava	Stadija	Lapa	Mērogs
	-	AVK-1	1:100

Dzesēšana. 1.stāva plāns.
Ārējo bloku K1, K2 un sistēmas K1 iekšējo bloku izvietojums plānā.

AVK risinājumi
Reģistrācijas Nr.: 40203031452
Vienības gatve 186a-101, Riga, LV-1058
Mob.tālr.: 26523602 e-pasts: ilze.dimdina@gmail.com

Dok.inv.Nr.: Lapu skaits: 2
Paraksts, datums:

DZESĒŠANA. 2. STĀVA PLĀNS.
M 1:100



K2 - VRF DZESĒŠANAS SISTĒMAS BLOKI 2. STĀVAM

Nr.	Novietojuma vieta	Bloka numurs	Modelis	Izmērs, HxWxD,mm	Svars, kg	Elektrības pieslēgums*
1	2	3	4	5	6	7
	Ārs	K2	FDC400KXZE1	2048x1350x720	317.0	10.96 kW,~3x400V/50Hz,MC32A
35	Zāle	K2-1	FDK71KXZE1	339x1179x262	17.0	56 W, ~1x220V/50Hz, MCA 0.34A
36	Kabinets	K2-2	FDK56KXZE1	290x870x230	11.5	42 W, ~1x220V/50Hz, MCA 0.27A
39	Kabinets	K2-3	FDK22KXZE1	290x870x230	11.0	42 W, ~1x220V/50Hz, MCA 0.18A
40	Kabinets	K2-4	FDK36KXZE1	290x870x230	11.5	42 W, ~1x220V/50Hz, MCA 0.27A
41	Kabinets	K2-5	FDK22KXZE1	290x870x230	11.0	42 W, ~1x220V/50Hz, MCA 0.18A
49	Kabinets	K2-6	FDK22KXZE1	290x870x230	11.0	42 W, ~1x220V/50Hz, MCA 0.18A
50	Kabinets	K2-7	FDK56KXZE1	290x870x230	11.5	42 W, ~1x220V/50Hz, MCA 0.27A
52	Kabinets	K2-8	FDK22KXZE1	290x870x230	11.0	42 W, ~1x220V/50Hz, MCA 0.18A
55	Kabinets	K2-9	FDK22KXZE1	290x870x230	11.0	42 W, ~1x220V/50Hz, MCA 0.18A
56	Kabinets	K2-10	FDK22KXZE1	290x870x230	11.0	42 W, ~1x220V/50Hz, MCA 0.18A
57	Kantora telpa	K2-11	FDK56KXZE1	290x870x230	11.5	42 W, ~1x220V/50Hz, MCA 0.27A
		K2-12	FDK56KXZE1	290x870x230	11.5	42 W, ~1x220V/50Hz, MCA 0.27A
58	Kabinets	K2-13	FDK22KXZE1	290x870x230	11.0	42 W, ~1x220V/50Hz, MCA 0.18A
59	Kabinets	K2-14	FDK28KXZE1	290x870x230	11.0	42 W, ~1x220V/50Hz, MCA 0.18A

* iekšējo bloku elektrības pieslēgums no ārējā bloka
MC - maksimālā strāva
MCA (minium circuit amps) - minimālie ķēdes ampēri

K2 - VRF DZESĒŠANAS SISTĒMAS REFNETES

Nr.	Modelis
1	2
2.1-2.3	DIS-371-1G
2.4-2.10	DIS-180-1G
2.11-2.13	DIS-22-1G

APZĪMĒJUMI

K1	Ārējais VRF sistēmas dzesēšanas bloks ar numuru
K1-2	Iekšējais VRF sistēmas dzesēšanas bloks ar numuru - sienas
K1-3	Iekšējais VRF sistēmas dzesēšanas bloks ar numuru - griestu kasete
3.9 kW	Telpas dzesēšanas aprēķina jauda, kW
ø6.35 ø9.52	Vara caurules freonam, rūpnieciski ražotas un izolētas, norādīts turpgaitas un atgaitas diametrs (iekšējais)
1.1	Refnete ar elementa numuru
ø20 K	Caurule kondensāta novadīšanai, norādīts diametrs (iekšējais)
	Kondensāta sūknis
	Caurules diametra maiņa

PIEZĪMES

Ārējie bloki K1, K2 montējami uz rāmja, vismaz 500 mm virs grunts līmeņa, vismaz 300 mm no ēkas konstrukcijām, ievērojot nepieciešamos montāžas un servisa apkopes zonas izvietojumus. Pretī ventilatoriem minimāli brīvajam laukumam jābūt 1.5 m.
Freona sistēmai izvēlēties rūpnieciski izolētas vara caurules un ārpus ēkas paredzēt tās izvietot PVC vai cita materiāla caurulē vai montāžas penālī, aizsardzībai pret āra vides (klimata un dzīvnieku) iespējamiem bojājumiem.
Iekštelpās freona, kondensāta aizvadīšanas caurules un vadi izvietojami pēc iespējas zem piekārtiem griestiem. izvietojumu precizēt montāžas darbu gaitā, atbilstoši faktiskajam konstrukciju un telpu aprīkojuma izvietojumam un telpu augstumam līdz un virs piekārtajiem griestiem.
Kondensāta caurules montēt ar kritumu vismaz 1..2%, nodrošinot kondensāta aizvadīšanu paštecē vai uzstādot kondensāta sūkņus atbilstoši ražotāja instrukcijām, vietas norādītas plānā. Griestu kasetes ir aprīkotas ar iebūvētu kondensāta sūkni. Kondensāta cauruļu pievienošana pie ēkas kanalizācijas sistēmas jāveic caur sifonu.
Dzesēšanas sistēmai ekspluatācijas laikā jāveic periodiskas apkopes, jānodrošina freona uzskaite un uzpildīšana pēc nepieciešamības. Visus freona sistēmas montāžas un ekspluatācijas servisa vai remonta darbus drīkst veikt tikai kvalificētas personas, atbilstoši Ministru kabineta 2011. gada 12. jūlija noteikumiem Nr. 563 "Noteikumi par īpašiem ierobežojumiem un aizliegumiem attiecībā uz darbībām ar ozona slāni noārdošām vielām un fluorētām siltumnīcefekta gāzēm".
Visas norādītās iekārtas un materiāli, kā arī atsauces uz to ražotājiem, liecina par to kvalitātes līmeni un funkcionalitāti. Norādīto iekārtu un materiālu nomaiņa ar citām tehniski ekvivalentām iekārtām un materiāliem iespējama, to saskaņojot ar pasūtītāju un projekta autoru.
Visas iekārtas un materiālus montēt saskaņā ar ražotāja norādījumiem.

Amats	V.Uzvārds	Paraksts	Dat.	Līgums Nr.12/2018		
Būvproj. d.vad.	I. Dimdiņa		31.08. 2018.	Pasūtītājs: SIA „Jelgavas nekustamā īpašuma pārvalde" Reģ. Nr.: 43603011548		
Projektēja	I. Dimdiņa		31.08.18.			
				Objekts: **Administratīvā ēka** Adrese: Pulkveža Brieža iela 26, Jelgava	Stadija: -	Lapa: AVK-2 / Mērogs: 1:100
				Dzesēšana. 2.stāva plāns. Sistēmas K2 iekšējo bloku izvietojums plānā.	AVK risinājumi	

Reģistrācijas Nr.: 40203031452
Vienības gatve 186a-101, Rīga, LV-1058
Mob.tālr.: 26523602 e-pasts: ilze.dimdina@gmail.com

Dok.inv.nr.: Lapu skaits: 2
Paraksts, datums:

MITSUBISHI HEAVY INDUSTRIES

VRF

KX INVERTER MULTI SYSTEMS

PROJECT SCHEDULE

Project: New Project
System: 2.stāvs

Client:

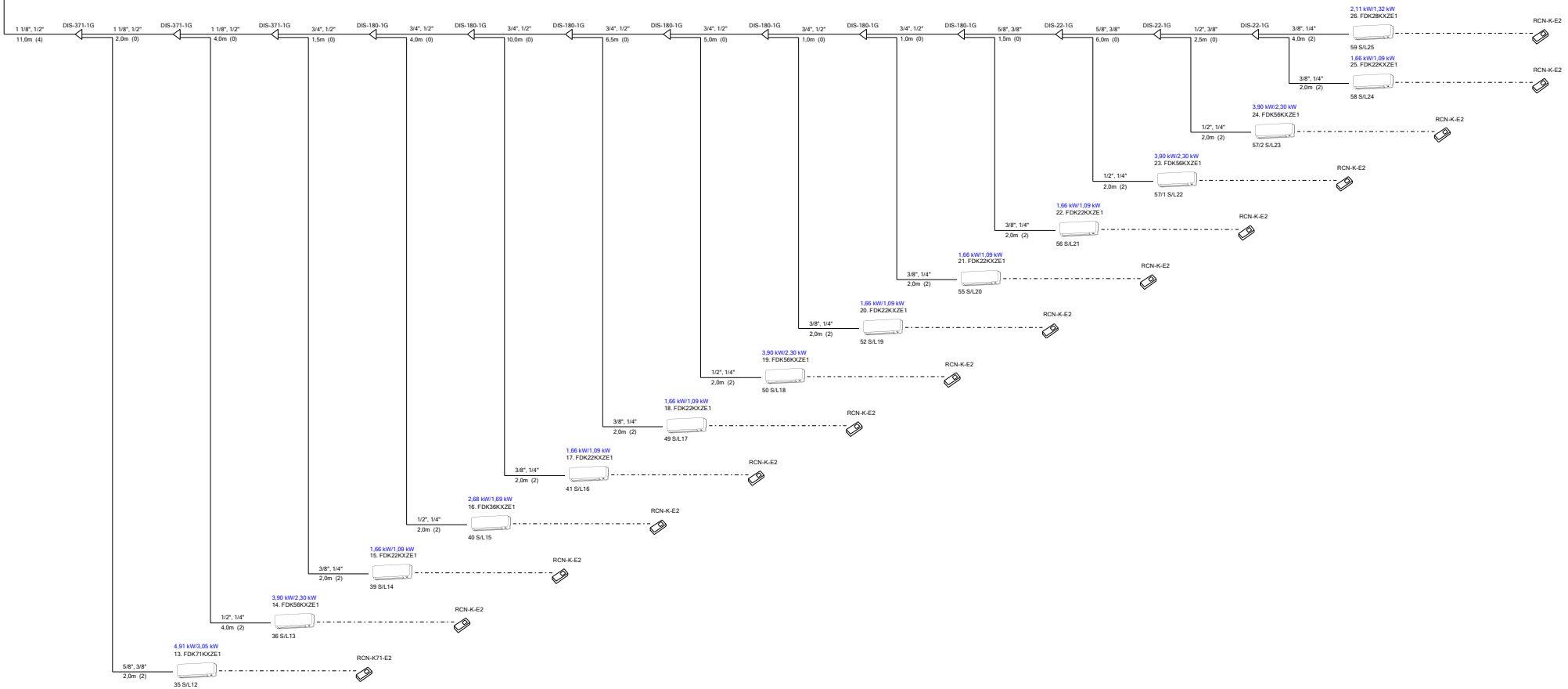
Prepared By:
Location:

Report Date/Time: 12.11.2018 13:51

MITSUBISHI HEAVY INDUSTRIES
e-solution

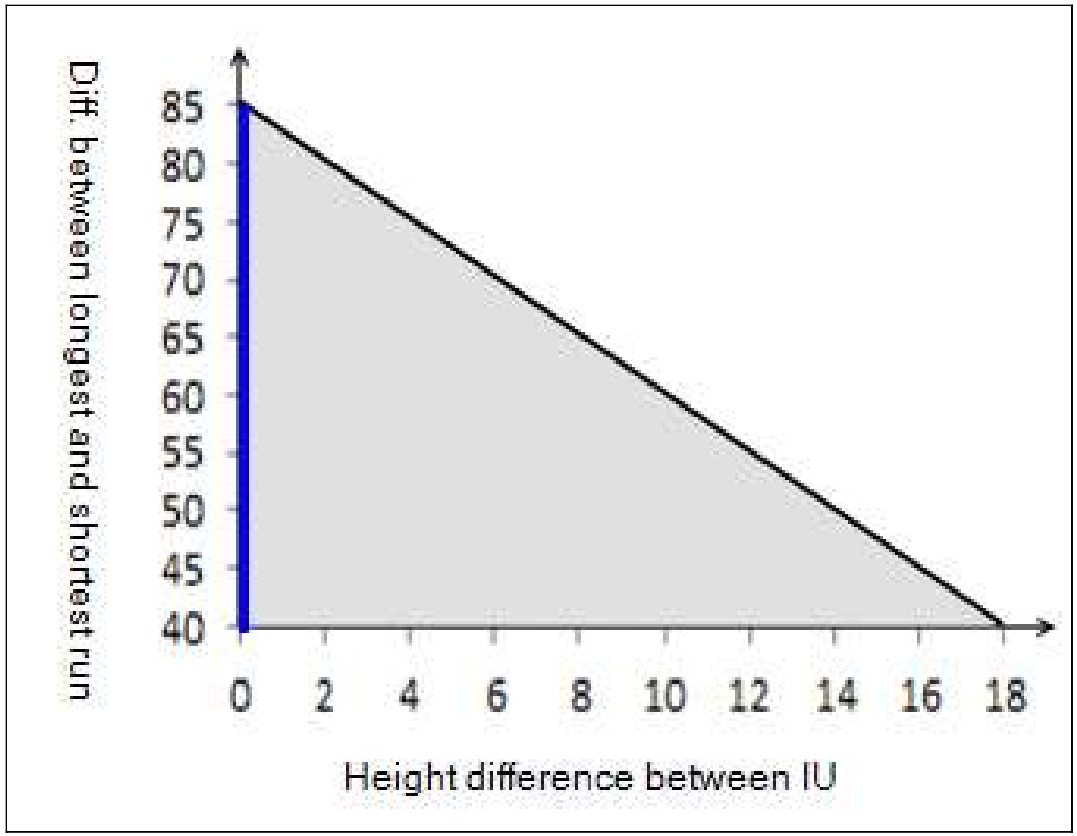
FDC400KXZE1

Project : New Project
Project Ref :
System : 2.stāvs
Design Conditions: 23,0˚C DB, 18,0˚C WB / 32,0˚C DB
Total Pipe Run : 88,0m of 1000,0m
Total Connected Indoor Units : 14
Total Actual Cooling : 36,90 kW / 22,85 kW
Total Required Cooling : 0,00 kW / 0,00 kW
Connected Capacity : 513 / 520
Diversity Factor : 0%
Additional Refrigerant : 10,1 kg
Total refrigerant amount : 21,6 kg
Total weight of CO2 equivalent : 45,14 t



Project : New Project
Project Ref :
System : 2.stāvs

Caution List



✔ There are no cautions

Project : New Project
Project Ref :

System : 2.stāvs

Temperature Conditions (cooling)

outdoor dry bulb	indoor wet bulb
32,0˚C	18,0˚C

Temperature Conditions (heating)

outdoor wet bulb	indoor dry bulb
-16,6˚C	20,0˚C

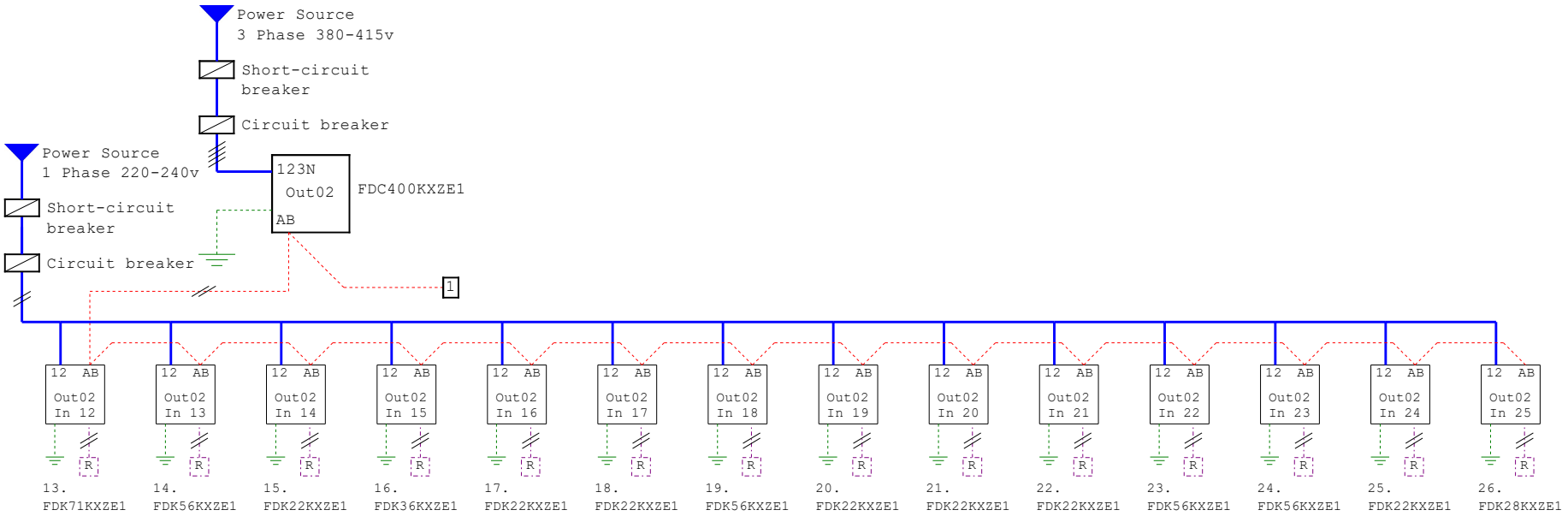
Unit	Room	Model	Nominal Capacity (kW)			Actual Capacity (kW)			Indoor Unit Position (m)		Actual Length (m)	Piping Length (m)	Address		
			Total	Sensible	Heating	Total	Sensible	Heating					S/L	O/U	I/U
		FDC400KXZE1	40,00	-	45,00	38,86	-	28,44					1	02	-
13	35	FDK71KXZE1	5,13	3,77	5,69	4,91	3,05	3,77	Above	7,0	13,0	13,0	1	02	12
14	36	FDK56KXZE1	4,07	2,77	4,18	3,90	2,30	2,77	Above	7,0	17,0	17,0	1	02	13
15	39	FDK22KXZE1	1,73	1,37	1,87	1,66	1,09	1,24	Above	7,0	19,0	19,0	1	02	14
16	40	FDK36KXZE1	2,80	2,09	3,04	2,68	1,69	2,02	Above	7,0	20,5	20,5	1	02	15
17	41	FDK22KXZE1	1,73	1,37	1,87	1,66	1,09	1,24	Above	7,0	24,5	24,5	1	02	16
18	49	FDK22KXZE1	1,73	1,37	1,87	1,66	1,09	1,24	Above	7,0	34,5	34,5	1	02	17
19	50	FDK56KXZE1	4,07	2,77	4,18	3,90	2,30	2,77	Above	7,0	41,0	41,0	1	02	18
20	52	FDK22KXZE1	1,73	1,37	1,87	1,66	1,09	1,24	Above	7,0	46,0	46,0	1	02	19
21	55	FDK22KXZE1	1,73	1,37	1,87	1,66	1,09	1,24	Above	7,0	47,0	47,0	1	02	20
22	56	FDK22KXZE1	1,73	1,37	1,87	1,66	1,09	1,24	Above	7,0	48,0	48,0	1	02	21
23	57/1	FDK56KXZE1	4,07	2,77	4,18	3,90	2,30	2,77	Above	7,0	49,5	49,5	1	02	22
24	57/2	FDK56KXZE1	4,07	2,77	4,18	3,90	2,30	2,77	Above	7,0	55,5	55,5	1	02	23
25	58	FDK22KXZE1	1,73	1,37	1,87	1,66	1,09	1,24	Above	7,0	58,0	58,0	1	02	24
26	59	FDK28KXZE1	2,20	1,63	2,39	2,11	1,32	1,59	Above	7,0	60,0	60,0	1	02	25
		TOTAL	38,52	28,14	40,93	36,90	22,85	27,15							

Project:
New Project
Project Ref:
System:
2.stāvs

Outdoor Unit	380v	415v
Running Current (A)	17,50/17,50	16,20/16,20
Power (%)	95/93	94/92
Inrush Current (A)	5,00	
Max Current (A)	32	
Input (kW)	10,96/10,69	

Indoor Units (Cool/Heat)	220v	240v
Total Input (kW)	0,35/0,35	0,35/0,35
Total Running Current (A)	3,13/3,13	2,84/2,84

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



Project Materials List

Project : New Project

Project Ref :

There are no project-wide materials to show at present (central controllers/BMS controllers)

System Materials List

Project : New Project

Project Ref :

System : 2.stāvs

Outdoor Unit	Qty
FDC400KXZE1	1

Indoor Unit	Qty
FDK71KXZE1	1
FDK56KXZE1	4
FDK22KXZE1	7
FDK36KXZE1	1
FDK28KXZE1	1

Branch	Qty
DIS-371-1G	3
DIS-180-1G	7
DIS-22-1G	3

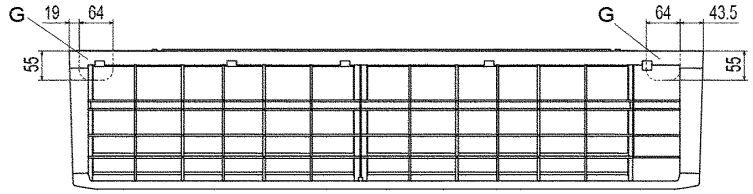
Remote Controllers	Qty
RCN-K71-E2	1
RCN-K-E2	13

Additional Refrigerant	10,1 kg

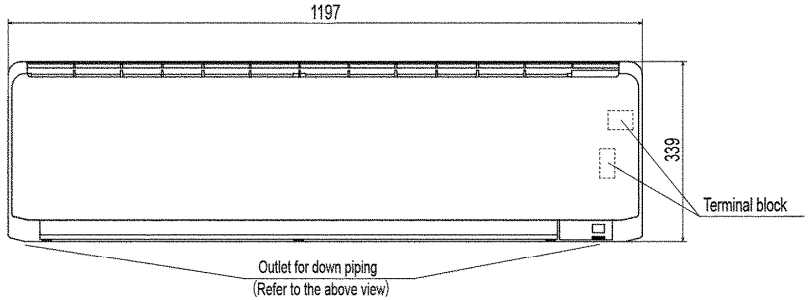
Pipe Diameter	Total Length (m)
1/4"	30,0
3/8"	30,0
1/2"	60,5
5/8"	9,5
3/4"	29,0
1 1/8"	17,0

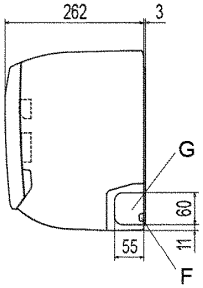
FDK71KXZE1, 90KXZE1

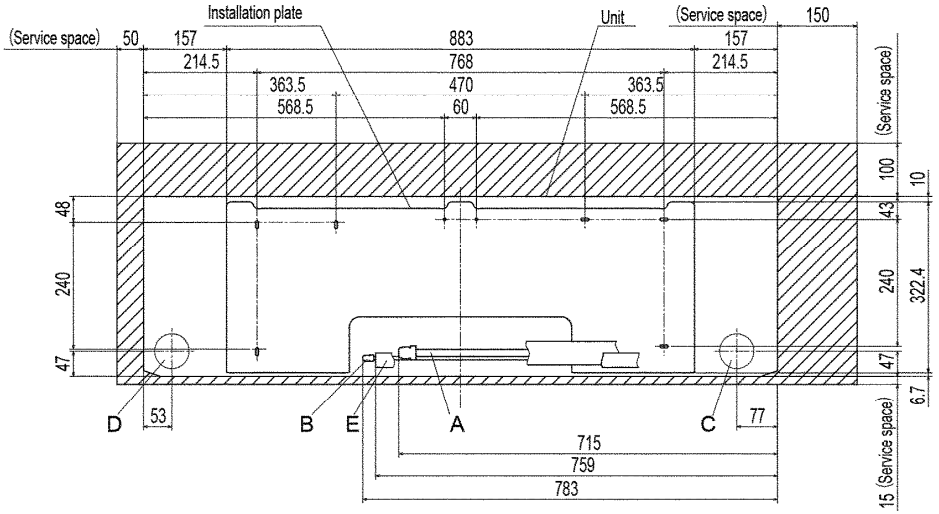
Unit:mm



Symbol	Content	
A	Gas piping	ϕ15.88(5/8") (Flare)
B	Liquid piping	ϕ9.52(3/8") (Flare)
C	Hole on wall for right rear piping	(ϕ65)
D	Hole on wall for left rear piping	(ϕ65)
E	Drain hose	VP16
F	Outlet for wiring (on both side)	
G	Outlet for piping (on both side)	





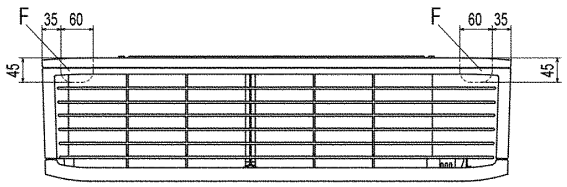


Space for installation and service when viewing from the front

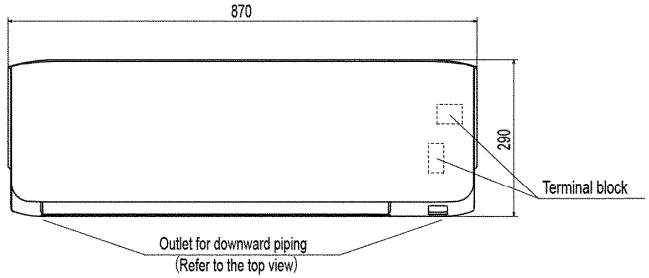
Note (1) The model name label is attached on the underside of the indoor unit.

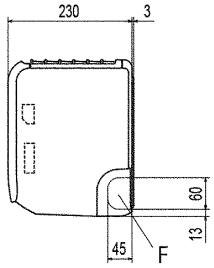
FDK15KXZE1, 22KXZE1, 28KXZE1, 36KXZE1, 45KXZE1, 56KXZE1

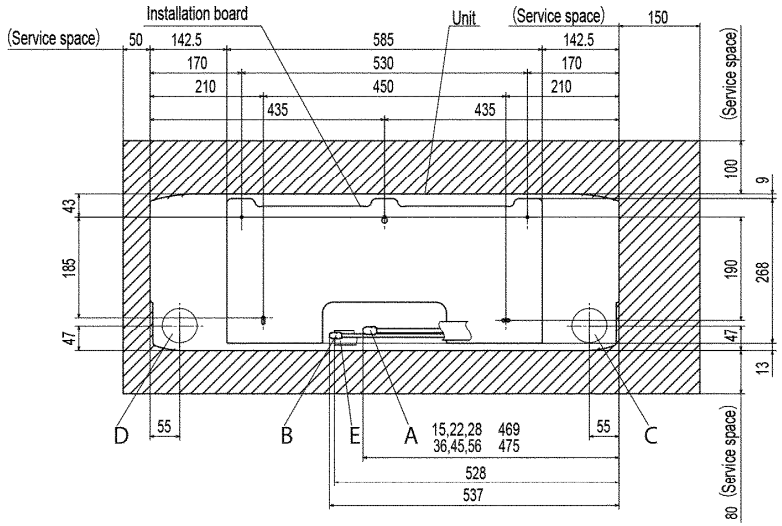
Unit:mm



Symbol	Content		
	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	Hole on wall for right rear piping	(ϕ65)	
D	Hole on wall for left rear piping	(ϕ65)	
E	Drain hose	VP16	
F	Outlet for wiring (on both side)		





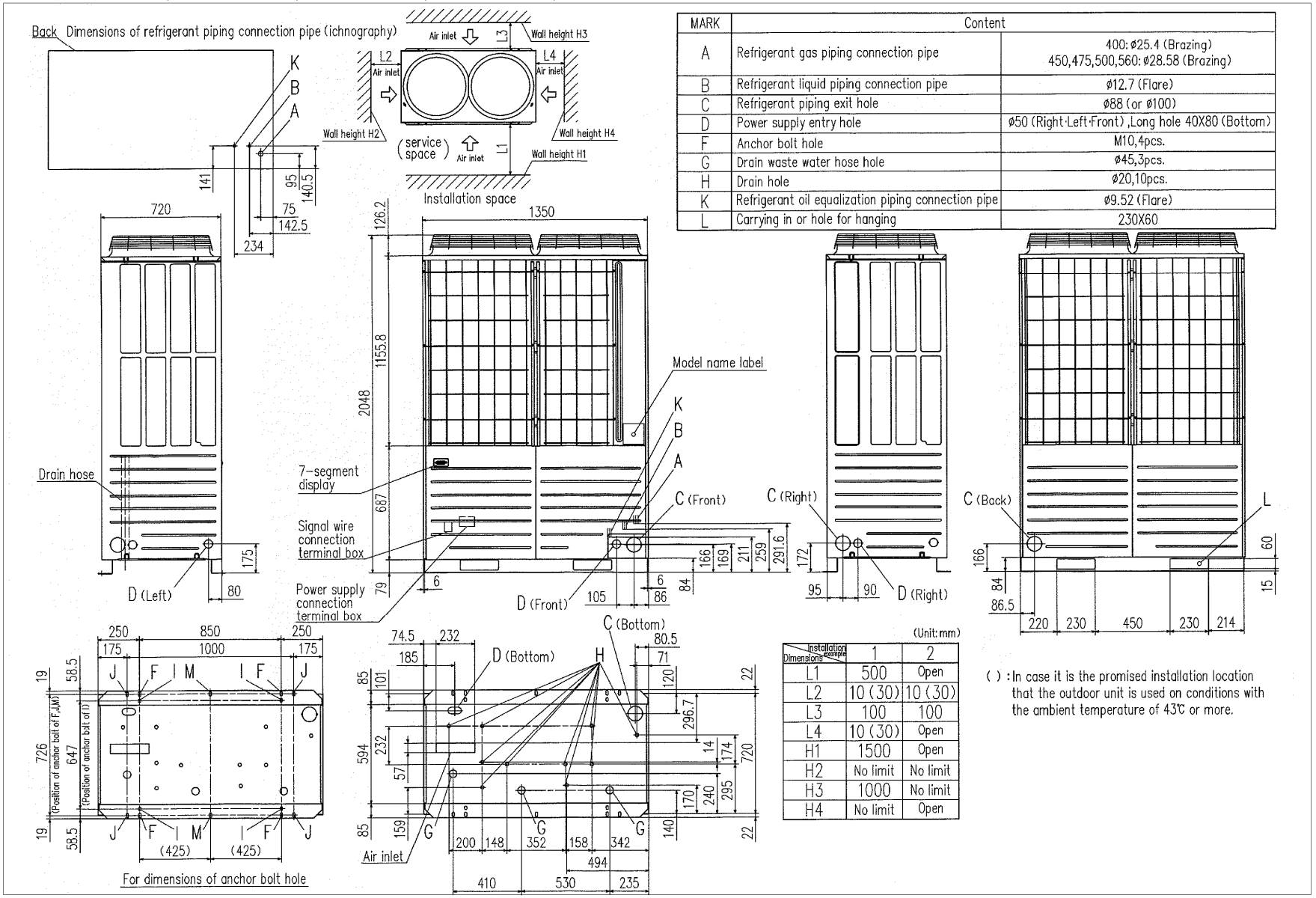


Space for installation and service when viewing from the front

Note (1) The model name label is attached on the right side of the unit.

FDC400KXZE1, 450KXZE1, 475KXZE1, 500KXZE1, 560KXZE1

Unit:mm



MARK	Content	
A	Refrigerant gas piping connection pipe	400: ø25.4 (Brazing) 450,475,500,560: ø28.58 (Brazing)
B	Refrigerant liquid piping connection pipe	ø12.7 (Flare)
C	Refrigerant piping exit hole	ø88 (or ø100)
D	Power suppiy entry hole	ø50 (Right·Left·Front) ,Long hole 40X80 (Bottom)
F	Anchor bolt hole	M10,4pcs.
G	Drain waste water hose hole	ø45,3pcs.
H	Drain hole	ø20,10pcs.
K	Refrigerant oil equalization piping connection pipe	ø9.52 (Flare)
L	Carrying in or hole for hanging	230X60

(Unit: mm)

Installation example / Dimensions	1	2
L1	500	Open
L2	10 (30)	10 (30)
L3	100	100
L4	10 (30)	Open
H1	1500	Open
H2	No limit	No limit
H3	1000	No limit
H4	No limit	Open

( ) : In case it is the promised installation location that the outdoor unit is used on conditions with the ambient temperature of 43℃ or more.

Wall Mounted type (FDK)

Models			FDK71KXZE1
Nominal cooling capacity*1		kW	7.1
Nominal heating capacity*2			8.0
Power source			220-240V ~ 50Hz / 220V ~ 60Hz
Power consumption	Cool	kW	0.04
	Heat		0.04
Running current	Cool	A	0.34 - 0.31 / 0.34
	Heat		0.34 - 0.31 / 0.34
Sound Pressure Level	Cool	dB(A)	P-Hi : 42 Hi : 40 Me : 37 Lo : 35
	Heat		P-Hi : 42 Hi : 40 Me : 37 Lo : 35
Sound Power Level	Cool	dB(A)	59
	Heat		59
Exterior dimensions Height x Width x Depth		mm	339 × 1,197 × 262
Exterior appearance (Munsell color)			Fine Snow (8.0Y9.3/0.1) near equivalent
Net weight		kg	17
Refrigerant equipment Heat exchanger			Louver fin & inner grooved tubing
Refrigerant control			Electronic Expansion Valve
Air handling equipment Fan type & Q'ty			Tangential fan × 1
Motor		W	56
Starting method			Direct line start
Air flow(Standard)	Cool	m^3/min	P-Hi : 21 Hi : 19 Me : 16 Lo : 14
	Heat		P-Hi : 21 Hi : 19 Me : 16 Lo : 14
Available static pressure		Pa	0
Outside air intake			Not possible
Air filter, Q'ty			Polypropylene net × 2 (Washable)
Shock & vibration absorber			Rubber sleeve(for fan motor)
Insulation (noise & heat)			Polyurethane form
Operation control			Remote control switch wired: RC-EX3,RC-E5,RCH-E3 wireless:RCN-K71-E2
Room temperature control			Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat
Installation data Refrigerant piping size			Liquid line: ϕ9.52 (3/8") Gas line: ϕ15.88 (5/8")
Connecting method			Flare piping
Refrigerant			R410A
Drain hose			Connectable with VP16
Insulation for piping			Necessary(both Liquid & Gas line)
Standard Accessories			Mounting kit

Notes

Adapted to **RoHS** directive

(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 °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"

MITSUBISHI HEAVY INDUSTRIES
e-solution

Wall Mounted type (FDK)

Models			FDK56KXZE1
Nominal cooling capacity*1		kW	5.6
Nominal heating capacity*2			6.3
Power source			220-240V ~ 50Hz / 220V ~ 60Hz
Power consumption	Cool	kW	0.03
	Heat		0.03
Running current	Cool	A	0.27 - 0.25 / 0.27
	Heat		0.27 - 0.25 / 0.27
Sound Pressure Level	Cool	dB(A)	P-Hi : 43 Hi : 41 Me : 36 Lo : 33
	Heat		P-Hi : 44 Hi : 42 Me : 37 Lo : 33
Sound Power Level	Cool	dB(A)	58
	Heat		61
Exterior dimensions Height x Width x Depth		mm	290 × 870 × 230
Exterior appearance (Munsell color)			Fine Snow (8.0Y9.3/0.1) near equivalent
Net weight		kg	11.5
Refrigerant equipment Heat exchanger			Louver fin & inner grooved tubing
Refrigerant control			Electronic Expansion Valve
Air handling equipment Fan type & Q'ty			Tangential fan × 1
Motor		W	42
Starting method			Direct line start
Air flow(Standard)	Cool	m^3/min	P-Hi : 12 Hi : 11 Me : 9 Lo : 8
	Heat		P-Hi : 13 Hi : 12 Me : 10 Lo : 8
Available static pressure		Pa	0
Outside air intake			Not possible
Air filter, Q'ty			Polypropylene net × 2 (Washable)
Shock & vibration absorber			Rubber sleeve(for fan motor)
Insulation (noise & heat)			Polyurethane form
Operation control			Remote control switch wired: RC-EX3,RC-E5,RCH-E3 wireless:RCN-K-E2
Room temperature control			Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat
Installation data Refrigerant piping size			Liquid line: ϕ6.35 (1/4") Gas line: ϕ12.7 (1/2")
Connecting method			Flare piping
Refrigerant			R410A
Drain hose			Connectable with VP16
Insulation for piping			Necessary(both Liquid & Gas line)
Standard Accessories			Mounting kit

Notes

Adapted to **RoHS** directive

(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 °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"

MITSUBISHI HEAVY INDUSTRIES
e-solution

Wall Mounted type (FDK)

Models			FDK22KXZE1
Nominal cooling capacity*1		kW	2.2
Nominal heating capacity*2			2.5
Power source			220-240V ~ 50Hz / 220V ~ 60Hz
Power consumption	Cool	kW	0.02
	Heat		0.02
Running current	Cool	A	0.18 - 0.16 / 0.18
	Heat		0.18 - 0.16 / 0.18
Sound Pressure Level	Cool	dB(A)	P-Hi : 38 Hi : 36 Me : 32 Lo : 28
	Heat		P-Hi : 38 Hi : 36 Me : 32 Lo : 28
Sound Power Level	Cool	dB(A)	55
	Heat		55
Exterior dimensions Height x Width x Depth		mm	290 × 870 × 230
Exterior appearance (Munsell color)			Fine Snow (8.0Y9.3/0.1) near equivalent
Net weight		kg	11
Refrigerant equipment Heat exchanger			Louver fin & inner grooved tubing
Refrigerant control			Electronic Expansion Valve
Air handling equipment Fan type & Q'ty			Tangential fan × 1
Motor		W	42
Starting method			Direct line start
Air flow(Standard)	Cool	m^3/min	P-Hi : 8.5 Hi : 8 Me : 6 Lo : 5
	Heat		P-Hi : 8.5 Hi : 8 Me : 6 Lo : 5
Available static pressure		Pa	0
Outside air intake			Not possible
Air filter, Q'ty			Polypropylene net × 2 (Washable)
Shock & vibration absorber			Rubber sleeve(for fan motor)
Insulation (noise & heat)			Polyurethane form
Operation control			Remote control switch wired: RC-EX3,RC-E5,RCH-E3 wireless:RCN-K-E2
Room temperature control			Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat
Installation data Refrigerant piping size			Liquid line: ϕ6.35 (1/4") Gas line: ϕ9.52 (3/8")
Connecting method			Flare piping
Refrigerant			R410A
Drain hose			Connectable with VP16
Insulation for piping			Necessary(both Liquid & Gas line)
Standard Accessories			Mounting kit

Notes

Adapted to **RoHS** directive

(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 °C	19 °C	35 °C	24 °C	ISO-T1
Heating*2	20 °C		7 °C	6 °C	

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

Wall Mounted type (FDK)

Models			FDK36KXZE1
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
	Heat		0.03
Running current	Cool	A	0.27 - 0.25 / 0.27
	Heat		0.27 - 0.25 / 0.27
Sound Pressure Level	Cool	dB(A)	P-Hi : 40 Hi : 38 Me : 33 Lo : 28
	Heat		P-Hi : 40 Hi : 38 Me : 33 Lo : 28
Sound Power Level	Cool	dB(A)	58
	Heat		58
Exterior dimensions Height x Width x Depth		mm	290 × 870 × 230
Exterior appearance (Munsell color)			Fine Snow (8.0Y9.3/0.1) near equivalent
Net weight		kg	11.5
Refrigerant equipment Heat exchanger			Louver fin & inner grooved tubing
Refrigerant control			Electronic Expansion Valve
Air handling equipment Fan type & Q'ty			Tangential fan × 1
Motor		W	42
Starting method			Direct line start
Air flow(Standard)	Cool	m^3/min	P-Hi : 11 Hi : 10 Me : 8 Lo : 7
	Heat		P-Hi : 11 Hi : 10 Me : 8 Lo : 7
Available static pressure		Pa	0
Outside air intake			Not possible
Air filter, Q'ty			Polypropylene net × 2 (Washable)
Shock & vibration absorber			Rubber sleeve(for fan motor)
Insulation (noise & heat)			Polyurethane form
Operation control			Remote control switch wired: RC-EX3,RC-E5,RCH-E3 wireless:RCN-K-E2
Room temperature control			Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat
Installation data Refrigerant piping size			Liquid line: φ6.35 (1/4") Gas line: φ12.7 (1/2")
Connecting method			Flare piping
Refrigerant			R410A
Drain hose			Connectable with VP16
Insulation for piping			Necessary(both Liquid & Gas line)
Standard Accessories			Mounting kit

Notes

Adapted to **RoHS** directive

(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 °C	19 °C	35 °C	24 °C	ISO-T1
Heating*2	20 °C		7 °C	6 °C	

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

Wall Mounted type (FDK)

Models			FDK28KXZE1
			-
Nominal cooling capacity*1		kW	2.8
Nominal heating capacity*2			3.2
Power source			220-240V ~ 50Hz / 220V ~ 60Hz
Power consumption	Cool	kW	0.02
	Heat		0.02
Running current	Cool	A	0.18 - 0.16 / 0.18
	Heat		0.18 - 0.16 / 0.18
Sound Pressure Level	Cool	dB(A)	P-Hi : 38 Hi : 36 Me : 32 Lo : 28
	Heat		P-Hi : 38 Hi : 36 Me : 32 Lo : 28
Sound Power Level	Cool	dB(A)	55
	Heat		55
Exterior dimensions Height x Width x Depth		mm	290 × 870 × 230
Exterior appearance (Munsell color)			Fine Snow (8.0Y9.3/0.1) near equivalent
Net weight		kg	11
Refrigerant equipment Heat exchanger			Louver fin & inner grooved tubing
Refrigerant control			Electronic Expansion Valve
Air handling equipment Fan type & Q'ty			Tangential fan × 1
Motor		W	42
Starting method			Direct line start
Air flow(Standard)	Cool	m^3/min	P-Hi : 8.5 Hi : 8 Me : 6 Lo : 5
	Heat		P-Hi : 8.5 Hi : 8 Me : 6 Lo : 5
Available static pressure		Pa	0
Outside air intake			Not possible
Air filter, Q'ty			Polypropylene net × 2 (Washable)
Shock & vibration absorber			Rubber sleeve(for fan motor)
Insulation (noise & heat)			Polyurethane form
Operation control			Remote control switch wired: RC-EX3,RC-E5,RCH-E3 wireless:RCN-K-E2
Room temperature control			Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat
Installation data Refrigerant piping size			Liquid line: ϕ6.35 (1/4″) Gas line: ϕ9.52 (3/8″)
Connecting method			Flare piping
Refrigerant			R410A
			-
Drain hose			Connectable with V P 1 6
Insulation for piping			Necessary(both Liquid & Gas line)
Standard Accessories			Mounting kit

Notes

Adapted to **RoHS** directive

(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 °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"

FDC280KXZE1, 335KXZE1, 400KXZE1, 450KXZE1, 475KXZE1, 500KXZE1, 560KXZE1

Models			FDC280KXZE1	FDC335KXZE1	FDC400KXZE1	FDC450KXZE1	FDC475KXZE1	FDC500KXZE1	FDC560KXZE1
Nominal cooling capacity*1		kW	28.0	33.5	40.0	45.0	47.5	50.0	56.0
Nominal heating capacity*2			31.5	37.5	45.0	50.0	53.0	56.0	63.0
Power source			3 Phase 380–415V 50Hz/380V 60Hz						
Power consumption	Cool	kW	7.24	8.96	10.96	13.98	13.98	13.97	16.62
	Heat		7.28	9.04	10.69	12.50	13.00	13.49	15.95
Running current	Cool	A	11.9 / 10.9	14.6 / 13.4	17.5 / 16.2	22.4 / 20.5	22.6 / 20.7	22.6 / 20.7	26.9 / 24.6
	Heat		12.0 / 11.0	14.8 / 13.5	17.5 / 16.2	20.4 / 18.7	21.0 / 19.2	21.8 / 20.0	25.8 / 23.6
Power factor	Cool	%	92 / 92	93 / 93	95 / 94	95 / 95	94 / 94	94 / 94	94 / 94
	Heat		92 / 92	93 / 93	93 / 92	93 / 93	94 / 94	94 / 94	94 / 94
Sound Pressure Level		dB(A)	55 / 57	61 / 58	60 / 62	61 / 62	61 / 61	61 / 62	64 / 66
Exterior dimensions Height x Width x Depth		mm	1690x1350x720		2048x1350x720				
Net weight		kg	272		317		370		
Refrigerant equipment compressor type & Q'ty			GTC5150NC47LFx1		GUC5185ND47Vx1		GTC5150NC47LFx2		
Motor		kW	4.76x1	5.94x1	7.32x1	9.32x1	4.64x2	4.91x2	5.36x2
Starting method			Direct line starting						
Crankcase heater		W	33x1		40x1		33x2		
Refrigerant equipment Heat exchanger			M fin & inner grooved tubing						
Refrigerant control			Electronic expansion valve						
Refrigerant			R410A						
Quantity		kg	11.0		11.5				
Refrigerant oil		l	2.25 (M-MA32R)		2.9 (M-MA32R)		4.2 (M-MA32R)		
Defrost control			Microcomputer controlled De-Icer						
Air handling equipment fan type & Q'ty			Propeller fan x 2						
Motor		W	386x2						
Starting method			Direct start						
Air flow (Standard)		CMM	220 / 200	280 / 200	280 / 260	280 / 260	280 / 260	280 / 260	310 / 290
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 Refrigerant piping size		mm (in)	Liquid line : ϕ9.52 (3/8")	Liquid line : ϕ12.7 (1/2")					
			Gas line : ϕ22.22 (7/8")	Gas line : ϕ25.4 (1") (ϕ22.22 (7/8"))	Gas line : ϕ25.4 (1") (ϕ28.58 (1 1/8"))	Gas line : ϕ28.58 (1 1/8")			
Connecting method			Gas line : Brazing / Liquid line : Flare						
MAX. Pressure		MPa	High 4.15 Low 2.21						
Drain			Hole for drain (ϕ20 x 10pcs , ϕ45 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

• Single use (also for combined use)

FDC280KXZE1, 335KXZE1, 400KXZE1, 450KXZE1, 475KXZE1, 500KXZE1, 560KXZE1

Item \ System		FDC280KXZE1	FDC335KXZE1	FDC400KXZE1
Indoor air temperature (Upper, lower limits)		Refer to the DATA BOOK		
Outdoor air temperature (Upper, lower limits)				
Indoor units that can be used in combination	Number of connected units	1 to 24 units	1 to 29 units	1 to 34 units
	Connectable capacity (1)	140 - 364	168 - 435	200 - 520
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(6))		
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 (Max. 70m or less) (5)		
	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, FDUT, FDUH, FDU-F)		Dew point temperature 28 ℃ or less, relative humidity 80% or less (FDE, FDK, FDFL, FDFU, FDFW : Dew point temperature 23℃ or less, relative humidity 80% or less)		
Compressor stop/start frequency	1 cycle time	5 min or more (from stop to stop or from start 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%		

Item \ System		FDC450KXZE1	FDC475KXZE1	FDC500KXZE1	FDC560KXZE1
Indoor air temperature (Upper, lower limits)		Refer to the DATA BOOK			
Outdoor air temperature (Upper, lower limits)					
Indoor units that can be used in combination	Number of connected units	1 to 39 units	1 to 41 units	1 to 43 units	1 to 48 units
	Connectable capacity (1)	225 - 585	238 - 617	250 - 650	280 - 728
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(6))			
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 (Max. 70m or less) (5)			
	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, FDUT, FDUH, FDU-F)		Dew point temperature 28 ℃ or less, relative humidity 80% or less (FDE, FDK, FDFL, FDFU, FDFW : Dew point temperature 23℃ or less, relative humidity 80% or less)			
Compressor stop/start frequency	1 cycle time	5 min or more (from stop to stop or from start 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%			

Note (1) When connecting the indoor unit type FDK, FDFL, FDFU or FDFW 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℃.

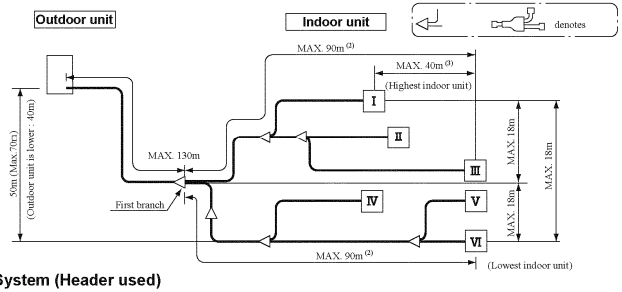
(4) If superlink I (previous superlink) is selected, all the range of usage and limitations, not only the limitations of connectable indoor capacity and connectable number of indoor unit but also of the piping length, operating temperature range and etc., become same as those of KX4 (See technical manual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

(5)When it is required to install in a range of 50 to 70 m, the limitation of use, etc. are different from those described here. For details, refer to the DATA BOOK.

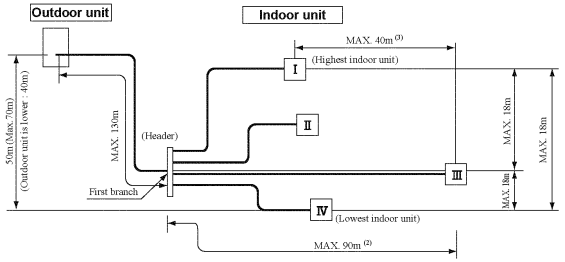
(6)When it is required to install in the difference between the longest and shortest piping more than 40m. refer to the DATA BOOK.

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

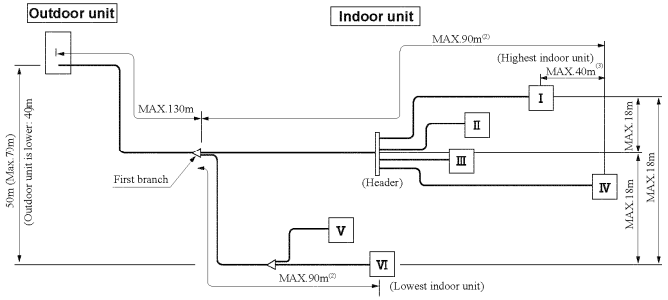
(1) Branch pipe System (Branch piping used)



(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 (3))
(3) When it is required to install the difference between the longest and shortest piping more than 40m, refer to the DATA BOOK.

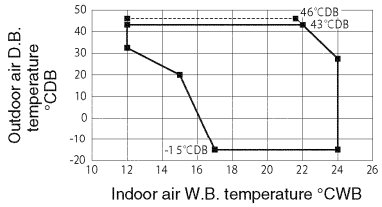
Important When the Additional refrigerant quantity (P+I) is over the following table, please separate the refrigerant line.

Outdoor unit	P + I (kg)
280-670	40
735-1350	80
1425-1680	100

P : Additional refrigerant quantity for piping(kg)
I : Additional refrigerant quantity for indoor units(kg)

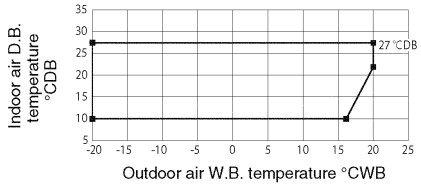
Operating temperature range

Cooling operation



*In case it is the promised installation location that the outdoor unit is used on conditions with the ambient temperature of 43℃ or more, refer to the DATA BOOK.

Heating operation



"CAUTION" Cooling operation under low outdoor air temperature conditions

KXZ 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

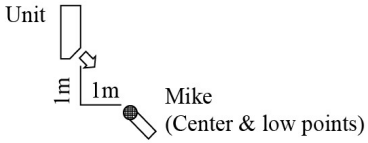
1) Install the outdoor unit at the place where strong wind cannot blow directly into the outdoor unit.
2) If there is no installation place where can prevent strong wind from directly blowing into the outdoor unit, prepare a windbreak fence or something like that locally in order to divert the strong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

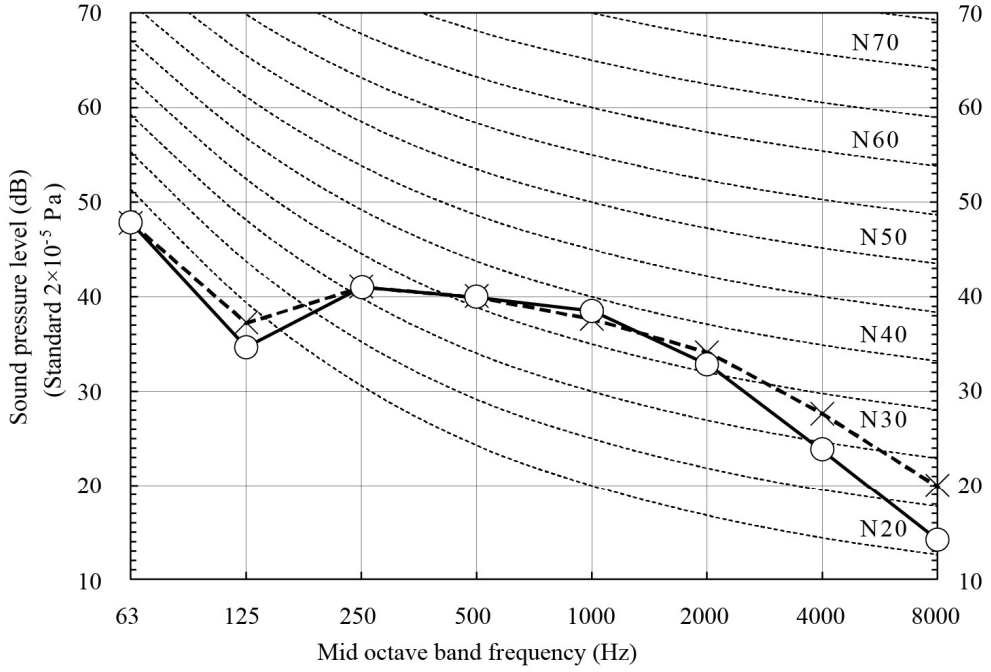
Notes(1) The data are based on the following conditions.
Ambient air temperature: Indoor unit 27℃WB. Outdoor unit 35℃DB.
(2) The data in the chart are measured in an anechoic room.
(3) The noise levels measured in the field are usually higher than the data because of reflection.

Measured based on JIS B 8616
Mike position



Model	FDK71KXZE1	
P-Hi Noise Level	Cooling	42 dB(A)
	Heating	42 dB(A)

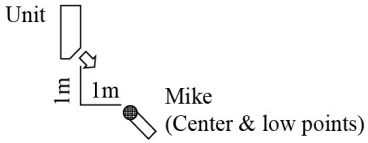
× ····· Cooling ○ —— Heating



Noise level

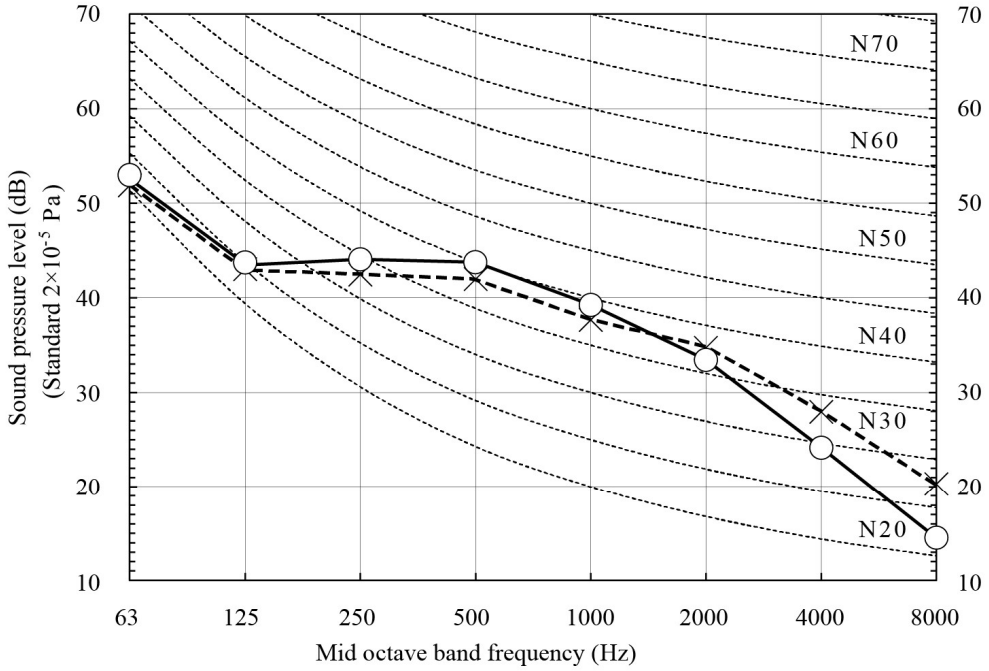
Notes(1) The data are based on the following conditions.
Ambient air temperature: Indoor unit 27℃WB. Outdoor unit 35℃DB.
(2) The data in the chart are measured in an anechoic room.
(3) The noise levels measured in the field are usually higher than the data because of reflection.

Measured based on JIS B 8616
Mike position



Model	FDK56KXZE1	
P-Hi Noise Level	Cooling	43 dB(A)
	Heating	44 dB(A)

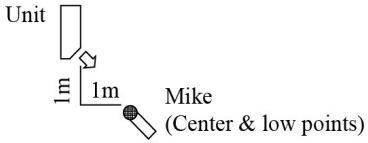
× ····· Cooling ○ —— Heating



Noise level

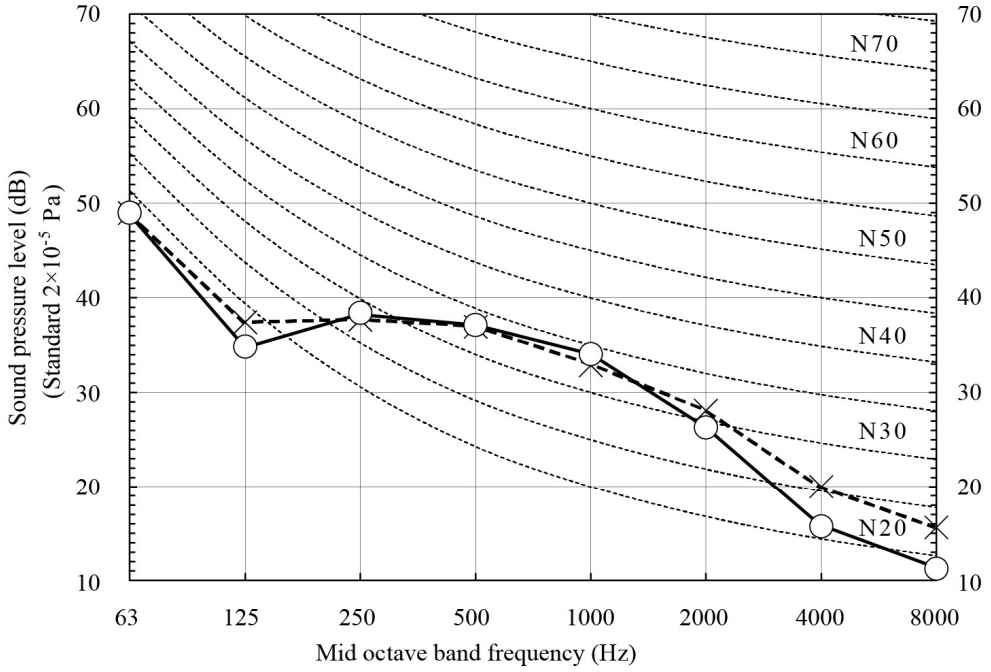
Notes(1) The data are based on the following conditions.
Ambient air temperature: Indoor unit 27℃WB. Outdoor unit 35℃DB.
(2) The data in the chart are measured in an anechoic room.
(3) The noise levels measured in the field are usually higher than the data because of reflection.

Measured based on JIS B 8616
Mike position



Model	FDK22KXZE1	
P-Hi Noise Level	Cooling	38 dB(A)
	Heating	38 dB(A)

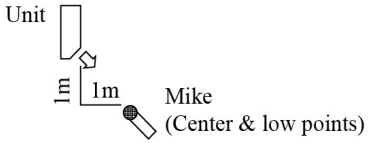
× ····· Cooling ○ —— Heating



Noise level

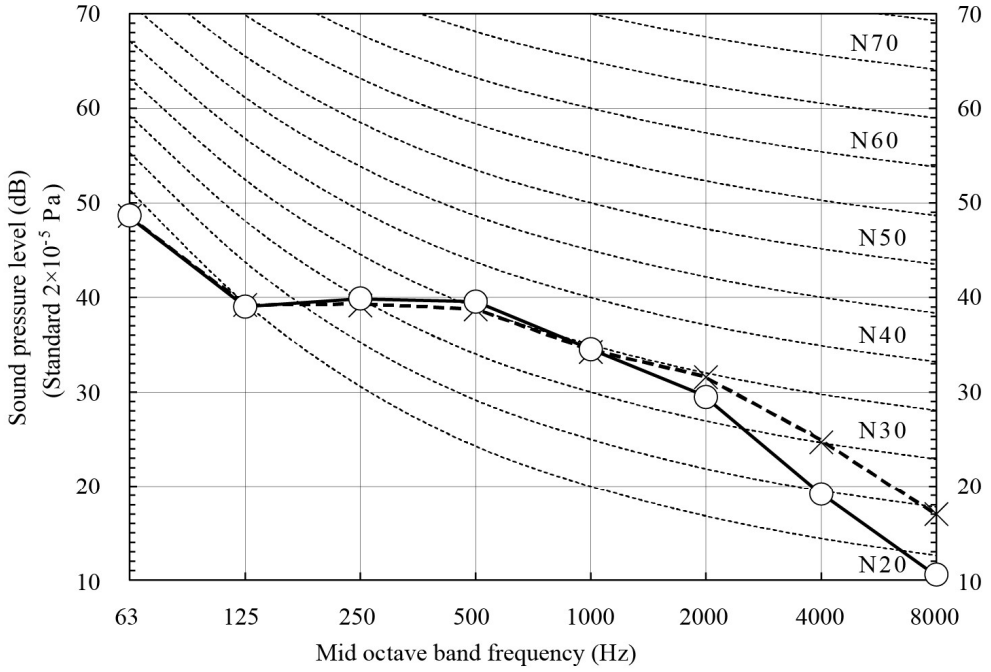
Notes(1) The data are based on the following conditions.
Ambient air temperature: Indoor unit 27℃WB. Outdoor unit 35℃DB.
(2) The data in the chart are measured in an anechoic room.
(3) The noise levels measured in the field are usually higher than the data because of reflection.

Measured based on JIS B 8616
Mike position



Model	FDK36KXZE1	
P-Hi Noise Level	Cooling	40 dB(A)
	Heating	40 dB(A)

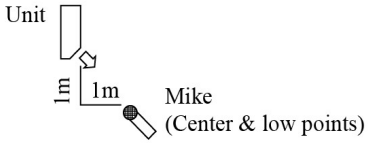
× ····· Cooling ○ —— Heating



Noise level

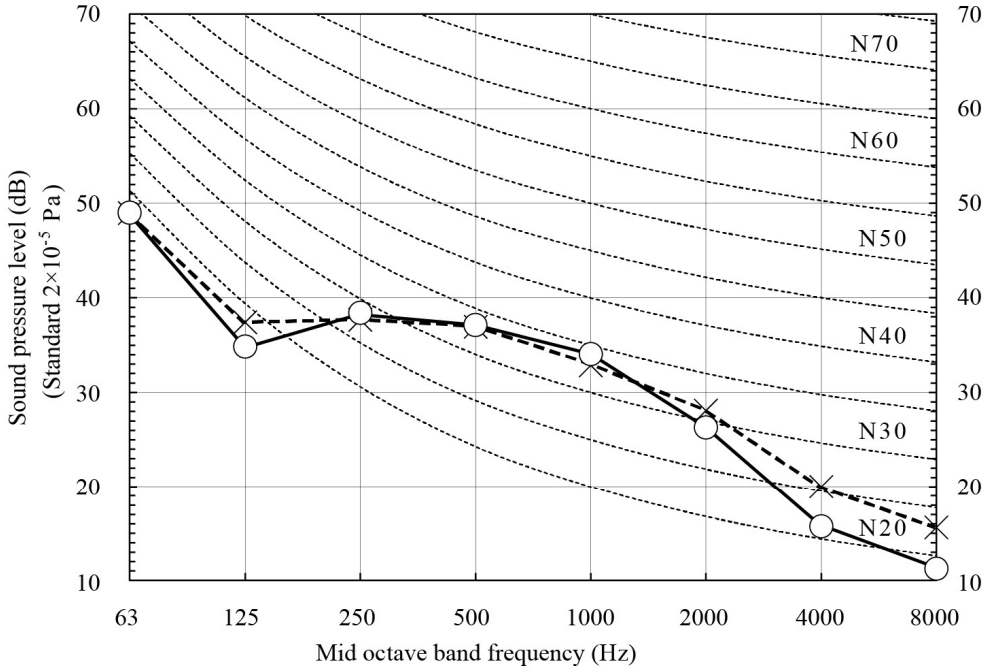
Notes(1) The data are based on the following conditions.
Ambient air temperature: Indoor unit 27℃WB. Outdoor unit 35℃DB.
(2) The data in the chart are measured in an anechoic room.
(3) The noise levels measured in the field are usually higher than the data because of reflection.

Measured based on JIS B 8616
Mike position



Model	FDK28KXZE1	
P-Hi Noise Level	Cooling	38 dB(A)
	Heating	38 dB(A)

× ····· Cooling ○ —— Heating



Noise level

Measured based on JIS B 8616

Mike position as highest noise level in position as below

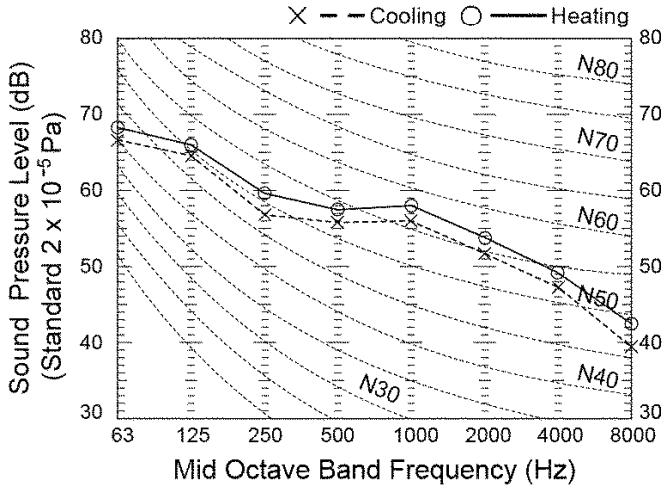
Distance from front side 1m

Height 1m

FDC400KXZE1

Noise level 60 dB (A) at cooling

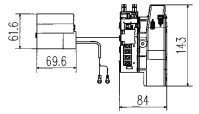
62 dB (A) at heating



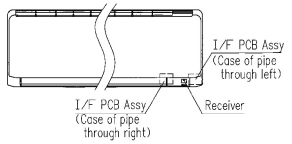
RCN-K71-E2

Unit:mm

I/F PCB Assy　Receiver



Installation position of receiver and I/F PCB Assy



Setting switch on I/F PCB

SW1-1	Prevents interference during plural setting	[ON : Normal] OFF : Remote
SW1-2	Receiver master/ slave setting	[ON : Master] OFF : Slave
SW1-3	Buzzer	[ON : Valid] OFF : Invalid
SW1-4	Auto restart	ON : Valid [OFF : Invalid]
SW1-5	Indication for error	[ON : Valid] OFF : Invalid
SW1-6	Unit type	[ON : FDK] OFF : FDTW,FDFW

Default setting : [ ] mark.

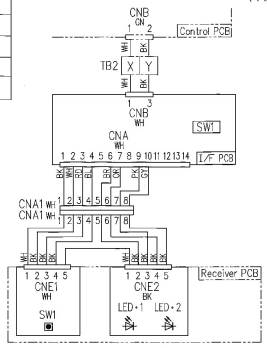
Notes
(1) Two LR03 AAA dry cell batteries for remote controller are enclosed.
(2) See spec sheet of "Wireless remote controller" about remote controller.
(3) In case of pipe through right, use attached wirings.

On Receiver PCB

SW1	Backup SW
LED-1	Run/Check1
LED-2	Timer/Check2

Color Marks

Mark	Color
BK	Black
BL	Blue
BR	Brown
GN	Green
GY	Gray
OR	Orange
PK	Pink
RD	Red
WH	White

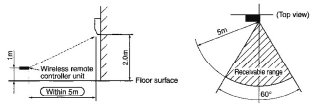


Installation of wireless kit

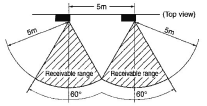
DO NOT install the wireless kit at the following places in order to avoid malfunction.
(1) Places exposed to direct sunlight
(2) Places near heat devices
(3) High humidity places
(4) Hot surface or cold surface enough to generate condensation
(5) Places exposed to oil mist or steam directly
(6) Uneven surface
(7) Places affected by the direct airflow of the AC unit
(8) Places where the receiver is influenced by the fluorescent lamp (especially inverter type) or sunlight
(9) Places where the receiver is affected by infrared rays of any other communication devices
(10) Places where some object may obstruct the communication with the remote controller

Wireless remote controller operation distance

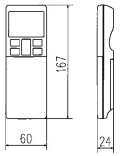
① Standard signal receiving range
[condition] Illuminance at the receiver area: 360lux. (When no lighting fixture is located within 1m of indoor unit in an ordinary office)



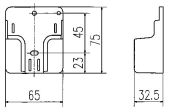
② Points for attention in connecting a plural number of indoor units
[condition]
Illuminance at the receiver area: 360lux.



Remote controller



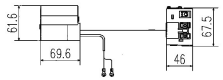
Remote controller holder



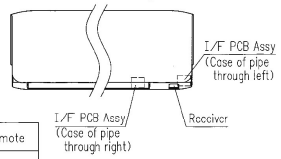
RCN-K-E2

Unit:mm

I/F PCB Assy　Receiver



Installation position of receiver and I/F PCB Assy



Installation of wireless kit

DO NOT install the wireless kit at 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
(7) Places affected by the direct airflow of the AC unit
(8) Places where the receiver is influenced by the fluorescent lamp (especially inverter type) or sunlight
(9) Places where the receiver is affected by infrared rays of any other communication devices
(10) Places where some object may obstruct the communication with the remote controller

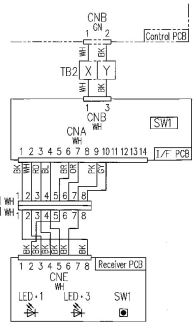
Setting switch on I/F PCB

SW1-1	Prevent interference during plural setting	[ON : Normal] OFF : Remote
SW1-2	Receiver master/ slave setting	[ON : Master] OFF : Slave
SW1-3	Buzzer	[ON : Valid] OFF : Invalid
SW1-4	Auto restart	ON : Valid [OFF : Invalid]
SW1-5	Indication for error	[ON : Valid] OFF : Invalid
SW1-6	Unit type	[ON : FDK] OFF : FDTW,FDFW

Default setting : [ ] mark.

Notes

(1) Two LR03 AAA dry cell batteries for remote controller are enclosed.
(2) See spec sheet of "Wireless remote controller" about remote controller.
(3) In case of pipe through right, use attached wirings.



On Receiver PCB

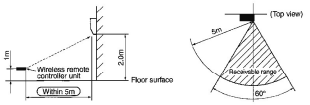
SW1	Backup SW
LED・1	Run/Check1
LED・3	Timer/Check2

Color Marks

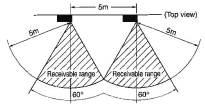
Mark	Color
BK	Black
BL	Blue
BR	Brown
GN	Green
GY	Gray
OR	Orange
PK	Pink
RD	Red
WH	White

Wireless remote controller operation distance

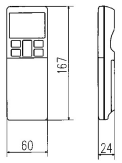
① Standard signal receiving range
[condition] Illuminance at the receiver area: 360lux.
(When no lighting fixture is located within 1m of indoor unit in an ordinary office)

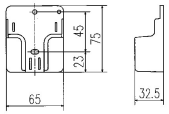


② Points for attention in connecting a plural number of indoor units
[condition]
Illuminance at the receiver area: 360lux.



Remote controller　Remote controller holder



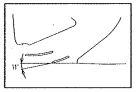


Temperature and velocity distribution

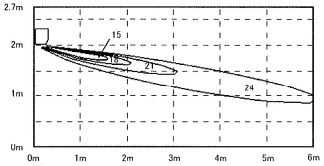
FDK71KXZE1

Cooling **Air flow**:P-Hi

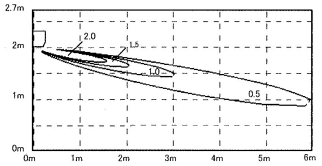
Louver position



Temperature distribution (℃)

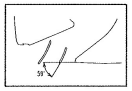


Velocity distribution (m/sec)

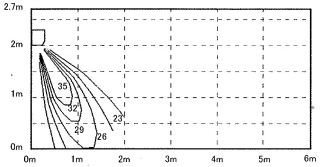


Heating **Air flow**:P-Hi

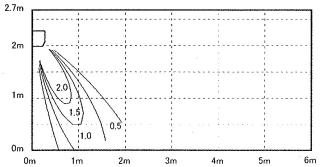
Louver position



Temperature distribution (℃)



Velocity distribution (m/sec)



Indoor temperature
Cooling 27℃DB/ 19℃WB
Heating 20℃DB

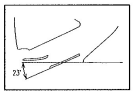
Note:
These figures represent the typical main range of temperature and velocity distribution at the center of air outlet within the published conditions.
In the actual installation, they may differ from the typical figures under the influence of air temperature conditions, ceiling height, operation conditions and obstacles.

Temperature and velocity distribution

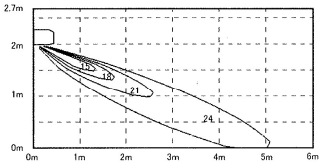
FDK56KXZE1

Cooling **Air flow**:P-Hi

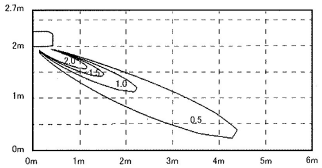
Louver position



Temperature distribution (℃)

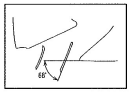


Velocity distribution (m/sec)

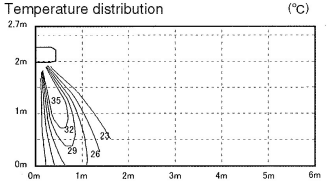


Heating **Air flow**:P-Hi

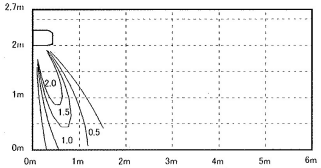
Louver position



Temperature distribution (℃)



Velocity distribution (m/sec)



Indoor temperature
Cooling 27℃DB/ 19℃WB
Heating 20℃DB

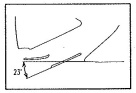
Note:
These figures represent the typical main range of temperature and velocity distribution at the center of air outlet within the published conditions.
In the actual installation, they may differ from the typical figures under the influence of air temperature conditions, ceiling height, operation conditions and obstacles.

Temperature and velocity distribution

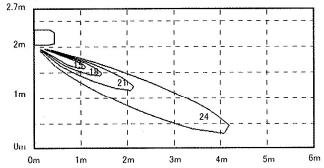
FDK22KXZE1

Cooling **Air flow**:P-Hi

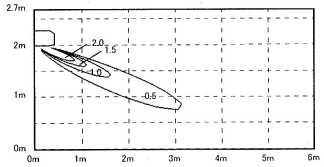
Louver position



Temperature distribution (℃)

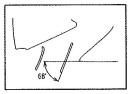


Velocity distribution (m/sec)

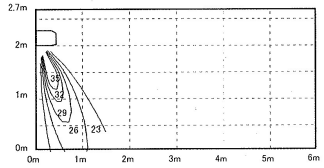


Heating **Air flow**:P-Hi

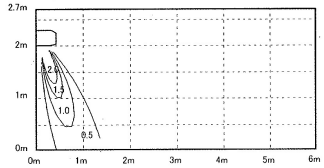
Louver position



Temperature distribution (℃)



Velocity distribution (m/sec)



Indoor temperature
Cooling 27℃DB/ 19℃WB
Heating 20℃DB

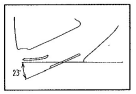
Note:
These figures represent the typical main range of temperature and velocity distribution at the center of air outlet within the published conditions.
In the actual installation, they may differ from the typical figures under the influence of air temperature conditions, ceiling height, operation conditions and obstacles.

Temperature and velocity distribution

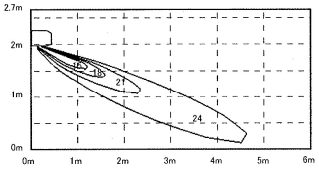
FDK36KXZE1

Cooling **Air flow**:P-Hi

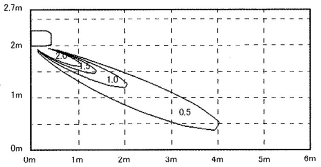
Louver position



Temperature distribution (°C)

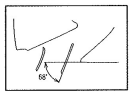


Velocity distribution (m/sec)

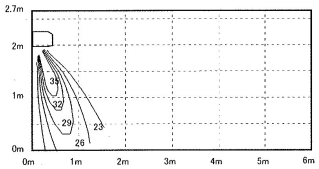


Heating **Air flow**:P-Hi

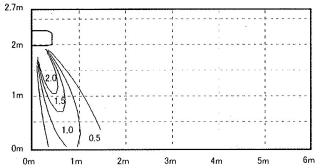
Louver position



Temperature distribution (°C)



Velocity distribution (m/sec)



Indoor temperature
Cooling 27°CDB/ 19°CWB
Heating 20°CDB

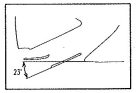
Note:
These figures represent the typical main range of temperature and velocity distribution at the center of air outlet within the published conditions.
In the actual installation, they may differ from the typical figures under the influence of air temperature conditions, ceiling height, operation conditions and obstacles.

Temperature and velocity distribution

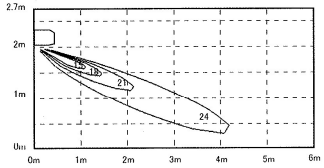
FDK28KXZE1

Cooling Air flow:P-Hi

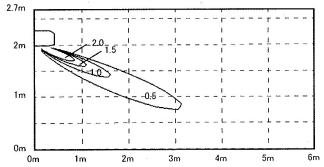
Louver position



Temperature distribution (℃)

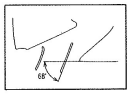


Velocity distribution (m/sec)

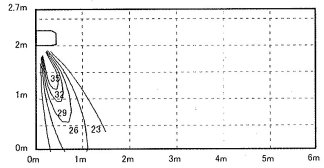


Heating Air flow:P-Hi

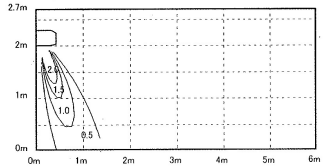
Louver position



Temperature distribution (℃)



Velocity distribution (m/sec)



Indoor temperature
Cooling 27℃DB/ 19℃WB
Heating 20℃DB

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.

MITSUBISHI HEAVY INDUSTRIES

VRF

KX INVERTER MULTI SYSTEMS

PROJECT SCHEDULE

Project: New Project
System: 1.stāvs

Client:

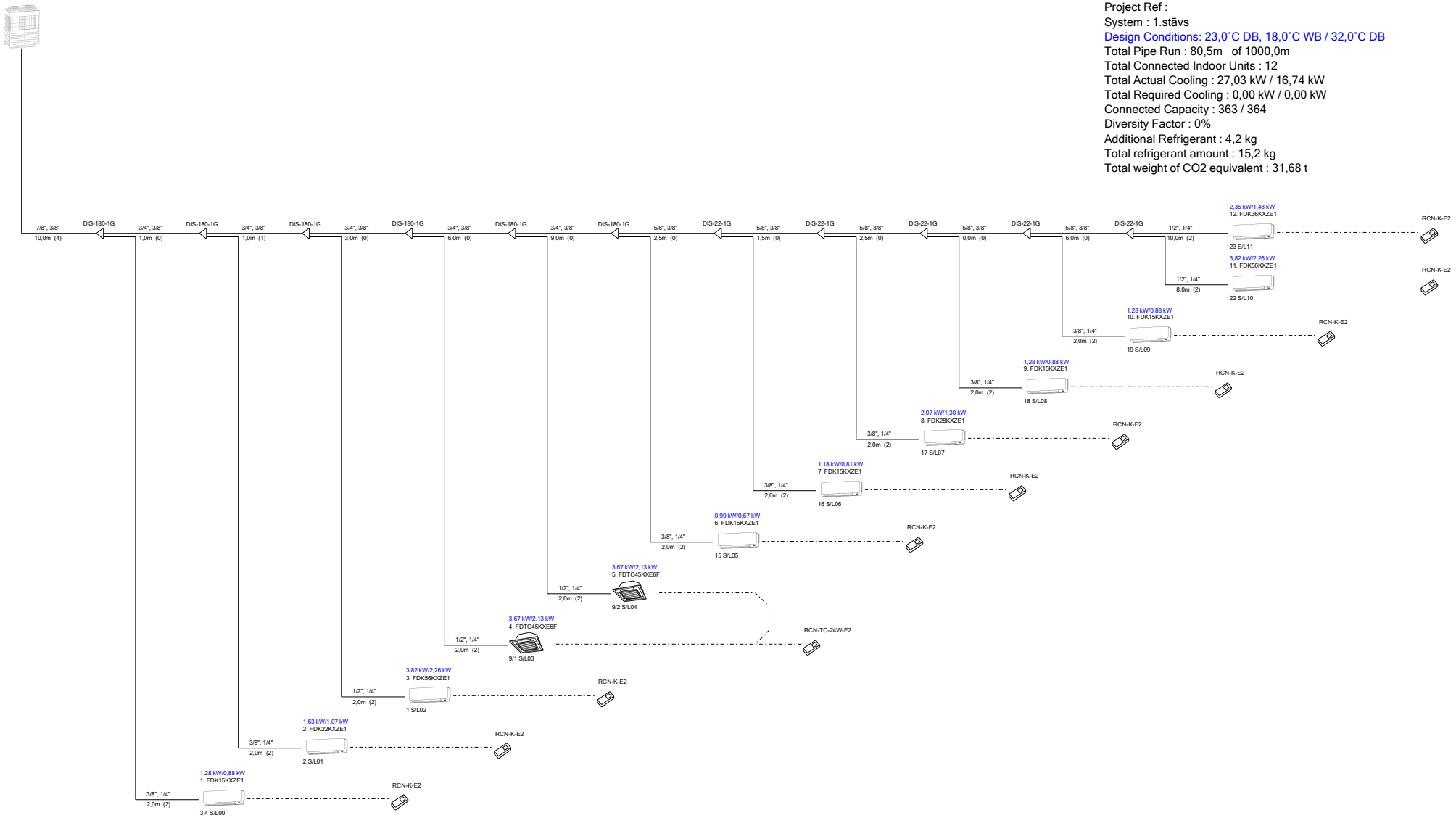
Prepared By:
Location:

Report Date/Time: 12.11.2018 13:49

MITSUBISHI HEAVY INDUSTRIES
e-solution

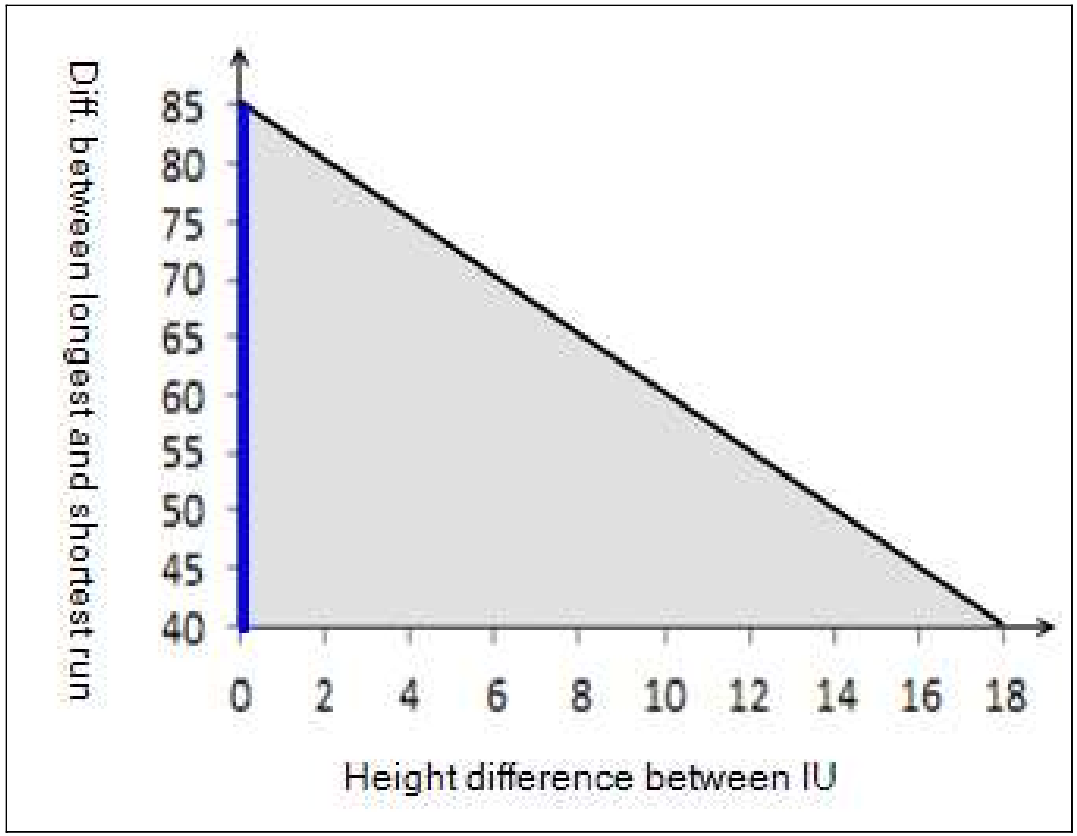
FDC280KXZE1

Project : New Project
Project Ref :
System : 1.stāvs
Design Conditions: 23,0˚C DB, 18,0˚C WB / 32,0˚C DB
Total Pipe Run : 80,5m of 1000,0m
Total Connected Indoor Units : 12
Total Actual Cooling : 27,03 kW / 16,74 kW
Total Required Cooling : 0,00 kW / 0,00 kW
Connected Capacity : 363 / 364
Diversity Factor : 0%
Additional Refrigerant : 4,2 kg
Total refrigerant amount : 15,2 kg
Total weight of CO2 equivalent : 31,68 t



Project : New Project
Project Ref :
System : 1.stāvs

Caution List



✔ There are no cautions

Project : New Project
Project Ref :

System : 1.stāvs

Temperature Conditions (cooling)

outdoor dry bulb	indoor wet bulb
32,0˚C	18,0˚C

Temperature Conditions (heating)

outdoor wet bulb	indoor dry bulb
-16,6˚C	20,0˚C

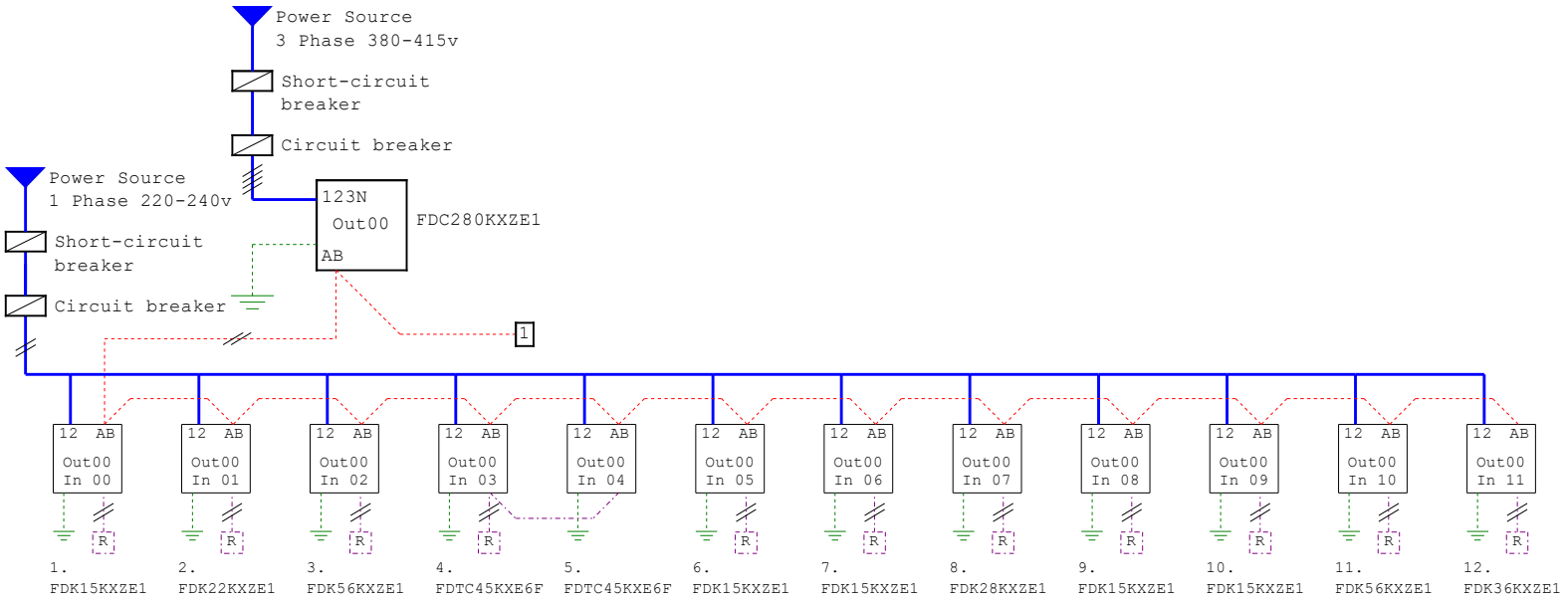
Unit	Room	Model	Nominal Capacity (kW)			Actual Capacity (kW)			Indoor Unit Position (m)		Actual Length (m)	Piping Length (m)	Address		
			Total	Sensible	Heating	Total	Sensible	Heating					S/L	O/U	I/U
		FDC280KXZE1	28,00	-	31,50	27,03	-	20,03					1	00	-
1	3;4	FDK15KXZE1	1,36	1,13	1,54	1,28	0,88	0,99	Above	4,0	12,0	12,0	1	00	00
2	2	FDK22KXZE1	1,73	1,37	1,87	1,63	1,07	1,20	Above	4,0	13,0	13,0	1	00	01
3	1	FDK56KXZE1	4,07	2,77	4,18	3,82	2,26	2,69	Above	4,0	14,0	14,0	1	00	02
4	9/1	FDTC45KXE6F	3,91	2,57	4,25	3,67	2,13	2,73	Above	4,0	17,0	17,0	1	00	03
5	9/2	FDTC45KXE6F	3,91	2,57	4,25	3,67	2,13	2,73	Above	4,0	23,0	23,0	1	00	04
6	15	FDK15KXZE1	1,05	0,85	1,31	0,99	0,67	0,84	Above	4,0	32,0	32,0	1	00	05
7	16	FDK15KXZE1	1,26	1,03	1,42	1,18	0,81	0,91	Above	4,0	34,5	34,5	1	00	06
8	17	FDK28KXZE1	2,20	1,63	2,39	2,07	1,30	1,54	Above	4,0	36,0	36,0	1	00	07
9	18	FDK15KXZE1	1,36	1,13	1,54	1,28	0,88	0,99	Above	4,0	38,5	38,5	1	00	08
10	19	FDK15KXZE1	1,36	1,13	1,54	1,28	0,88	0,99	Above	4,0	38,5	38,5	1	00	09
11	22	FDK56KXZE1	4,07	2,77	4,18	3,82	2,26	2,69	Above	4,0	50,5	50,5	1	00	10
12	23	FDK36KXZE1	2,50	1,85	2,70	2,35	1,48	1,74	Above	4,0	52,5	52,5	1	00	11
		TOTAL	28,78	20,81	31,17	27,03	16,74	20,03							

Project:
New Project
Project Ref:
System:
1.stāvs

Outdoor Unit	380v	415v
Running Current (A)	11,90/12,00	10,90/11,00
Power (%)	92/92	92/92
Inrush Current (A)	5,00	
Max Current (A)	21.2	
Input (kW)	7,24/7,28	

Indoor Units (Cool/Heat)	220v	240v
Total Input (kW)	0,33/0,33	0,33/0,33
Total Running Current (A)	2,99/2,99	2,73/2,73

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



Project Materials List

Project : New Project

Project Ref :

There are no project-wide materials to show at present (central controllers/BMS controllers)

System Materials List

Project : New Project

Project Ref :

System : 1.stāvs

Outdoor Unit	Qty
FDC280KXZE1	1

Indoor Unit	Qty
FDK15KXZE1	5
FDK22KXZE1	1
FDK56KXZE1	2
FDTC45KXE6F	2
FDK28KXZE1	1
FDK36KXZE1	1

Panel	Qty
TC-PSA-25W-E	2

Branch	Qty
DIS-180-1G	6
DIS-22-1G	5

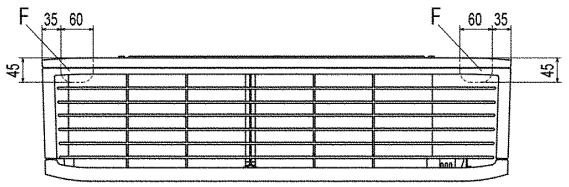
Remote Controllers	Qty
RCN-K-E2	10
RCN-TC-24W-E2	1

Additional Refrigerant	4,2 kg

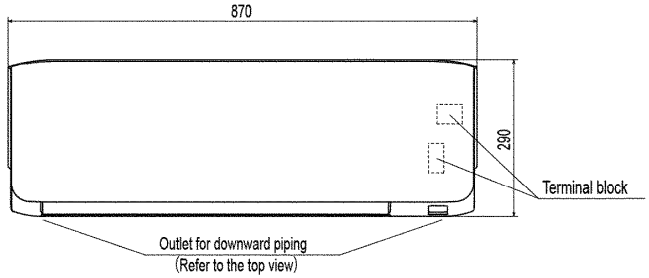
Pipe Diameter	Total Length (m)
1/4"	38,0
3/8"	56,5
1/2"	24,0
5/8"	12,5
3/4"	20,0
7/8"	10,0

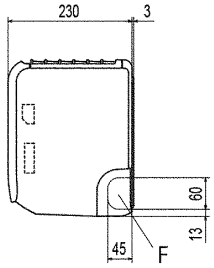
FDK15KXZE1, 22KXZE1, 28KXZE1, 36KXZE1, 45KXZE1, 56KXZE1

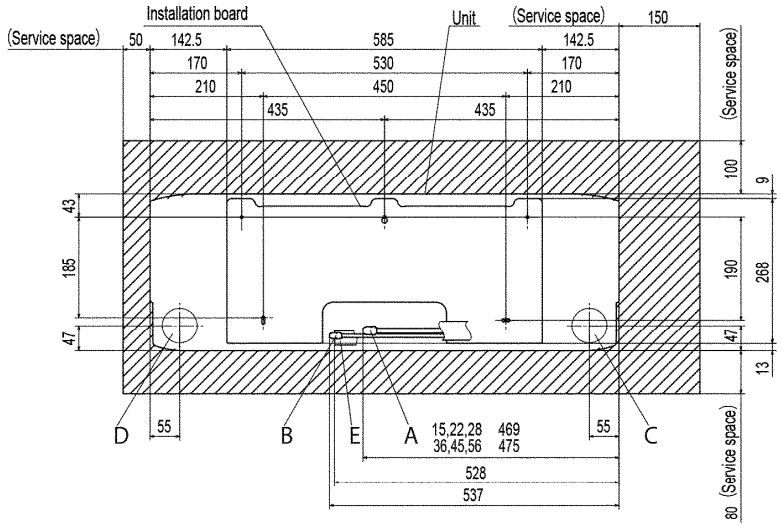
Unit:mm



Symbol	Content		
	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	Hole on wall for right rear piping	(φ65)	
D	Hole on wall for left rear piping	(φ65)	
E	Drain hose	VP16	
F	Outlet for wiring (on both side)		





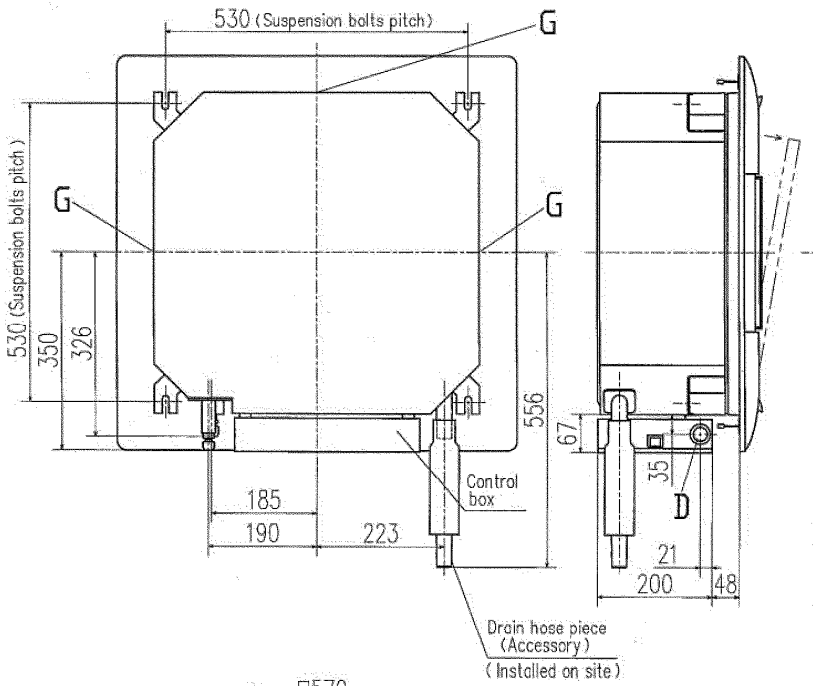


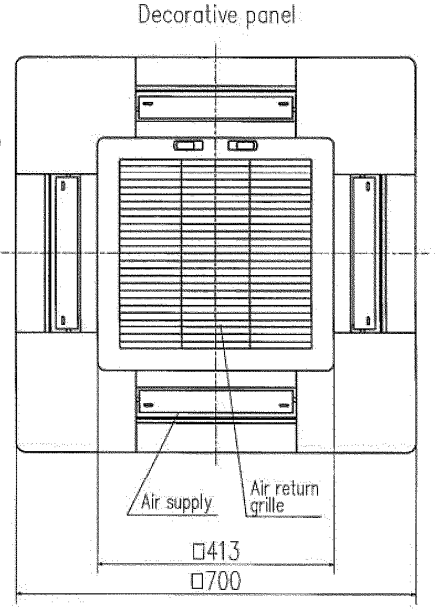
Space for installation and service when viewing from the front

Note (1) The model name label is attached on the right side of the unit.

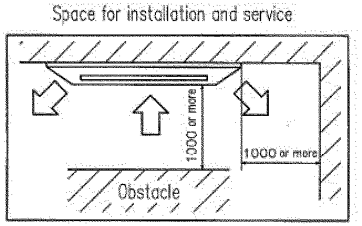
FDTC45KXE6F

Unit:mm

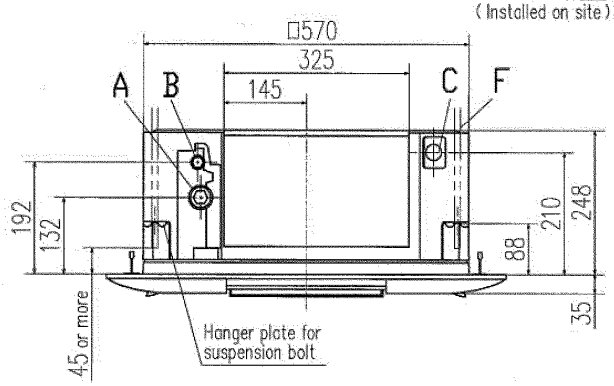


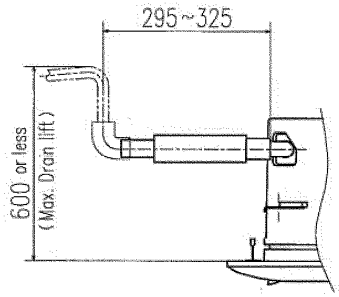


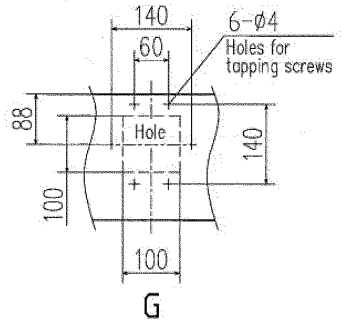
Symbol	Content		
	Model	22,28	36,45,56
A	Gas piping	ϕ9.52 (3/8") (Flare)	ϕ12.7 (1/2") (Flare)
B	Liquid piping	ϕ6.35 (1/4") (Flare)	
C	Drain piping	VP20 (I.D.20,O.D.26) Note (2)	
D	Hole for wiring	ϕ25	
F	Suspension bolts	(M10 or M8)	
G	Air outlet opening for ducting	(Knock out)	



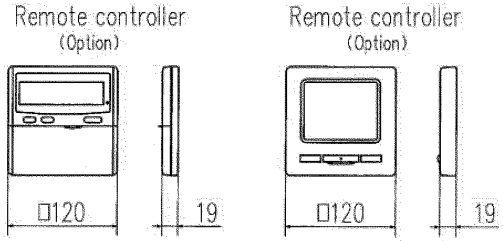
Make a space of 4000 or more between the units when installing more than one.





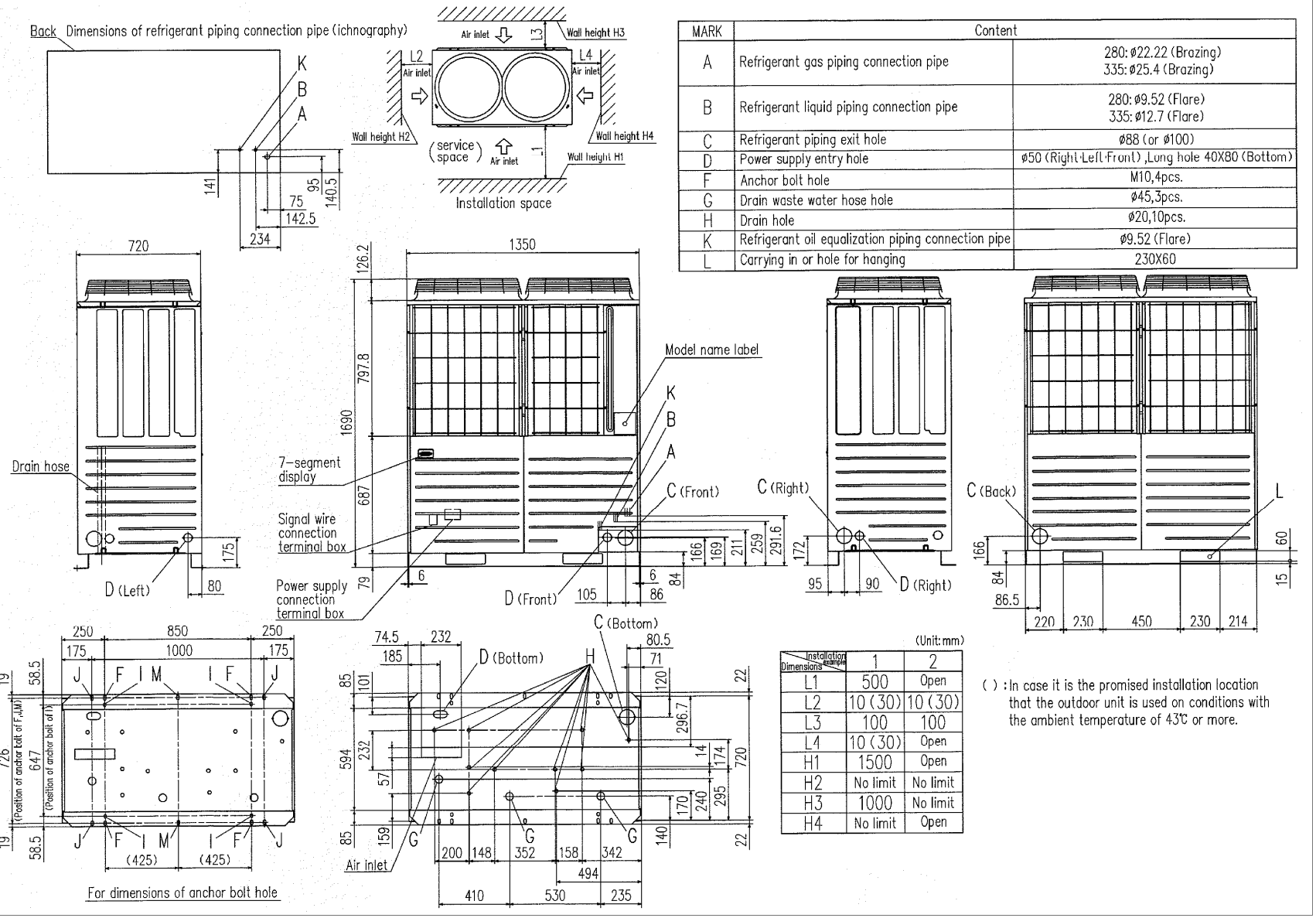


Notes (1) The model name label is attached on the control box lid.
(2) Prepare the connecting socket (VP20) on site.
(3) This unit is designed for 2x2 grid ceiling.
if it is installed on a ceiling other than 2x2 grid ceiling, provide an inspection port on the control box side.



FDC280KXZE1, 335KXZE1

Unit:mm



MARK	Content	
A	Refrigerant gas piping connection pipe	280: ø22.22 (Brazing) 335: ø25.4 (Brazing)
B	Refrigerant liquid piping connection pipe	280: ø9.52 (Flare) 335: ø12.7 (Flare)
C	Refrigerant piping exit hole	ø88 (or ø100)
D	Power supply entry hole	ø50 (Right·Left·Front) ,Long hole 40X80 (Bottom)
F	Anchor bolt hole	M10,4pcs.
G	Drain waste water hose hole	ø45,3pcs.
H	Drain hole	ø20,10pcs.
K	Refrigerant oil equalization piping connection pipe	ø9.52 (Flare)
L	Carrying in or hole for hanging	230X60

(Unit:mm)

Installation example / Dimensions	1	2
L1	500	Open
L2	10 (30)	10 (30)
L3	100	100
L4	10 (30)	Open
H1	1500	Open
H2	No limit	No limit
H3	1000	No limit
H4	No limit	Open

( ) : In case it is the promised installation location that the outdoor unit is used on conditions with the ambient temperature of 43℃ or more.

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Wall Mounted type (FDK)

Models			FDK15KXZE1
			-
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
	Heat		0.02
Running current	Cool	A	0.18-0.16/0.18
	Heat		0.18-0.16/0.18
Sound Pressure Level	Cool	dB(A)	P-Hi : 38 Hi : 34 Me : 31 Lo : 28
	Heat		P-Hi : 38 Hi : 34 Me : 31 Lo : 28
Sound Power Level	Cool	dB(A)	54
	Heat		54
Exterior dimensions Height x Width x Depth		mm	290 × 870 × 230
Exterior appearance (Munsell color)			Fine Snow (8.0Y9.3/0.1) near equivalent
Net weight		kg	11.5
Refrigerant equipment Heat exchanger			Louver fin & inner grooved tubing
Refrigerant control			Electronic Expansion Valve
Air handling equipment Fan type & Q'ty			Tangential fan × 1
Motor		W	42
Starting method			Direct line start
Air flow(Standard)	Cool	m^3/min	P-Hi : 5.7 Hi : 5 Me : 4.5 Lo : 3.6
	Heat		P-Hi : 5.7 Hi : 5 Me : 4.5 Lo : 3.6
Available static pressure		Pa	0
Outside air intake			Not possible
Air filter, Q'ty			Polypropylene net × 2 (Washable)
Shock & vibration absorber			Rubber sleeve(for fan motor)
Insulation (noise & heat)			Polyurethane form
Operation control			Remote control switch wired: RC-EX3,RC-E5,RCH-E3 wireless:RCN-K-E2
Room temperature control			Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat
Installation data Refrigerant piping size			Liquid line: φ6.35 (1/4″) Gas line: φ9.52 (3/8″)
Connecting method			Flare piping
Refrigerant			R410A
			-
Drain hose			Connectable with V P 1 6
Insulation for piping			Necessary(both Liquid & Gas line)
Standard Accessories			Mounting kit

(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 ℃	

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

Wall Mounted type (FDK)

Models			FDK22KXZE1
Nominal cooling capacity*1		kW	2.2
Nominal heating capacity*2			2.5
Power source			220-240V ~ 50Hz / 220V ~ 60Hz
Power consumption	Cool	kW	0.02
	Heat		0.02
Running current	Cool	A	0.18 - 0.16 / 0.18
	Heat		0.18 - 0.16 / 0.18
Sound Pressure Level	Cool	dB(A)	P-Hi : 38 Hi : 36 Me : 32 Lo : 28
	Heat		P-Hi : 38 Hi : 36 Me : 32 Lo : 28
Sound Power Level	Cool	dB(A)	55
	Heat		55
Exterior dimensions Height x Width x Depth		mm	290 × 870 × 230
Exterior appearance (Munsell color)			Fine Snow (8.0Y9.3/0.1) near equivalent
Net weight		kg	11
Refrigerant equipment Heat exchanger			Louver fin & inner grooved tubing
Refrigerant control			Electronic Expansion Valve
Air handling equipment Fan type & Q'ty			Tangential fan × 1
Motor		W	42
Starting method			Direct line start
Air flow(Standard)	Cool	m^3/min	P-Hi : 8.5 Hi : 8 Me : 6 Lo : 5
	Heat		P-Hi : 8.5 Hi : 8 Me : 6 Lo : 5
Available static pressure		Pa	0
Outside air intake			Not possible
Air filter, Q'ty			Polypropylene net × 2 (Washable)
Shock & vibration absorber			Rubber sleeve(for fan motor)
Insulation (noise & heat)			Polyurethane form
Operation control			Remote control switch wired: RC-EX3,RC-E5,RCH-E3 wireless:RCN-K-E2
Room temperature control			Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat
Installation data Refrigerant piping size			Liquid line: ϕ6.35 (1/4") Gas line: ϕ9.52 (3/8")
Connecting method			Flare piping
Refrigerant			R410A
Drain hose			Connectable with VP16
Insulation for piping			Necessary(both Liquid & Gas line)
Standard Accessories			Mounting kit

Notes

Adapted to **RoHS** directive

(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 °C	19 °C	35 °C	24 °C	ISO-T1
Heating*2	20 °C		7 °C	6 °C	

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

Wall Mounted type (FDK)

Models			FDK56KXZE1
Nominal cooling capacity*1		kW	5.6
Nominal heating capacity*2			6.3
Power source			220-240V ~ 50Hz / 220V ~ 60Hz
Power consumption	Cool	kW	0.03
	Heat		0.03
Running current	Cool	A	0.27 - 0.25 / 0.27
	Heat		0.27 - 0.25 / 0.27
Sound Pressure Level	Cool	dB(A)	P-Hi : 43 Hi : 41 Me : 36 Lo : 33
	Heat		P-Hi : 44 Hi : 42 Me : 37 Lo : 33
Sound Power Level	Cool	dB(A)	58
	Heat		61
Exterior dimensions Height x Width x Depth		mm	290 × 870 × 230
Exterior appearance (Munsell color)			Fine Snow (8.0Y9.3/0.1) near equivalent
Net weight		kg	11.5
Refrigerant equipment Heat exchanger			Louver fin & inner grooved tubing
Refrigerant control			Electronic Expansion Valve
Air handling equipment Fan type & Q'ty			Tangential fan × 1
Motor		W	42
Starting method			Direct line start
Air flow(Standard)	Cool	m^3/min	P-Hi : 12 Hi : 11 Me : 9 Lo : 8
	Heat		P-Hi : 13 Hi : 12 Me : 10 Lo : 8
Available static pressure		Pa	0
Outside air intake			Not possible
Air filter, Q'ty			Polypropylene net × 2 (Washable)
Shock & vibration absorber			Rubber sleeve(for fan motor)
Insulation (noise & heat)			Polyurethane form
Operation control			Remote control switch wired: RC-EX3,RC-E5,RCH-E3 wireless:RCN-K-E2
Room temperature control			Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat
Installation data Refrigerant piping size			Liquid line: ϕ6.35 (1/4") Gas line: ϕ12.7 (1/2")
Connecting method			Flare piping
Refrigerant			R410A
Drain hose			Connectable with VP16
Insulation for piping			Necessary(both Liquid & Gas line)
Standard Accessories			Mounting kit

Notes

Adapted to **RoHS** directive

(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 °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"

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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 Operation switch			Remote control switch Option: RC-E5, RC-EX1A
Room temperature control			Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat
Installation data Refrigerant piping size			Liquid line: ϕ6.35 (1/4") Gas line: ϕ12.7 (1/2")
Connecting method			Flare piping
Refrigerant			R410A
Drain 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
Operation	DB	WB	DB	WB	
Cooling*1	27 ℃	19 ℃	35 ℃	24 ℃	ISO-T1
Heating*2	20 ℃		7 ℃	6 ℃	

(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.

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Wall Mounted type (FDK)

Models			FDK28KXZE1
			-
Nominal cooling capacity*1		kW	2.8
Nominal heating capacity*2			3.2
Power source			220-240V ~ 50Hz / 220V ~ 60Hz
Power consumption	Cool	kW	0.02
	Heat		0.02
Running current	Cool	A	0.18 - 0.16 / 0.18
	Heat		0.18 - 0.16 / 0.18
Sound Pressure Level	Cool	dB(A)	P-Hi : 38 Hi : 36 Me : 32 Lo : 28
	Heat		P-Hi : 38 Hi : 36 Me : 32 Lo : 28
Sound Power Level	Cool	dB(A)	55
	Heat		55
Exterior dimensions Height x Width x Depth		mm	290 × 870 × 230
Exterior appearance (Munsell color)			Fine Snow (8.0Y9.3/0.1) near equivalent
Net weight		kg	11
Refrigerant equipment Heat exchanger			Louver fin & inner grooved tubing
Refrigerant control			Electronic Expansion Valve
Air handling equipment Fan type & Q'ty			Tangential fan × 1
Motor		W	42
Starting method			Direct line start
Air flow(Standard)	Cool	m^3/min	P-Hi : 8.5 Hi : 8 Me : 6 Lo : 5
	Heat		P-Hi : 8.5 Hi : 8 Me : 6 Lo : 5
Available static pressure		Pa	0
Outside air intake			Not possible
Air filter, Q'ty			Polypropylene net × 2 (Washable)
Shock & vibration absorber			Rubber sleeve(for fan motor)
Insulation (noise & heat)			Polyurethane form
Operation control			Remote control switch wired: RC-EX3,RC-E5,RCH-E3 wireless:RCN-K-E2
Room temperature control			Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat
Installation data Refrigerant piping size			Liquid line: ϕ6.35 (1/4″) Gas line: ϕ9.52 (3/8″)
Connecting method			Flare piping
Refrigerant			R410A
			-
Drain hose			Connectable with V P 1 6
Insulation for piping			Necessary(both Liquid & Gas line)
Standard Accessories			Mounting kit

Notes

Adapted to **RoHS** directive

(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 °C	19 °C	35 °C	24 °C	ISO-T1
Heating*2	20 °C		7 °C	6 °C	

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

Wall Mounted type (FDK)

Models			FDK36KXZE1
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
	Heat		0.03
Running current	Cool	A	0.27 - 0.25 / 0.27
	Heat		0.27 - 0.25 / 0.27
Sound Pressure Level	Cool	dB(A)	P-Hi : 40 Hi : 38 Me : 33 Lo : 28
	Heat		P-Hi : 40 Hi : 38 Me : 33 Lo : 28
Sound Power Level	Cool	dB(A)	58
	Heat		58
Exterior dimensions Height x Width x Depth		mm	290 × 870 × 230
Exterior appearance (Munsell color)			Fine Snow (8.0Y9.3/0.1) near equivalent
Net weight		kg	11.5
Refrigerant equipment Heat exchanger			Louver fin & inner grooved tubing
Refrigerant control			Electronic Expansion Valve
Air handling equipment Fan type & Q'ty			Tangential fan × 1
Motor		W	42
Starting method			Direct line start
Air flow(Standard)	Cool	m^3/min	P-Hi : 11 Hi : 10 Me : 8 Lo : 7
	Heat		P-Hi : 11 Hi : 10 Me : 8 Lo : 7
Available static pressure		Pa	0
Outside air intake			Not possible
Air filter, Q'ty			Polypropylene net × 2 (Washable)
Shock & vibration absorber			Rubber sleeve(for fan motor)
Insulation (noise & heat)			Polyurethane form
Operation control			Remote control switch wired: RC-EX3,RC-E5,RCH-E3 wireless:RCN-K-E2
Room temperature control			Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat
Installation data Refrigerant piping size			Liquid line: φ6.35 (1/4") Gas line: φ12.7 (1/2")
Connecting method			Flare piping
Refrigerant			R410A
Drain hose			Connectable with VP16
Insulation for piping			Necessary(both Liquid & Gas line)
Standard Accessories			Mounting kit

Notes

Adapted to **RoHS** directive

(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 °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"

FDC280KXZE1, 335KXZE1, 400KXZE1, 450KXZE1, 475KXZE1, 500KXZE1, 560KXZE1

Models			FDC280KXZE1	FDC335KXZE1	FDC400KXZE1	FDC450KXZE1	FDC475KXZE1	FDC500KXZE1	FDC560KXZE1
Nominal cooling capacity*1		kW	28.0	33.5	40.0	45.0	47.5	50.0	56.0
Nominal heating capacity*2			31.5	37.5	45.0	50.0	53.0	56.0	63.0
Power source			3 Phase 380–415V 50Hz/380V 60Hz						
Power consumption	Cool	kW	7.24	8.96	10.96	13.98	13.98	13.97	16.62
	Heat		7.28	9.04	10.69	12.50	13.00	13.49	15.95
Running current	Cool	A	11.9 / 10.9	14.6 / 13.4	17.5 / 16.2	22.4 / 20.5	22.6 / 20.7	22.6 / 20.7	26.9 / 24.6
	Heat		12.0 / 11.0	14.8 / 13.5	17.5 / 16.2	20.4 / 18.7	21.0 / 19.2	21.8 / 20.0	25.8 / 23.6
Power factor	Cool	%	92 / 92	93 / 93	95 / 94	95 / 95	94 / 94	94 / 94	94 / 94
	Heat		92 / 92	93 / 93	93 / 92	93 / 93	94 / 94	94 / 94	94 / 94
Sound Pressure Level		dB(A)	55 / 57	61 / 58	60 / 62	61 / 62	61 / 61	61 / 62	64 / 66
Exterior dimensions Height x Width x Depth		mm	1690x1350x720		2048x1350x720				
Net weight		kg	272		317		370		
Refrigerant equipment compressor type & Q'ty			GTC5150NC47LFx1		GUC5185ND47Vx1		GTC5150NC47LFx2		
Motor		kW	4.76x1	5.94x1	7.32x1	9.32x1	4.64x2	4.91x2	5.36x2
Starting method			Direct line starting						
Crankcase heater		W	33x1		40x1		33x2		
Refrigerant equipment Heat exchanger			M fin & inner grooved tubing						
Refrigerant control			Electronic expansion valve						
Refrigerant			R410A						
Quantity		kg	11.0		11.5				
Refrigerant oil		l	2.25 (M-MA32R)		2.9 (M-MA32R)		4.2 (M-MA32R)		
Defrost control			Microcomputer controlled De-Icer						
Air handling equipment fan type & Q'ty			Propeller fan x 2						
Motor		W	386x2						
Starting method			Direct start						
Air flow (Standard)		CMM	220 / 200	280 / 200	280 / 260	280 / 260	280 / 260	280 / 260	310 / 290
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 Refrigerant piping size		mm (in)	Liquid line : ϕ9.52 (3/8")	Liquid line : ϕ12.7 (1/2")					
			Gas line : ϕ22.22 (7/8")	Gas line : ϕ25.4 (1") (ϕ22.22 (7/8"))	Gas line : ϕ25.4 (1") (ϕ28.58 (1 1/8"))	Gas line : ϕ28.58 (1 1/8")			
Connecting method			Gas line : Brazing / Liquid line : Flare						
MAX. Pressure		MPa	High 4.15 Low 2.21						
Drain			Hole for drain (ϕ20 x 10pcs , ϕ45 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

• Single use (also for combined use)

FDC280KXZE1, 335KXZE1, 400KXZE1, 450KXZE1, 475KXZE1, 500KXZE1, 560KXZE1

Item \ System		FDC280KXZE1	FDC335KXZE1	FDC400KXZE1
Indoor air temperature (Upper, lower limits)		Refer to the DATA BOOK		
Outdoor air temperature (Upper, lower limits)				
Indoor units that can be used in combination	Number of connected units	1 to 24 units	1 to 29 units	1 to 34 units
	Connectable capacity (1)	140 - 364	168 - 435	200 - 520
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(6))		
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 (Max. 70m or less) (5)		
	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, FDUT, FDUH, FDU-F)		Dew point temperature 28 ℃ or less, relative humidity 80% or less (FDE, FDK, FDFL, FDFU, FDFW : Dew point temperature 23℃ or less, relative humidity 80% or less)		
Compressor stop/start frequency	1 cycle time	5 min or more (from stop to stop or from start 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%		

Item \ System		FDC450KXZE1	FDC475KXZE1	FDC500KXZE1	FDC560KXZE1
Indoor air temperature (Upper, lower limits)		Refer to the DATA BOOK			
Outdoor air temperature (Upper, lower limits)					
Indoor units that can be used in combination	Number of connected units	1 to 39 units	1 to 41 units	1 to 43 units	1 to 48 units
	Connectable capacity (1)	225 - 585	238 - 617	250 - 650	280 - 728
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(6))			
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 (Max. 70m or less) (5)			
	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, FDUT, FDUH, FDU-F)		Dew point temperature 28 ℃ or less, relative humidity 80% or less (FDE, FDK, FDFL, FDFU, FDFW : Dew point temperature 23℃ or less, relative humidity 80% or less)			
Compressor stop/start frequency	1 cycle time	5 min or more (from stop to stop or from start 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%			

Note (1) When connecting the indoor unit type FDK, FDFL, FDFU or FDFW 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℃.

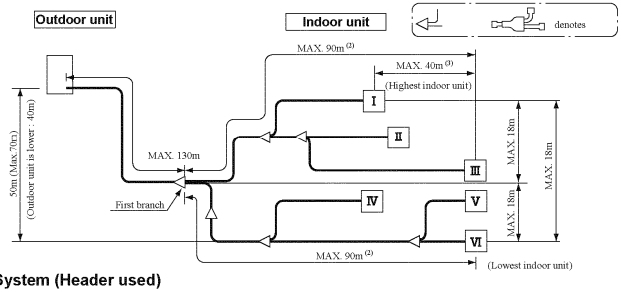
(4) If superlink I (previous superlink) is selected, all the range of usage and limitations, not only the limitations of connectable indoor capacity and connectable number of indoor unit but also of the piping length, operating temperature range and etc., become same as those of KX4 (See technical manual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

(5)When it is required to install in a range of 50 to 70 m, the limitation of use, etc. are different from those described here. For details, refer to the DATA BOOK.

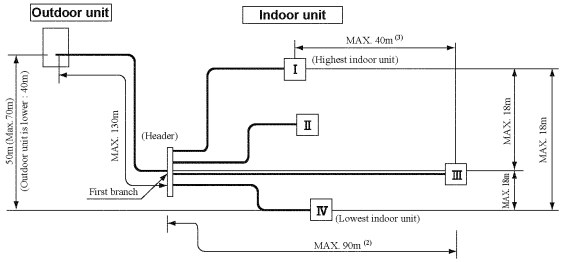
(6)When it is required to install in the difference between the longest and shortest piping more than 40m. refer to the DATA BOOK.

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

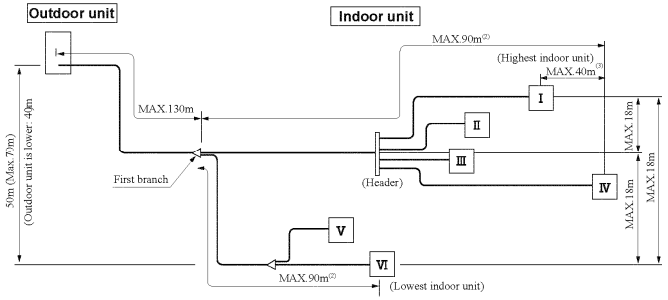
(1) Branch pipe System (Branch piping used)



(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 (3))
(3) When it is required to install the difference between the longest and shortest piping more than 40m, refer to the DATA BOOK.

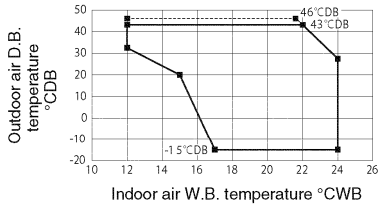
Important When the Additional refrigerant quantity (P+I) is over the following table, please separate the refrigerant line.

Outdoor unit	P + I (kg)
280-670	40
735-1350	80
1425-1680	100

P : Additional refrigerant quantity for piping(kg)
I : Additional refrigerant quantity for indoor units(kg)

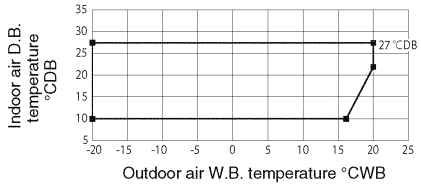
Operating temperature range

Cooling operation



*In case it is the promised installation location that the outdoor unit is used on conditions with the ambient temperature of 43℃ or more, refer to the DATA BOOK.

Heating operation



"CAUTION" Cooling operation under low outdoor air temperature conditions

KXZ 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

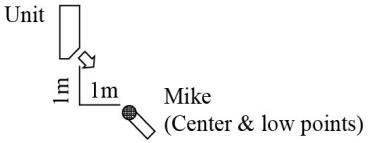
1) Install the outdoor unit at the place where strong wind cannot blow directly into the outdoor unit.
2) If there is no installation place where can prevent strong wind from directly blowing into the outdoor unit, prepare a windbreak fence or something like that locally in order to divert the strong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

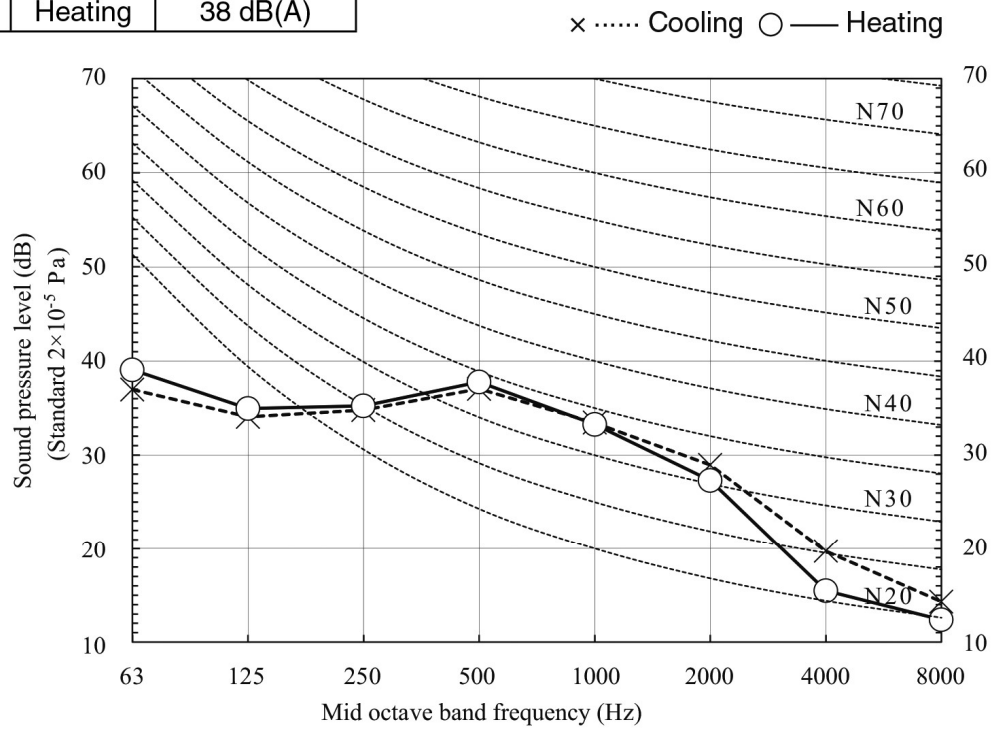
Noise level

Notes(1) The data are based on the following conditions.
Ambient air temperature: Indoor unit 27℃WB. Outdoor unit 35℃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.

Measured based on JIS B 8616
Mike position



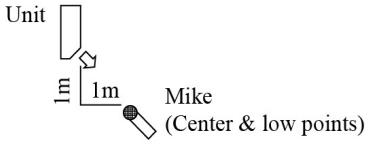
Model	FDK15KXZE1	
P-Hi Noise Level	Cooling	38 dB(A)
	Heating	38 dB(A)



Noise level

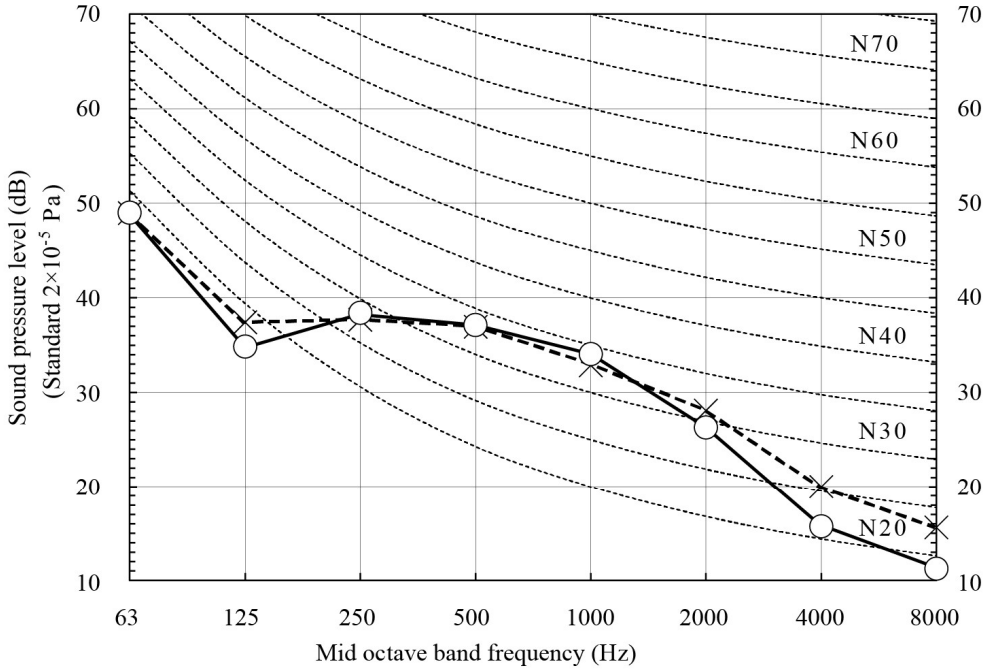
Notes(1) The data are based on the following conditions.
Ambient air temperature: Indoor unit 27℃WB. Outdoor unit 35℃DB.
(2) The data in the chart are measured in an anechoic room.
(3) The noise levels measured in the field are usually higher than the data because of reflection.

Measured based on JIS B 8616
Mike position



Model	FDK22KXZE1	
P-Hi Noise Level	Cooling	38 dB(A)
	Heating	38 dB(A)

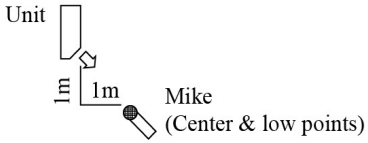
× ····· Cooling ○ —— Heating



Noise level

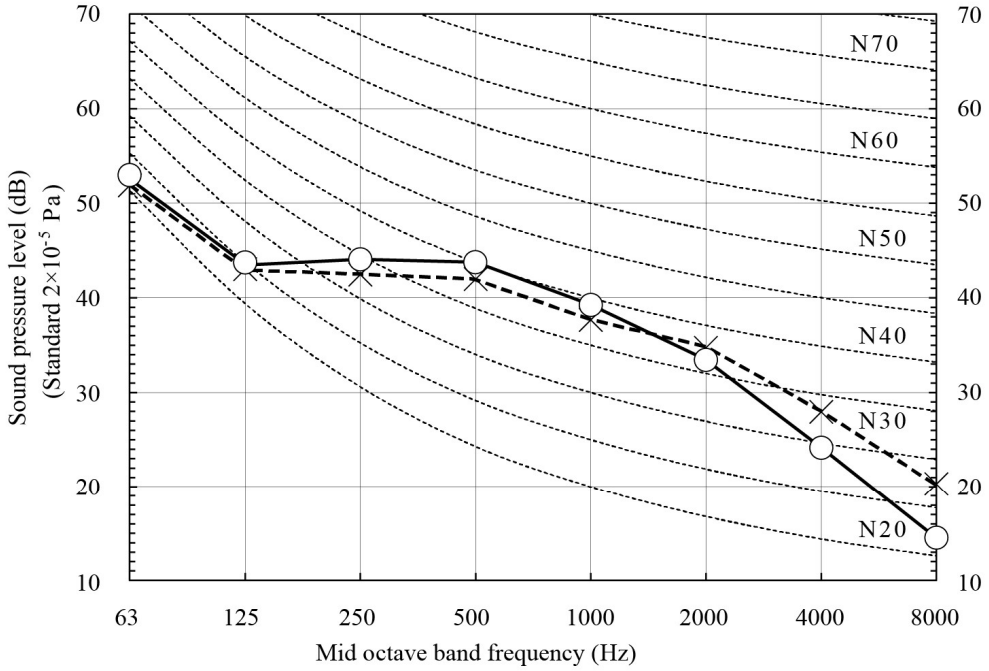
Notes(1) The data are based on the following conditions.
Ambient air temperature: Indoor unit 27℃WB. Outdoor unit 35℃DB.
(2) The data in the chart are measured in an anechoic room.
(3) The noise levels measured in the field are usually higher than the data because of reflection.

Measured based on JIS B 8616
Mike position



Model	FDK56KXZE1	
P-Hi Noise Level	Cooling	43 dB(A)
	Heating	44 dB(A)

× ····· Cooling ○ —— Heating



Noise level

Ceiling cassette-4 way compact type (FDTC)

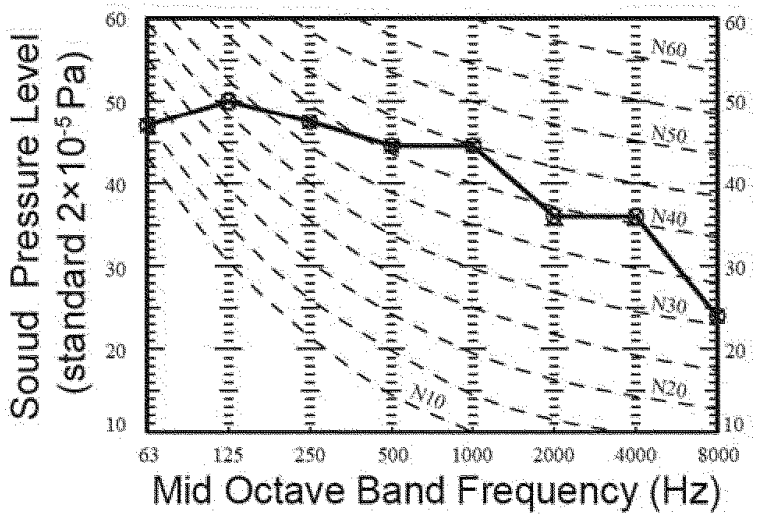
Note (1) Value in [ ] are for the heating mode.

Measured based on JIS B 8616

Mike position as right

FDTC45KXE6F

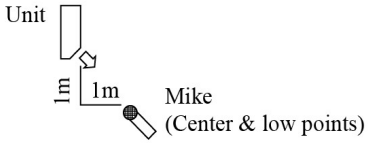
Noise level 48 [48] dB (A) at P-HIGH
40 [40] dB (A) at HIGH
37 [37] dB (A) at MEDIUM
31 [34] dB (A) at LOW



Noise level

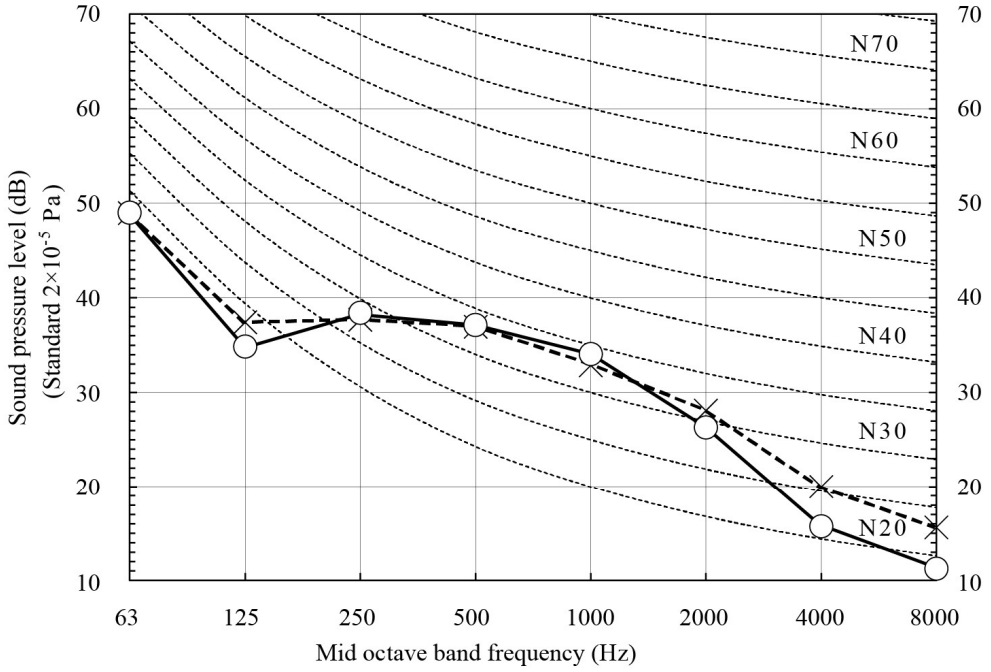
Notes(1) The data are based on the following conditions.
Ambient air temperature: Indoor unit 27℃WB. Outdoor unit 35℃DB.
(2) The data in the chart are measured in an anechoic room.
(3) The noise levels measured in the field are usually higher than the data because of reflection.

Measured based on JIS B 8616
Mike position



Model	FDK28KXZE1	
P-Hi Noise Level	Cooling	38 dB(A)
	Heating	38 dB(A)

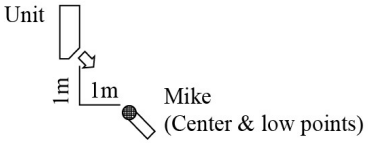
× ····· Cooling ○ —— Heating



Noise level

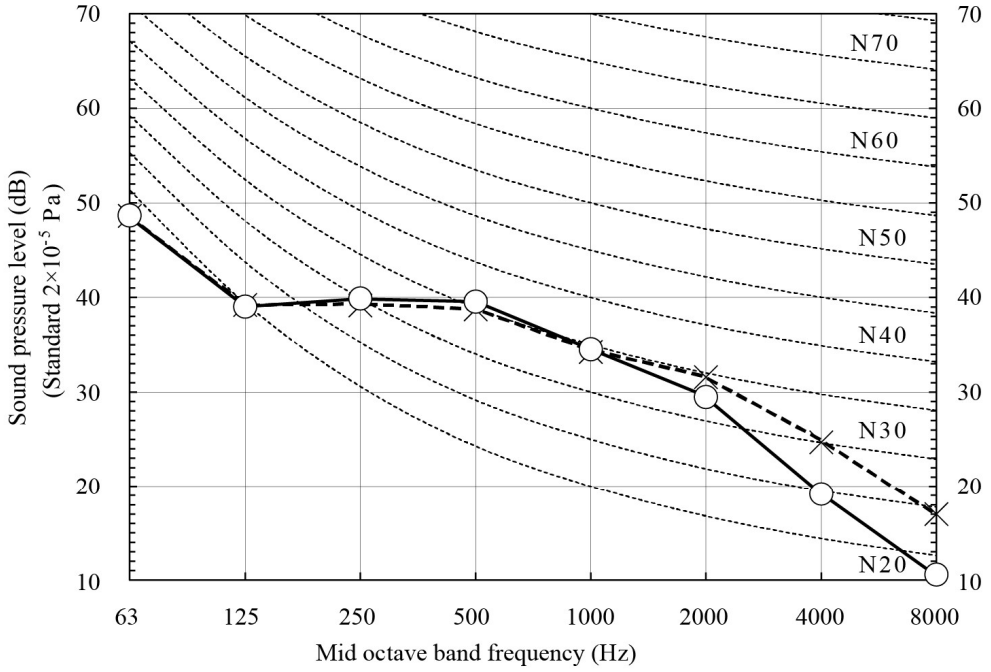
Notes(1) The data are based on the following conditions.
Ambient air temperature: Indoor unit 27℃WB. Outdoor unit 35℃DB.
(2) The data in the chart are measured in an anechoic room.
(3) The noise levels measured in the field are usually higher than the data because of reflection.

Measured based on JIS B 8616
Mike position



Model	FDK36KXZE1	
P-Hi Noise Level	Cooling	40 dB(A)
	Heating	40 dB(A)

× ····· Cooling ○ —— Heating



Noise level

Measured based on JIS B 8616

Mike position as highest noise level in position as below

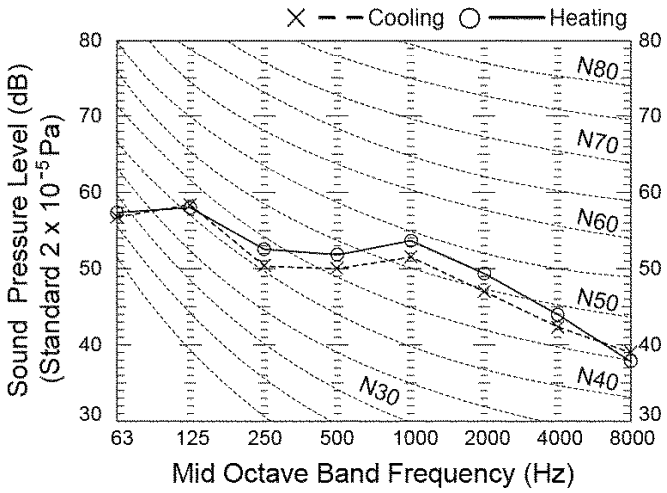
Distance from front side 1m

Height 1m

FDC280KXZE1

Noise level 55 dB (A) at cooling

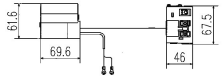
57 dB (A) at heating



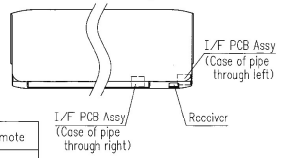
RCN-K-E2

Unit:mm

I/F PCB Assy　Receiver



Installation position of receiver and I/F PCB Assy



Setting switch on I/F PCB

SW1-1	Prevent interference during plural setting	ON : Normal OFF : Remote
SW1-2	Receiver master/ slave setting	ON : Master OFF : Slave
SW1-3	Buzzer	ON : Valid OFF : Invalid
SW1-4	Auto restart	ON : Valid OFF : Invalid
SW1-5	Indication for error	ON : Valid OFF : Invalid
SW1-6	Unit type	ON : FDK OFF : FDTW,FDFW

Default setting : ▭ mark.

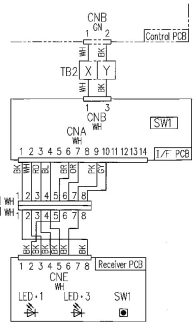
Notes
(1) Two LR03 AAA dry cell batteries for remote controller are enclosed.
(2) See spec sheet of "Wireless remote controller" about remote controller.
(3) In case of pipe through right, use attached wirings.

On Receiver PCB

SW1	Backup SW
LED-1	Run/Check1
LED-3	Timer/Check2

Color Marks

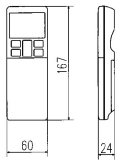
Mark	Color
BK	Black
BL	Blue
BR	Brown
GN	Green
GY	Gray
OR	Orange
PK	Pink
RD	Red
WH	White



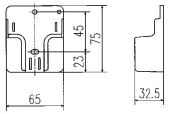
Installation of wireless kit

DO NOT install the wireless kit at 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
(7) Places affected by the direct airflow of the AC unit
(8) Places where the receiver is influenced by the fluorescent lamp (especially inverter type) or sunlight
(9) Places where the receiver is affected by infrared rays of any other communication devices
(10) Places where some object may obstruct the communication with the remote controller

Remote controller

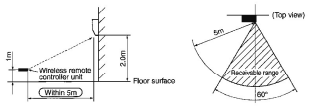


Remote controller holder

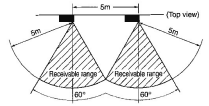


Wireless remote controller operation distance

① Standard signal receiving range
[condition] Illuminance at the receiver area: 360lux.
(When no lighting fixture is located within 1m of indoor unit in an ordinary office)



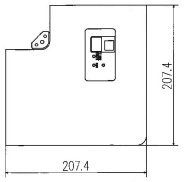
② Points for attention in connecting a plural number of indoor units
[condition]
Illuminance at the receiver area: 360lux.



RCN-TC-24W-E2

Unit:mm

Receiver

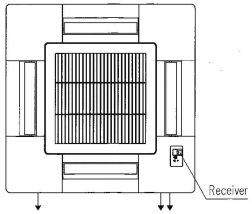


Setting switch on PCB of receiver

SW1	Prevent interference during plural setting	[ON : Normal] OFF : Remote
SW2	Receiver master/ slove setting	[ON : Master] OFF : Slave
SW3	Buzzer	[ON : Valid] OFF : Invalid
SW4	Auto restart	ON : Valid [OFF : Invalid]

Default setting: [ ] mark

Installation position of wireless kit

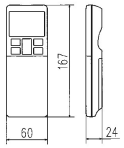


Notes
(1) Receiver can install the position as shown.
(2) Two LR03 AAA dry cell batteries for remote controller are enclosed.
(3) See spec sheet of "Wireless remote controller" about remote controller.

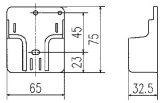
[Installation of wireless kit]

DO NOT install the wireless kit at 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
(7) Places affected by the direct airflow of the AC unit
(8) Places where the receiver is influenced by the fluorescent lamp (especially inverter type) or sunlight
(9) Places where the receiver is affected by infrared rays of any other communication devices
(10) Places where some object may obstruct the communication with the remote controller

Remote controller

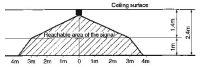


Remote controller holder

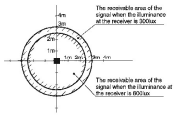


[Wireless remote controller's operable area]

① Standard reachable area of the signal
[condition] Illuminance at the receiver: 300lux
(When no lighting is installed within 1m of the receiver in an ordinary office)



② Correlation between illuminance at the receiver and reachable area of the signal in a plain view.
The drawing in the right shows the correlation between the reachable area of the signal and illuminance at the receiver when the remote controller is operated at 1m high under the condition of ceiling height of 2.4m.
When the illuminance becomes double, the area is narrowed down to two thirds.



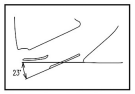
③ Installation tips when several receivers are installed close
Minimum distance between the indoor units which can avoid cross communication is 5m under the condition of 300lux of illuminance at the receiver.
(When no lighting is installed within 1m of the receiver in an ordinary office)

Temperature and velocity distribution

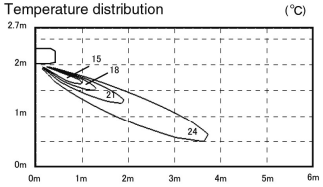
FDK15KXZE1

Cooling Air flow:P-Hi

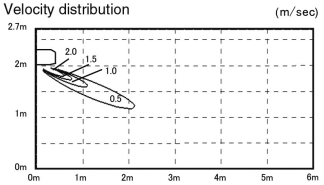
Louver position



Temperature distribution (℃)

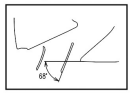


Velocity distribution (m/sec)

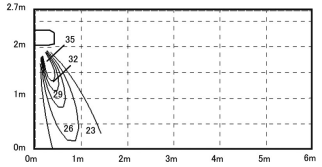


Heating Air flow:P-Hi

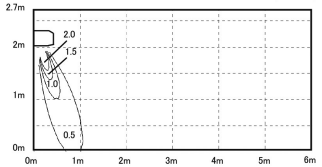
Louver position



Temperature distribution (℃)



Velocity distribution (m/sec)



Indoor temperature
Cooling 27℃DB/ 19℃WB
Heating 20℃DB

Note:
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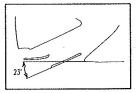
Temperature and velocity distribution

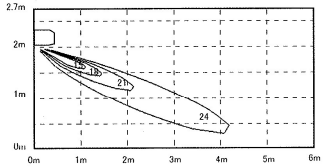
FDK22KXZE1

Cooling **Air flow**:P-Hi

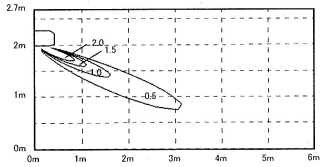
Louver position



Temperature distribution (℃)

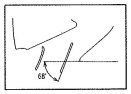


Velocity distribution (m/sec)

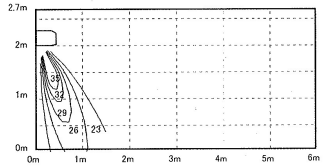


Heating **Air flow**:P-Hi

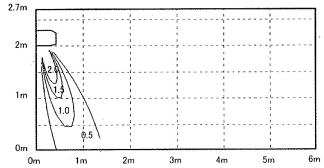
Louver position



Temperature distribution (℃)



Velocity distribution (m/sec)



Indoor temperature
Cooling 27℃DB/ 19℃WB
Heating 20℃DB

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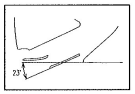
Temperature and velocity distribution

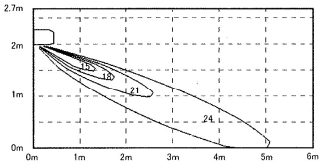
FDK56KXZE1

Cooling **Air flow**:P-Hi

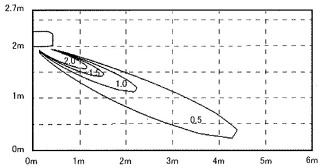
Louver position



Temperature distribution (℃)

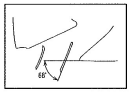


Velocity distribution (m/sec)

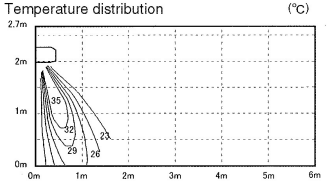


Heating **Air flow**:P-Hi

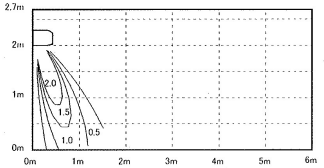
Louver position



Temperature distribution (℃)



Velocity distribution (m/sec)



Indoor temperature
Cooling 27℃DB/ 19℃WB
Heating 20℃DB

Note:
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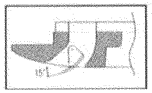
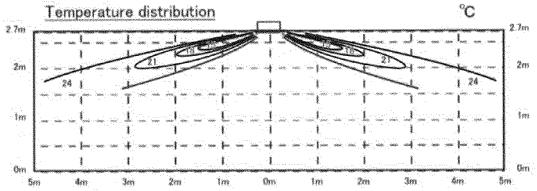
Temperature and velocity distribution

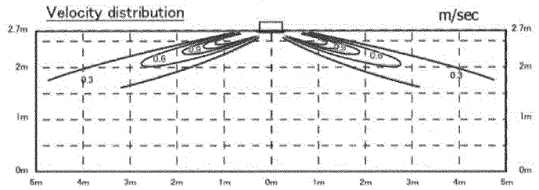
FDTC45KXE6F

Cooling Air flow: P-Hi

Louver position

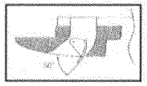


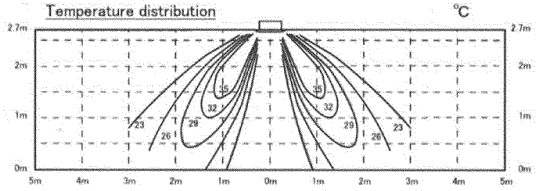


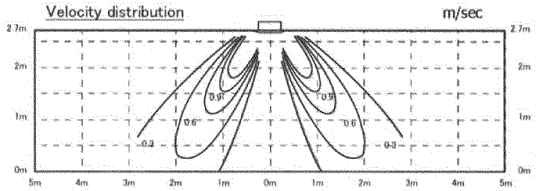


Heating Air flow: P-Hi

Louver position







Indoor temperature
Cooling 27°CDB/ 19°CWB
Heating 20°CDB

Note:
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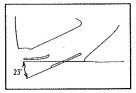
Temperature and velocity distribution

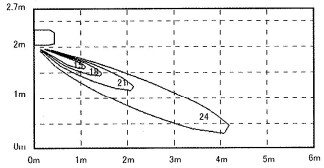
FDK28KXZE1

Cooling **Air flow**:P-Hi

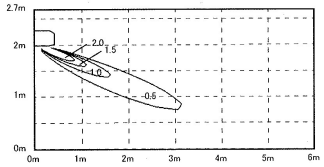
Louver position



Temperature distribution (℃)

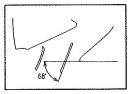


Velocity distribution (m/sec)

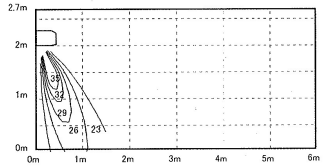


Heating **Air flow**:P-Hi

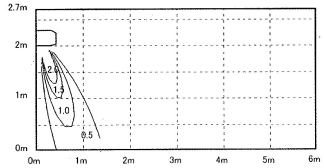
Louver position



Temperature distribution (℃)



Velocity distribution (m/sec)



Indoor temperature
Cooling 27℃DB/ 19℃WB
Heating 20℃DB

Note:
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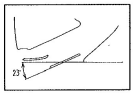
Temperature and velocity distribution

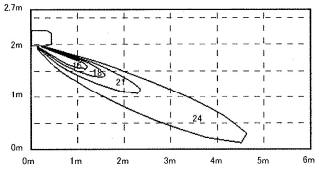
FDK36KXZE1

Cooling **Air flow**:P-Hi

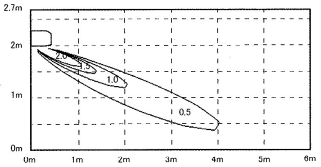
Louver position



Temperature distribution (℃)

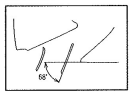


Velocity distribution (m/sec)

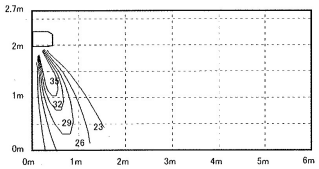


Heating **Air flow**:P-Hi

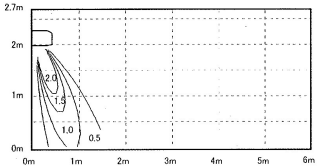
Louver position



Temperature distribution (℃)



Velocity distribution (m/sec)



Indoor temperature
Cooling 27℃DB/ 19℃WB
Heating 20℃DB

Note:
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