Specifications

Big Ceiling

- Horizontal installation only.
- Air supply by means of one adjustable blade.
- Sirocco Fan direct driven by a single motor.
- Long-life washable HD 40 permanent filter is included.
- Compatible with Wi-Fi Kit controller.


Model				AM112JNCDKH/EU	AM140JNCDKH/EU
Power Supply			Φ, #, V, Hz	1Φ, 2, 220~240 V, 50 Hz	1Φ, 2, 220~240 V, 50 Hz
Performance	Capacity (Nominal)	Cooling	kW	11.2	14.0
		Heating		12.5	16.0
Power	Power Input (Nominal)	Cooling	W	92.0	160.0
		Heating		80.0	160.0
	Current Input (Nominal)	Cooling	A	0.94	1.45
		Heating		0.83	1.45
Fan	Motor	Type	-	Sirocco Fan	Sirocco Fan
		Output	W	260 x 1	260 x 1
	Airflow Rate	H/M/L (UL)	m^3/min	29.30/23.90/18.50	36.40/30.80/26.00
			l/s	488.33/398.33/308.33	606.67/513.33/433.33
Piping Connections	Liquid Pipe		ø, mm	9.52	9.52
			ø, inch	3/8	3/8
	Gas Pipe		ø, mm	15.88	15.88
			ø, inch	5/8	5/8
	Drain Pipe		ø, mm	VP25 (OD 25, ID 20)	VP25 (OD 25, ID 20)
Field Wiring	Power Source Wire	Below 20 m/over 20 m	mm^2	1.5/2.5	1.5/2.5
	Transmission Cable		mm^2	0.75~1.50	0.75~1.50
Refrigerant	Type		-	R410A(Fluorinated greenhouse gas, GWP=2,088)	
	Control Method		-	EEV INCLUDED	EEV INCLUDED
Sound [2]	Sound Pressure	(H/M/L)	dB(A)	45/41/37	46/43/38
	Sound Power	Cooling		61	63
Dimensions	Net Weight		kg	33.5	42.5
	Net Dimensions (W × H × D)		mm	1,350 x 235 x 675	1,350 x 235 x 675

Accessories



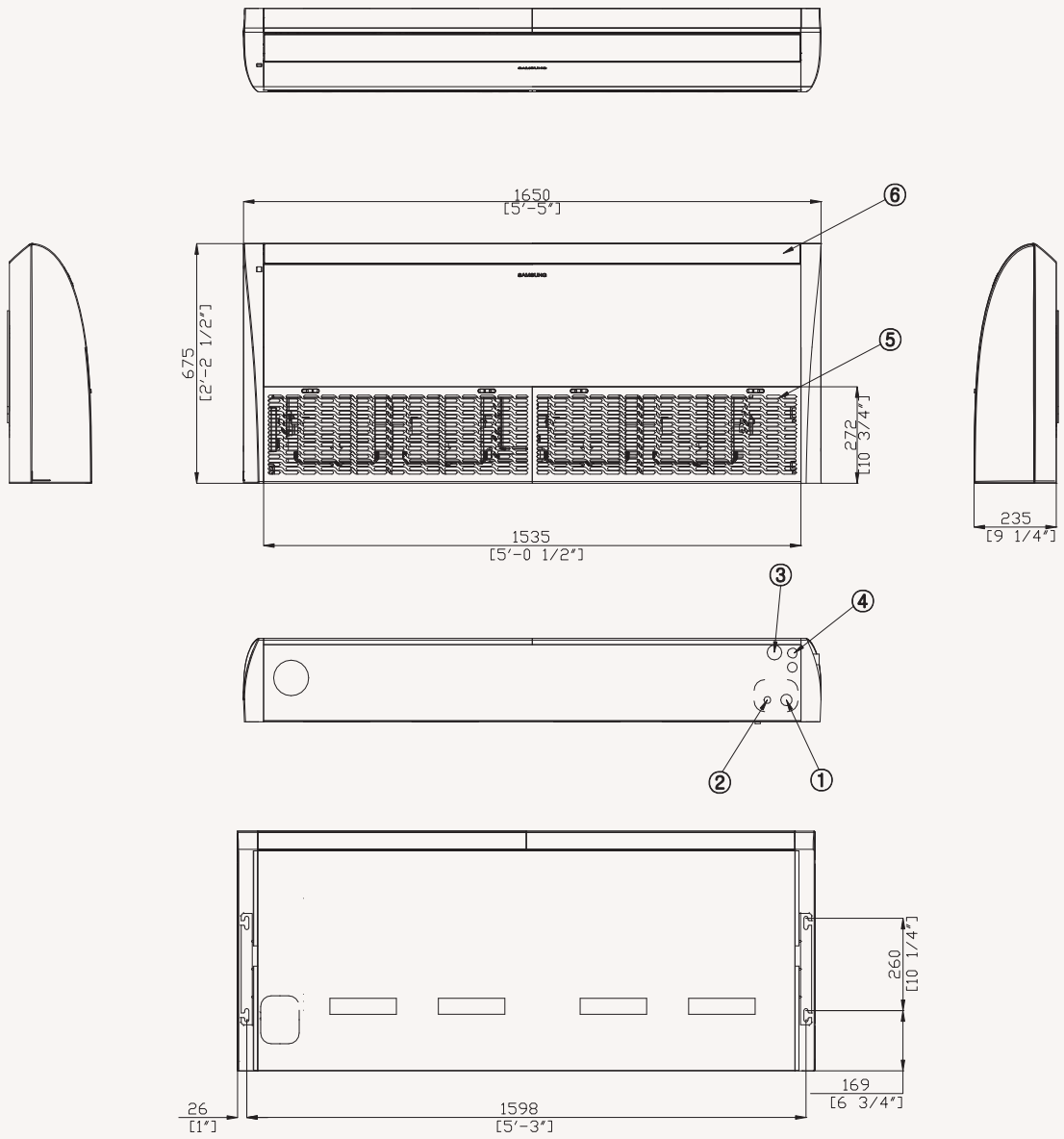


Touch Controller	Wired Remote Controller	Wired Remote Controller	Wi-Fi Kit	External Room Sensor
MWR-SH11N	MWR-WE13N	MWR-WG00*N	MIM-H04EN	MRW-TA

Dimensional drawings

Big Ceiling

AM***JNCDKH/EU



NO	Name
1	Refrigerant gas pipe
2	Refrigerant liquid pipe
3	Condensate drain
4	Power supply/communication wiring conduits
5	Air inlet grille
6	Air outlet grille

Big Ceiling

1 Specifications

Big Ceiling

Type				Ceiling	Ceiling
Model				AM112JNCDKH/EU	AM140JNCDKH/EU
Power Supply			Ø, #, V, Hz	1,2,220-240,50/60	1,2,220-240,50/60
Mode			-	HP/HR	HP/HR
Performance	Capacity (Nominal)	Cooling	kW	11.20	14.00
			Btu/h	38,200	47,800
		Heating	kW	12.50	16.00
			Btu/h	42,700	54,600
Power	Power Input (Nominal)	Cooling	W	92.00	160.00
		Heating		80.00	160.00
	Current Input (Nominal)	Cooling	A	0.94	1.45
		Heating		0.83	1.45
Fan	Motor	Type	-	Sirocco Fan	Sirocco Fan
		Output x n	w	260 x 1	355 x 1
	Air Flow Rate	H/M/L (UL)	CMM	29.30 / 23.90 / 18.50	36.40 / 30.80 / 26.00
			l/s	488.33 / 398.33 / 308.33	606.67 / 513.33 / 433.33
	External Pressure	Min/Std/Max	mmAq	-	-
			Pa	-	-
Piping Connections	Liquid Pipe		Ø, mm	9.52	9.52
			Ø, inch	3/8"	3/8"
	Gas Pipe		Ø, mm	15.88	15.88
			Ø, inch	5/8"	5/8"
	Drain Pipe		Ø, mm	VP25 (OD 25,ID 20)	VP25 (OD 25,ID 20)
Field Wiring	Power Source Wire		mm²	1.5 - 2.5	1.5 - 2.5
	Transmission Cable		mm²	0.75 - 1.50	0.75 - 1.50
Refrigerant	Type		-	R410A	R410A
	Control Method		-	EEV INCLUDED	EEV INCLUDED
Sound	Pressure	High / Mid / Low	dB(A)	45 / 41 / 37	46 / 43 / 38
	Power	Cooling		61	63
Dimension	Net Weight		kg	33.5	42.5
	Shipping Weight		kg	39.5	48.5
	Net Dimensions (WxHxD)		mm	1,350 x 235 x 675	1,650 x 235 x 675
	Shipping Dimensions (WxHxD)		mm	1,439 x 758 x 321	1,739 x 758 x 321
Panel Size	Panel model		-	-	-
	Panel Net Weight		kg	-	-
	Shipping Weight		kg	-	-
	Net Dimensions (WxHxD)		mm	-	-
	Shipping Dimensions (WxHxD)		mm	-	-
Additional Accessories	Drain Pump	Drain Pump	- / Model	-	-
		Max. lifting Height / Displacement	mm/liter/h	-	-
	Air Filter		-	-	-

* Specifications may be subject to change without prior notice for product improvement.
*1) Mode
- HP : Heat Pump, HR : Heat Recovery
*2) Nominal cooling capacities are based on;
- Indoor temperature : 27°C DB, 19°C WB
- Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
*3) Nominal heating capacities are based on;
- Indoor temperature : 20°C DB, 15°C WB
- Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
*4) Sound pressure was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.
*5) These products contain R410A which have a global warming potential (GWP) greater than 150.
* Heat Exchanger type : Fin & Tube (Fin : Al, Tube : Cu)

2 Capacity table

Big Ceiling

Cooling

TC : Total Capacity, SHC : Sensible Heat Capacity

Capacity Index	Outdoor Air Temp. (℃,DB)	Indoor temperature													
		20(℃,DB)		23(℃,DB)		26(℃,DB)		27(℃,DB)		28(℃,DB)		30(℃,DB)		32(℃,DB)	
		14(℃,WB)		16(℃,WB)		18(℃,WB)		19(℃,WB)		20(℃,WB)		22(℃,WB)		24(℃,WB)	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
112	10	7.7	6.4	9.1	7.1	10.5	7.8	11.2	7.9	11.6	7.9	12.5	7.9	13.4	7.9
	12	7.7	6.4	9.1	7.1	10.5	7.8	11.2	7.9	11.6	7.9	12.5	7.9	13.4	7.9
	14	7.7	6.4	9.1	7.1	10.5	7.8	11.2	7.9	11.6	7.9	12.5	7.9	13.3	7.8
	16	7.7	6.4	9.1	7.1	10.5	7.8	11.2	7.9	11.6	7.9	12.5	7.9	13.3	7.8
	18	7.7	6.4	9.1	7.1	10.5	7.8	11.2	7.9	11.6	7.9	12.4	7.9	13.2	7.7
	20	7.7	6.4	9.1	7.1	10.5	7.8	11.2	7.9	11.6	7.9	12.4	7.9	13.2	7.7
	21	7.7	6.4	9.1	7.1	10.5	7.8	11.2	7.9	11.6	7.9	12.4	7.9	13.2	7.7
	23	7.7	6.4	9.1	7.1	10.5	7.8	11.2	7.9	11.6	7.9	12.4	7.9	13.2	7.7
	25	7.7	6.4	9.1	7.1	10.5	7.8	11.2	7.9	11.6	7.9	12.4	7.9	13.2	7.7
	27	7.7	6.4	9.1	7.1	10.5	7.8	11.2	7.9	11.6	7.9	12.4	7.9	13.2	7.7
	29	7.7	6.4	9.1	7.1	10.5	7.8	11.2	7.9	11.6	7.9	12.4	7.9	13.2	7.7
	31	7.7	6.4	9.1	7.1	10.5	7.8	11.2	7.9	11.6	7.9	12.4	7.9	13.2	7.7
	33	7.7	6.3	9.1	7.0	10.5	7.8	11.2	7.9	11.6	7.9	12.4	7.9	13.2	7.7
	35	7.7	6.3	9.1	7.0	10.5	7.8	11.2	7.9	11.6	7.9	12.4	7.9	13.2	7.7
	37	7.7	6.3	9.1	7.0	10.5	7.8	11.2	7.9	11.6	7.9	12.3	7.8	13.0	7.6
	39	7.7	6.3	9.1	7.0	10.5	7.8	11.2	8.0	11.5	7.8	12.1	7.7	12.7	7.5
	42	7.7	6.3	9.1	7.0	10.4	7.7	11.1	7.9	11.4	7.7	11.9	7.6	12.4	7.3
	44	7.7	6.3	9.1	7.0	10.1	7.5	10.7	7.6	11.0	7.5	11.4	7.3	12.0	7.1
	46	7.7	6.3	9.0	6.9	10.0	7.4	10.4	7.4	10.7	7.3	11.0	7.0	11.6	6.9
	48	7.6	6.2	8.9	6.8	9.8	7.3	10.1	7.2	10.5	7.1	10.7	6.8	11.2	6.6
140	10	9.7	7.7	11.4	8.5	13.1	9.4	14.0	9.6	14.6	9.6	15.7	9.5	16.8	9.7
	12	9.7	7.7	11.4	8.5	13.1	9.4	14.0	9.6	14.5	9.6	15.6	9.6	16.7	9.6
	14	9.7	7.7	11.4	8.5	13.1	9.4	14.0	9.6	14.5	9.6	15.6	9.6	16.7	9.6
	16	9.7	7.7	11.4	8.5	13.1	9.4	14.0	9.6	14.5	9.6	15.6	9.6	16.6	9.5
	18	9.7	7.7	11.4	8.5	13.1	9.4	14.0	9.6	14.5	9.6	15.5	9.5	16.6	9.5
	20	9.7	7.7	11.4	8.5	13.1	9.4	14.0	9.6	14.5	9.6	15.5	9.5	16.5	9.4
	21	9.7	7.7	11.4	8.5	13.1	9.4	14.0	9.6	14.5	9.6	15.5	9.5	16.5	9.4
	23	9.7	7.7	11.4	8.5	13.1	9.4	14.0	9.6	14.5	9.6	15.5	9.5	16.5	9.4
	25	9.7	7.7	11.4	8.5	13.1	9.4	14.0	9.6	14.5	9.6	15.5	9.5	16.5	9.4
	27	9.7	7.7	11.4	8.5	13.1	9.4	14.0	9.6	14.5	9.6	15.5	9.5	16.5	9.4
	29	9.7	7.7	11.4	8.5	13.1	9.4	14.0	9.6	14.5	9.6	15.5	9.5	16.5	9.4
	31	9.7	7.7	11.4	8.5	13.1	9.4	14.0	9.6	14.5	9.6	15.5	9.5	16.5	9.4
	33	9.7	7.7	11.4	8.5	13.1	9.4	14.0	9.6	14.5	9.6	15.5	9.5	16.5	9.4
	35	9.7	7.7	11.4	8.5	13.1	9.4	14.0	9.6	14.5	9.6	15.5	9.5	16.5	9.4
	37	9.7	7.7	11.4	8.5	13.1	9.4	14.0	9.6	14.5	9.6	15.4	9.4	16.3	9.2
	39	9.7	7.7	11.4	8.5	13.1	9.4	14.0	9.6	14.4	9.4	15.1	9.3	15.9	9.0
	42	9.7	7.7	11.4	8.5	13.0	9.3	13.8	9.5	14.2	9.3	14.8	9.1	15.5	8.8
	44	9.7	7.7	11.4	8.5	12.7	9.1	13.4	9.2	13.8	9.0	14.2	8.8	15.0	8.5
	46	9.7	7.7	11.3	8.4	12.4	8.9	12.9	8.9	13.4	8.8	13.8	8.5	14.6	8.2
	48	9.6	7.6	11.1	8.3	12.2	8.8	12.6	8.6	13.1	8.6	13.4	8.2	14.1	8.0

2 Capacity table

Big Ceiling

Heating

TC : Total Capacity

Capacity Index	Outdoor Air Temp. (℃)		Indoor temperature (℃,DB)				
			16(℃,DB)	18(℃,DB)	20(℃,DB)	22(℃,DB)	24(℃,DB)
			TC	TC	TC	TC	TC
	DB	WB	kW	kW	kW	kW	kW
112	-19.8	-20.0	7.4	7.4	7.3	7.3	7.3
	-18.8	-19.0	7.6	7.6	7.4	7.4	7.3
	-16.7	-17.0	8.1	7.8	7.6	7.5	7.4
	-14.7	-15.0	8.4	8.2	8.0	7.8	7.6
	-12.6	-13.0	8.7	8.5	8.3	8.1	8.0
	-10.5	-11.0	9.1	8.9	8.8	8.7	8.6
	-9.5	-10.0	9.3	9.1	9.0	8.9	8.8
	-8.5	-9.1	9.5	9.3	9.2	9.0	8.9
	-7.0	-7.6	9.7	9.6	9.4	9.2	9.0
	-5.0	-5.6	10.2	10.1	9.9	9.6	9.3
	-3.0	-3.7	10.7	10.6	10.5	10.1	9.7
	0.0	-0.7	11.3	11.1	11.1	10.5	10.0
	3.0	2.2	11.8	11.6	11.5	11.0	10.6
	5.0	4.1	12.3	12.2	12.0	11.3	10.6
	7.0	6.0	12.9	12.7	12.5	11.5	10.6
	9.0	7.9	13.3	12.9	12.5	11.5	10.6
	11.0	9.8	13.7	13.1	12.5	11.5	10.6
	13.0	11.8	14.0	13.3	12.5	11.5	10.6
	15.0	13.7	14.4	13.5	12.5	11.5	10.6
140	-19.8	-20.0	9.5	9.5	9.4	9.4	9.3
	-18.8	-19.0	9.7	9.7	9.5	9.5	9.3
	-16.7	-17.0	10.2	10.0	9.7	9.6	9.4
	-14.7	-15.0	10.8	10.5	10.2	9.9	9.6
	-12.6	-13.0	11.1	10.9	10.7	10.4	10.1
	-10.5	-11.0	11.6	11.5	11.3	11.1	10.9
	-9.5	-10.0	11.8	11.7	11.5	11.4	11.2
	-8.5	-9.1	12.1	11.9	11.8	11.6	11.3
	-7.0	-7.6	12.4	12.2	12.1	11.8	11.5
	-5.0	-5.6	13.1	12.9	12.7	12.3	12.0
	-3.0	-3.7	13.8	13.6	13.4	12.9	12.4
	0.0	-0.7	14.4	14.2	14.0	13.4	12.8
	3.0	2.2	15.1	14.9	14.7	14.1	13.5
	5.0	4.1	15.8	15.6	15.3	14.4	13.5
	7.0	6.0	16.5	16.2	16.0	14.8	13.5
	9.0	7.9	17.0	16.5	16.0	14.8	13.5
	11.0	9.8	17.5	16.7	16.0	14.8	13.5
	13.0	11.8	18.0	17.0	16.0	14.8	13.5
	15.0	13.7	18.5	17.2	16.0	14.8	13.5

3 Dimensional drawing

Big Ceiling

AM112JNCDKH/EU

Units : mm/inches

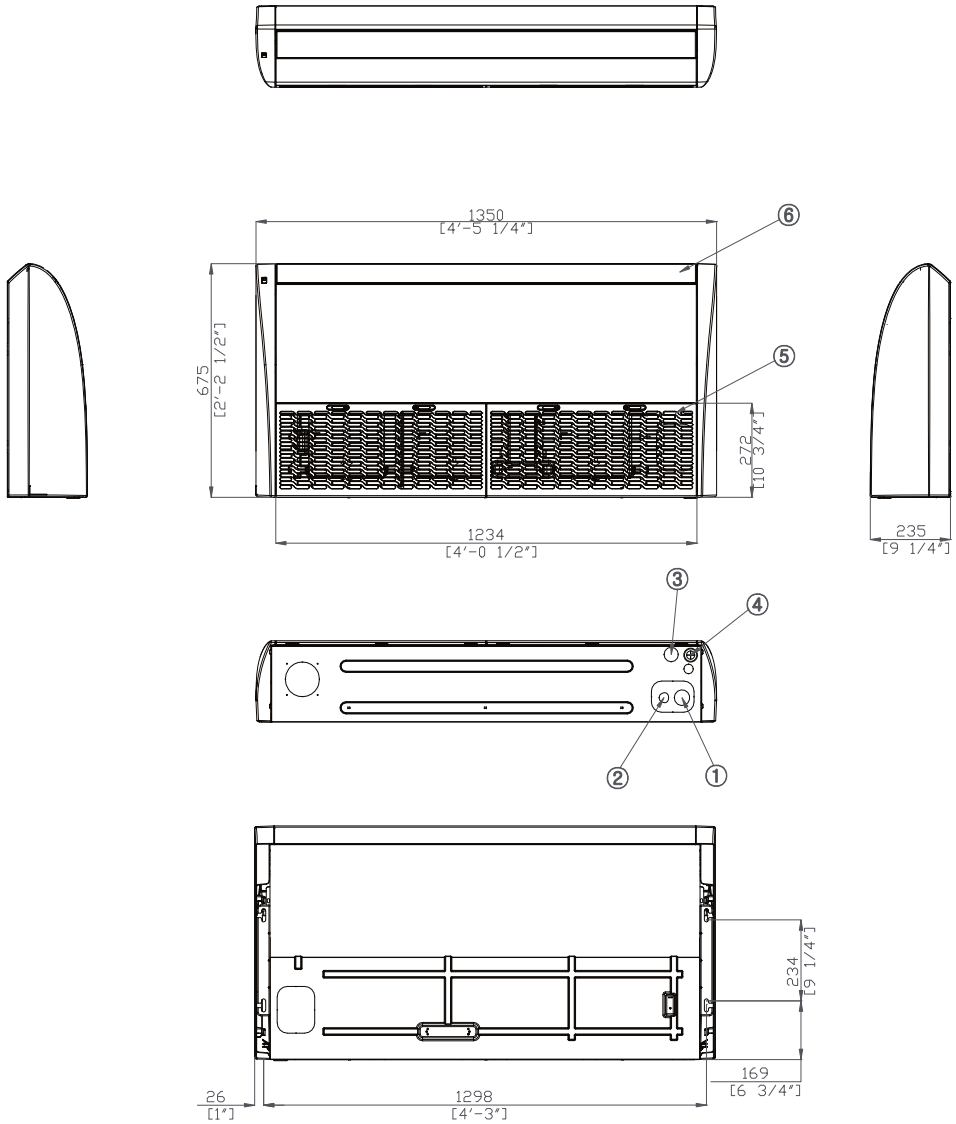


Table of descriptions			
1	Refrigerant gas pipe	7	
2	Refrigerant liquid pipe	8	
3	Condensate drain	9	
4	Power&Comm. wiring conduits	10	
5	Air Inlet grille	11	
6	Air Outlet grille	12	

3 Dimensional drawing

Big Ceiling

AM140JNCDKH/EU

Units : mm/inches

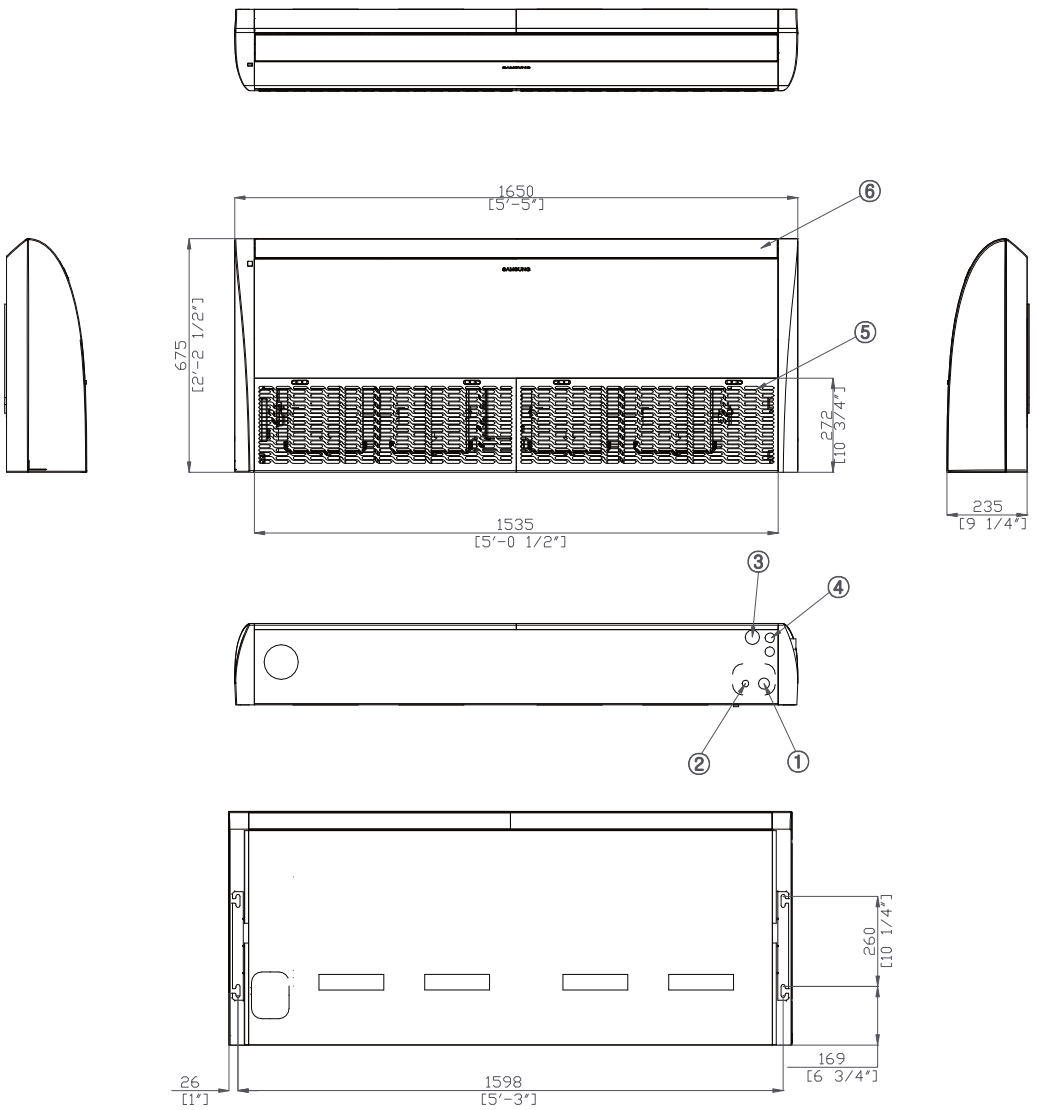
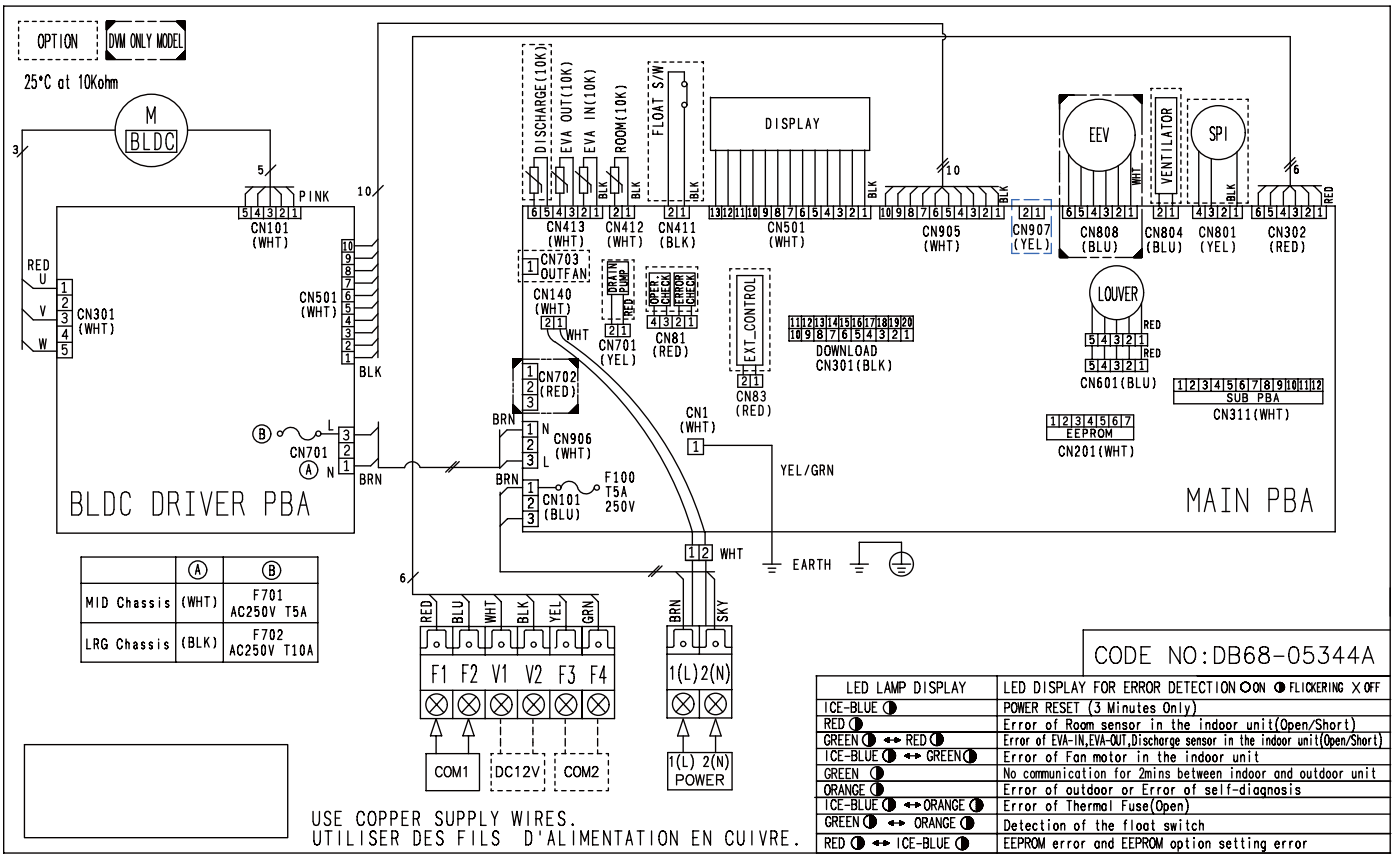


Table of descriptions			
1	Refrigerant gas pipe	7	
2	Refrigerant liquid pipe	8	
3	Condensate drain	9	
4	Power&Comm. wiring conduits	10	
5	Air Inlet grille	11	
6	Air Outlet grille	12	

4 Electrical Wiring Diagram

Big Ceiling

AM112/140JNCDKH/EU



	Ⓐ	Ⓑ
MID Chassis	(WHT)	F701 AC250V T5A
LRG Chassis	(BLK)	F702 AC250V T10A

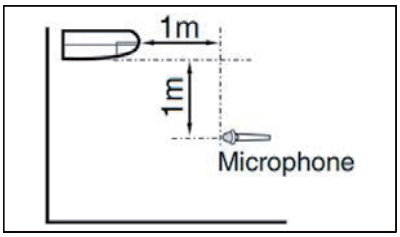
LED LAMP DISPLAY	LED DISPLAY FOR ERROR DETECTION ○ON ◑ FLICKERING X OFF
ICE-BLUE ◑	POWER RESET (3 Minutes Only)
RED ◑	Error of Room sensor in the indoor unit(Open/Short)
GREEN ◑ ↔ RED ◑	Error of EVA-IN,EVA-OUT,Discharge sensor in the indoor unit(Open/Short)
ICE-BLUE ◑ ↔ GREEN ◑	Error of Fan motor in the indoor unit
GREEN ◑	No communication for 2mins between indoor and outdoor unit
ORANGE ◑	Error of outdoor or Error of self-diagnosis
ICE-BLUE ◑ ↔ ORANGE ◑	Error of Thermal Fuse(Open)
GREEN ◑ ↔ ORANGE ◑	Detection of the float switch
RED ◑ ↔ ICE-BLUE ◑	EEPROM error and EEPROM option setting error

NOTE

1. This wiring diagram applies only to the indoor unit.
2. Symbols show as follow;
   BLK : black, RED : red, BLU : blue, WHT:white, YEL : yellow, BRN : brown, SKY : sky-blue, GRN : green
3. For connection wiring indoor-outdoor transmission F1-F2, indoor-wired remotecontroller transmission F3-F4.
4. ⏚: Protective earth(screw), ☐☐☐☐ : Connector, n/ : The wire quantity

5 Sound pressure level

Big Ceiling



Unit: dB(A)

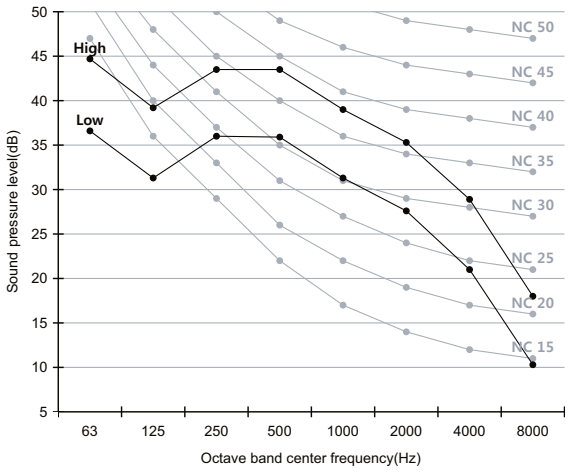
Model	High	Low
AM112JNCDKH/EU	45	37
AM140JNCDKH/EU	46	38

Note

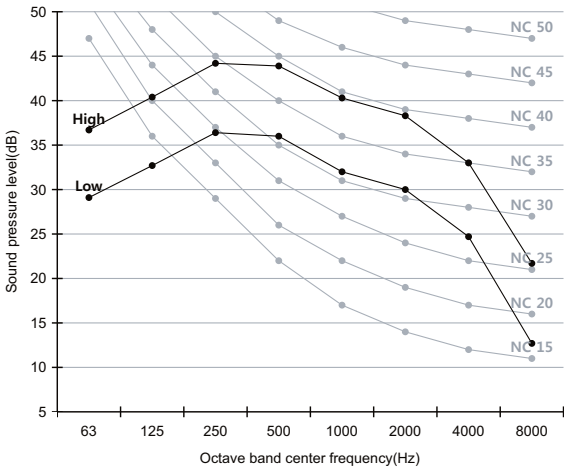
Specifications may be subject to change without prior notice.
Sound pressure level is obtained in an anechoic room.
Sound pressure level is a relative value, depending on the distance and acoustic environment.
Sound pressure level may differ depending on operation condition.
dBA = A-weighted sound pressure level
Reference acoustic pressure 0 dB= 20 uPa

NC curve

1) AM112JNCDKH/EU



2) AM140JNCDKH/EU



6 Sound power level

Big Ceiling

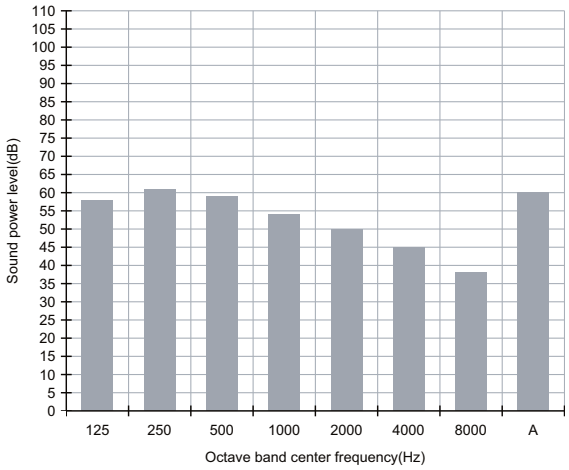
Note

. Specifications may be subject to change without prior notice.
. Sound power level is an absolute value that a sound source generates.
. dBA = A-weighted sound power level.
. Reference power : 1pW.
. Measured according to ISO 3741

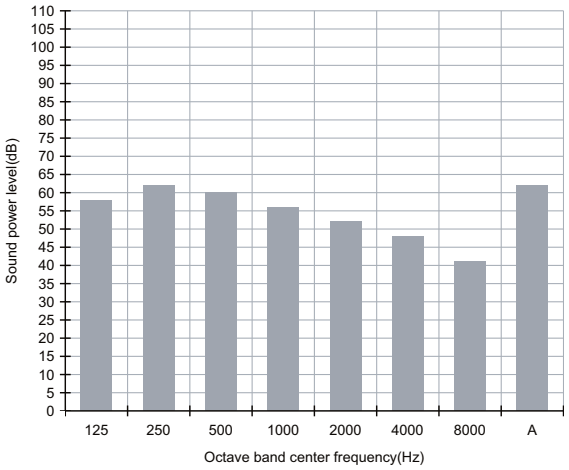
Unit: dB(A)

Model	Power
AM112JNCDKH/EU	61
AM140JNCDKH/EU	63

1)AM112JNCDKH/EU



2)AM140JNCDKH/EU



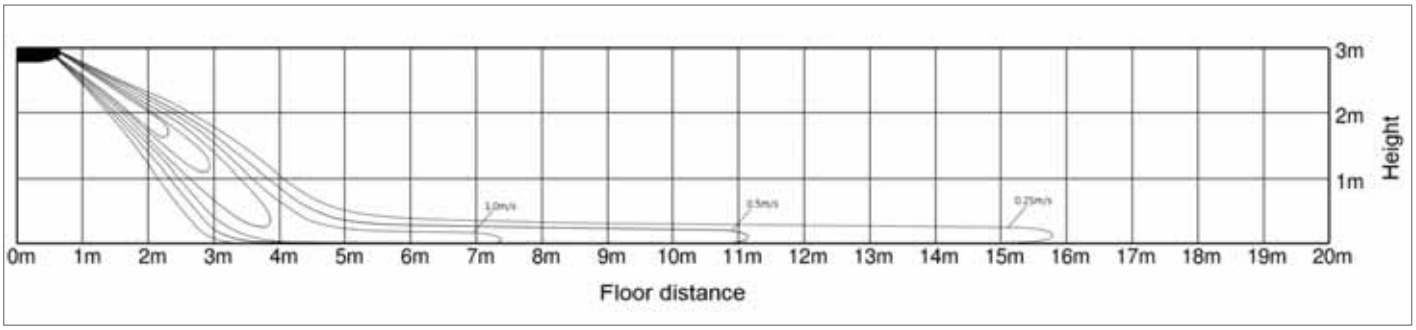
7 Temperature and air flow distribution

Big Ceiling

AM112JNCDKH/EU

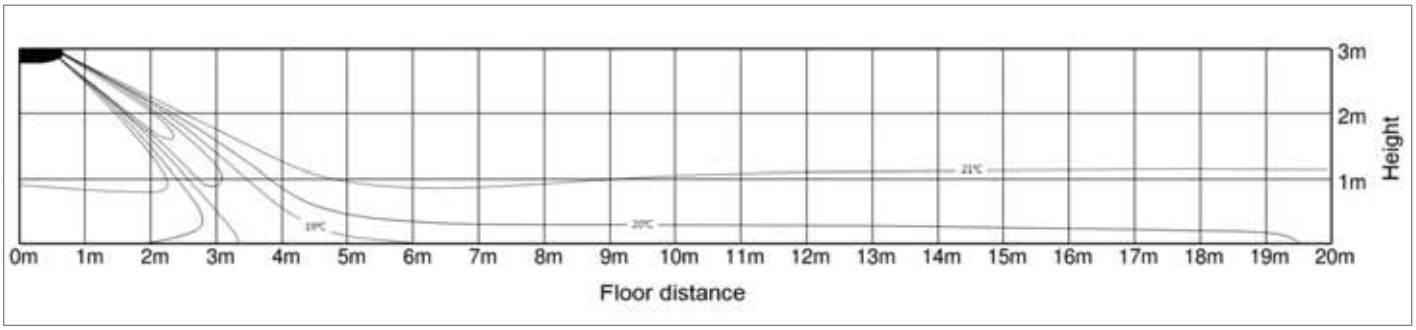
(1) Cooling air velocity distribution

Discharge angle : 32º



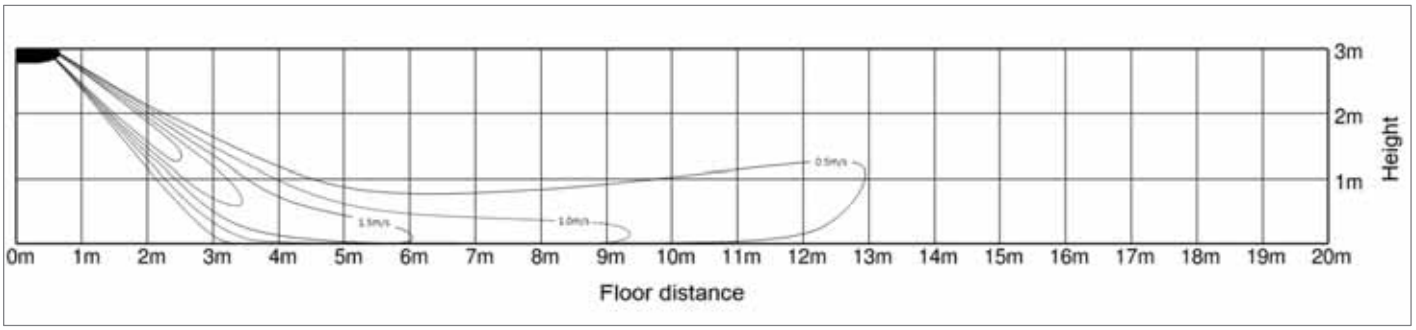
(2) Cooling temperature distribution

Discharge angle : 32º



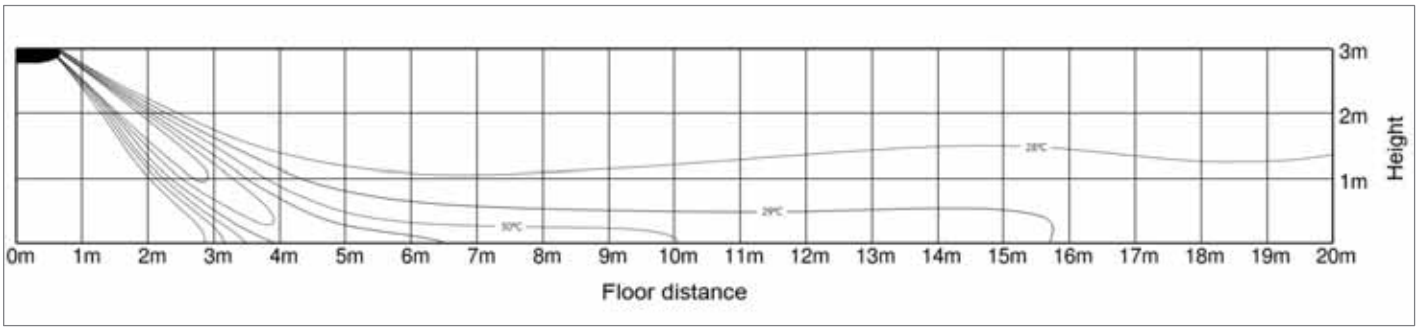
(3) Heating air velocity distribution

Discharge angle : 43º



(4) Heating temperature distribution

Discharge angle : 43º



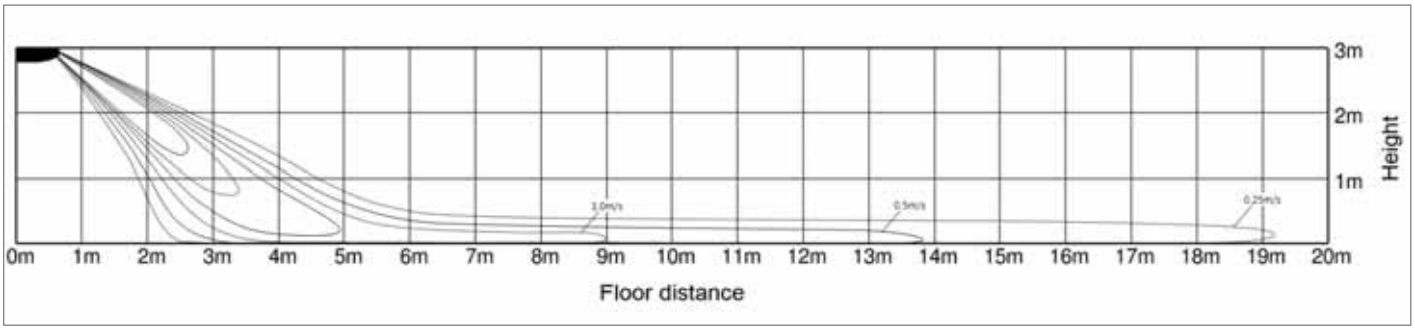
7 Temperature and air flow distribution

Big Ceiling

AM140JNCDKH/EU

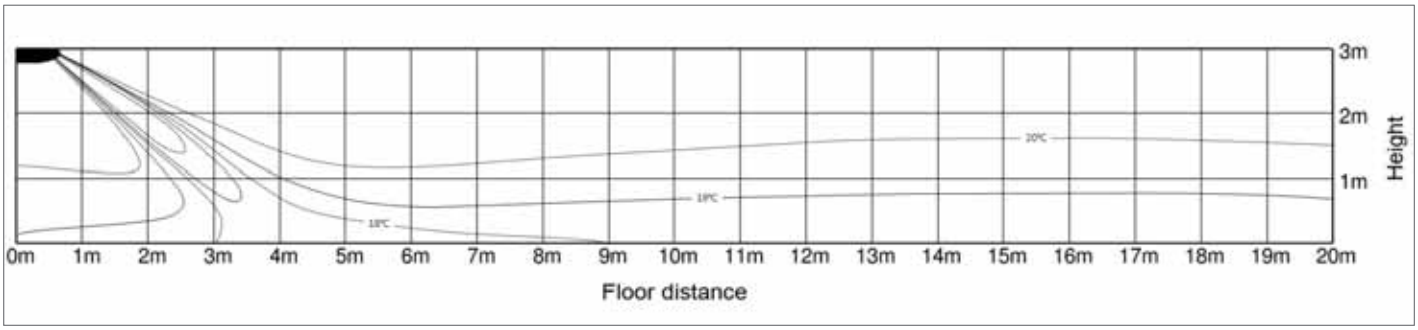
(1) Cooling air velocity distribution

Discharge angle : 32º



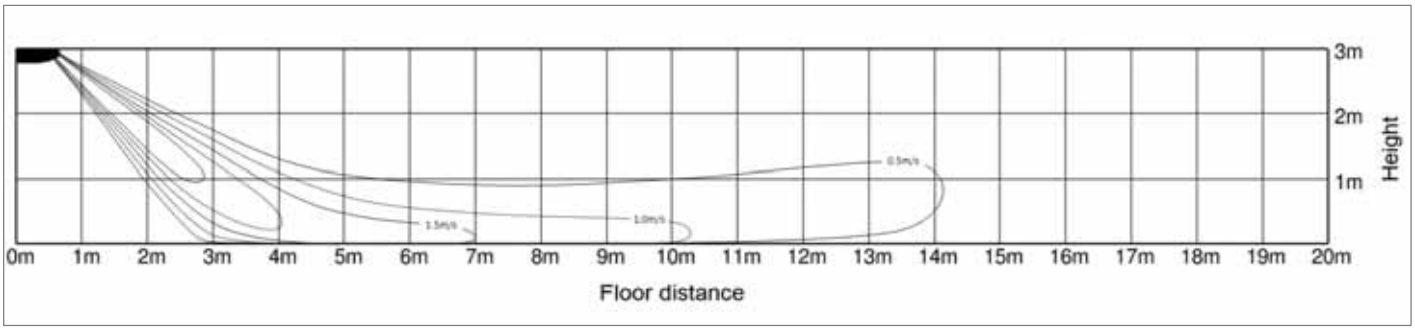
(2) Cooling temperature distribution

Discharge angle : 32º



(3) Heating air velocity distribution

Discharge angle : 43º



(4) Heating temperature distribution

Discharge angle : 43º